Urban Financial Management

Phase I: Case Studies and Analysis

Final Report

Research Triangle Institute

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1.0 Introduction

1.1 Executive Summary

1.1.1 Project Overview

The Research Triangle Institute has completed a Phase I study for the U.S.AID Office of Urban Development as part of U.S.AID's long-term program to assist municipal governments in developing countries to improve their financial management practices. The purpose of Phase I was to identify existing financial management practices in developing countries that would serve as models for other municipalities to improve their own practices. Additionally, the study was intended to develop a set of recommendations for disseminating information on those practices.

The Phase 1 study contained several unique features:

- from the outset, it focused on successful practices in operation -- this was not an academic exercise but a search for proven practices that could be readily transferred;
- the study examined a broader range of practices than has conventionally been dealt with in municipal finance. The study gives equal attention to practices that improve the productivity of municipal expenditures as well as those that increase local revenue generation; and
- the study identified a number of practical intervention points where improvements could be made, with particular emphasis on immediate, low cost improvements.

The study covers eleven cities within eight developing countries. Exhibit 1 shows the countries, cities and the practices under study.

Exhibit 1.

Case Study Sites and Practices Under Study

Country and Sites	Practice(s)
Ivory Coast	
Abidjan	- computerized land registration system - betterment tax for partial cost recovery of slum upgrading
Philippines	
Local Water Utilities Administration	- introduction of self-financing local water utilities - training of local officials and staffs - loan management
Cagayan de Oro City	- establishment of user charge system in local water district
Brazil	
Lages, State of Santa Catarina	- computerized real property tax information system - low cost self-help housing program - economic development enterprises

Exhibit 1 continued

Korea	
Daejeon	- self-financing physical infrastructure provision (land readjustment system)
Ghana	
Tamale	- training of local government officials and staff - local revenue study - experiments in per capita tax collection system
Colombia	
Medellin	- betterment levy to recover infrastructure costs
Kenya	
El Doret and Nakuru	- impact of central government transfers on local finances - management of municipal accounts
Tunisia	
Sousse	- automation of property tax information system and municipal personnel records
Sfax	- low income housing program - management of wholesale market
Tunis District	- solid waste collection system

In summary, the case study practices included:

- tax collection system improvements, focusing largely on the urban property tax and, to a lesser extent, business taxes and per capita taxes;

- cost recovery in non-infrastructure public services, covering examples of urban transit, markets, solid waste collection and housing;

- local government loan and grants management, examining factors that make loan programs viable and the impact of central government grants on local governments;

- training of local government officials and staff with emphasis on competency based training and productivity improvements.

The study concluded that there is considerable opportunity for improving urban financial management practices in developing countries and that there are proven models of successful practices in developing countries that can be shared. The study has recommended that further U.S.AID action in the area of urban financial management be concentrated in four areas:

1. Strengthening individual developing country institutions that can provide technical assistance, training and information to local governments;

2. Developing and disseminating prototype financial management tools;

3. Developing training programs specifically targeted on major groups involved in local government financial management; and

4. Selected research and information dissemination support.

1.1.2 Summary of Study Findings

There are a number of different problems that stand in the way of improved municipal financial management in developing countries. While there are many different ways to categorize these problems, the simplest way is to discuss them in terms of attitude, knowledge and instruments.

Attitude problems pervade municipal management in developing countries. The first problem is that of a dependency attitude which prevents local governments from assuming full responsibility for the services that they are mandated to provide. The problem is particularly acute with respect to municial loan programs where municipalities often abandon responsibility for debt repayment. The second attitudinal problem is lack of responsibility toward service consumers in the quality and timeliness of services that are delivered. There is a corresponding lack of concern for productivity in service provision that results in poor services expensively delivered. This makes cost recovery through user fees difficult. The third major attitudinal problem is that of pervasive political interference in financial management which constantly overturns sound financial judgment. Political interference runs the gamut from padding local government payrolls to maintaining artificially low tax rates and user charges; in many instances, local tax operations are used to reward political allies and punish enemies.

Lack of knowledge is the second major problem area. There is a general lack of information maintained by municipal governments on financial status and trends. Without such knowledge, financial decisions tend to be mere continuations of past policies. Secondly, there is a general absence of networks through which information on successful financial management practices can be disseminated. Thirdly, training in municipal financial management is a very haphazard affair, complicated by the rapid turnover in staff in the skilled finance postions. There appears to be a particular knowledge problem for small cities that have grown rapidly from farm market towns. Officials in these cities are not accustomed to providing public

services or raising revenues; they tend to lack basic training in municipal management.

There is a general lack of instruments for improving financial management and financial conditions of developing country municipalities. Prototype systems and how-to-do-it reference materials are largely absent. While municipalities may have significant revenue raising authority, they often do not have models of how to apply that authority efficiently. Agencies that serve municipalities with technical assistance and training are not well developed, except in a few countries, and there is no widespread international network for transferring information among countries. While in some countries changes in legislation may be needed to support local government financial improvements, there is much that can be done simply by improving current administrative practices and implementation of existing technology.

Our study has demonstrated that improvements in municipal financial management can be made at almost any point ranging from revenue generation to increased service delivery productivity. The following presents summary descriptions of the practices identified in the case studies by the major areas.

Tax Collection System Improvements

The case studies dealing with improvements in local tax systems have demonstrated two things. First of all, there is considerable room for improvement in the amount of revenues raised from local taxes. Secondly, local tax collection must be approached as a whole system: tax base identification, valuation, assessment, collection, enforcement.

Improvements in one aspect of the system must be matched to improvements elsewhere. For example, in Lages, Brazil the effectiveness of an excellent property tax information system has been considerably reduced by lack of effective collection enforcement procedures; notwithstanding substantial increases in the revenues from the local property tax over the past four years an estimated 30 percent of property taxes in Lages are not being paid. In Abidjan, Ivory Coast although the computerization of land records increased the identification of taxable properties, recording of tax payment and follow-up is conducted slowly by hand.

If our small sample of case study cities is in the least representative, considerable increases in revenues could be expected from improved property tax administration in general. Occasionally small improvements can make a big difference; in Nakuru, Kenya, hiring of a local property valuator (to replace the valuation services of the National Commissioner of Lands which has not kept up with the demand) is expected to expand property tax revenues considerably by simply updating the property tax rolls.

Several of our case study sites undertook major overhauls of the property tax system. Typically, a cadastral survey was undertaken (Lages and Abidjan) to create a complete property registry of the city. Secondly, an updated assessment was made, with provision for frequent reassessments. Building such an information base is costly and time consuming. It is, however, a necessary foundation for the property tax system. In many cases the development of a complete property registry is justified for more than just tax purposes. In Abidjan, the cadastral system was developed partly to

permit regularization of land titles. This, in turn, provides more secure conditions for mortgage loans in the housing market.

In the case studies of Lages, Abidjan, and Sousse, Tunisia, the introduction of computerization in property tax systems has greatly improved the efficiency of the systems. Now, the availability of cheap microcomputer systems should further extend computerization to smaller municipalities.

Even well designed information systems do not avoid the problems of interagency conflict in local government. In Abidjan, access to the land registry information system which was developed by the Finance Ministry, but also used by the planning agency, has become such a point of conflict.

While considerable improvements in property tax collections can be made by improving administration of the current system, there are instances where changes in the current laws clearly are needed. In Tamale, Ghana there is a two to three year delay between individual assessments made by the local assessors and approval by the Ministry of Local Government. The imposition of an interim assessment, recommended by a local revenue study in Tamale, would require tax code revision.

In some cases, local governments may be using inappropriate tax collection systems or devoting resources to tax sources that are not worth the effort. In collecting the local head tax in Tamale, Ghana, a once a year canvass of the local district by agents paid on a bounty basis has proven to be much more effective than the previous system in which individual revenue collectors pursued lists of district residents. In general, local governments have not been able to exploit local business taxes except in the relatively more advanced countries in the case study set

(Korea, Brazil and recently Tunisia). It is clear that most local governments do not have the staff or information collection systems to monitor business receipts and sales. In Brazil and Tunisia, the business taxes are collected by higher level government and refunded to the municipality. Because of the effort needed to maintain information on business tax bases, local governments may be better served by replacing receipts based business taxes with more extensive licensing systems or presumptive assessments.

Although there is considerable debate over which taxes should be best administered locally, there is a strong consensus that great improvements can be made by simply improving the management of what currently exists. Indeed, given the shortages of trained finance staff, radical changes in tax authority will most likely be disruptive.

Financing Physical Infrastructure

A second major grouping of the case studies has examined the financing of physical infrastructure provision in municipalities. Financing physical infrastructure is a major concern of local government for several reasons. First of all, physical infrastructure construction requires considerable capital investment prior to realizing any benefits of the investment. This raises issues of both capital borrowing and long-term financing, including long-term cost recovery from project beneficiaries. Secondly, the provision of physical infrastructure services carries with it the need for long-term maintenance and replacement, which places particular demands on fiscal management. Thirdly, provision of physical infrastructure can greatly increase the value of raw land, producing several different types of

opportunities for local government to benefit financially from the value that it helps to create.

Several different models of cost recovery have been developed for provision of physical infrastructure that can serve as useful models for other developing countries. The case studies examined four different examples of infrastructure financing. The Colombia case study examined the recovery of the cost of infrastructure (primarily road construction) through the imposition of betterment levies that allocate cost of construction to affected landowners on a proportional basis. In Korea, the system of "land readjustment" was studied by which the municipality acts as the developer to convert urban fringe land to fully serviced lots by providing all the physical infrastructure. In this system, the cost of providing infrastructure is recovered by withholding a fraction of land from each landowner to sell on the open market to recover all costs of development. In Abidjan, the municipality is recovering a portion of the cost of providing infrastructure in slum upgrading projects through a betterment levy attached to the property tax. In the Philippines, local water districts are being established with the assistance of a national organization, the Local Water Utilities Authority, which provides loan funds, technical assistance and training to help establish totally self-financing local authorities.

In all of these cases, the operating principle is that the beneficiaries of the service pay the cost of its installation and operation. In Colombia, Ivory Coast and the Philippines the costs are paid directly through special levies or monthly charges. The land readjustment system in

Korea represents a more radical departure in that the municipality, or development agency, takes land in lieu of cash payment.

The process of urbanization (i.e., creating land with public services) greatly increases the value of raw land. While municipalities in many countries have moved to capture some of this increased value in order to pay for the cost of providing infrastructure, almost none appear to have fully exploited the value that they are, in part, creating. Even in the Korean land readjustment system, the municipality is limited to recovering only its actual costs through the sale of land it has taken as payment - surpluses must be reinvested in the individual infrastructure projects. If a municipality does not benefit directly from increased land values created by provision of public services, its main alternative is to recapture some of the value through increased property taxes. However, the poor efficiency of most property tax systems in developing countries renders this an ineffective mechanism for exploiting rising land value.

Controlling Costs in Public Service Expenditures

A number of the case studies dealt with aspects of cost control in municipal service delivery systems. In particular, the case studies addressed a number of different points in the service delivery process which affect cost of services. Several municipalities have undertaken programs aimed at reducing overall demand for public services. The city of Lages has several programs aimed at improving the income of rural inhabitants of the municipality to stem the pressures for migration into the city center. The city of Tamale has undertaken a program to channel residential growth into desired patterns (and away from haphazard squatter settlements) to reduce

the cost of "retrofitting" squatter settlements with urban services. The city of Daejeon, Korea, is working to maintain provision of public transportation services entirely in the private sector so that that city, unlike Seoul, does not have to provide public transportation or subsidize existing companies.

Some of the case studies deal with the selection of low cost models of public service delivery. In Lages, the municipality has undertaken a self-help public housing program that trains would be homeowners to construct their own houses and lends them the building materials that are financed on a ten to twenty year mortgage. The program produces housing units at a much lower net cost than commonly found in housing programs throughout Brazil. In Tamale and Sfax municipal government is providing serviced housing sites with house construction left to the individual residents. In the Philippines, the Local Water Utilities Administration conducts very careful feasibility and marketing studies prior to the design of local water systems; the emphasis is on the provision of an appropriate level of service geared to the resources of the target population. In the case of the Philippines, particular attention is paid to the ability to maintain and expand local water systems in the system design and water rate setting.

Concern for service productivity is notable in the case study in Cagayan de Oro City, Philippines. The local water district maintains close watch on worker productivty and provides a range of incentives for good performance. Consequently, the ratio of service consumers to employees is more than twice that of other local water districts in the Philippines.

Service productivity has also been one focal point of the training programs developed by the Economic and Rural Development Management (ERDM) program in Ghana. The ERDM project, which trains local government officials and staffs through mobile training seminars, has resulted in a number of productivity improvements in local governments in Ghana ranging from the creation of performance incentive schemes to the reduction of unnecessary staff positions. Worker productivity in public services is particularly important since personnel costs have been shown to be the largest item of local government budgets everywhere. Where data exist for comparison, personnel and administrative costs appear to be rising rapidly as a proportion of total local government expenditures. In Sousse, Tunisia, the centralization of personnel records through a single personnel department and the computerization of the records permitted the town administration to speed up the payroll process while reducing the potential for fraudulent pay claims.

Putting Local Services on a Self-Financing Basis

A number of public services can be run on a total cost recovery basis. In addition to the infrastructure services discussed above, several local governments in the study were found to provide a number of other services on a self-financing basis. These include solid waste collection, markets, slaughterhouses and industrial parks. Typically, these services are funded through separate accounts in order to keep them distinct from general fund expenditures of local government. In some instances, however, these accounts may be merged into the local general fund, as is the case with solid waste collection in El Doret and Nakuru, Kenya and in Daejeon, Korea. While separate accounts for these enterprises may be kept, this does not

mean that all costs associated with the enterprise are necessarily charged against the account. Oftentimes, staff time, equipment use, capital investments and other costs are not included in the accounts, presenting a distorted picture of "profitability".

For services operating on a cost recovery basis, there are a number of considerations that mirror those of any private enterprise. The case study of the Cagayan de Oro Water District examined in detail procedures for: (a) generating increased demand for fee bearing water services, (b) expanding the customer base to make efficient use of fixed capital investments, and (c) aggressive fee collection.

Training of Local Government Officials and Staff in Financial Management

Two case studies examined training in various aspects of local administration and financial management. The ERDM program in Ghana trains local officials and staffs in management through a network of regional training teams that provide training sessions in the home sites of the trainees. Training is carried out through a series of workshops which take place over one to two year periods. The training focuses on problems identified by the local officials and is customized to help the trainee group develop practical solutions to their problems. A number of the training sessions have focused on financial management issues, ranging from fee collection in water services to budgeting procedures.

The Local Water Utilities Administration devotes considerable resources to training local officials/staffs in water district formation and management. The LWUA has developed a number of customized competency based

programs for the different groups of actors involved in running local water districts: local officials, general managers, engineers, finance officers, construction supervisors and maintenance personnel. LWUA has recently expanded its training program to utilize well established local water districts as regional training sites. This will provide closer contact to local water districts and further strengthen LWUA's "hands on" approach to training.

In summary, the case studies reveal a breadth of innovative practices in dealing with financing local government operations. The case studies point out that improvements can be made at virtually any point in the process. Public services can be delivered efficiently by local government. Local staff can be trained to operate service delivery and financial managment systems. Communities can raise and manage sizeable financial resources. Furthermore, there is considerable receptivity on the part of local officials to making these types of improvements.

While the case studies point up what can be done, it is evident that these practices are not widespread. The initial stumbling block seems to be one of ignorance - local governments officials simply do not have information on what they can do and how to do it. The program outlined in section 1.1 above, strengthening local institutions to provide technical assistance, prototypes, training and information is a necessary first step to improving municipal financial management in developing countries.

1.2 Report Outline

The results of eleven case studies in eight countries are reported

in detail in the following sections. The case study material has been supplemented by published documents, unpublished working papers, and interviews with numerous individuals from major international assistance agencies, principally the U.S. Agency for International Development, the World Bank and the Interamerican Development Bank. Although the public finance, budgeting and management literature pertinent to municipal financial management in developing countries has been considered, the primary conclusions about financial management issues and intervention points are empirically based on our site visits and the observations of LDC municipal, regional and national officials with whom we met in their countries, Washington, D.C. and at our home base at the Research Triangle Institute, North Carolina.

This report is organized into six sections. Following the Executive Summary in section 1, in section 2 we present the organization of the project and a discussion of the research methods. In section 3, we discuss the overall conceptual framework including an analysis of revenue generation, expenditure control and management support models applicable to municipal financial management. Section 4 presents a summary of the specific case study results, followed in section 5 with our recommendations for specific interventions and general intervention strategies for improving financial management practices. Section 6 is the set of summary case study reports on which the overall report of results and recommendations are based.

2.0 Study Description and Methods

2.1 Study Rationale

This study was sponsored by the Office of Urban Development, Bureau for Science and Technology, U.S. Agency for International Development, as an intermediate step in a long-term program of technical assistance in municipal management. The study was preceded by a state-of-the-art review of municipal finance in developing countries by Professor Roy Bahl of Syracuse University. The original intent of the state-of-the-art review was to document financial management problems and to recommend a program of AID technical assistance. However, the empirical basis for such a review simply did not exist in sufficient quantity to permit AID to move immediately into a technical assistance program; but the review did provide a thorough grounding in the general role of municipalities in LDC public economies and established a basis for field research.

As a result of the first phase review effort, AID issued a request for proposals for a set of Urban Financial Management case studies. The Research Triangle Institute was awarded the subsequent contract in 1980 with work completed in 1982. Selection of sites, identifying appropriate personnel to be interviewed in the host countries and actual conduct of the case study site visits were all contractor responsibilities, with review and approval of the AID Technical Monitor. Intermediate products required were a revised technical and management plan, a conceptual framework to guide the case studies and a case study site visit protocol. The final conceptual

framework, substantially revised and augmented as a result of the case studies, is presented in section 3 of this report. The site visit protocol is included in this section as part of the methods discussion.

2.2 Technical Approach

2.2.1 Study Organization

It was apparent both from the request for proposals and the state-of-the-art paper commissioned by AID that there was not a significant literature from which one could develop financial management assistance for LDC municipalities. For the most part, the existing literature follows public finance models and deals with aggregate data related to the role of the local government sector in the public LDC economy. The state-of-the-art paper summarized that literature well and provided theoretical justifications for examining revenue generation. However, no empirical instances of specific, successful financial management practices were illustrated, and the entire expenditure side was barely covered. Our problem, therefore, was first to locate small-to medium-sized LDC municipalities with successful financial management practices and then to select a sample for case studies that would cover a range of problems and solutions in both revenue generation and expenditure control.

Despite the fact that the literature was quite sparse, we assumed that the collective experience of the major international assistance agencies, including AID, could be tapped to identify promising candidate municipalities for case studies. Early in the project, therefore, we

contacted by telephone, in person, and by mail, program officers, country desk officers, and a variety of consultants, asking general questions about their experience with LDC municipalities that were "reputed to be" or "known to the contact" to be generally well managed. In this process, we found that project or program officers who were or had been responsible for numerous "sites and services" projects in several countries often were able to suggest candidate municipalities and, in several instances, specific aspects of municipal financial management. Furthermore, project reports that focused on the loan activity, for example, a housing project, often contained material relevant to municipal finance in the locality or localities in which the loan activity was taking (had taken) place.

The more promising candidate municipalities were followed up through consultants and other international assistance agency personnel to secure as much written and informal material as possible. While we confirmed the previous experience of the AID Urban Development Office in noting a lack of empirical literature, we did discover through this "backdoor" process a sizable amount of literature reporting on various municipal-related loan projects that contained incidental information on municipal financial management practices. These verbal and written sources were sufficient to identify a promising set of case study sites.

The original study design called for selection of all case study sites prior to conduct of any of the site visits. Early in our contacts with lending agency personnel, it was apparent that a better strategy would be to begin the case study site visits as soon as a few viable sites could be selected. Following the latter strategy enabled us to improve on our site

visit methods and, in some instances, put us in contact with individuals or organizations who suggested other case study sites. Furthermore, the practical necessity of fitting our research schedule to host country requirements and AID mission schedules meant that concentrating all the site visits in a short calendar period would have been impossible.

Site visits were conducted by two to three person teams. In each case, host country consultants were contacted to assist in the actual site visit, to collect background information available only in the site visit country, and to assist in setting up the interviews with national and local officials. For Kenya and Colombia, site visits were canceled because AID mission personnel were unable to support the visit. However, sufficient documentary material, and, in the Kenya case, a visit to RTI by a national government official responsible for local government training, enabled us to complete a case study without a site visit. The Ghana case study was made possible by the presence in Ghana of an RTI staff member on a long-term local government assistance project.

Following each site visit, the individuals conducting the visit briefed the full project team on the specific financial management practices examined, the problems encountered, and suggestions for subsequent site visits. The following subsection details the specific methodological elements of the study.

2.2.2 Methods

The overall study approach called for the selection of several cases of successful financial management practices and the documentation of

these practices in such a way that other municipalities and AID technical assistance efforts could benefit from the case studies. Although case studies are treated in many research design texts as a compromise design to be undertaken only as a last resort [1/] case study designs occupy an increasingly respected place in policy research. [2/] Their value is primarily in exposing underlying patterns in complex social and political relationships that make sense of observed outcomes and in taking as primary data the explanatory concepts and understandings of the participants themselves. Yin, for example, notes that the need for a case study design "arises whenever an empirical inquiry must examine a contemporary phenomenon in its real-life context, especially when the boundaries between phenomenon and context are not clearly evident". [3/] The utility of case study designs depends primarily on the adequate identification and measurement of contextual variables which describe the similarities and differences from one case to the next and the extent to which data collection and observation procedures are followed uniformly in each case study.

For our project, it was extremely important that each case study have some relevance beyond its own country context. Considerable effort, therefore, was devoted in each case to link the specific financial management practices being examined to the local government context and to link the latter to the general role of municipalities in the country political and economic systems. This enabled us in the recommendations section of this report to take specific note of circumstances in which effective financial management practices would require changes in local or

national statutes or practices in order to be implemented in another country.

Furthermore, our selection of case studies to be carried out was influenced by the need to extend the results beyond the specific cases. Since case study designs cannot rely on large sample observations or experimental methods, their generalizability is affected mainly by incorporating substantive study objectives into the selection process. We utilized four criteria in the selection process:

1. inclusion of a wide range of attributes across the case studies;

2. identification of common attributes between the set of case study sites and what the general literature describes as local government finance in LDC's;

3. isolation of inherently unique attributes within the case studies, and

4. examination of the contextual attributes of each case example.

The last, relevance of contextual attributes, in a basic sense drives the other three. Thus, in the research design, considerable attention was paid to the political and economic context within which local government operates, permitting in our subsequent comparisons the identification of underlying commonalities and differences.

Finally, we developed a standard site visit protocol that was used as a general guide for conducting each case study. The protocol is reproduced here to describe the site visit preparation and actual site visit observations carried out by team members at each site. Local circumstances, of course, meant that not all elements of the protocol could be carried out in each visit.

In summary, the case study method assembles as much information as necessary to form a complete picture of why the innovation was introduced, how it was introduced and operated, who is needed to run it, and what impact has been achieved.

Case study visits usually lasted for one week. Given the short period of time for the visit, considerable emphasis was placed on selecting information from a number of sources to try to verify and cross check the information received. Case studies normally were based on a series of interviews with key actors in the service delivery and financial management systems, supplemented by as much published information as could be assembled. We received a high degree of cooperation among local government officials in participating in the study. This can be attributed to two factors. The first one is that selection as a case study site is something of an honor for the local municipality since they were studied because they were successful, innovative, and being considered as a model for other developing countries. Secondly, considerable attention was given to arranging the site visit through both host country government channels as well as official U.S. government channels so that the local officials understood that both their own government as well as the U.S. government was interested in their cooperation in the study.

Exhibit 2. Case Study Protocol

Objective: To describe the information to be gathered for each study and to describe potential sources.

A. INTRODUCTION

Each case study should be descriptive of a successful financial management practice, the setting within which the practice occurs, its dissemination potential, and the possible mechanisms or mediums for dissemination.

In this project, successful is a relative term meaning a practice, procedure or system that is reputed to work noticeably better at accomplishing some specific financial management objective(s). "Better than" implies a comparative concept of successful including comparisons within the same city, among cities within the same country or among cities in developing countries. For purposes of this project, however, a case study of a specific financial management practice in a specific city is useful only if the study would be instructive for other developing country cities. Thus, the judgement is made in advance that a financial management practice has dissemination value before we will regard it as a useful case study. In turn, it has dissemination value if it would improve some other city's financial management capacity and if its features are adaptable in other settings (i.e., not inherently unique to the case study city). As a reputational concept, we will be relying on the case study identification and selection process to uncover successful practices. The site visit is not intended to locate a successful practice after we get there.

A management practice is a specific method, procedure or system for organizing personnel and information to achieve a specific objective. Financial management practices in particular are designed to manage the collection of revenues or the expenditure of funds. We are interested either in narrowly defined practices intended to accomplish a particular objective such as collection of a market stall tax, or in broad management systems such as an integrated planning-budgeting system. A specific practice or procedure designed to manage the collection of revenues might be designed to:

1. Improve the organization of information about revenue obligations such that those from whom revenue is due are known, the amounts owed are known, and whether or not the revenue is received is known.

Examples: Property assessment procedure; tax record keeping system; file search mechanism; system for collating information from different sources.

2. Improve revenue collection or enforcement mechanisms.

Examples: System for cutting off service for failure to pay taxes; mechanism for identifying all persons or organizations liable for a tax;

method for estimating or measuring amount of use in order to determine user charge.

3. Improve financial management planning.

Examples: a) Revenue - procedure for estimating total revenue available (or collectable) within a given time period, procedure for estimating yield from a specific source; and b) Expenditure - method for allocating expenditures over a specific time period to prevent unbalanced spending or year-end shortfall, method for estimating demand or need for a specific service.

4. Improve financial accountability.

Examples: Accounting system for recording to legal authorization, measurement system for assessing results of expenditures.

B. CASE STUDY CONTENTS

A case study should document a financial management practice such as described above in terms of:

- its purpose;
- detailed description of the practice;
- why, how and by whom it was initiated;
- how long it took to be put into effect;
- what evidence, if any, has been collected that it works better than what existed before;
- who, if anyone, has expressed any interest in seeing or learning about the practice;
- what resources are required to establish the practice (number of personnel, time, equipment, space, training or education, finances);
- what resources are required to operate the practice (personnel, time, etc.).

a. In addition, each case study should provide a detailed description of the setting within which the financial management practice takes place including:

1. A detailed description of the city's functional responsibilities within that country's governmental system (what functions it performs, what services it provides). This description should focus on

the role of local government in that country and the relationship between local and regional and local and central government.

2. An estimated allocation of effort to each of these functions or services in such terms as personnel, dollars, capital facilities. Use the municipal budget, if possible, or ask for estimates from interviewed city or national officials.

3. A description of all sources of revenue and the amounts (actual, proportion) from each.

4. At least some crude indicators of demand or need for services such as population size, population density, per capita income, literacy, etc.

5. Describe other "services" that are in some sense "delivered" by other levels or units of government. The descriptive material related to the setting and the financial management practice also should result in a classification of the city into the typology developed for the work plan.

b. Finally, each case study should discuss the dissemination potential of each management practice documented. To accomplish this, the site visit should ascertain:

1. For the staff connected with the practice, how are they trained and where (generally and with specific reference to the practice)? Do they represent some basic approach or school of thought?

2. What are the job qualifications/requirements for the staff connected with the project (e.g., are they professional or technical skills, political appointments, etc.)?

3. What are the links between city officials/technical personnel and similar political or technical people outside the city? To whom do they talk about management? How often? Formally or informally? What sources do they read? Do they belong to organizations that are related to city management or administration, do they attend meetings? Even if they are not members, do they know of any such organizations?

C. CASE STUDY OBSERVATION/DATA COLLECTION

Case study observations* are of either the characteristics of a specific financial management practice or of the circumstances within which the management practice operates. Background preparation for each case study, utilizing resources and as consultants, World Bank staff, AID staff, other individuals with first-hand knowledge and published

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*The term observations includes material extracted from published and unpublished sources, interviews conducted by RTI project staff or others, and actual observation onsite.

material, should result in a considerable description of the general governmental and economic circumstances affecting a particular case study urban government. Minimal actual information about the specific financial management practice to be documented in the case study normally will be obtained through these secondary sources. The following categories define the essential observational elements to be assessed for each case study.

1. Characteristics of Financial Management Practice

a. Structure: Structual characteristics define the basic "givens" of a specific financial management practice. They are static in that they do not describe how or why a given practice works, but they do describe the personnel, material, and organizational resources that are utilized.

(1) Personnel: How many personnel are regularly involved (try to estimate full-time equivalent)? For each person (or position) what are their job related skills, training, technical requirements (try to determine if there is undertraining or overtraining)? What are the sources of these technical skills (at a minimum, determine whether training at a location some distance from the application is necessary and whether it is in country or not)?

(2) Organization: How is the work organized (flow handled sequentially as it comes in, first in/first out or similar minimum level of priority sorting; batch -- divided into batches or groups of identical or related tasks; problem-solving -- task teams constituted for specifc problems; hierarchical -- functional specialization and relatively fixed management structure)? This description should not be simply the formal organization of a department. It should focus on how the work associated with the specific management practice is normally handled.

(3) Technology: What are the technological components of the work process (computer, paper and pencil, manual files, etc.)? What is essential versus what could be considered superfluous or helpful but not necessary?

b. Process: Process measures focus the activities actually carried out in connection with the financial management process and describe their volume or quantity. Typically they measure in units of output. For service related activites they may be number of persons served, processed, dealt with, etc., or number of work units accomplished such as permits issued, bills sent, etc. For revenue related activities, they may be such things as number of taxable units counted, recorded, examined, etc.

c. Outcome/Impact: Outcome measures assess the effects of activities carried out. We should try to assess this as a structural

element (does the administrative unit itself attempt to measure outcomes) and as actual outcomes such as percentage of taxable units actually collected, extent (percent) of population served, etc.

2. Characteristics of Operating Context

In addition to the basic characteristics of the political and economic system and the division of responsibilities for revenue generation and service provision among national, regional and local governments (see list at end), we also should assess the degree of operational autonomy at the local government level (vis a vis regional and national) for decisions concerning revenues and service provision. Focusing on the specific financial management practice or system that is the subject of the case study, we should document explicitly the nature of decisions that affect and effect the practice, who makes those decisions, how autonomous the actors are, and if and how those decisions or the results of those decisions are reviewed by others. Finally, we should attempt to measure the need or demand for the specific management practice where possible. This could include such measures as population served, geographic area covered, number of property units, volume of market traffic, etc. In relation to measures of service delivered (e.g., percent of properties serviced by water system), demand or need estimates provide a basis for measuring efficiency of effectiveness.

Exhibit 2 continued

CONTEXTUAL FEATURES

Role of Municipal Government in National Governmental System

Federal versus unitary system Degree of autonomy (in structure and operating practices)

Resources Available to Municipal Government

Economic status/base of the municipality and the surrounding region

Availability of trained manpower (nature of civil service)

Service Requirements/Demand

General health, nutrition, educational level, and income status of the population (regional)

Relative scarcity of basic resources (water, space, food)

General Characteristics

Population size, density

Physical setting

Region

Exhibit 2 continued

Interview/Document Review Summary

City:

Region:

Financial Management Practice/System:
(Brief description)

Individual Contacted:

Position/Status:

Date of Contact:

Length of Contact:

Connection with the Practice:

Document Reviewed:

Title:

Type of Document (formal, information, private, public):

Source:

Date:

Summary of Major Points:

General Attitude, receptiveness, etc.
(anything that will help later in interpreting what was said):

Person(s) Conducting Interview/Review:

Interview Arranged By:

Date:

3.0 Study Framework

3.1 General Model of Urban Financial Management

Almost all approaches to municipal financial management in developing countries have been focused on increasing revenue generation of local government units. [4/] This is understandable since the evidence indicates that in almost all developing countries, local government revenues have not kept up with expenditures in the recent past. [5/] It is well established that economic development is associated with a rising share of GNP devoted to the public sector and that increased public investments in productive infrastructure is essential to economic growth. [6/] Therefore, increasing public expenditures is seen as desirable; the problem is raising revenues to match expenditure needs. This preoccupation with revenue generation has been further strengthened by reports of a number of experts that there is considerable room for improving revenue collection rates (particularly local property taxes) among local governments in developing countries.

While it is clear that there is much that can be done to improve revenue generation capabilities of local governments, not enough attention has been focused on the other side of the municipal financial management equation, improving efficiency in municipal expenditures. Almost all previous work on public finance in developing countries has focused on the quantity of public expenditures (and the need to raise them) rather than the quality of these expenditures. However, a balanced model of urban financial management must address both expenditure and revenue issues. This is

particularly true for local governments of developing countries for three reasons:

1. Developing country local governments are largely limited by law in their taxable revenue base. Central governments have preempted entirely some revenue sources and often pose limits and rate ceilings on many other revenue sources. The net effect is to limit the amount of revenues that can be generated by a local government in most developing countries.

2. There is mounting evidence that much can be done to provide municipal services at lower unit cost through innovative service delivery design, self-financing and cost recovery schemes. Costs savings through innovations on the expenditure side can reduce demands on revenue generation and make scarce resources go further.

3. There are a number of direct interactions between service delivery expenditures and municipal revenue generation. For example, capital improvement projects can promote greater local economic activity leading to a larger tax base. Some public services can actually generate revenue surpluses to subsidize other services.

In addition to revenue and expenditure elements, a financial management model also should include a third element of <u>financial management support systems</u> that comprise the set of information tools that allow local governments to plan and monitor their finances. These would include information systems, budgeting systems and revenue/expenditure forecasting mechanisms.

To be truly useful, a model of urban financial management must go beyond identifying the elements of the financial management system to include an identification of <u>intervention points</u> where improvements can be made in financial performance. To identify these intervention points, we need, first of all, an operational definition of what constitutes an improvement in financial management systems. Secondly, we need to identify the variables which can be manipulated to produce that improvement.

We propose that improvement in municipal financial management can be defined by one of three conditions:

1. More resources (financial and nonfinancial) are made available to the local government without substantial negative impacts. These negative impacts would include undesirable income distribution effects, disruptions of local economic activity and unsustainable debt obligation.

2. Efficiency in the use of resources is increased -- i.e., more, and/or better, services delivered per unit of revenue.

3. A stable and sustainable level of expenditures, services and revenues is established.

These definitions of financial improvement are consistent with the view of financial management as effective resource mobilization and use. Implicit in the above definitions is that we view local government as an economic unit: one that provides services and collects revenues to pay for those services. While a local government has other functions apart from that of a seller of services, this function is critically important to any discussion of municipal financial management and will receive considerable attention in the following sections of this report.

In identifying intervention points in our financial management model, we have broken the discussion down into the three main sections of the model:

- revenue generation,
- expenditure control,
- management support systems.

The following sections describe the major variables in each of these components of the model, focusing on the variables within each component which can be manipulated to improve financial performance.

3.2 Revenue Generation Submodel

The purpose of the submodel is to identify major categories of revenue generation of local governments and the factors that affect performance in each of those categories. This discussion is divided into two main parts. The first part describes the categories of local government revenues. The second part discusses the relationships among revenue sources and the relationship of revenue generation to the local resource base.

3.2.1 Categories of Revenues

Revenue sources may be divided into five major categories, organized into two divisions:

1. Locally-generated revenues

   - local taxes
   - nontax revenues
   - user fees;

2. Externally-generated revenues

   - intergovernmental transfers
   - borrowing.

Exhibit 3 shows the major constituents of the five categories of revenue sources. The importance of each type of revenue source varies greatly from one country to another and even among cities in the same country. A study of 25 cities conducted by Roy Bahl and Johannes Linn estimated that locally-generated revenues constituted an average of 77 percent of total revenues of the cities in the sample. [7/] There was, however, tremendous variation in the 25 city sample, with that percentage ranging from 100 percent to 26 percent. In the Bahl/Linn study, an average

Exhibit 3.

Major Revenue Sources of Local Government
in Developing Countries

1. Local Taxes

Real Property	Sales
Personal Property	Excise
Per Capita (Head)	Income, or Graduated Personal Tax
Business and Professional Services	Agricultural Production

2. NonTax Revenues

Licenses and Fees	Interest Income on Invested Cash
Fines	Payment for Services to Higher Level Government
Sale of Municipal Property	
Municipal Enterprise Profits	

3. User Fees

- Betterment Levies
- Fees from Public Services Consumers

4. Central Government Transfers

- Shared National Taxes	- Reimbursement Grants
- Formula Grants	- Ad Hoc Grants

5. Borrowing

- Long-Term Capital Investments	- Interfund Borrowing
- Short-Term Debt	

of 23 percent of local government revenues came from external sources comprised of grants (including shared taxes) and borrowing.

Of locally-generated revenues, Bahl and Linn found that local taxes comprised 60 percent, with the local property tax comprising almost all of that. In the study sample, approximately 25 percent of locally-generated revenues were produced by self-financing services (user charges). These findings have led Bahl to suggest that improvements in local government finance can best be made in the areas of municipal property taxes and user charges since these represent major sources of locally-generated revenues.[8/]

In addition to understanding the relative importance of different types of revenues for local governments, it is also necessary to understand the systems that are used in generating those revenues. Furthermore, it is important to understand the costs of making improvements in these revenue-generating systems and to be able to compare these costs with the additional revenues likely to be generated. The following discussion of revenue sources focuses on the revenue-generating systems and cost/benefit considerations in changing those systems.

Local Taxes

The five major types of taxes that local governments in developing countries rely on include property taxes, per capita (head) taxes, business taxes, sales taxes and excise taxes. An additional type of "tax", the betterment tax, is actually a hybrid between a real property tax and a user fee. The betterment tax is intended to recover costs of public infrastructure projects directly from the property owner, who benefits from

the project. Normally, costs are apportioned to property owners on the basis of imputed benefits. The betterment "tax" is a user fee in that costs are recovered directly from the designated beneficiaries in proportion to the benefits derived. It is a tax insofar as participation is compulsory and beneficiaries who are taxed, may in fact, never make use of the facility for which they paid.

Property taxes and head taxes are commonly termed "direct taxes"; business, sales and excise taxes as "indirect taxes". There is great variation in the proportion of revenue generated by each of these taxes in different localities and a number of different ways in which they are applied. In order to maintain our concentration on potential intervention points, we will focus on the major systems that are required in generating these tax revenues. These systems may be grouped in three categories:

1. information systems,
2. tax rate setting mechanisms, and
3. collection system.

The most widely used form of <u>information system</u> in local tax collection is the real property registry which may or may not be linked to a formal cadastral system. Cadastral systems, based on field surveys of all real property within the jurisdiction, maintain information on location, size, improvements, value and ownership of real property. Where local head taxes are collected, lists of residents may also be maintained. A major problem in developing countries is that the information systems are often out of date and lack built-in mechanisms for updating them as changes occur in the information base. For some categories of tax bases, such as personal

property, it is cumbersome to develop and maintain an accurate information system. In such cases, the municipality can rely on several alternatives: (a) self-reporting; (b) collecting the tax through a canvass, or at some central point (e.g., poll taxes); (c) tying the tax to another tax base for which good records are kept; and (d) changing the tax to a license fee for which a license tag must be displayed at all times.

Business, sales and excise taxes share similar problems with respect to information systems. Business taxes may be collected on a lump sum basis (depending on the type of business and the estimated volume) or on a gross receipts basis. Taxing businesses on a gross receipts basis creates the same type of information system problem that sales and excise taxes create. Information must be collected on sales or production volume which requires cooperation and effort on the part of the vendor/producer. Without stringent enforcement, underreporting would appear to be the rule. [9/] In instances where business and sales receipts taxes are collected, municipalities almost always rely on mechanisms of a higher level of government to collect them. Because of the difficulty in maintaining accurate information on sales related taxes, many developing country municipalities rely on lump sum licensing for business taxes. Since much economic activity in developing countries is mobile (e.g., street hawkers), and hard to track, maintaining information on the business tax base is no simple matter. Indeed, for small business operations it may not be cost-effective even to maintain this type of information for tax purposes alone.

One method of assessing business taxes that lies midway between a license and an audited receipts tax is the "presumptive tax assessment"

exemplified by the Tashiv in Israel. The Tashiv is aimed at classes of businesses which, as a rule, do not keep good books either because they are too small or because of the nature of the business. A Tashiv is a set of formulae for estimating the income of businesses in certain classes using objectively verifiable measures. The measures vary by type of business and include: floor area of business, number of employees, and inputs such as water and electricity consumption. Tashiv formulae are worked out with the aid of business representatives and applied by tax assessors. If a businessman disagrees with the assessment, the burden of proof is on him to substantiate his income claim.

An additional problem presented by the real property tax is the constant need for updating the information base. Property changes owners, receives improvements, deteriorates and changes in value depending on market forces. The so-called "indirect" taxes, based on percentages of receipts, do not encounter this problem. Additionally, these indirect taxes can be levied selectively on consumption goods making them potentially more "progressive" than property taxes. For these reasons, many economists favor such indirect taxes over the direct taxes in developing countries. 10/ On the other hand, evidence suggests that the information system requirements of the indirect taxes are such that only large firms in large cities contribute significantly to this revenue source in developing countries. 11/

Local tax rate setting includes two components - establishing the tax rate and, for property taxes, setting the assessment rate (the proportion of the market value of the property that is used to estimate the taxable value). Tax rate setting is typically a function of central governments in

developing countries. Even local property tax assessment may be handled by an agency of the central government. Centrally established tax rates are usually presented as rate ceilings for local governments. In certain instances, tax rates may be set so low for certain classes of activities that it does not pay the municipality to bother to collect them. This lack of control over tax rates may be a particular problem for a municipality that has a mix of tax bases different from other municipalities in the country. In such a case, the municipality may not be able to adjust its taxing structure to mobilize sufficient resources.

The third important system in tax mobilization in municipalities is the tax collection system. This system contains three elements: (a) information on what tax is owed and what has been paid, (b) collection procedures, and (c) enforcement measures.

All levels of government in developing countries have problems with collection systems. Typically local governments lack resources and knowledge to maintain adequate information; they lack personnel to collect aggressively; and they often lack enforcement powers. Even where enforcement powers exist, there is often a lack of will to force payment.

User Fees

User fees are a second major source of local government revenues, both in developing countries and in developed countries alike. In the United States, while local property taxes have remained relatively constant over the past decade, revenues from user charges have shown a considerable increase. 12/ Although information does not exist to allow for an assessment of the changing importance of user charges in developing

countries, the Bahl/Linn studies do indicate the importance of user charges with respect to other sources of revenue. In the 25-city study, Bahl reports that the percent of local budgets made up of user charges ranged from over 50 percent to zero with an average of 19 percent. 13/ The tremendous range and variation show that, for some cities at least, a great potential exists for financing public services through user charges.

Implicit in a user charge is that the consumer receiving the service is receiving a benefit that the nonconsumer is not receiving. Confusing this point is the fact that some public services contain both individual consumer benefits and general public benefits as well. For example, immunizations provided by public health workers protect the general population as well as providing individual protection.

The ability to collect fee-for-service for public services is based on four major factors:

- demand for the service and willingness to pay,
- control/authority over service delivery,
- the price of the service, and
- collection mechanisms.

Willingness to pay is the critical issue in deciding to impose user charges on on a particular public service. Certain services have traditionally been candidates for cost recovery through user charges: water, sewer, garbage collection, housing, transportation, electricity and telephone. These "services" have a high value to consumers and typically are provided on a fee-for-service basis. In many cases they can be provided by the private sector as well. There is another set of public services that

have traditionally been provided by public monies rather than user fees. This group includes those services that are (a) hard to charge on a per use basis (street lighting, fire services); (b) involve public subsidies that are hard to target to individual groups (public transit); and (c) services that includes public as well as private goods (education, public health).

Even for services not known for user fees, there is interest in developing ways of recovering costs through fees, particularly in services which are expensive to deliver such as health care. In some cases, the fact that different groups have different abilities to pay for services has led to a two-tiered service delivery system in which wealthier citizens purchase services from the private sector while poor citizens receive free or heavily subsidized services from the public sector. In developing countries, this is particularly the case with medical services and, to a lesser extent, education.

Willingness to pay is a function of consumer preferences which can change over time. Demand for certain services can be built up over time either because the intrinsic value of the service becomes evident or because of public education campaigns by the government. Education is an example of a service in which the intrinsic value (economic) becomes evident over time. Sanitation is an example of a service for which demand is induced largely by public education.

An issue which has not received much attention in discussion of service provision generally is the issue of control, or authority, over the delivery of municipal services. The major issue is whether or not the municipality has exclusive control over providing the service. Monopoly control over

service provision provides stability for planning and investing in the service delivery system. It eliminates the risk of competition and provides market stability. In addition, many services involve "cross-subsidization" -- charging higher unit costs for services to higher income clients to subsidize provision of services below cost to low income recipients. Under monopoly situtation, the subsidizing clients cannot take their business elsewhere.

This issue of monopoly service provision has not received much discussion in the literature on public service delivery systems in developing countries. However, it is central to the issue of municipal financial management since some classes of services represent a revenue generating (even "profit-making"), potential, while others have to be subsidized. Viewing the municipal government as an economic unit, it is clear that local governments should want to capture as much of the revenue generating value of municipal services as possible. However, there is a tendency in many countries for revenue generating services to be removed from the service jurisdiction of municipal governments. These services are often made the responsibility of special authorities which develop them on a full-cost recovery basis. This leaves the local government with a diminished resource base and increasing reliance on taxation to support the remaining public services. The counterargument to this line of reasoning is that local governments often misuse the revenue generating capacity of such services. They siphon off operating surpluses to cover deficits in other accounts rather than reinvesting some of these surpluses in long-term maintenance and expansion. This argument, indeed, has been the main

justification for establishing special authorities for selected public services.

The pricing of services is a complicated activity even when no objectives other than a straightforward cost recovery is desired. It is often difficult to determine the true cost of a publicly provided service because many costs are hidden or simply difficult to estimate. Secondly, the cost of providing the same service to different consumers at different locations may vary greatly, raising issues of whether average cost or marginal costs calculations should be used in setting charges to consumers.

The issue is further clouded by the fact that many public services that employ user fees involve cross subsidization and preferential treatment for certain types of users. There are additional issues of varying user charges to reduce over consumption and/or to level out consumption patterns. There is also the question of the strategy for introducing user charges which has many of the same considerations of a commercial venture introducing a new product. In this case, the service delivery agency needs to build a client base which it must do partly through pricing policy.

The large number of variables that come into play in setting user fees suggest that a good deal of flexibility should be given to the service delivery agency in setting these fees. This presents particular problems in instances where the central government agencies exert strict control over fee setting of service delivery agencies.

Collection mechanisms for user fees are generally much more straight forward than those required for tax collection, since user fees are usually only imposed where the service consumption can be readily measured and the

consumer identified. Collection systems do require some form of information system which can keep track of consumption and payment. Enforcement of payment is almost always handled by termination of service to consumers who do not pay. Enforcement may also be linked with collection efficiency by linking together several services that are paid on one bill. Collection systems for user fees appear to be much better developed and more aggressively used generally than tax collection systems in developing countries. This can be directly traced to the fact that many services that employ user fees are provided by free standing authorities who have to operate on a full cost recovery basis.

Nontax Revenues

The third category of locally-raised revenues is that of nontax revenues. On average, these appear to be of considerably less importance than tax revenues and user fees to local governments in developing countries. Licenses are usually classed in this category although some forms of licenses may better be classified as taxes (e.g., motor vehicles licenses whose fee amount varies by size/value of the vehicle). By definition, licences involve payment of a fee to engage in a regulated activity. The license fee amount may be a flat rate or varied by class and size of licensee. As noted above, licenses avoid the problem of maintaining complex information system that are found in tax systems. For this reason, in some cities, licenses can constitute an important source of revenues.

The term "nontax revenues" is often used as a miscellaneous category covering sources of revenue not covered by the other four major categories of revenue sources. The term is often used imprecisely in categorizing

local government revenue sources in differing countries. Oftentimes, revenues that one would classify as taxes (e.g. lump sum business taxes) and user fees are categorized as nontax revenues in some reporting systems. This lack of comparability in classifying nontax revenues makes comparison difficult.

By our definition, nontax revenues includes a limited number of items:

- license revenues,
- revenues derived from sale of municipal property,
- revenues derived from municipal enterprises (not including fee-for-service public services),
- payments from higher level government for services rendered to that government agency (e.g. service charge for collection of national tax), and
- revenues derived from investments of the municipality.

Other than licenses, nontax revenues are essentially those revenues that a municipality can generate from investment of resources that the municipality owns. Unless a municipality finds itself in the unusual position of having a great deal of assets, these revenues should not play a very large part in revenue generation.

Since the nontax revenue category often includes miscellaneous sources, it may contain sizeable revenues that are nonrecurrent windfalls or disguised borrowing (such as interfund transfers.) These types of revenues inflate the municipal revenue stream and can create the appearance of financial soundness when the municipality is actually in a long-run deficit position. For this reason, it is important to know just what sources make up the nontax revenues of a municipality.

Government Transfers

Government transfers (grants) represent the fourth major source of local government revenues. The importance of grant funds from central governments in local government budgets in developing countries varies greatly by country. In the Bahl/Linn study the average amount of local government revenue supplied by transfers is 9½ percent. 14/ However, as with other revenue sources in the study, there is a tremendous range variation from city to city: from less than 1 percent to over 70 percent. To facilitate discussion of intergovernmental transfers which can have myriad forms, Bahl and Linn have developed a set of classifications of transfers based on two dimensions:

1. the source of funds that make up the grant pool, and
2. the method for allocating funds to local governments.

Exhibit 4 shows the classification scheme and the nine types of grants so categorized by Bahl and Linn. This classification scheme does not include central government expenditures in local areas that do not pass through local government accounts. In some municipalities these expenditures can dwarf local government expenditures. Also, not included in counting central government transfers may be civil service salaries of local government employees. They too may comprise a significant percentage of public sector expenditures in a given locality.

The most common form of transfers in developing countries appears to be the shared tax, in which central government returns to the local government some proportion of taxes collected in the local government jurisdiction. As

Exhibit 4.

A Classification System for Intergovernmental Grants

Methods of Determining the Total Grant Fund	Methods of Allocating Among Eligible Recipients: Returned in Total or in Part on a Basis of Point of Collection	Formula	Total or Partial Cost Reimbursement	Ad Hoc
Specified Share of a National or State Government Tax	A	B	C	D
Ad Hoc Decision	---	F	G	H
Reimbursement of Approved Expenditure	---	---	J	K

SOURCE: Roy Bahl, Urban Government Financial Structure and Management in Developing Countries. Washington: U. S. Agency for International Development (mimeo), June 1980.

indicated in the figure, the amount returned to local government is determined by one of four mechanisms:

1. A straight percentage of the amount collected in the jurisdiction is returned to the local government. This can either be 100 percent or some fraction of the tax collected, or it may be a surtax on a national tax.

2. A formula is used to calculate the amount returned to the local government. The formula may be based on population only, or some more complex set of indicators, including fiscal deficit of the local government.

3. Grants may be distributed on an ad hoc basis, primarily as discretionary grants that are not based on any set formula and which can vary year by year.

4. Cost reimbursement grants under which the central government reimburses the local government for designated cost incurred.

As shown in the Bahl/Linn classification scheme, the size of the total grant pool may also be determined on an ad-hoc and cost-reimbursement basis. In these cases, however, the grant pool is appropriated from general funds of the government and not tied to a specific share of locally raised taxes.

In addition to the concern over the amount of central government transfer that a local government may expect, there are several other aspects of intergovernmental transfers of interest to local governments. The first of these is the degree of predictability of amount and timing of the transfer. Obviously, the more predictable the flow of funds, the better able the local government is to plan effectively its financial operations. This would argue for both simplicity in the allocation formula and predictability in the variables on which the formula is based.

Secondly, it is desirable from the standpoint of local governments that central government transfers do not fluctuate in the same manner that local taxes fluctuate. In this respect, central government grants designed to make up local government deficits would be especially desirable, particularly if central government actions prevent local governments from making up the deficit with local revenues.

A third important aspect of intergovernmental transfers is the extent to which the grants impose future costs on the local government that will have to be borne by local government revenues. Many cost-reimbursement type grants are designed to promote local development projects. These grants may cover capital and start-up costs, after which local governments take over all recurrent costs. If such grants do not add to the revenue base of the

local government, the recurrent costs often put a severe financial strain on the local government.

A fourth area of concern in government transfers is the extent to which the local government has control over the use of the grant funds. Many grants are earmarked for specific projects to which the local governments would not ordinarily given priority. On the one hand, this may spur local governments into development activities that will benefit them and the nation in the long run. On the other hand, it effectively removes some decisionmaking authority from the local government and tends to reinforce the heavy dependence that developing country local governments already have on central government authority.

In the aggregate there appears to be relatively little that local governments can do to affect the total amount of revenues transferred to local governments. However, in some countries with discretionary grant system, the pool of available funds is often not disbursed. There are several activities that individual local governments do engage in to improve their position with respect to transfers. The first activity is that the local government can promote its own self interest in deciding which types of discretionary grants to seek and accept. This is particularly pertinent for categorical grants which impose long-term costs which the local government will have to bear. The second activity which local governments can undertaken is to monitor the grant allocation process closely, particularly when disbursement formulas based on socioeconomic indicators are employed. The operation of these formulas is only as good as the data on which they are based. There is often considerable room for negotiation

on the accuracy of data, particularly if the local government maintains its own information on local social and economic variables.

A final activity which local governments can engage in to improve their position is the fine art of grantsmanship. Grantsmanship applies principally to obtaining discretionary grants. It should be kept in mind that these activities do not normally increase the total amount of transfers to local governments but reallocate them among competing local governments. In instances where the pool of grant money is not spent, these activities can increase the total flow of funds.

Borrowing

Borrowing is the fifth major category of revenues of local governments. Borrowing represents a substantially less important source of revenues in developing countries than it does in the developed countries. For this reason, relatively little attention has been paid to debt financing in developing country local governments. The Bahl/Linn studies showed that the average amount of local government revenues comprised of borrowing is slightly over five percent of the total. 15/ As with the other categories of revenue, there was considerable variation ranging from negative percentage (paying off existing debt) to slightly over 20 percent for several Colombian cities.

Borrowing by local governments is typically divided into long and short-term debt. Short-term debt is usually incurred to smooth out fluctuations in revenues and expenditures in a given fiscal year. Long-term debt is normally incurred for capital expenditures that will produce benefits (and hopefully revenues) into the future. In developing countries,

most long-term debt appears to be incurred for specific revenue producing projects such as water systems and housing. Tying long-term debt to specific revenue generating projects is the most conservative application of municipal borrowing. In principal, this type of obligation should not place a financial burden on the municipality since revenues from the capital investment are intended to cover the repayment of the debt. This, of course, assumes that the municipality, or the implementing agency, can manage a user fee system and that its financial projections on cost and revenues are accurate. Major problems encountered in this respect are under-estimating costs, under-estimating the time of construction of capital improvement projects before revenues begin to flow, and in under-estimating the size of the client population and/or their willingness to participate in a fee-for-service system.

Municipal borrowing in developing countries is often constrained by a number of conditions that the central government places on the municipalities. In addition to common debt-ceiling limitations placed on municipalities, central governments often require specific approvals from planning and development agencies. For revenue-generating infrastructure projects, the central government often requires outside consulting firm participation in the planning and design of the project. This usually raises the cost of the project and may impose unnecessarily stringent design criteria on the project.

In many developing countries, sources of credit may be limited to government agencies or government-created credit institutions. Generally speaking, municipal governments in developing countries do not rely on

private capital markets for borrowing. The three major types of organizations supplying credit to municipal governments in developing countries include:

- government agencies or government banks,
- specially created authorities or development banks, and
- funds in which municipalities deposit surplus cash.

The first two types of agencies are normally capitalized by the central government, though they generate revenues on outstanding loans and may borrow on national or international credit markets. The last type of credit institution raises capital from participating municipalities.

In general the low reliance of LDC municipalities on long-term borrowing is viewed as a constraint to development by experts. Borrowing is seen as the quickest route to providing the necessary infrastructure upon which to build modern economies. It has been noted, though, that even when credit is accessible, local officials are often reluctant to incur debt. Some experts ascribe this to the conservative nature of local government officials, although it may be merely prudent behavior since sources of revenue for local governments are subject to change by central government fiat. Given also the limited experience that local governments have in managing revenues and in long-term budgeting, local officials may simply not be confident that they can handle long-term debt.

One significant problem with the operation of central government credit system for local government borrowing is that many of these schemes are transformed into virtual grant programs because repayment is not seriously pursued. This obviously has a crippling effect on such credit operations,

depleting the credit pool and undermining the principles of borrower obligation. In some cases, mechanisms do exist to tie debt repayment to shared tax disbursements (i.e., making the grant collateral for the loan), but even these may not be aggressively pursued. 16/

In some countries, local municipalities may make use of borrowing from one local government account to cover deficits in another account. Typically, funds are borrowed from an account running cash surpluses (housing or water supply) to cover an overdrawn account, usually the municipal general fund. Unfortunately, these borrowed funds are usually not real surpluses but funds needed for maintenance and expansion of the capital stock. Also, they are often not repaid, since the borrowing alleviates the pressure to generate additional tax revenues to balance the account.

3.2.2 Interactions Between Revenue Sources and Local Resource Base

There have been many attempts to develop models that link revenue generation in developing countries with some measure of capacity of the local resource base. Since revenues are often considered synonymous with "taxes", most of this attention has focused on developing measures of so called tax capacity. Tax capacity is defined as the capacity of a country, or locality, to mobilize financial resources for public sector expenditures. It measures capacity rather than performance. Furthermore, by definition, tax capacity ignores the contribution that user charges in self-financing services can make to resource mobilization.

Tax capacity is a function of income and the extent to which that income is generated in the monetized economy. Therefore, countries which

have a high GNP and a high proportion of that GNP generated through the modern, industrial sector are found to have a high tax capacity. 17/ It must be kept in mind that tax capacity measures financial resources only. However, it is felt to be a good overall measure of the resource base of a country or community.

Tax capacity is only one dimension of the resource mobilizing process. The success in tapping that capacity is termed tax effort, usually defined as tax revenue generated in relation to GNP or total income.

Studies of tax capacity and tax effort over the past several decades have established that the developed countries, as a group, devote a higher proportion of GNP to the public sector than do poorer countries. 18/ Although this finding suggests that the level of development is a determining factor in tax effort, studies completed among a subset of developing countries fail to turn up any strong relationship between level of economic development and tax effort. 19/ Although many studies have tried to identify the key variables that determine this performance, most studies come to the same conclusion: some governments simply "try harder" to mobilize tax revenue than others. This has lead many to speculate that tax effort depends mainly on social, political and cultural factors that are not easily reduced to quantitative indicators. One of the more salient findings in tax effort studies is that tax effort is rather difficult to change over time. 20/ That is, countries with low measures of tax effort do not demonstrably raise them over time, while those countries with high measures of tax effort do not fall appreciably over time. This supports the

notion that tax effort is the result of cultural and political factors that are resistant to change.

The foregoing discussion of tax capacity and tax effort suggests that the actual resource base of a community may be a minor variable in determining revenue generating ability of the government. This argument is given support by recent studies in the United States on "fiscal stress" in a sample of 66 U.S. cities. [21/] In this study, fiscal stress is defined as high taxes, debt and municipal expenses per capita. The study did find that cities with poorer resource bases (i.e., older industrial cities with large dependent populations) were somewhat more likely to be judged fiscally stressed than those with growing economic bases. However, there was such variation among cities with similar economic conditions, that the researchers concluded that management rather than resource base is the determining factor in financial well-being of a municipality. This contention is further strengthened by the observations of many working in developing countries that numerous sources of revenue open to municipal governments are often not utilized. Time and again, taxes are found to exist on the books which municipalities have simply failed to collect.

In addition to the relationship between revenues and resource base are the relationships between different revenue sources. The first relationship that has received considerable attention is the "trade-off" between the use of property taxes versus user fees for funding physical infrastructure. In general, user fees are thought to be more equitable than the general property tax since the beneficiaries pay the costs (and ability to pay can be built into a sliding scale fee structure.) The "progressiveness" of user

charges is questioned by some who point out that a sliding fee scale is more readily based on level of consumption than ability to pay, and that poor people often have high levels of consumption. 22/ Despite this attack on the progressive nature of user fees, variations on the user fee, such as betterment taxes and land readjustment schemes, are gaining favor now as alternative sources to the property tax for financing public infrastructure.

Since most municipal debt in developing countries is incurred to finance revenue generating projects, we would expect to find debt financing accompanied by increased reliance on user fees. Although the Bahl/Linn study does not address this particular relationship, information provided in the tables accompanying their study indicate that in almost all cases where debt is a significant part of their municipal revenues, user fees also contribute a sizable proportion. 23/

User fees and debt management should also go hand in hand with more competent financial administration. Management of user fees requires more complex information systems, better tracking systems and cost accounting. Municipal borrowing usually brings with it the imposition of better financial planning and accounting practices imposed by the lender. The need to pay back loans through user fee revenues imposes financial regimen on a municipality. Indeed, the role of borrowing as an avenue of upgrading municipal financial management deserves careful examination.

In addition to relationships among different revenue sources, the complexity of local revenue systems is an issue in itself. Because of the cost of administering a proliferation of individual taxes (particularly the cost of maintaining information systems), there appears to be a natural

tendency toward increased reliance on the single taxing system at the municipal level. In many cases the single tax system is the real property tax. The real property tax has an advantage in that it utilizes a readily identifiable resource base that can be tracked with great accuracy. Furthermore, administrative costs are minimized by dealing with the single system. Of course, reliance on a single tax base means that all tax increases are concentrated on that source which makes it a ready target for taxpayer discontent.

3.3 Municipal Expenditures Submodel

The municipal expenditure submodel is concerned with elements that determine the size and mix of municipal expenditures. There have been relatively few studies on the determinants of local government expenditures in developing countries. These studies have focused on two major questions: (a) how have local government expenditures risen in relation to population increase and to local government revenues? (b) what are the determinants of changes in local government expenditures?

The most recent study to examine local government expenditures is the Bahl/ Linn report cited above. In the sample of cities for which data were available, Bahl and Linn found that not only did expenditures tend to rise year by year but that per capita expenditure in twelve out of seventeen cities rose in recent years.

Three major variables have been identified as the determinants of local government expenditure increases in developing countries. These include

population growth, income growth, and growth in the unit cost of providing public services.

Population growth obviously increases demand for public services which, in turn, increases expenditures. The population growth mix is also a factor. Rapidly growing urban areas tend to attract poor migrants who come to the city seeking services and opportunities not available in rural areas. To meet a minimum standard of living, these groups often require a considerable range of services for which they cannot pay and which must be supplied at government expense.

Urbanizing areas are also characterized by rising levels of income. Higher levels of income produce demand for higher quality of public services which are translated into higher levels of public expenditures by the local government. Growth in income also means that opportunities for direct recovery of service delivery cost through user charges are increased.

The increase in the unit cost of public services may be attributed to four major variables.

1. inflation - prices of inputs into service delivery and administration are rising rapidly in almost all countries.

2. cost of capital - physical infrastructure services require large capital investments; since many LDC municipalities do not have well developed physical plants, service provision often brings with it large debt service.

3. increasing land prices - for municipal services that are land intensive, the high cost of urban land translates into high service delivery costs.

4. excessive labor costs - creation of jobs in local government service is often part of national government employment policy; this creates inflated payrolls and excess labor costs for local government.

Taken together, these factors suggest an inexorable push on constantly increasing local government expenditures.

In order to identify intervention points where municipal expenditures may be made more efficient, it is necessary to look further into the local government operations. The following discussion has categorized the elements that determine local government expenditures into two classes. The two categories include general administrative cost of local government and the direct cost of providing municipal services.

3.3.1 Administrative Costs of Local Government

The administrative cost of local government may be considered the "overhead", or the indirect cost, of running a local government. For purposes of this discussion, we would categorize the administrative functions in four categories:

1. general government,
2. revenue raising,
3. supervising service delivery, and
4. employment provision.

In developing countries, general government goes beyond the traditional government's concerns to include economic development activities in the community. Where government decentralization movements are underway, local government is often charged with coordinating activities of varying agencies and ministries as part of its economic development function. This can place additional demand on local government staff which translates into more staff positions and increased costs.

The revenue raising activities of local government will vary depending on the revenue sources which the local governments use for generating revenues. A proliferation of revenue sources requires a proliferation of information and collection systems as well as the people to run them. It has been observed that, in developing countries, there are often tremendous shortages of skilled manpower in the revenue raising function, particularly in the skilled positions of accounting. Typically, the level of training is low, turnover is high, and systems which would improve productivity are often nonexistent. This means that revenue systems are often labor intensive, understaffed and behind in their work.

Service delivery administration is normally carried out within the line agencies of the individual services. There appears to be considerable duplication and lack of communication among agencies serving the same client group or, in some cases, providing the same service.

Developing country governments often serve as employers of the last resort. Positions are created in local government as part of employment policy of the national government rather than in response to the needs of the government or service delivery agency. This translates directly into inflated personnel cost for the local government. Even more detrimental to productivity may be the effect of overstaffing on motivation of the staff. Overstaffing tends to reinforce the notion that government employment is a sinecure rather than a position of public service.

There appears to be very little study examining the proportion of administrative costs to other costs in local government expenditures in developing countries. Such analysis is made difficult because

administrative costs are contained not only in an administrative line item of a local government budgets but also within the budgets of local government departments as well. However, given the factors discussed above, we would expect administrative costs of local governments to rise over time, and probably to rise as a proportion of total expenditures. This hypothesis is supported by data from our case study in Daejeon, Korea (for which very complete and detailed expenditure data is available over the period 1970 to 1980.) In Daejeon, administrative costs have risen as proportion of total local government expenditures from 24.2 percent in 1970 to 49.6 percent in 1980. 24/

The true costs of administration is often hidden in many local governments because personnel costs may not be carried on the local government accounts but rather on the national civil service rolls. On the one hand, this insulates the local government budget somewhat from the financial effects of overstaffing as part of national employment policy. On the other hand, if the central government transfers financial responsibility for local government salaries from central to local governments, local governments can find themselves suddenly with large financial burdens.

3.3.2 Public Service Delivery Cost

Distinct from costs that are associated with the local government administration are those costs generated directly in the delivery of public services. We may identify four sets of factors which determine the direct cost of service provision:

1. demand for services,

2. level of service,

3. efficiency with which the service is provided, and

4. extent to which the costs are borne by the consumer of the service.

In examining demand for public services we must distinguish between gross demand and effective demand for services. Gross demand is the amount of service that would be required if all persons who needed the service had perfect knowledge of, and unrestricted access to, the service. Effective demand is the actual usage that the citizens make of a service.

We may identify four major variables which determine effective demand. These variables include (a) total population, (b) the distribution of need for the particular service within the population, (c) access to the service and (d) knowledge on the part of the consumer. The total population combined with the distribution of need within that population determines the gross demand for a particular service. Obviously "distribution of need" depends on definition of need and varies from culture to culture. It can be defined normatively in terms of minimum requirements for basic needs or it may be defined operationally as the level of service that would be consumed at a certain price and location by a given group. Need may also be defined by historical patterns - for example, number of physicians per thousand population.

Access to services may be limited both physically and financially. Some services are actually "delivered" to consumers (piped water to households) while other require consumers to come to a service outlet (schools, hospitals). Financial access is an issue when any form of user charge is imposed. Over the past decade in the U.S. there has been a strong

movement to improve physical access to public services for disadvantaged groups, primarily focusing on transportation. In developing countries, notable efforts in improving access to services have been in the field of primary health care in rural areas and in the use of telecommunications in education.

Knowledge about the availability and use of a service is the fourth variable that determines the effective demand for service. This is particularly important in the so called "entitlement" programs where any person who meets the eligibility requirement is entitled to receive the service. Entitlement programs in the United States have seen tremendous increases in utilization and expenditure over the past decade primarily because of improvements in knowledge and access on the part of the eligible consumers. This has resulted partly from changing eligibility (i.e., redefining "need") and partly through increasing the utilization rate. The combination of changes in eligibility (increasing gross demand) and changes in access/knowledge (increasing effective demand) has a compounding impact on total service consumption and expenditures. Since government planners have typically monitored historical trends in service consumption rather than the more complicated gross/effective demand factors, the recent explosive rise in U.S. entitlement program expenditures caught most public officials and planners by surprise.

The <u>level of service</u> is the second major factor that affects the overall service delivery cost. Almost any public service can be provided at different levels. The provision of domestic water supply serves as a good example of the level of service concept. Domestic water may be provided by

(a) a community well, (b) by water piped to a central fountain from which residents carry it to their houses, and (c) through direct waterline hookup to the house. The level of service determines the public cost of providing the service. Level of service carries with it a tradeoff between public and private costs. With the community well, public cost is low but the cost to the consumer in time and effort is relatively high.

Level of service is primarily a function of the standard of living of the community and community expectations. It should be emphasized that there is no absolute "best" level of service for a public service. As communities develop materially, they typically progress through different levels of service. This progression occurs in step with rising expectation about quality of service and rising ability to pay for the service. Maintaining the balance between service level expectation and ability to pay can be difficult. This issue is most clearly manifested in debates over public housing program design in developing countries: should the government provide completely constructed and serviced rental housing units (high level of service) or should the government provide serviced building plots (lower level of service) on which residents construct dwellings?

Level of service is also an important issue in imposing user charges for service consumption. User charges work when there is both willingness and ability to pay for the service. The level of service must be high enough so that people are willing to pay for it. At the same time, the level must not be so high that the consumers are unable to meet the costs.

The third major factor in service delivery cost is the <u>productivity of the service delivery system</u>. Productivity, in this context, is the

efficiency with which service delivery system converts resources (expenditures) into services that are consumed. The first factor in productivity is the technology, or the form, of the service that is delivered. There are different ways of delivering the same service. For example, education can be delivered by teachers in the classroom or by instructional television. Household sewage can be collected by a system of sewer drains or collected individually by "night soil" collectors from individual houses. Technology of the service may be capital or labor intensive and may or may not require consumer participation.

The second component of productivity is the internal efficiencies that may be realized within the service delivery system. There are both structural and operation efficiencies. Structurally, multiple services may be combined into single delivery systems or may share equipment and facilities.

Operationally, staff performance may be improved through better training, motivation and supervision. In many countries, government salaries are so low that workers take additional jobs to earn a living wage. Workers with technical skills are often hired away by the private sector. Many of the problems appear to be traceable to the practice of using government service as the employer of last resort where limited funds are spread over a large number of employees. Additionally, wage scales are often set nationally with no provision for pay incentives for good performance. The net result is poor productivity of the public work force.

The low wages paid in the public sector have given added impetus to the creation of parastatal service delivery agencies. Parastatals often are not

bound by government wage scales and can pay sufficient wages to attract competent staff.

The third way of increasing productivity in service delivery is by substituting cheaper inputs for more expensive ones in the resources consumed by the service delivery system. Self-help delivery programs provide good examples of this concept. Self-help programs substitute labor of the consumer for purchased labor. (Indeed, self-help programs really represent a combination of cost reductions through input substitutions, level of service reduction and shifting costs from government to consumer - discussed below).

Input substitution does not necessarily imply lowering the standards or the level of service delivered - i.e., drainage ditches dug by hand are the same as those dug by machine. However, in many cases, input substitution does result in standards lower than that desired by government planners or politicians.

The fourth factor in determining service delivery cost is the extent to which this cost may be shifted from the government to the consumer. User charges have been discussed extensively in the section on revenue generation above and will not be discussed at length here. There are a number of different ways to shift costs from the government to the consumer. One mechanism, which is gaining popular support in the United States, is the turning over of public services to the private sector. This so- called "privatization" covers two distinct aspects: (a) government relinquishes the right/obligation to provide certain services that can be totally self-supporting (e.g., refuse collection) or (b) the government retains the

obligation to provide certain services but contracts out their actual delivery.

Privatization has become an issue in the U.S. where local service expenditures have increased significantly in recent years and where the proportion of income devoted to the public sector is considerably higher than in developing countries. The current argument for privatization in the U.S. holds that the private sector is inherently more productive than the government and that services can be delivered at lowered cost by private purveyors. To supplement the largely annecdotal research into this area, several research studies are now being carried out in the U.S. [25]

Another aspect of shifting costs from government to consumers is the practice of "cross-subsidization" in which some services are provided on a fee for service basis above costs to subsidize the provision of other services free or below costs. Cross subsidization can involve (a) subsidies from one service to another (e.g., surplus revenues generated in the water system subsidize deficits in public housing) and (b) subsidies from one class of consumer to another (e.g., commercial water consumers pay higher rates to subsidize small residential users).

In summary, service delivery expenditures are driven by both demand and supply factors. Both types of factors appear to be amenable to control with the supply factors of level of service, productivity and cost shifting most readily manipulable.

3.4 Financial Management Support Systems

The two previous subsections dealt extensively with the factors affecting revenue generation and expenditures by municipal governments. This subsection completes the general financial management model with a discussion of the management support systems that are an integral part of municipal financial management. Included are discussions of budgeting systems, information systems (including accounting), and analytic support systems (including such elements as revenue/expenditure forecasting models).

3.4.1 Budgeting Systems

Budgeting systems constitute the central mechanism for integrating the revenues generated by a municipality with its expenditure plans. However, considerable variation exists in the extent to which all revenue sources (and thus all revenues) actually are included in the municipal budgeting process and in the extent to which all municipal expenditures are subject to the budgetary process. Revenue exceptions may include earmarked resources such as user charges that are paid directly into a special fund or account and are not considered a part of the total revenues available for municipal expenditures. These special revenues typically are earmarked only for expenditures for services related to the activity that originally generated the revenue. Thus, expenditures that may not be included in the regular municipal budget process typically are those that are drawn from specially designated funds.

In general, however, the issue is not the presence or absence of special funds that exempt particular revenues and/or expenditures from the

normal budgetary process. The issue concerns the extent to which the budgetary system is a useful information tool to municipal officials in grasping the total revenue and expenditure situation of the municipality. Historically, budgets serve three basic purposes for decision-makers/managers: control, management, planning. 26/

The control function of budgets serves primarily an accountability purpose. Budgets as approved by the municipal council or other agency authorized to legally commit the expenditure of public funds designate legal expenditures, usually identifying the authorized agency, department, or organizational unit and the account from which funds may be spent. They further typically specify the authorized line-item such as X cruzeros for personnel, Y cruzeros for supplies, Z cruzeros for travel, and so forth. A pre- and post-audit process normally accompanies any expenditure to insure that the authorized person or organizational unit has approved the expenditure, that it is from a legally authorized account, and that it is for a legally authorized line item or object of expenditure. Used for these purposes then, the budget, accompanied by an audit process, serves to control the legality of any expenditure and the source of funds.

The management function of a budget requires in addition to information on the organizational unit, line item, and account, information on the work being carried out by the particular organizational unit. A budget serving only control purposes could insure that no unauthorized personnel were hired and so forth, but it would tell one nothing about the nature of the work being performed. For example, a departmental budget for water system construction might specify amounts to be spent for salaries, for materials,

for contracts, and for equipment. If one also included information on such items as number of customers served, number of miles of water line, number of gallons pumped, and so forth, the budget also would help assess the management of resources by providing a basis for assessing the efficiency with which the water systems is being constructed. A budgeting system that incorporates workload measures as well as budget line items is often described as performance budgeting denoting the concept of linking performance to resource consumption.

For budgets to serve a planning function, they must include not only the types of information required for the control and management functions but also must include some information on the purposes of expenditures. Often purposes may be stated in terms of the extent to which the need for a particular service is being met. To continue with the water system construction example, the department's budget may provide a specified amount of funds to be spent for specific line items (control) to construct 39 miles of water lines for 300 dwellings (management) which represents an increase in population connected to the system from 65 percent to 73 percent (planning). If the goal is to extend the system to 80 percent coverage by the end of the year, the 73 percent figure would indicate that current plans are falling short, something not apparent if only control or only control and management type information is included.

We note in a following section on results of our case study observations that LDC municipal budgeting systems often are designed to serve central or regional government's purposes rather than the financial management needs of municipal governments. Furthermore, these control

requirements for the most part are concerned with insuring that a municipality is doing only what it is legally authorized to do, or a control oriented budget. Of course, as one moves toward a planning orientation, the budgeting system itself is more costly, requiring greater sophistication in information gathering and analysis. However, given the revenue scarcity in LDC municipalities, the pressure is enormous to improve management methods, including budgeting systems, that enhance the utilization of those scarce resources.

3.4.2 Information Systems

A significant part of the discussion above of budgeting systems focuses on the types of information required to accomplish different budgetary purposes. It is obvious that major improvements in municipal financial management practices involve increasing sophistication in the collection and utilization of information. Three kinds of information are especially critical to municipal financial management: finances, workload or performance, and need or demand.

Financial information is traditionally the province of accounting practices. At a minimum, an accounting system must provide the means to record the financial transactions of the municipality from the point at which an obligation is due the municipality (e.g., a property owner owes a specified amount), through the receipt of that revenue, to the municipality's incurring of an obligation to pay out that revenue, to the final pay out of the obligation. The accounting system can record these various transactions at different points in time, and depending on how and

when these transactions are recorded, the municipality's balance sheet may vary considerably. For example, the simplest set of accounts may show an asset only as actual cash is received and a debit only as actual cash is paid out. For small enterprises that operate pretty much on a short-term basis, this type of cash accounting may be all that is necessary. However, if the activity involves long-term operations, again such as in water line construction, a cash basis would seriously distort the financial condition of the water system because it would show very large cash disbursements during construction with little or no corresponding cash inflow.

A more appropriate set of accounts for most municipal services would show the obligations as they are incurred by taxpayers (or funds committed by central government for intergovernmental transfers) on the revenue side and only the current value of the municipal expenditures. For a labor intensive service, such as road maintenance, the current value of the municipality's expenditures is pretty close to the actual cash being paid out. For a capital intensive service, however, such as the water system, the water line constructed in the current year will remain in service for many future years. The current cost of that water line, therefore, is not really the cash paid out this year for construction, but is more adequately represented by the depreciated value of one year's use (measured most simply by the straight line method of taking the total value of the water line addition divided by the expected years of service). If the maintenance costs and interest on loans (if borrowing was used to finance the construction) is included in the total cost (before depreciation), the accounts then provide an accurate picture of the revenue that will be needed

each year to pay out the cost of the new construction. Similarly, by including a share of the future years maintenance and operation costs in the current year budget, one might discourage the temptation to view a current surplus of user fee revenue in a year when there are no capital outlays as a long-term surplus that could be transferred elsewhere.

Accounting systems also can vary not only in the matter of timing of the recording of receipts and expenditures, but also in the extent to which funds are included in a general account or separated into a variety of different funds. Practices vary considerably, and any practice is potentially subject to abuse or misinterpretation. Typically, revenues from general sources such as property taxes, intergovernmental transfers, and other general taxes are recorded as receipts into the municipal general fund. Special revenues that are derived from service specific sources such as user charges or general revenues that are intended to be earmarked for specific purposes such as education are often set-aside in special funds. This serves in part to protect those funds from being used for other municipal functions than what was originally intended. On the other hand, the creation of large numbers of special funds increases the chances of error, deliberate fraud, or simple confusion. With too many special funds it may be very difficult to add them up to get a clear picture of the level of governmental activity, and the sheer costs of accounting are higher. In general, creation of a separate or special fund seems warranted only when the revenue for the fund needs to be protected against use for other purposes.

As noted in the budgeting section above, financial transactions are only one kind of information relevant to municipal financial management. Workload or performance information also is an important element of a municipal information system. Workload or performance indicators tell the municipality how much of a given activity is being accomplished or how much effort is being devoted to it. Typical, and relatively easy measures to develop, are such indicators as person-days (months, years) per a specific activity, number of units constructed, number served, miles completed, and so forth. These are basic quantity or volume measures and, when related to the expenditures required to achieve the stated quantity or volume, give some indication of the efficiency of the system, agency, or department.

To be useful, performance information must be tied both to the organizational unit responsible for the activity measured and, within that organizational unit, to the amount of resources required to achieve that quantity or volume. This means that some basis must be established for apportioning the costs of general administrative support to each municipal service and for apportioning the costs of shared facilities such as central vehicle maintenance garages. It is not a simple task, but failure to do so may seriously understate the cost of a specific service and overstate the service's efficiency. Savas estimates that in the United States, municipal budget figures for service providing departments (with no allocation of overhead costs) represent only about 60 percent of the cost of service. 27/

The final set of information elements of great importance to municipal financial management consists of information about the results being produced by the municipal revenue and expenditure process. As mentioned

above, these may often consist of reflections of need among the target population such as percent of needy served, percent of roads needing repair receiving it, and so forth. More sophisticated measures may reflect the extent to which a problem is alleviated such as a reduction in the incidence of a disease spread by unsafe drinking water. The more complex the measure, however, the more likely it is to be influenced by factors in addition to the provision of a specific municipal service. Reduction in the incidence of a specific disease may be affected by increasing the number of dwellings connected to the water system, increasing the collection of garbage, and changes in the food preparation and personal habits of individuals. Sorting out the causal linkages from a specific municipal service and tying that to the expenditures for that service may be an impossible task.

The difficulty of the task, however, need not be a deterrent to some improvement in that direction. In part, obstacles in the past have been the need for large scale data management facilities and sophisticated information processing capabilities unavailable to most LDC municipalities. Considerably less expensive hardware technology and information handling software now makes it much more possible to store, retrieve, and manipulate data at the local level and to experiment with different approaches to measurement, and planning/modeling.

3.4.3 Analytic Support Systems

The variety of issues that could be considered here is somewhat open-ended. The two previous subsections deal with budgeting and information systems, while this subsection deals primarily with planning and

analysis models that are used in conjunction with budget and information systems.

The first issue in analytical support systems is whether or not there is a specific analytical function, or unit, clearly designated within municipal management. Recent literature on productivity in U.S. local governments identifies the creation of special units which analyze information on expenditures and service output as the first step in productivity improvements. 28/ This is a relatively recent phenomenon in the U.S. Studies in this field also show that the location of such analytical units within the power structure is crucial to success. In most successful cases reported, the analytical unit is located within the city managers office or the budget office; in some cases, the city manager carries out the function personally. The authors have not been able to find any literature dealing with analytical units in municipal government in developing countries. The general absence of analytical data on municipal finance in developing countries indicates that such analysis has seldom been institutionalized, if indeed carried out at all.

In addition to the existence of an analytical function in local government is the issue of analytical tools. The most important set of tools deals with analyzing year to year financial status of the municipality. Having received a lot of attention in recent years are revenue and expenditure forecasting models. Some discussion of these has already been included in the two previous sections dealing with revenues and expenditures. Bahl in particular has advocated the widespread adoption of various regression based and linear projection models to estimate municipal

revenue. [29] These types of models clearly can serve useful purposes where the municipality's revenues are highly uncertain from year to year, but they serve a more useful purpose when combined with the basic information and decisionmaking systems that would turn the results of a revenue projection model into a series of decisions about levels of service and levels of new revenue generation required.

The analytic support required to improve LDC municipal financial management practices is probably not estimable in a general sense. Specific analysis of the most pressing problem areas and the corresponding development of projection, analysis, or planning models tailored to those problems seems a more fruitful path to follow. In subsequent sections we analyze our case study experience and the available literature to identify a wide range of problems and suggest areas where analytic support systems could be developed to deal with those problems. We also include in that discussion the types of training that would be required to enhance LDC personnel's capabilities to implement such models and develop their own.

4.0 Case Study Results

4.1 Case Study Coverage

Case studies have been conducted in eight countries covering a wide range of financial management and service delivery practices. Exhibit 5 lists the countries and the practices studied within each country. This section presents an overview of the individual case studies which are presented in detail in section 6 below. Major elements of municipal financial management were covered in the studies ranging from practices to increase property tax revenue collection to design of self-financing public service systems and management training for local government officials. While a wide variety of practices was studied, the practices can be grouped into several major categories:

- Improved tax collection is the focus of four of the case studies, with major emphasis on the real property tax. Property tax collection systems were studied in Lages, Brazil; Sousse, Tunisia; and Abidjan, Ivory Coast. In these studies, primary focus is on the tax information system improvements. In Tamale, Ghana changes in the local head tax collection system were studied.
- Cost recovery in physical infrastructure provision was the second major focus of the case studies. Case studies in this category include Daejeon, Korea; Medellin, Colombia; Abidjan, Ivory Coast and Cagayan de Oro City, Philippines. The first three cases deal with provision of packages of infrastructure development (roads, water supply, sewerage, drainage), while

Exhibit 5.

Case Study Sites and Practices Under Study

Country and Sites	Practice(s)
Ivory Coast	
Abidjan	- computerized land registration system - betterment tax for partial cost recovery of slum upgrading
Philippines	
Local Water Utilities Administration	- introduction of self-financing local water utilities - training of local officials and staffs - loan management
Cagayan de Oro City	- establishment of user charge system in local water district
Brazil	
Lages, State of Santa Caterina	- computerized real property tax information system - low cost self-help housing program - economic development enterprises

Exhibit 5 continued

Korea	
Daejeon	- self-financing physical infrastructure provision (land readjustment system)
Ghana	
Tamale	- training of local government officials and staff - local revenue study - experiments in per capita tax collection system
Colombia	
Medellin	- betterment levy to recover infrastructure costs
Kenya	
El Doret and Nakuru	- impact of central government transfers on local finances - management of municipal accounts
Tunisia	
Sousse	- automation of property tax information system and municipal personnel records
Sfax	- low income housing program - management of wholesale market
Tunis District	- solid waste collection system

the Cagayan de Oro City case study deals specifically with provision of urban water supply.

- Cost recovery in non-infrastructure municipal services included case studies in Daejeon, Korea (urban transit); Sfax, Tunisia (wholesale market); Tunis District, Tunisia (solid waste collection); Lages, Brazil (self-help housing); and Sfax, Tunisia (low income housing).
- Training of local government officials and staff were examined in Tamale, Ghana and in the operations of the Local Water Utilities Administration, Philippines.
- Local government loan management was examined in the case study of the Local Water Utilities Administration in the Philippines. The general operation of central government grants and their impact on local governments was examined in Kenya.
- Economic development enterprises were examined in Lages, Brazil where the municipality undertakes development activities in outlying rural areas to provide employment incentives to stay in the rural areas.

The following sections of this chapter describe some of the major findings from the individual case studies and comparisons across groups of case studies.

4.2 Case Study Findings

The great variation of practices under study makes generalizations across all the cases somewhat difficult. However, there are a number of extremely useful observations that can be made by examining the body of the

case study material which has been assembled. The following paragraphs describe these observations in detail.

Level of Public Services Provided by Local Governments

Across the case study sites, there is tremendous variation in the types of public services that local governments are responsible for delivering. There is similarly great variation in the types of revenues that are used to fund local government operations.

There are four major categories of public service providers at the local level. These include: (a) local government, (b) independent local authorities, (c) national government agencies and (d) national authorities or parastatal organizations. The distribution of responsibility among these different categories of service providers for delivering public services to local communities varies greatly from country to country. Among our case study sites, local governments in Kenya and Colombia appear to have the greatest responsibility for providing public services. At the other end of the scale, local governments in the Ivory Coast and Ghana have the least responsibility for local service provision. Typically parastatal organizations have been formed to provide services that can be operated on a cost recovery basis - water supply, sewerage, housing, electricity, communications.

Although it is difficult to generalize about the relationship between level of service responsibility and financial management practices, some observations are possible. First of all, the wider the range of local services provided by local government, the greater the reliance on user charges as a local revenue source. Secondly, the wider the range of locally

provided public services, the more likely is the local government to maintain separate accounts by service area in order to track expenditures and receipts. On the other hand, municipal governments in many countries have been unable to manage well cost recovery services, particularly physical infrastructure services which require large capital investments, debt management, and user fee management over a long period of time. For these reasons, national parastatals or local authorities have often been set up to manage these types of services (e.g., the Local Water Utilities Administration in the Philippines).

Importance of Local Revenue Sources

The importance of different revenue sources for local governments in our studies varies considerably from country to country. This would appear to be the result of historical and political conditions rather than great variation in the resource base of the communities. For example, Brazilian municipalities rely most heavily on local business and professional service taxes as a local revenue source, which is uncommon among our case study countries. While the local property tax would appear to be the major local tax base in developing countries overall, our case study sites show tremendous variation in the importance of this revenue source. In Tamale, Ghana the local property tax, which is the largest potential local revenue source, actually contributes less than some of the more minor taxes and licenses. In Kenya's major municipalities, the property tax has been steadily shrinking in importance, failing to keep up with inflation and falling as a proportion of local government revenues. In Tunisia, a recently instituted business tax replacing the property tax on industrial

and commercial activities is growing in importance, almost equaling the property tax as a local tax resource. Additionally, in Tunisia management of wholesale and retail markets and municipal government real estate activities each generate revenues at a similar level to the property tax.

The case studies also provide insights about how difficult it is to change revenue raising practices. The property tax system improvements in Lages were reduced in effectiveness by lack of enforcement powers (primarily a political consideration.) In Cagayan de Oro City, water rate increases have not been approved by the local water district board for the past four years even as input costs have risen steadily. In Kenya, local municipal councils do not press for scheduled property revaluations to take place but instead use surpluses from housing and water accounts to cover general revenue deficits.

It is clear that few local governments have examined carefully their sources of revenue and the performance of those sources. In Ghana, for example, local government has over 40 tax and license categories at its disposal. In our case study site, however, only a few of these categories provide substantial revenue. Futhermore, tax collection efforts are often not applied in the most productive areas. For some taxes, the costs of collecting the tax may exceed the revenue generated.

Financial Self-Sufficiency in Local Government

The movement toward local self-sufficiency in financing government operation is an issue in some of our case study countries. In Korea, current national policy is to promote financial self-sufficiency with decreasing reliance on government transfers. This has resulted in a rapidly

rising proportion of local general fund revenues being accounted for by local tax and nontax revenues. The Philippines has stated national policy promoting decentralization. The creation of the Local Water Utilities Administration to spur local self-financing water districts is a reflection of this policy. However, other actions at the national level have not similarly supported actual decentralization of authority, leaving Philippine municipalities largely dependent on central government controls. A similar situation holds in Ghana where a formal policy of government decentralization has not been matched by supporting action.

In Brazil, there is little movement toward local self-sufficiency in financing government operations, in part because of the very strong role of state government and national parastatals. Lages represents something of an anomoly because it is run by an opposition political party and has had difficulty obtaining discretionary grant funds. This has forced Lages to become more financially self-sufficient.

Kenya represents a counter trend in which largely self-sufficient local governments are becoming more dependent on central government funds. The central government has removed several sources of locally raised revenues, replacing them with grants.

The Ivory Coast, in the French tradition, remains very highly centralized in both source of revenues and management of revenue collection. However, there is growing recognition of the importance of local taxes and user charges as evidenced in changing national legislature and program efforts documented in our case study. Tunisia is considerably more advanced in promoting self-sufficiency in financing local government services,

although there is still considerable involvement of central ministries in collection and management of local government funds.

Overall, there appears to be a recognition that local governments will have to mobilize considerable local resources to provide services and promote development. At the same time, central governments perceive a shortage of skilled staff to manage local finances. In some instances, there is also a reluctance to turn over power to groups beyond the control of the central government.

Information on Local Government Finance

Most municipalities involved in the studies maintain a considerable amount of information on local government finances. However, this information is maintained for audit purposes, not for analysis, and is scattered among many sources. Since financial data is not maintained for analytical purposes, constructing simple indicators of financial status is time consuming and fraught with potential errors. Even data assembled for time series comparisons on a single city may differ from one study to the next. Indeed, some of our case studies have revealed financial information directly contradictory to earlier studies completed for the World Bank. The discovery of these contradictions does not reflect so much on the quality of the studies involved as it does on the poor state of local government financial data. As noted in section 3 above, there is no standard set of accounts for financial data maintained across countries, nor in many cases across cities within the same country. This makes all comparisons somewhat chancy, particularly comparisons among countries. The comparisons that are

made (including those in this study) must be viewed with these data limitations in mind.

Tax Collection System Improvements

The case studies dealing with improvements in local tax systems have demonstrated two things. First of all, there is considerable room for improvement in the amount of revenues raised from local taxes. Secondly, local tax collection must be approached as a whole system: tax base identification, valuation, assessment, collection, enforcement. Improvements in one aspect of the system must be matched to improvements elsewhere. For example, in Lages, Brazil the effectiveness of an excellent property tax information system has been considerably reduced by lack of effective collection enforcement procedures; notwithstanding substantial increases in the revenues from the local property tax over the past four years, an estimated 30 percent of property taxes in Lages are not being paid. In Abidjan, although the computerization of land records increased the identification of taxable properties, recording of tax payment and follow-up is conducted slowly by hand.

If our small sample of case study cities is in the least representative, considerable increases in revenues could be expected from improved property tax administration in general. Occasionally small improvements can make a big difference - in Nakuru, Kenya, hiring of a local property valuator (to replace the valuation services of the National Commissioner of Lands which has not kept up with the demand) is expected to expand property tax revenues considerably by simply updating the property tax rolls.

Several of our case study sites undertook major overhauls of the property tax system. Typically, a cadastral survey was undertaken (Lages and Abidjan) to create a complete property registry of the city. Secondly, an updated assessment was made, with provision for frequent reassessments. Building such an information base is costly and time consuming. It is, however, a necessary foundation for the property tax system. In many cases the development of a complete property registry is justified for more than just tax purposes. In Abidjan, the cadastral system was developed partly to permit regularization of land titles. This, in turn, provides more secure conditions for mortgage loans in the housing market.

In the case studies of Lages, Abidjan, and Sousse the introduction of computerization in property tax systems has greatly improved the efficiency of the systems. Now, the availability of cheap microcomputer systems should further extend computerization to smaller municipalities.

Even well designed information systems do not avoid the problems of interagency conflict in local government. In Abidjan, access to the land registry information system which was developed by the Finance Ministry, but also used by the planning agency, has become such a point of conflict.

Although there is considerable debate over which taxes should be best administered locally, there is a strong consensus that great improvements can be made by simply improving the management of what currently exists. Indeed, given the shortages of trained finance staff, radical changes in tax authority will most likely be disruptive.

While considerable improvements in property tax collections can be made by improving administration of the current system, there are instances where

changes in the current laws clearly are needed. In Tamale, Ghana there is a two to three year delay between individual assessments made by the local assessors and approval by the Ministry of Local Government. The imposition of an interim assessment, recommended by a local revenue study in Tamale, would require tax code revision.

In some cases, local governments may be using inappropriate tax collection systems or devoting resources to tax sources that are not worth the effort. In collecting the local head tax in Tamale Ghana, a once a year canvass of the local district by agents paid on a bounty basis has proven to be much more effective than the previous system in which individual revenue collectors pursued lists of district residents. In general, local governments have not been able to exploit local business taxes except in the relatively more advanced countries in the case study set (Korea, Brazil and recently Tunisia). It is clear that most local governments do not have the staff or information collection systems to monitor business receipts and sales. In Brazil and Tunisia, the business taxes are collected by higher level government and refunded to the municipality. Because of the effort needed to maintain information on business tax bases, local governments may be better served by replacing receipts based on business taxes with more extensive licensing systems or presumptive assessments.

Financing Physical Infrastructure

A second major grouping of the case studies has examined the financing of physical infrastructure provision in municipalities. Financing physical infrastructure is a major concern of local government for several reasons. First of all, physical infrastructure construction requires considerable

capital investment prior to realizing any benefits of the investment. This raises issues of both capital borrowing and long-term financing, including long-term cost recovery from project beneficiaries. Secondly, the provision of physical infrastructure services carries with it the need for long-term maintenance and replacement, which places particular demands on fiscal management. Thirdly, provision of physical infrastructure can greatly increase the value of raw land, producing several different types of opportunities for local government to benefit financially from the value that it helps to create.

Several different models of cost recovery have been developed in the provision of physical infrastructure which can serve as useful models for other developing countries. The case studies examined four different examples of infrastructure financing. The Colombia case study examined the recovery of the cost of infrastructure (primarily road construction) through the imposition of betterment levies which allocates cost of construction to affected landowners on a proportional basis. In Korea, the system of "land readjustment" was studied by which the municipality acts as the developer to convert urban fringe land to fully serviced lots by providing all the physical infrastructure. In this system, the cost of providing infrastructure is recovered by withholding a fraction of land from each landowner to sell on the open market to recover all costs of development. In Abidjan, the municipality is recovering a portion of the cost of providing infrastructure in slum upgrading projects through a betterment levy attached to the property tax. In the Philippines, local water districts are being established with the assistance of a national

organization, the Local Water Utilities Administration which provides loan funds, technical assistance and training to help establish totally self-financing local authorities.

In all of these cases, the operating principle is that the beneficiaries of the service pay the cost of its installation and operation. In Colombia, Ivory Coast and the Philippines the costs are paid directly through special levies or monthly charges. The land readjustment system in Korea represents a more radical departure in that the municipality, or development agency, takes land in lieu of cash payment.

The process of urbanization (i.e., creating land with public services) greatly increases the value of raw land. While municipalities in many countries have moved to capture some of this increased value in order to pay for the cost of providing infrastructure, almost none appear to have fully exploited the value that they are, in part, creating. Even in the Korean land readjustment system, the municipality is limited to recovering only its actual costs through the sale of land it has taken as payment - surpluses must be reinvested in the individual infrastructure projects. If a municipality does not benefit directly from increased land values created by provision of public services, its main alternative is to recapture some of the value through increased property taxes. However, the poor efficiency of most property tax systems in developing countries renders this an ineffective mechanism for exploiting rising land value.

Controlling Costs in Public Service Expenditures

A number of the case studies have dealt with aspects of cost control in municipal service delivery systems. The case studies have addressed a

number of different points in the service delivery process which affect cost of services. Several municipalities have undertaken programs aimed at reducing overall demand for public services. The city of Lages has several programs aimed at improving the income of rural inhabitants of the municipality to stem the pressures for migration into the city center. The city of Tamale has undertaken a program to channel residential growth into desired patterns (and away from haphazard squatter settlements) to reduce the cost of "retrofitting" squatter settlements with urban services. The city of Daejeon is working to maintain provision of public transportation services entirely in the private sector so that that city, unlike Seoul, does not have to provide public transportation or subsidize existing companies.

Some of the case studies deal with the selection of low cost models of public service delivery. In Lages, the municipality has undertaken a self-help public housing program that trains would-be homeowners to construct their own houses and lends them the building materials that are financed on a ten to twenty year mortgage. The program produces housing units at a much lower net cost than commonly found in housing programs throughout Brazil. In Tamale, Sfax and Abidjan municipal government is providing serviced housing sites with house construction left to the individual residents. In the Philippines, the Local Water Utilities Administration conducts very careful feasibility and marketing studies prior to the design of local water systems; the emphasis is on the provision of an appropriate level of service geared to the resources of the target population. In the case of the Philippines, particular attention is paid to

the ability to maintain and expand local water systems in the system design and water rate setting.

Concern for service productivity is notable in the case study in Cagayan de Oro City, Philippines. The local water district maintains close watch on worker productivity and provides a range of incentives for good performance. Consequently, the ratio of service consumers to employees is more than twice that of other local water districts in the Philippines. Service productivity has also been one focal point of the training programs developed by the Economic and Rural Development Management (ERDM) program in Ghana. The ERDM project, which trains local government officials and staffs through mobile training seminars, has resulted in a number of productivity improvements in local governments in Ghana ranging from the creation of performance incentive schemes to the reduction of unnecessary staff positions. Worker productivity in public services is particularly important since personnel costs have been shown to be the largest item of local government budgets everywhere. Where data exist for comparison, personnel and administrative costs appear to be rising rapidly as a proportion of total local government expenditures. In Sousse, Tunisia, the centralization of personnel records through a single personnel department and the computerization of the records permitted the town administration to speed up the payroll process while reducing the potential for fraudulent pay claims.

Putting Local Services on a Self-Financing Basis

A number of public services can be run on a total cost recovery basis. In addition to the infrastructure services discussed above, several local governments in the study were also found to provide a number of other

services on a self-financing basis. These include solid waste collection, markets, slaughterhouses and industrial parks. Typically, these services are funded through separate accounts in order to keep them distinct from general fund expenditures of local government. In some instances, however, these accounts may be merged into the local general fund, as is the case with solid waste collection in El Doret and Nakuru, Kenya and in Daejeon, Korea. While separate accounts for these enterprises may be kept, this does not mean that all costs associated with the enterprise are necessarily charged against the account. Oftentimes, staff time, equipment use, capital investments and other costs are not included in the accounts, presenting a distorted picture of "profitability".

For services operating on a cost recovery basis, there are a number of considerations that mirror those of any private enterprise. The case study of the Cagayan de Oro Water District examined in detail procedures for: (a) generating increased demand for fee bearing water services, (b) expanding the customer base to make efficient use of fixed capital investments, and (c) aggressive fee collection.

Training of local government officials and staff in financial management

Two case studies examined training in various aspects of local administration and financial management. The ERDM program in Ghana trains local officials and staffs in management though a network of regional training teams that provide training sessions in the home sites of the trainees. Training is carried out through a series of workshops which take place over one to two year periods. The training focuses on problems

identified by the local officials and is customized to help the trainee group develop practical solutions to their problems. A number of the training sessions have focused on financial management issues, ranging from fee collection in water services to budgeting procedures.

The Local Water Utilities Administration devotes considerable resources to training local officials/staffs in water district formation and management. The LWUA has developed a number of customized competency based programs for the different groups of actors involved in running local water districts of local officials, general managers, engineers, finance officers, construction supervisors and maintenance personnel. LWUA has recently expanded its training program to utilize well established local water districts as regional training sites. This will provide closer contact to local water districts and further strengthen LWUA's "hands on" approach to training.

In summary, the case studies reveal a breadth of innovative practices in dealing with financing local government operations. The case studies point out that improvements can be made at virtually any point in the process. Public services can be delivered efficiently by local government. Local staff can be trained to operate service delivery and financial managment systems. Communities can raise and manage sizeable financial resources. Futhermore, there is considerable receptivity to making these types of improvements.

5.0 Recommendations for Interventions to Improve Local Government Financial Management

This section presents a set of recommended interventions for improving municipal financial management in developing countries. The section is divided into two parts. The first part summarizes the major problems in municipal finance and presents discussions of possible solutions to those problems. The second part presents a set of specific recommendations to U.S.AID for developing a program of technical assistance, research and development activities in the area of local government finance.

5.1 Summary of Problems and Potential Solutions

This section is organized under the three major headings of revenue generation, expenditure control and management support practices. The problems are presented as summary statements followed by discussions of possible solutions and considerations that would affect those solutions. The importance of the various problems discussed varies tremendously by country and even by cities within the same country. Some problems appear to be quite common across a number of developing countries, while others may be specific to just a few countries. The relative priorities and importance of the various problems are discussed in section 5.2 Recommended U.S.AID Programs below.

5.1.1. Revenue Generation

Local Tax Systems

1. Local government officials often are not aware of, and do not use, all tax sources available to them.

The complicated and frequently changing nature of tax legislation keeps it from being well understood by local government officials. Taxing authority granted to local governments may not be recognized and consequently not utilized. Overcoming this situation requires mechanisms that assist local government officials in: (a) identifying all available tax sources, (b) identifying which sources are not used or are underutilized, (c) assessing potential additional revenues which may be generated versus the cost of implementing collection procedures, and (d) obtaining specific models of how to apply and collect the tax. Since tax codes may vary greatly from country to country, assistance to local governments in exploiting underutilized tax sources must be provided on a country-specific basis, most likely by a national institute or branch of the ministry charged with local government affairs.

2. Changes in national legislation often remove sources of taxation for local government jurisdiction and/or impose new service delivery mandates without adequate compensation.

Changes in the taxing authority and service delivery mandates of local governments can disrupt the financial balance that even well-run cities maintain. Central government grants intended to correct the imbalance are often inadequate and do not address the structural deficiencies imposed by central government action. The solution to this problem has both

informational and political components. The central government needs to have mechanisms and information to forecast the impact of changing legislation on local government finance. Secondly, local governments need adequate representation at the central government level to lobby for their interests. In many cases, the Ministry of Local Government Affairs, which is designated to represent local governments, does not have the political clout to do this effectively.

3. Poor tax information systems contribute to under-estimation of the tax base, low tax liability estimates, and poor collection performance.

There are two basic approaches to attacking the problem of poor tax information systems. The first option is to upgrade the information systems when two conditions can be met: (a) financial and technical resources exist to upgrade and run the system effectively, and (b) the additional revenues realized from the upgrading can more than pay for the information system improvements. Where these conditions cannot be met, a second approach is recommended in which the tax in question is either: (a) replaced by a flat licensing system, or (b) the tax liability is tied to another tax base for which a sound information system is maintained.

Tax information systems maintain data on the tax base, assessments, tax liability and payment. Tax information systems must be designed with a number of factors in mind: the nature of the tax base; frequency of changes in value, ownership, and assessments; limitations of available data; and the nature and timing of the output of the system. The advent of inexpensive microcomputers has introduced a powerful tool for developing tax information systems for local municipalities in developing countries. However, the

nonhardware components of the system are equally important and must be developed to match the hardware capabilities. Models of tax base information systems have already been developed for certain types of taxes in the developed countries and in some of the less developed countries. These may be adapted and applied to specific country situations. This adaptation may be best done by national organizations who also can provide technical assistance to individual municipalities.

4. Tax assessment procedures are rendered less effective by: (a) poor assessment criteria and (b) lack of timely assessment activities.

Assessment criteria may be too vague to be applied consistently or, on the other hand, may require a level of data precision that is not readily available. Vague assessment criteria promotes under-assessment, opens the door for corruption, and makes prosecution of nonpayment difficult. A promising solution would be to develop different levels of assessment criteria appropriate to the different levels of information availability and staff capacity of municipalities. Since tax codes vary from country to country, this would best be accomplished within the central government agencies which develop tax assessment regulations. Assistance will likely need to be provided to individual municipalities in selecting the appropriate sets of assessment criteria and in applying them.

The timing of rate assessments and rate adjustments is the second major problem in local tax assessment. In periods of rapid inflation, assessments may not be carried out frequently enough to reflect the rapid rises in the value of the tax base. Secondly, scheduled reassessments are frequently not carried out either because of staff shortages or because of lack of

political will. To increase the frequency of assessments (or to carry out scheduled ones), may require either additional assessment personnel or the use of estimation techniques using sample appraisals. Estimating assessments based on sampling information requires: (a) professional expertise in designing the estimation system and the sample, (b) computer hardware, and (c) possibly, a change in the codes governing tax assessment. Techniques for assessment estimation have been developed for real property tax assessment and may be readily adapted to individual country situations. These may be supplied to national organizations who in turn could provide technical assistance to local governments in installing the systems and procedures.

5. Tax collection systems are plagued by: (a) lack of aggressive collection activities, (b) poor recordkeeping and (c) lack of penalties and prosecution for nonpayment.

In order to introduce aggressiveness into the tax collection system it is necessary to introduce incentives for the tax collection staff. This may either be done by tying staff pay to some measure of productivity and collection or the use of a direct bounty system on the amount collected. Alternatively, the municipality may contract collection to a private agency on a percentage basis. All of these approaches may require changes in the civil service regulations or national legislation.

Poor recordkeeping contributes directly to the low rate of prosecution for nonpayment of taxes found in many developing countries. Considerations discussed under item 3 above concerning tax information systems apply in the case of tax collection record systems. Particularly important is the

ability to identify nonpayment quickly and to provide information that will stand as evidence in prosecution.

The lack of adequate penalties for nonpayment and reluctance to prosecute can render the best designed tax system ineffective. Penalties for nonpayment of taxes need to be sufficiently severe to force compliance. Penalties need to be enforced quickly and surely with enforcement provided in an impartial and nonpolitical manner. The time required to clear tax cases through the courts should be shortened with provision for collection of interest on the amount owed. It appears that a coordinated approach is required which would: (a) improve recordkeeping, (b) provide sufficient manpower to pursue nonpayment and prepare cases for prosecution, (c) enact legislation to stiffen penalties (or enhance the commitment to enforce existing legislation), (d) enact legislation to separate the system from political influence and, (e) provide commitment on the part of the judicial system to prosecute cases quickly and fully. Clearly, the subject of enforcement is politically charged and difficult to improve without a high level of political commitment. Without it, however, improvements in other parts of the tax system cannot be effective.

User Fees

6. Local government officials often do not have a good understanding of which public services can be placed on a fee-for-service basis.

There is general lack of information on the part of local government officials about the opportunities for direct cost recovery in municipal public services. Whether a particular public service carries a user charge or is provided with no direct charge appears to be dictated largely by custom, often solidified in law. There is, however, tremendous variation among countries with respect to which services carry user charges. Training and information may be supplied to local officials to help them identify candidate public services for user fee application. General criteria for applying user charges to services include: (a) the service consumer receives an individual benefit that the nonconsumer does not; (b) the consumer is willing to pay for the service; and (c) the consumption of the service can be measured at the point of consumption. Where services that could carry user charges are mandated to be provided free, a change in national legislation may be required to allow for the imposition of user fees. The collection of information on different ways of applying user fees to different municipal services may best be handled through an international study or informational exchange. Information dissemination to local government officials is probably best handled through national organizations that would receive information from the international studies and translate them into local applications. This organization might also lobby for necessary changes in national legislation to allow for the imposition of user charges in certain services.

7. User fees in self-financing services may not be adequate to cover service delivery costs because: (a) rates charged are too low, and/or (b) participation rates are lower than anticipated.

Rates for user charges in public services often are set by the central government. These may be set artificially low initially. In addition, adequate rate increases may not be made as needed. The solution is to allow local service delivery agencies considerable leeway in setting and raising user charges for services.

The second problem, that of low participation rates in fee bearing services, is essentially a problem of predicting market behavior - knowing what demand can be expected at what price. The service delivery agency needs information and methods for predicting this demand. The service delivery agency may also need assistance in changing its service delivery mix, fee structure, and "marketing" when its forecasts prove inaccurate. This type of assistance is best provided by management consulting groups within a country who understand market behavior and specific markets. Service delivery agencies also require a certain amount of freedom to experiment with changes in service mix and fee schedules to improve consumer participation.

8. Local governments often require considerable assistance in setting user fee schedules particularly where multiple objectives are incorporated in the pricing structure.

The pricing mechanism of public services is often used to meet several different objectives. Beyond the mere recovery of cost, pricing can be used to transfer income and to affect demand and consumption patterns. Local

governments require assistance in: (a) selecting appropriate fee schedules, (b) design and implementation of systems for setting charges and collecting fees, and (c) monitoring the impacts of the pricing schemes. Assistance in these areas requires particular expertise in specific service sectors, (including consumer behavior) which can best be provided by national agencies that specialize in those services. Since such agencies may not have expertise in market behavior of consumers, outside assistance may need to be provided to them in the field of marketing.

9. Considerable revenues can be lost through theft of service and poor collection procedures in fee-for-service systems.

Safeguarding public services against "theft" can be a sensitive issue since public services are often considered a free good and theft of such services is not treated seriously. The obvious solution is to maintain strict access to the service, requiring payment at point of service delivery or strictly metering the service "consumption" in some manner. If fee-for-service systems cannot be so safeguarded, the municipality may consider either (a) transferring the service to the private sector, or (b) changing the service to a nonfee bearing service, supporting it through tax revenues.

Collection procedures are at issue when the service is provided in advance of payment, such as water and electricity. Arrears are often allowed to mount and prosecution may be nonexistent. The solution is likely to be a combination of actions: (a) aggressive collection, (b) establishment of very explicit payment deadlines, (c) financial penalties for late payment, (d) service cutoff for nonpayment, (e) high charges for

reestablishment of service following cutoff for nonpayment, and (f) legal action to recover arrears. Depending on specific problems of individual service agencies, one or more of the actions may be appropriate. Local governments will likely need assistance in selecting and applying these procedures. They may also require changes in national legislation to allow some of these actions. It may be possible to combine billing systems and collection procedures for some services (such as is done in Colombia) to increase efficiency and multiply the impact of the cutoff penalty. Needed technical assistance is probably best provided by a national organization designed to assist local municipalities.

NonTax Revenues

10. Local governments often do not use all of the licensing authority granted to them by law.

As in the problem of underutilization of taxing authority described above in item 1, many local governments similarly do not use all of their powers to "sell" licenses to raise local revenues. In addition, local governments often do not charge the full rates they are entitled to under law. The solution to this is the same as that proposed for underutilization of taxes above: information provided to local governments to identify missed opportunities and technical assistance in developing new licensing systems.

11. Licensing systems are plagued with poor recordkeeping and enforcement.

A licensing system has to keep track of who engages in a licensable activity and who has paid the license fee for the right to engage in that activity. Since license fees are typically small, it normally does not pay the municipality to maintain an elaborate record system of payment. Rather, license certificates or tags are issued which are to be displayed openly by the licensee. Although simple and straightforward, this system is not used by many local governments in developing countries. Furthermore, enforcement of licenses is often lax so that operating without a license carries no real fear of penalty. A contributing factor to lax enforcement is the proliferation of different licenses and the small fees charged for each license. Local governments may benefit by reducing the number of types of licenses issued and raising individual fees. This would reduce

administrative and enforcement costs. Assistance can best be provided by national organizations responsible for helping local government administrators. Such organizations need to have close familiarity with local government licensing and provide: (a) models of effective licensing operations and (b) assistance in selecting which licenses to upgrade.

12. Local governments often do not utilize cash balances in municipal accounts to earn interest revenue.

Local governments often run sizeable cash balances in municipal accounts that could be earning interest for the municipality if invested elsewhere. Three main factors contributing to this include: (a) lack of legal authority, (b) lack of appropriate (usually short-term) investment opportunities, and (c) the generally conservative nature of local government officials. The first problem can only be addressed by changes in national legislation. The second may require special action by central government financial institutions to create special programs. In some states in the U.S. there exist credit "pools" in which local governments deposit and borrow funds on a short-term basis. Similar institutions have been proposed for developing countries, but would work well only if cash surpluses and deficits were roughly balanced. The need for such facilities would be justified where other institutions proved inadequate and where the volume of need was sufficient to cover the cost of setting up the facility.

To encourage local officials to invest short-term cash surpluses in existing institutions requires (a) information on investment instruments available to short-term depositors, and (b) knowledge on the part of local officials about how long their money can be tied up. The former is most

easily handled by marketing programs of financial institutions seeking depositors. The latter requires assistance in cash management, logically provided by local management consulting or accounting organizations.

13. Many "profitmaking" public enterprises of local government are actually unprofitable if all costs are counted.

Local governments may operate commercial enterprises (beyond the traditional public services) to generate additional income. Many of the costs of these enterprises are "hidden" (government personnel, equipment, land and capital and foregone taxes) in that the enterprise budget does not include costs shared across agencies (motor pools, central accounting, etc.). Secondly, depreciation on capital equipment and facilities are often not considered, further underestimating the true costs of the enterprise. Since local government officials who promote such enterprises are often not businessmen, they rarely appreciate these considerations. In short, they need assistance in cost accounting methods and in assessing the value of inputs which are hard to determine (e.g., value of government owned equipment). This can be done most directly by organizations which audit local government accounts. These organizations may, in turn, need assistance in developing proper accounting for commercial ventures.

14. Internal borrowing among municipal accounts often obscures the deteriorating financial position of the municipal General Fund and depletes resources in the debited accounts for expansion and renewal.

Local governments often borrow from revenue generating accounts (e.g., housing, water that may run surplus cash balances) to offset deficits in the General Fund. Since the General Fund may be in perpetual deficit, there may

be no real chance of repaying the loan. The cash surpluses are often funds needed for renewal of the revenue generating service structure and not true surpluses. Further compounding the problem is that the availability of surplus cash relieves the pressure on local officials to raise taxes or other revenues, worsening the General Fund situation.

The direct solution is to prohibit interfund borrowing or to require payback within the fiscal year. In addition, future commitments of surpluses needed for system renewal and expansion need to be safeguarded, perhaps in severe cases, placing them out of reach of local officials. In cases where genuine surpluses are produced (an amount beyond operating costs, debt service and expansion needs), mechanisms may be developed to put that surplus to good use. However, accounting systems need to be adopted that can determine when such genuine surpluses occur. These issues are best addressed through national legislation and accounting practices mandated by the national government. Outside technical assistance may be needed by central government agencies responsible for developing these codes.

Borrowing

15. Local governments need better access to credit for large capital investments in revenue generating services.

Access to credit is a function of having credit facilities available and the ease with which local governments may borrow. In some countries, credit is highly restricted, particularly for smaller municipalities. In places with available credit, the borrowing procedures may be so onerous and drawn out that local officials are discouraged from applying. On the other hand, credit programs must operate on a sound basis with careful screening procedures. Local officials need better information on what sources of credit are available and assistance in determining whether borrowing is the right course of action. They also require assistance in applying for loans, particularly where procedures are complicated. This assistance is most readily provided by the credit institutions themselves.

16. Local government credit programs often operate as "giveaway" programs with little serious attempt to secure repayment.

Some credit programs are transformed into thinly disguised grant programs when repayment of outstanding loans is not pursued. This not only depletes the loan fund but undermines the principle of obligation which underlies all systems of credit. There are a number of steps that can be taken to preserve, or restore, the integrity of loan programs. Credit authorities, at a minimum, can link future loans to past performance (not unlike the system of municipal credit ratings in the U.S.). Loans can be better screened for repayment potential. Increased tax revenues may have to be pledged to cover debts if revenue projects are not successful. Debt

repayment may be phased in gradually rather than suddenly to allow municipalities time to develop experience with cash management and user charge collection. Mechanisms for forecasting repayment problems need to be built into revenue projects. When repayment problems occur, credit agencies should respond quickly and be ready to provide assistance to their clients. In short, the credit agencies should act like bankers.

The main targets of intervention are the national credit institutions which need to upgrade their credit management. This is probably best done directly by international technical assistance, particularly when combined with an infusion of loan capital from international donors.

17. Local governments need mechanisms for assessing their financial ability to incur debt.

Most local governments operate with ceilings imposed on the amount of debt they can incur, usually set at a percentage of local government revenues or tax base. Local governments need, however, tools to assist them in assessing their individual abilities to manage long-term debt and tools to assess the impact of capital projects and debt on the financial position of individual municipalities. These tools may be either in the form of ongoing technical assistance supplied to municipalities by national organizations and/or financial models that municipal treasurers use themselves. This requires analytical models and systems of information on revenue base, collection efficiency, expenditure patterns and obligations. Such models could be developed on a country specific basis and introduced by a technical assistance organization or a credit institution.

18. National credit institutions present an underutilized vehicle to provide technical assistance to local governments.

Municipal credit programs present a natural opportunity for providing assistance to local governments in improving financial management. Credit institutions not only deal directly with finance offices and financial issues of cities, but they also exercise leverage over those municipalities. Quite simply, they can link improvements in financial management practice to the granting of loans, improving chances of repayment and overall financial management at the same time. Adding technical assistance to loan programs undoubtedly raises the costs of such programs. However, the improved performance in repayment should compensate partly for these costs; the balance may be recovered in higher loan fees or recovered directly from municipalities (who should have higher revenues because of the technical assistance). Indeed, payment for technical assistance may even be done on a contingent fee basis - payment is based on the amount of improvement in revenue generation (a practice used by private management consultant firms in the U.S.).

Government Transfers

19. Central government transfers to local governments need to be predictable from year to year.

Local governments cannot quickly change their expenditure patterns to accommodate fluctuating revenues year to year. Central governments must recognize the need of local governments to have a stable revenue base and place their transfer programs on a predictable footing. The grant pool must be readily predictable and the mechanisms used to distribute funds must be easily understood by local officials. Formulas used to calculate amounts for individual municipalities should be straightforward and based on data accessible to local governments as well as central government agencies. Where ad hoc grants are used, the central government may want to establish two grant pools - one that obligates funds by a predictable and set formula, and one that is reserved for ad hoc disbursements. To achieve these conditions, changes to the central government transfer system most likely will need to be made at the national level.

20. Central government program grants often impose long-term costs on municipalities that are not anticipated.

Central governments often award grants for programs targeted at special capital investments or socioeconomic development projects. Often project capital costs and startup expenditures are covered in the grant, with recurrent cost left to the municipality. Such projects, if they do not generate fees or lead directly to improvements in the revenue base of the municipality, can place a financial burden on the community. Oftentimes, such projects are simply abandoned when the grant runs out. The problem is

exacerbated by the fact that the recurrent costs are often incurred well after the project has been started, which may be of little concern to the administration which accepts the project. The solution is two-fold: (a) to make explicit the recurrent costs of all such grant programs and (b) compel local implementing agencies to identify sources of revenue to be used to meet these costs. These actions are best carried out by central government agencies that administer program grants. When such programs are underwritten by international donor organizations, these considerations can be made part of the funding agreement.

21. Local governments are often not aggressive in pursuing their rights with central government grants.

Although the amount of grant funds available to a municipality is determined by the central government, there are several activities that municipal officials can take to improve their positions. First, they can develop staff expertise in grantsmanship - essentially, staff members who know what grants are available and how to get them. This is particularly relevant where there are numerous grant programs with specialized criteria and application procedures. Secondly, municipalities can monitor the formulas used to disburse funds and even maintain their own data to challenge central government estimates. This is particularly relevant in countries with poor municipal level data and where there is considerable room for negotiation. Developing these capabilities can best be done by national organizations that provide technical assistance to local governments.

5.1.2. Expenditure Control Administration

22. Authority for providing revenue generating public services is often taken away from local governments, leaving them with only services that require large public subsidy.

There is a trend in a number of countries to remove from local jurisdiction the provision of revenue-generating service and placing these services under a local or national parastatal authority. This not only removes potential revenue sources from the local government, but also removes the opportunity for combining administrative activities and concentrating management talent. It also frequently sets up competition between the local government and the parastatal as each may expand into other service delivery areas. This competition may also extend to competition for skilled staff and even for credit.

The creation of parastatals to deliver public services is usually justified on grounds that local governments are not capable of running efficient revenue generating services. Since these services often involve debt financing for capital construction, the lending agency often presses for the creation of a separate authority. There are obvious tradeoffs involved in the parastatal vs. local government service delivery. Indeed, parastatal may be an efficient vehicle for introducing improved management techniques into local governments, if the techniques can be transferred. Further study needs to be carried out on the long-term impact of the different modes of local service delivery before conclusions can be reached about which ones are preferred under which circumstances.

23. Administrative costs of local government tends to rise faster than service related expenditures and faster than service productivity.

Although it is difficult to calculate all administrative costs in local government operations, indications are that these costs tend to be one of the fastest rising components of local government expenditures. These costs rise because of salary inflation, growth in number of employees, and new functions added to local government. When functions are taken away from local government, however, administrative costs conversely do not go down. Since administrative costs of public service delivery are often hidden, it is difficult to maintain a sense of how much administrative "overhead" is actually being borne by the public service.

Several alternative interventions would help control this situation: (a) setting limitations on the amount, or percentage, of administrative costs that make up local government expenditures, (b) reducing total administrative costs by combining administration of certain services, (c) shifting administrative positions to service delivery line positions, and (d) implementing more effective cost accounting systems that capture the various costs associated with each government activity. Additional efforts should be made to trace administrative costs so that they can be monitored. These interventions will likely involve both changes in local government regulations and technical assistance to local governments to implement the suggestions. Combining of administrative functions of public services may require approval or cooperation of national ministries depending on the lines of supervision.

Service Delivery Costs

24. The long-term costs of providing public services are usually ignored in setting urban growth controls particularly with respect to squatter settlements.

The costs of providing public services to the urban population depends a good deal on the physical location and density of the population. It also depends on the extent to which the physical structure has to be altered to accommodate service systems. Much of the urban population in developing countries live in squatter settlements. In an attempt to discourage such settlements, developing country governments often withhold public services, with little effect on their growth. "Retrofitting" such communities with public services is costly since these areas were permitted to develop without any concern for public services (particularly physical infrastructure).

Since it is clear that squatter settlements will continue to grow, local governments need control practices that will channel such growth into settlement patterns that can accommodate service systems efficiently. Recognizing the inevitability of squatter settlements, local government may designate settlement areas and even provide some minimal services to attract squatters to locate there. Such incentives may range from simple cleared land with access roads to fully serviced lots.

Developing such interventions requires first a recognition that squatter settlements need to be controlled and serviced rather than ignored. Secondly, local governments need assistance in establishing a program to channel growth that is more aggressive than traditional planning controls

and more extensive than individual housing sites and services projects. Since some countries have many cities with such urban growth problems while others may have just one, a regional rather than national technical assistance program may be called for.

25. Municipal service delivery agencies frequently do not know the true extent of the demand for their services.

Public services in developing countries are often severely rationed so that demand is never met and its extent frequently never known. To know the demand for public services requires one to know the size and composition of the client population and the distribution of need within that population. This "need" then is matched against some standard of service to indicate demand.

Because of generally poor information on population numbers and characteristics, LDC local governments do not know the true demand for public services. Not knowing the true demand for services, service agencies have no basis for choosing cost-effective alternatives among service delivery mechanisms. Secondly, they cannot forecast impacts of changes in services, service fee structures, or future investments.

The problem is general to all municipal services and is best approached by developing better information on the municipal populations. Since all national governments conduct population censuses, systems should be developed to transfer city specific data back to municipal governments for use in service delivery planning. Census data will probably need to be supplemented with more frequent (and more focused) population surveys conducted by, or for, the local governments. These may either be done by a

national organization or by local governments with technical assistance. To conserve resources, such surveys may be done on a sample basis and combined with tax base surveys and market studies for fee-bearing public services.

26. The level of public services provided is often not well matched to demand.

The lack of fit between level of services provided and demand has several cost impacts. A level of service greater than demand wastes resources and, in a fee-for-service system, overprices the service, reducing the likelihood of adequate participation to recover costs. Too low a service level similarly may not find enough "buyers" for fee-bearing services, resulting in inadequate cost recovery.

The solution to this problem is to maintain accurate information on level of demand which normally is achieved through service "marketing" studies. These are called for whenever new public services, or changes in service level, are contemplated. These are best carried out by personnel trained in market studies. For larger municipalities these may be conducted by specially trained service agency staff. For smaller cities, they are likely to be carried out by a central government agency or a private consulting firm.

27. Local governments often do not take advantage of demands for increasing levels of service to impose user charges.

Local governments experience great opposition to imposing user charges on services that residents already have been receiving free or at a greatly subsidized cost. The best opportunity for introducing user fees on such services is within a service upgrading program where residents will receive

a higher level of service. The user charges may be based on full or partial cost recovery of the systems improvements. Alternately, it may be tied to an entire revamping of the service system financing.

Service delivery planners need to be made aware of (a) the opportunities for imposing user fees when services are upgraded and (b) mechanisms for introducing such fees. Experience shows that public education is a powerful tool for increasing the demand for higher levels of service and thereby increasing the opportunities for imposing user charges. Educating service delivery planners requires technical assistance and information from national agencies serving local government (or specialized agencies serving particular service sectors).

28. Increased output or productivity in public service delivery is seldom an objective in local service delivery decisions.

Monitoring productivity in service delivery requires a focus on the services output and/or impact. Service delivery agencies typically are concerned with system inputs (resources, personnel) to the exclusion of services actually delivered or their impacts. This lack of attention to service output has several consequences. First, it makes it impossible to apply cost-effectiveness criteria in judging alternative means of providing services. Second, it makes it difficult to determine whether increasing service delivery costs are a function of increasing levels of service delivered or to other factors such as inefficiency, inflation, etc. Third, it hinders fee-for-service approaches because the service providers do not pay attention to the quality of the service output that they are "selling" to consumers. Quite simply, fee-bearing public services are businesses that

must satisfy their customers. These customers will pay for water delivered and garbage picked up; they do not pay for empty pipes or idle garbage trucks.

To solve this problem requires a fundamental change of attitudes of officials charged with delivering public services. The creation of self-financing public service authorities has accomplished this by forcing these systems to satisfy a paying customer base and to keep costs under control. This suggests that the most effective approach is to change the incentive structure to force service delivery officials to pay attention to service output and productivity. This can be done by (a) introducing some element of direct user charge in every public service where it is feasible, (b) linking national grants or subsidies to service productivity measures, and (c) requiring reports on service delivery performance as part of local government reporting requirements. The determination of which approaches are most cost-effective under which circumstance requires further study.

29. Use of service delivery agencies as employers of the last resort has negative impacts on costs and productivity.

Overstaffing of public service agencies raises service delivery costs directly and lowers productivity indirectly. Productivity is affected several different ways: (a) public employees are almost always poorly paid (in an attempt to make scarce revenue stretch over more people) which encourages these employees to moonlight or engage in corrupt practices; (b) poorly paid employees are not highly motivated and, in fact, many often do not have a necessary function - this places added supervisory burden on the

administration; (c) devoting so many resources to staff salaries often leaves little for needed equipment and other support.

Since overstaffing is usually the result of national policy, it is difficult to reverse. Perhaps the best approach is either (a) channel the excess personnel into highly productive positions (actual deliverers of service) or (b) separate the employment program from the service delivery agencies. The second option would also help keep track of the time costs of providing services within each agency.

These types of changes may require changes in civil service regulations and, in some cases, agreements with labor unions. It will probably take a long time simply to force recognition of the problem. The most logical place to start is with introducing measures of service productivity (discussed above in item 28) which draws attention to the costs of overstaffing.

30. Public service delivery agencies do not make use of innovative ways of shifting costs from government to service consumer.

There are many ways of shifting the cost of public service provision from the government to the service consumer other than direct user charges. The first of these is the so called "privatization" of services which shifts the provision of service from the public to the private sector. When government costs for providing services are artificially high (as is caused by overstaffing of municipal agencies) privatization could significantly lower service delivery costs. In effect, the creation of self-financing service delivery authorities, or parastatals, is privatization of public services.

Another approach to shifting costs is found in urban land development in which the developer who profits from the development is forced to pay for infrastructure services and perhaps other services as well (e.g., open space). Ways of applying this approach vary. In the U.S., where land is usually developed privately, the private developer is forced to construct infrastructure to community standards and dedicate them to the municipality. Under land readjustment schemes in Korea, the landowners exchange some proportion of undeveloped lots for the municipality's construction of the infrastructure facilities. The principle, however, remains the same.

Another approach is to develop participatory, or self-help services, rather than one-sided delivery systems. These services require that the beneficiaries contribute their labor to the service delivery system and are most common in construction programs (housing, roads, water/sewer, schools, clinics, parks). Such programs may encounter resistance where local service delivery agencies are overstaffed and the agency's surplus labor is, in effect, competing with participants' labor.

Still another option where there is a highly developed private sector is to contract for services to a private provider whose incentive structure may differ sufficiently from public sector employees to effect cost savings. In urban areas where multiple private providers of the same service are possible, competition among providers also may reduce costs. Local government too can act as a competitor where the government itself "bids" against private firms to provide service to all or part of the urban area. The specific cost patterns may vary from the government contracting with and

paying directly the private provider to the individual service user arranging for and paying directly the provider.

All of these innovative approaches require fundamental redesign of service delivery approaches. They may require changes in national legislation and service agency regulation. At a minimum, service delivery planners and local officials need information on the alternative approaches and assistance to implement them. Since these innovative approaches are being tried in various countries, an international information network is needed. In addition, local planners need specific models and technical assistance in how to implement these approaches.

5.1.3. Management Support Systems

Implicit in many of the possible areas for improving urban finance through changes in revenue generation and expenditure control systems is the need for improvements in management support systems. These possible areas for improvement are discussed here in four headings: budgeting systems, accounting systems, information systems and personnel systems.

Budgeting Systems

31. Municipal budgeting systems are more oriented to central government requirements than to municipal management decisionmaking.

Although there are exceptions in most developing countries, municipal government budgeting systems are dictated by a central government ministry with budget account structures and procedures centrally determined. While this uniformity across municipalities is generally beneficial from a national planning point of view, it tends to engender an attitude that budgetary decionmaking at the local government level is only a matter of allocating funds across centrally dictated accounts. This focuses attention away from the potential management and planning uses of the budgetary process toward a compliance perspective.

Municipalities are at different levels across countries, of course, but some practical generalizations are possible. First, adequate budget control systems are a prerequisite to improving municipal finance. Methods for certifying expenditures as legally authorized include both setting requirements for one or more authorized signatures before an expenditure can be effected and post-audit review of all expenditures. Many municipalities already have adequate control systems, especially in the more developed

countries, and additional efforts may not be necessary except in countries where municipal systems are only now being established.

Second, municipal budgeting systems in fewer countries focus attention on the relationships between expenditure decisions and levels of output. In part this reflects the lack of attention to workload and level of service indicators discussed earlier. Even when performance type indicators are attempted, however, they often are not measured for the same level as budget accounts are kept. Thus, it may not be possible to tie the budget expenditure of a municipal department to comparable aggregate performance indicators that measure uniquely the activities of that same department. Budget system improvements then can include developing measures of activity levels, workload, and units of service delivered and making certain that these measures are at the same level as budget accounts that define the focus of expenditures.

Third, long-term municipal planning requires the ability to measure current baseline status and progress toward municipal objectives. For the budgetary system, this means the ability to relate expenditure decisions to planned changes in municipal conditions. For example, the current status of housing requirements and measures of projected needs for additional housing units and additional extensions of basic utilities to existing and new housing units constitutes a baseline against which the consequences of expenditures for these housing related services can be assessed. In a planning sense, what is the anticipated change in the baseline measures due to planned expenditures? Over time, changes in these measures provide a

basis for assessing whether or not the actual expenditures have achieved the desired changes.

It should be noted that many municipalities in the United States and other developed countries do not have fully implemented planning-oriented budgeting systems. The planning function is still a separate municipal function just as in most developing country municipalities. Interventions that could improve the situation, however, could be made. Most important would be training municipal officials in distinguishing among the control, management and planning uses of budgeting and in viewing the budgetary process as a vehicle for bringing together management and planning considerations. There is a severe lack of technical materials for these purposes, and the most effective interventions might be at the national level with assistance to the ministries or agencies responsible for local government training and with the preparation of training materials that are adaptable to a variety of country settings.

Accounting Systems

32. Municipal accounting systems are rarely oriented toward the support of budgetary decisions.

Closely tied with the discussion in 31 above, accounting systems also are primarily oriented toward controlling municipal expenditures to assure proper invoicing and adherence to legal requirements. Accounts are almost exclusively on a departmental basis with a strictly object of expenditure focus. That is, expenditures are recorded in categories such as personnel, materials, equipment and so forth with little or no ability to provide an accounting record of program related expenditures. For example, the department primarily responsible for housing will have accounts that capture the personnel and other costs associated with that department, but there is not likely to be any separate accounting of expenditures for the different types of housing related services provided such as construction, infrastructure, training for self-help projects, etc. Without accounts that capture these separate service activities, it is impossible to establish a basis for estimating the different cost levels for different types of services. Similarly, where housing related activities cut across different departments, there is rarely any accounting basis for combining costs.

33. Capital and current accounting generally are kept separately with no linkages between.

Both in developed, as well as developing countries, it is difficult to establish a cost basis for measuring the total cost of any particular municipal service. As noted in the section on expenditure controls, initial capital costs are planned and budgeted separately, often with little or no

thought about the future impact of recurring costs on the regular municipal budget. Furthermore, the current cost of any particular service, as measured by the budget accounts, is likely to exclude the annualized cost of capital investments related to that service or that service's share of general support facilities such as central vehicle fleet or fleet maintenance. The development of cost accounting systems designed to allocate the full costs of service to the appropriate service unit with a minimum allocation to central administration or overhead is a long-term process. However, the relatively young age of municipal systems in developing countries may make it easier to move toward cost accounting systems than in entrenched, traditional systems in older municipalities.

General improvements in accounting systems are more likely to result from national level technical assistance in training activities, training materials and from conditional requirements imposed on grant or loan recipients. In the latter category both national governments and outside donor agencies may insist on integrating capital budget information with current expenditure accounts. Similarly, requiring that accounting systems reflect the contributions of different municipal departments to the same project or service area would force a more integrated approach to accounting systems.

Management Information Systems

34. Budgeting, accounting and performance measurement activities need to be tied together at least conceptually into municipal planning and service delivery processes.

Previously discussed problems with revenue estimation, expenditure controls, service delivery performance assessment and budgeting and accounting systems are an interrelated set of problems that at least in principal need to be addressed simultaneously. While specific project by project interventions cannot take on the burden of reforming the information base on which municipal revenue generation and expenditure processes are built, national level interventions can increase the extent to which municipal officials view these different activities as interrelated. The temptation may be strong to design and impose centrally developed total management information systems on all municipalities within a country. A strictly top-down approach, however, is more likely to result in mere compliance behavior with municipal officials filling in forms as required but not making particular use of them in their own decisionmaking processes. Initial efforts would be better directed at teaching an integrated view of financial management and creating a demand for better information bases for decisions. This demand could be stimulated also by demonstrating the utility of integrated information systems for specific projects. Microcomputer based systems are particularly appropriate for project specific planning and management, and demonstrating their utility on a project basis along with training oriented toward the entire municipal

financial management process may stimulate the demand for more comprehensive management information systems.

Personnel Systems

35. Statting plans and personnel requirements analysis focus more on the substantive knowledge of specific service delivery areas to the exclusion of more general management concerns.

In developing organization structures and personnel requirements analyses, local governments tend to focus on the need for specific, substantive knowledge of service delivery problems on a department by department basis. With the difficulty of recruiting and retaining more general management oriented personnel due to competition from the national government, private sector firms and outside-the-country organizations, municipal department heads often are promoted up from within the ranks. While they have been hired primarily for their substantive knowledge (e.g., civil engineering) they may not have a background or have received the training necessary for a more general management position.

Two remedies are possible. First, in-service training of municipal managers can provide the type of management oriented training not provided for specific disciplinary or substantive backgrounds. Second, training of general municipal management personnel in sufficient numbers to meet the multi-sector demand would alleviate some of the problems. Current resource levels for municipal management training would need augmenting in most countries, however, to make these remedies possible.

5.2 Recommended U.S.AID Program

It is evident that there are a number of places to intervene profitably in municipal financial management systems. Indeed, almost any program aimed at the problem areas described above would pay off in improved resource mobilization and better public services. To translate the potential interventions into a program, we have applied the following criteria:

- The program should address problems that are most widespread and important;
- The program should address structural and institutional problems as well as symptoms;
- The program should address problems where likelihood of success is high;
- The program should have a built-in multiplier effect, leveraging the resources that U.S.AID commits to it;
- The program itself should have opportunities for cost recovery mechanisms built in; and
- The program should be consistent with other U.S.AID programs and policy initiatives.

Based on these criteria, four major categories of programs are recommended. These include: (a) assistance in strengthening national organizations which provide technical assistance to local governments, (b) development of tools (information systems, how-to-do-it models, technology, and training materials) for improving financial management of local government, (c) training programs to heighten understanding of the problems and transfer needed skills, and (d) research and information dissemination. The following presents these program recommendations in detail.

5.2.1 Strengthening national organizations to provide technical assistance in local governments.

To reach municipalities with information and technical assistance requires a technical assistance delivery system within each country. Since legislation and custom varies by country, these need to be country specific mechanisms. There are five types of organizations commonly found in LDC's that can serve this role: (a) a unit of the central government ministry charged with local government affairs, (b) a local government loan authority that lends money to local governments, (c) a government affiliated institute that provides training and/or technical assistance to local governments, (d) service agencies that deal extensively with local governments, particularly on cost recovery public services, such as water or housing authorities, and (e) public administration institutes with limited or no direct ties to governmental agencies. This last type is found extensively in Central and South America where U.S.AID was originally responsible for establishing or funding them.

We recommend that a set of U.S.AID recipient countries in different regions be selected in which candidate agencies are selected for strengthening as the local government finance TA units. The TA unit would have four functions:

- training of local government personnel;
- providing information to local governments in new approaches to financial management and service delivery;
- providing onsite technical assistance to help implement new approaches; and

- representing the interests of local government to other government agencies and providing analysis of changing legislation on local government operations.

The U.S.AID program also should support exchange of information among the participating TA units and foster the development of a permanent information network.

There are several ways to implement such a TA support program. The main options include:

1. a self-contained project that funds all development activities from a single source and maintains central control over project activities (this may be done regionally or on a worldwide activities basis);

2. a loose "federation" of individual U.S.AID mission projects in which U.S.AID/W provides country project design assistance and funds the multicountry information exchange; and

3. a piecemeal approach that introduces elements of the program into other urban projects as opportunities arise.

In addition, for any of these options the program may be linked to U.S.AID loans in the urban sector, making the loan contingent on undertaking the development of the TA program. Alternatively, U.S.AID many join forces with the World Bank or other regional development banks (who make more urban loans to LDC's than U.S.AID) to incorporate the concept in their urban loan programs.

The success of the Local Water Utilities Administration in the Philippines in tying together loans and financial managment improvements suggests that a combined loan plus technical assistance approach is the most promising venue. This would argue for targeting local government loan agencies as the initial intervention point. At the same time, the program

should retain the flexibility to seek other intervention points where opportunities occur.

5.2.2. Develop specific tools for use by local governments to improve financial performance.

Four major categories of "tools" may be identified that would assist local municipalities to better manage their finances and service delivery systems. These include:

- diagnostic systems for analyzing and forecasting financial status and assessing impacts of proposed investments;
- models for improved tax and licensing systems;
- models of options for financing and cost recovery in public services; and
- models of budgeting and accounting systems.

All of these tools have been developed in some form in the developed world and in some of the LDC's as well. What is needed is a program that identifies these existing models, modifies them to make them more generally applicable and develops how-to-do-it descriptions of the models. The following paragraphs describe in more detail the specific applications that would be highest priority for development.

Diagnostic systems for financial status analysis.

Two types of models are needed. The first is a model that allows a municipality to assess its financial status and forecast that status into the future. This requires developing a combination of revenue and expenditure forecasting models, based on simple forecasting techniques already available. Such forecasts are basic to improved municipal financial

management. Without forecasting capability, local government financial decisions tend to be mere continuation of past actions,easily subject to political interference.

The second type of diagnostic model needed is one that allows municipalities to assess the impact of changes in the revenue and expenditure streams (e.g., proposed capital investments) on municipal financial status. This model would build upon the forecasting models. The models could be developed to run on microcomputers to enhance their adaptability to a variety of settings and levels of available equipment. These models also should be general enough to allow users to define their own variable sets.

Models for improved tax and licensing systems.

Two classes of "models" are needed within this category. The first class includes information systems that support tax base identification, assessment and collection monitoring. The second class of "models" are actually how-to-do-it guides for applying local taxes and licenses.

The major opportunity for tax information systems is in the real property tax system. Well developed prototypes of computerized information systems for real property tax systems exist in a number of countries. Being computer based has prevented them from spreading to some countries and to smaller cities within the more advanced developing countries. The advent of cheap microcomputers now makes possible the extension of computerized tax information systems to all municipalities in LDC's. This requires adapting systems designed for larger computers, designing appropriate hardware

configurations, writing needed software, and developing instructional guides.

It should be stressed that improved information systems alone are not sufficient to improve tax collections - the entire package of activities (information, assessment, collection, enforcement) must be approached systematically. This means that the information system models must carry with them designation of critical supporting elements to make the system work.

A program to develop information system models would have two phases: (a) developing prototype systems and (b) testing and modifying these systems in specific cases. The first phase could be accomplished in a relatively short period of time, building on existing models. The second phase requires implementing the systems in selected cities and would require approximately two years. Ideally, this phase could be carried out in conjunction with strengthening local finance TA units, who could serve to introduce the systems into demonstration sites and backstop their implementation.

Developing how-to-do-it guides for tax and licensing systems would be best done on a country-by-country basis, although many guides would be transferable to other countries with similar legal codes. These would be useful not only as reference guides for local officials but also as training materials.

A program to develop these guides may be integrated with the strengthening TA units program; it may be integrated with training programs; or it may be conducted separately. Obviously, integrating this program with

the strengthening program would produce mutual benefits and enhance the chances for successful implementation.

Models for financing and cost recovery in public service delivery.

For every municipal public service there are options for self-financing and cost recovery. Guide manuals for planners and officials spelling out the main options (with specific case examples) would be extremely useful as reference documents. We would suggest the development of a set of such documents covering each of the major municipal services. The document would cover:

- description of the services and the major ways it can be provided;
- differing levels of service and support requirements for each;
- cost elements in the differing service delivery alternatives;
- alternative financing mechanisms for the service; and
- cost containment and user charge practices.

We would suggest that the guide manuals be based on case studies of actual practices in LDC's, which should take approximately 18-24 months to complete.

Models of appropriate budgeting and accounting systems.

The long-term objective of improved budgeting and accounting practices in LDC municipalities is to provide systems that are useful both for day to day budget execution and for management planning. Existing municipal budgeting practices and accounting support systems in LDC's are primarily oriented toward providing retrospective information about expenditures that already have occurred and providing some sort of voucher or invoice control to prevent unauthorized expenditures. Training materials that present a

management and planning orientation are required first to orient municipal managers along those lines. Technical assistance to strengthen national organizations as discussed above in section 5.2.1. should include these management and planning perspectives on budgeting and accounting.

The second recommended step is the development of specific budgeting and accounting models. These can be primarily adapted from existing developed country practice and literature. These models should provide for inclusion of workload and performance information as well as traditional financial information. Accounting models for measuring, or at least estimating, the full cost of municipal services should be adapted as part of an integrated system. These models would reflect not only the direct cost but also the current value of capital investments, the contributed value from central support units, and the current recognition through depreciation of required future investments. These full cost models could help prevent erroneous interpretations of a favorable current cash balance in a service account for an excess of funds.

We recommend that the training materials and technical assistance components be included as part of strengthening national organizations activities. The adaptation of budgeting and accounting models could proceed simultaneously, and would best fit in with specific prototype development followed by use in specific project settings. While inclusion of an entire municipal budget system would be desirable, it would be possible to work in service specific areas. If the latter course is followed, a "demonstration value" aspect should be included to encourage the extension of project

specific budgeting and accounting practices to other services or the entire municipality.

5.2.3. Training in Urban Finance

Training in local government finance is a scattered and generally haphazard affair. Most often the training that does exist is conducted on-the-job. Some countries do provide training of local government officials and training of accountants who serve local government.

In the area of urban finance, there are three levels of officials who require quite different types of training:

1. central government officials whose actions affect local government finance;
2. local government decisionmakers and service delivery planners who select and design specific systems; and
3. local government staffs who implement financial management systems.

The development of training programs for each of these groups needs to be tailored to their specific needs. Training of central government staff is aimed at increasing awareness of the problems and providing them with ranges of policy and program options. (The Economic Development Institute of the World Bank conducted such a course in April/May 1982 at this level).

Training of local government decisionmakers and planners is aimed at providing them with skills to actually design or select financial management practices and service financing mechanisms. It needs to be much more focused on principles of program design, specific program options and implementation. Training of local government staff requires technical skills training in carrying out specific job tasks.

Training of central government staff may best be carried out in national or international seminars. Training of local decisionmakers and planners is best done in national training programs, probably involving both centralized formal training and follow-up workshops, similar to the ERDM program in Ghana. The follow-up component can also serve as a mechanism for sharing information among local government officials.

Skills training of local staffs can be done through centralized training at national institutes or outreach training using satellite programs in regional centers within the country.

U.S.AID's role in meeting these training needs can be several, ranging from the sponsorship of seminars for central government staff to the funding of national training institutes. Since so little has been done to date in developing appropriate training systems in urban finance, we would recommend that U.S.AID funds be directed at training "infrastructure" (developing curricula, training trainers, setting up training systems) rather than direct support of trainees (with the exception of sponsoring the seminars for central government staff). We would not recommend the funding of individual trainees in formal degree programs in the U.S. unless specifically formulated programs are established for training the faculty of financial management training programs.

5.2.4. Research and Information Dissemination

It has become clear in our limited study that the major information network in municipal financial management exists primarily among a relatively small group of professionals and academics within and

affiliated with the World Bank. The largest body of printed information is contained in internal World Bank documents which have limited distribution. The Bank is moving to overcome this through providing training to host country decisionmakers (the 1982 EDI Seminar referenced above) and by support of the publications The Urban Edge and Urban Innovation Abroad which have been established specifically for information exchange among urban planners and officials.

Professional organizations such as the ICMA appear to have very limited penetration of developing countries and there does not appear to be good international contact among national professional groups in LDCs concerned with urban financial management.

As proposed above under section 5.2.1., support should be provided for information dissemination among local government TA units. It would appear to be cost-effective to link this with ongoing efforts of other organizations, such as The Urban Edge and EDI.

There are two categories of research that appear to warrant support. The first category contains research needed to develop the tools under section 5.2.2. above. This is largely "applied" research aimed at identifying prototype practices and modifying them for dissemination. These have been discussed at length above. A second category of research is aimed at policy concerns and is much broader in focus. Our study has turned up four major issues of such a policy nature that warrant futher study. These include studies of:

1. The long-term impact of assigning public services to parastatal agencies - particularly, the effect on financial well-being and administrative capability of local governments;

2. Identifying the factors which create productivity oriented local service agencies;

3. Comparative studies of the relative importance of various revenue sources in local government budgets and distribution of tax bases among local, state and federal governments; and

4. Cost/benefit studies of the "return" on investments in municipal administration and financial management improvements.

Footnotes

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15/ Bahl, Ibid.

Footnotes
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16/ Roy Bahl, et al., Strengthening the Fiscal Performance of Philippine Local Governments: Analysis and Recommendations Syracuse, N.Y: Syracuse University Local Revenue Administration Project 1981.

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26/ See Robert D. Lee, Jr. and Ronald W. Johnson, Public Budgeting Systems, (3rd ed)., Baltimore: University Park Press, 1982, Chapter 1. In Spanish El Gobierno y La Economía, Mexico City: Fondo de Cultura y Economía, 1979.

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6.0 Detailed Case Study Description

6.1. Abidjan, Ivory Coast

6.1.1. Rationale and Focus

Abidjan, the capital city of the Ivory Coast, is the site for two specific public management practices to be studied. The first practice is a computerized land registration system; the second is a betterment tax established to permit recovery of 50 percent of the costs of slum upgrading projects. As will be shown, these two efforts are in part interdependent. It was on the recommendation of the U.S.AID/RHUDO office in Abidjan, that these practices were chosen for inclusion in this study of financial management practices. The land registration system is significant because of its utility for allocating properties and improved property tax collection procedures, including the betterment tax. The betterment tax is significant because it permits cost recovery for activities previously subsidized in full by the Government of the Ivory Coast (GOIC) and, therefore, not only represents a method of revenue collection but also a significant departure in GOIC policy.

6.1.2 Background

To provide the appropriate historical and sociopolitical context for these two practices, it is necessary to understand: (a) the demographic characteristics of Abidjan, (b) the role of the municipality in terms of functional responsibilities for service delivery, revenue generation and

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expenditures, and (c) housing and land policy in the Ivory Coast. Following the French tradition, these latter two elements are predicated on a strong central government focus with, historically, little municipal function.

The 1980 population of the Ivory Coast is estimated at eight million, growing at an annual rate of four percent, 1.5 percent of which is immigration from neighboring countries. Abidjan is the center of urban growth with an estimated 1980 population of 1.7 million and an expected annual growth rate of seven percent. The most recent estimates for Abidjan indicate unemployment at 15 percent with 20 percent of the population earning below the minimum wage.

Like most African countries of French colonial tradition, the municipality per se has had very little authority or responsibility. Most service delivery responsibilities were met either by the central government or special parastatal organizations established to provide a specific service. Administration of secondary cities is largely the responsibility of the "prefet", a central government appointee. It was not until 1981 that a constitutional amendment was passed creating eighteen municipalities reflecting a new policy of gradual decentralization. The distribution of authority between the central government and these municipalities is in the process of being defined. Exhibit 6.1.1. provides a breakdown of services and providers with distinctions noted between responsibilities for planning, budgeting and delivery where applicable.

The municipalities are similarly constrained with respect to revenue generation. The municipalities cannot pass local tax laws; they can only apply central government tax laws. Thus, for example, the property taxes

Exhibit 6.1.1.

Service Responsibilities

(Primary Responsibility for Planning, Budgeting and Delivery)

Service	Level of Government		
	Central	Local	Parastatal
Infrastructure			
Markets	P,B	D	
Roads	P	D*	B, Construction
Water			P,B,D
Sewer			P,B,D
Electricity			P,B,D
Housing	P,B		D*,Construction
Solid Waste Collection and Disposal		P,B,D	
Land Development	P		B,D*
Transportation	P,B,D		
Telephone			P,B,D
Social Welfare			
Education	P,B	D*	
Social Affairs	P,B,D		
Health	P,B,D		
Parks, Recreation		P,B,D	
Public Safety			
Police	P,B,D		
Fire	P,B,D		
Rescue	P,B,D		
Administration			
Staffing	P,B,D		
Equipment	P,B,D	P,B,D	
Land Use Planning	P,B,D		
Civil Records	P,B,D	P,B,D	

* management/operation

are collected in the municipality by a Ministry of Finance representative with revenues transferred to the central government. The major revenue source for the municipalities is the market tax applied at the local marketplace and other fees and licenses. However, under new intergovernmental structure, cities will retain local property taxes in their own budget thereby increasing the percentage of locally derived revenues from the current 40 percent to approximately 70 percent of local revenues. Exhibit 6.1.2. provides an illustration of revenue sources for different levels of government.

In Abidjan there are ten municipal units or "communes" each with their own government headed by an elected mayor. These operate collectively for functions at the municipal level, but generally provide separate services such as operation of the communal market and solid waste collection. Thus, while the term "municipality" is used here, it implies the aggregate of the communes.

Central to the description of the two practices reported here - the land registration system and the application of a betterment tax - is a brief description of housing and land policy in the Ivory Coast. All housing policy is established by the President and historically has been construed as a policy of equity, defined as modern housing units for all. As observed by both U.S.AID and IBRD, this has led to costly solutions which resulted in serious financial distortions within the housing market. The most frequently used approach to improving living conditions in slum areas, for example, has been complete reconstruction or demolition of existing structures and replacement by new housing and infrastructure. Since the

Exhibit 6.1.2.

Revenue Sources

Source	Recipient		
	Central Government	Local Government	Parastatal
Taxes			
Value Added	X	collection	
Head Tax	X	collection	
Property Taxes			
Real Estate	X	collection	
Income Taxes			
Personal	X	collection	
Business	X	collection	
Tourist Development	X	collection	
Fees, Licenses			
User Fees			X
Market Fee		X	
Betterment Tax	X		
Privilege Licenses		X	
Administrative Fees	X		
Grants			
National	X		
International	X		
Loans			
National	X		
International	X		

central government has borne all costs of these programs, it has proved to be just such a costly solution. It has been socially disruptive as well, since, although there has been a marked increase in the housing stock in the past decade, the adoption of high housing standards, regardless of the financial capacity of the urban population, excluded the majority of those in need of shelter. As the IBRD has observed, "the cheapest units are affordable by only the top 50 percent of the population without subsidies ... with subsidies, the needs of the bottom 35 percent of the population cannot be met." An additional consequence of the subsidies has not only been growth in demand for housing but also for a full range of urban services.

Nearly 80 percent of all residents in Abidjan are renters or lessees. Nearly half of Abidjan's population (and nearly 80 percent below the median income level) are nonnationals; an estimated 85 percent of some of the neighborhoods are nonnationals. Prior to 1978, official policy denied nonnationals both private home ownership and access to public housing. Therefore competition for rental units is stiff.

The basis for the property tax is the actual use of developed land defined by its rental value. Therefore land must be officially developed to be taxable. In the official process, blocks of land are first prepared (subdivided with basic infrastructure) and then lots are allocated by the Direction Centrale du Domaine Urbain (DCDU) on a demand/request basis. If an applicant meets a series of application requirements, the "owner" has two years to develop and occupy the property at which time he may be given a title and taxed. The title registration process is carried out by the

Cadastral Services. If not developed the land reverts to DCDU. The offical development process assures home builders and lending institutions of secure property titles. However, much of the development in Abidjan, particularly in low income areas, is done through other channels. Irregular titles and boundary disputes often result.

The property tax collection process is important here, not because it constitutes a major revenue source for the municipality, but rather because it has recently become a partial means of cost recovery to the Government for housing development. Property taxes are legally applied only where there is a legal cadastre - a land registry. Similarly, a land registry is necessary for allocating land to applicants for development either publicly or privately as described above.

These relationships are central to the implementation of the Abidjan Urban Development Project and its provision for cost recovery. The project has three major components - sites and services projects, slum upgrading, and technical assistance. The technical assistance component, in part, was for the improved computerization of the land registry system. The slum upgrading program represents both a new approach to housing and infrastructure development in the Ivory Coast, as well as a means of cost recovery through the property tax and application of a tax on improvements - the betterment tax. Following a brief description of the data sources for this case study, the next two sections focus specifically on these two techniques.

6.1.3 Data Sources

Three major sources of information were used in preparing this case study. First, project papers, regional conference reports and other project documentation were reviewed both prior to the site visit and during its course. Second, personal interviews were conducted with representatives of the Government of the Ivory Coast. Third, onsite discussions with U.S.AID officials in Abidjan were held with the Low Income Shelter Program in particular and with respect to Abidjan in general.

6.1.4. Description of Practices Under Study

Computerization of Land Registration

Although the legislative mechanisms for a cadastral survey exisited long before independence in the Ivory Coast, by 1964, officials found it difficult to keep pace with rapid urbanization. A lack of clear records prevented the cadastral service from delivering land titles. At this point a new numerical system based on common coordinates was established.

Ninety thousand descriptive and estimative building files were created; almost 30,000 lots had been claimed. By 1972, all real estate titled dossiers were entered into a computer maintained by the Ministry of Economy, Finance and Planning in which the Cadastral Services unit is located. All data entry operations were originally performed by the Central Computer Servics Office. The system was intended to permit proper land registration, avoid property disputes and improve property tax collections. The Director of Cadastral Services reported that property tax collections in Abidjan

increased from 600 million francs CFA prior to the introduction of the computerization system to two billion francs CFA in the year following its application. The system also facilitates annual revaluations of properties. Because all lease agreements are recorded with Cadastral Services and subject to verification, it is relatively easy to track annual changes in property values throughout the city. Nonrental units taxable value can be computed according to rents in the neighborhood. A revised annual assessment can then be calculated, according to the age and use (principal residence, rental units, or business) of property by computer programs which have been developed in the Cadastral Service.

The hardware currently used for the cadastral registry is a Swiss Cadori computer and digitizer for recording new plots and revising exisiting maps. System inputs are permitted via IBM, TSO (Time Sharing Option) terminals, of which Cadastre has three which are linked to the computer of the Ministry of Finance. The users are encountering some difficulties with the system in that maintenance, parts, and continued programmming technical assistance are required from foreign sources. Thus, the system is not yet smoothly operational. Discussions are currently underway for international assistance in purchasing equipment which will permit total in-house operations.

A record of all properties including those not occupied was necessary for the Abidjan Urban Development Project to proceed. Assignment of property from new sites and services, for example, necessitated a land registry that would permit linking applicants/owners to properties. Under the aegis of the Direction Centrale du Domain Urbain (DCDU) a land registry

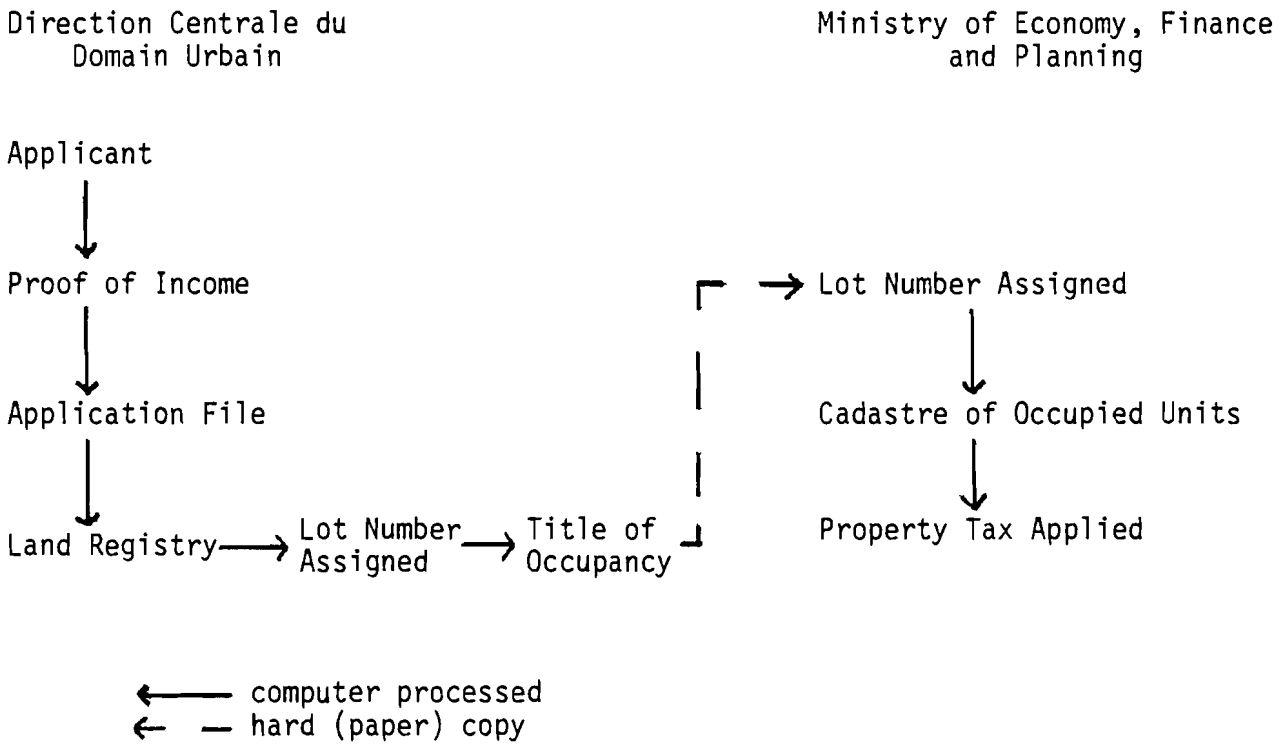
procedure was developed. Applicants for property apply to the DCDU and are screened on the basis of income (25 percent of income is calculated as a permissible shelter related expense and must be proven for a three month period prior to the request). When title is granted (the applicant is given two years to develop and occupy the land to receive a title of occupancy), a paper listing of occupants is provided to the Cadastral Service and the property tax is applied. Exhibit 6.1.3. provides a simplified illustration of the process.

Originally, the two systems were linked into the same computer system such that the Cadastral Service was afforded: (a) the status of a taxpayer regarding real estate taxes; (b) ownership records; (c) land use records; (d) legal status of a given lot; (e) subsequent updating; and (f) recording of registration data. However, the linkage between the DCDU land registry and the Cadastral Service system was formally broken due to concern for the DCDU being permitted unnecessary access to tax information and similarly, the Finance Ministry being permitted access to income information. Consequently, there are now two registration systems, both computerized, but linked by a paper transfer process.

The DCDU land registration system followed from technical assistance provided by the U.S.AID funded Abidjan Urban Development Project. Initiated in 1976, the project provided for two technical assistance positions: an engineer-manager to be responsible for the processing of applications for lots and properties and an engineer-programmer in charge of the management of the computerization of an urban data bank. Their responsibilities were to prepare new files from the data provided by the government; to update and

Exhibit 6.1.3.

Land Registration in Abidjan



set up the computerization of the files; to process the applications for land against selection criteria; and to train Ivoirian counterparts. The total cost of this effort was 3 to 4 percent of the total project costs (between $350,000 and $450,000), and required the training of clerical and keypunch personnel.

Despite these difficulties, and the severance of direct linkages with the Cadastral Service, the land registry maintained by the DCDU is a valuable tool for land use planning, property registration and property allocation. As of early 1982, approximately 2,000 of 10,000 requests for land had been satisfied.

Cost Recovery Through a Betterment Tax

A relatively unique characteristic of Abidjan Urban Development Project is that it provides for the partial recovery of the costs of slum upgrading, previously subsidized in full by the GOIC. The Project, as it has evolved, involves the upgrading of approximately 3,610 affected lots in four areas, two of which are within the municipal boundaries of Abidjan - Adjame and Pelieuville - and two within the urbanized area of Abidjan - Abobo Gare and Port Bouet II. These comprise a total of 211 hectares occupied by approximately 16,400 households or 200,000 individuals. Improvements to these areas include: fill, roads, drainage, water, sewerage, electricity, and community facilities such as elementary schools, playgrounds, meeting halls and markets. The costs of these improvements are to be recovered through the tax system and user fees.

The initial capital cost of installing the infrastructure will be recovered through a betterment tax which is collected with the property tax.

The operating costs of the services (sewerage, water treatment, and electricity) will be recovered through the normal user charges of the utlities. While it is the betterment tax that is of interest here, it is necessary to describe the more general aspects of the cost recovery procedures to provide an indication of the steps required for its implementation.

Two initial exercises were required to effect cost recovery of slum upgrading. First, it was necessary to conduct a census of existing conditions in the areas to be affected to determine: the status of land-ownership and tenure (as indicated taxes are only applied to occupied units lending futher importance to the land registry); current rental charges; and socioeconomic data on residents including sources and amounts of income. These latter two pieces of information provided the basis for estimating the economic impact of the upgrading activities on the residents. It was assumed that increases in property values would therefore increase property taxes which would be passed on to tenants in the form of higher rents. The results of this census indicated that the betterment tax, for example, was to be calculated so not to require a more than 10 to 15 percent increase in rents, considered the maximum the existing residents could afford.

A second requirement before implementation of the cost recovery procedures was an examination of the legal limitations on taxation in the Ivory Coast. Legislation of 1930 originally governing urban development permitted the government to recover costs of public works through the increased values of properties subject to expropriation or nearby and benefitting from the public works. However, a revision of those laws in

1963 retained only the recovery of costs through taxation of properties directly affected by the works but not neighboring properties which could also benefit. Therefore, a decree was passed in 1977 which permitted the assignment of internal infrastructure costs to all benefitting lots on a square meter basis and therefore permitted the application of the tax of up to 50 percent of the increased value of the improvements, equal to the amount of the cost of secondary and tertiary improvements. The taxe d'assainissement (sewer tax), a surcharge on the property tax, is the vehicle for recovering the infrastructure costs. The legislation, however, was necessary to allow the tax to be applied to upgrading areas and to identify the portion of the tax which would be used to repay the assistance loans. Two features of this legislation are significant. First, it represents the potential for a fundamental change in GOIC housing policy permitting upgrading rather than reconstruction. Second, of interest in terms of replicability, the legislation is stated specificially in terms of urban upgrading and more specifically includes only those areas included in the Project.

The legislation (Article No. 6 of the Decree of 24 August 1977) details the costs to be absorbed by the beneficiaries. These include:

1. The construction of infrastructure (earth work, sewerage, roadways and traffic controls, water and electrical installation, surface drainage and title clearance;
2. Engineering studies and construction supervision;
3. Administrative and general contractor charges;
4. Financial costs; and
5. Maintenance costs (until taken over by local authorities).

The share of these costs assigned to each property owner is calculated by dividing the total cost by the total number of square meters attributed to residents to determine the cost per square meter. The tax is then determined by the surface area of an individual lot. This represents (based on IBRD calculations) an average charge per plot of 4500 CFA ($20) per month, for both exisiting units and those that are to be built. The tax will be collected over a period of 20 years, with escalating payments every five years, at a rate which increases at interest rate equivalent to that of the original project loan.

Tax collection is the responsibility of the Direction des Recettes Domainiales (Direction of Public Land Receipts) and begins upon completion of construction. Since much of the upgrading is currently under construction, tax collection - cost recovery - has not yet begun in a major way. It is observed, however, that almost 100 percent of the tax will be passed on from owners to renters, consistent with initial project assumptions.

Implications/Generalizations

The potential value of the computerized cadastral system, the computerized land registry and the betterment tax for cost recovery of public projects is clear. In the case of the land registry, lessons can be learned from the payoff in terms of improved land distribution, land use planning and tax collection. Specific pitfalls include the constraints imposed by lack of trained staff, access to parts and maintenance, and political fractionalization over access to information. In the case of the betterment tax, the potential for replicability is perhaps best illustrated

by the fact that U.S.AID/IBRD hope to continue its application in the Secondary Cities Low Income Shelter Project, (an extension of that for Abidjan). As stated by Mr. Albert Ley of the Ivory Coast, "This proven method can be applied to economic development ... the fact that cost recovery is only 50 percent of the development costs constitutes an effective subsidy for economically weak people who earn a minimum wage". Prerequisites for success of such a mechanism based on the Abidjan experience are: (a) the availability of complete land use records; (b) careful assessment of the financial capacity of taxpayers/tenants to absorb the imposition of the tax; and (c) the legality of such a tax.

6.2. Philippines: Local Water Utilities Administration

6.2.1. Rationale and Focus

The Local Water Utilities Administration (LWUA) study represents a departure from other case studies in that it is focused on an organization other than a municipality. The LWUA is a government corporation established in 1973 to promote and to provide technical assistance to, and financing for locally constituted water districts throughout the Philippines. LWUA is of interest in our study principally as an institutional approach to introducing full cost recovery service delivery in locally managed public services. Secondly, LWUA is of interest as a central government lending agency providing financing to local service delivery agencies. In this, we are particularly interested in the ability of local agencies to manage debt, their technical assistance requirements as loan recipients and problems that have been encountered. In addition to examining the operations of the LWUA, the specific case of the water district serving Cagayan de Oro City was examined to study how a successful water district implements a full cost recovery service delivery system.

6.2.2 Background

By the late 1960's, it had become clear that local water systems in the Philippines were not meeting the needs of their communities in both the quantity and quality of water. A three-year study conducted in 1969-72 documented that, while there were abundant water resources in the

Philippines, local water systems were plagued by problems common to a number of developing nations. These problems included:

- Local water rates were unrealistically low and typically had not been increased in 10 to 15 years.
- Few systems could actually generate enough revenue to pay operating expenses.
- Water system capital costs were government funded, generally in the form of piecemeal appropriations.
- Maintenance and improvement of water systems were minimal.
- Free water, unauthorized connections and lax collection of water bills were widely tolerated.
- Water connections were usually unmetered, resulting in wasteful use of water.
- There was no established method for calculating water rates. Such rates established by local government were generally based more on political convenience than on actual cost of providing the service.
- Because of low operating revenues and lack of funds for maintenance and expansion, existing systems deteriorated faster than they could be maintained. This resulted in a continuing reduction in the level of service which led to the increasing refusal of customers to pay for the service.

If local water systems were to keep pace with the rising level of income and quality of life in the Philippines, massive investments would be required. The central government of the Philippines did not have the resources to upgrade local water systems on a wide scale, and experience had shown that past capital investments without maintenance deteriorated rapidly. The government, therefore, embarked on a program embodied in Presidential Decree #198, issued in 1973, to establish a system of locally operated water districts with a national support organization to implement the national policy. The two major points of the Decree were the

establishment of local water districts which would be fully self-financing, and the creation of LWUA to provide technical assistance, training and financing for local water district system improvements.

A water district is a corporate entity operating a water supply system in a geographic subdivision composed of one or more cities or municipalities. The decision to establish the local water district is a local option and is not compulsory; if a community so choses, it does not have to set up a water district. Local water districts are mandated to be self-financing with costs recovered fully from user charges. Under the LWUA program, water districts may be set up in communities with 20,000 residents or more. The minimum size of the service area has been lowered several times since LWUA was first envisioned. There is some question as to whether full cost recovery systems can be established in communities approaching this size.

6.2.3. Data Sources

Data for this case study were obtained from two types of sources. Personal interviews were conducted with a number of staff members of the Local Water Utilities Administration in Quezon City in December of 1981. Additional interviews were conducted with Cagayan de Oro Water District staff in Cagayan de Oro during the same time period. Additional interviews were conducted both in person and by telephone with advisors from the James M. Montgomery Company, consulting engineers who have provided long-term technical assistance to the LWUA from the time of its founding.

Written documents were provided by LWUA staff including quarterly and annual reports, program descriptions, general publications and articles prepared by LWUA staff for presentation at international conferences. Additional background documents were provided by U.S.AID/Manila, the World Bank and the Maxwell School, Syracuse University which is conducting a local government finance study in the Philippines.

6.2.4 Descriptions of Practices Under Study

LWUA is a government corporation which receives funding from two sources. Equity capital is provided by the Government of the Philippines. Loan funds, which are used to finance local water district projects, are secured from lending institutions. While LWUA is empowered to borrow from local Philippine sources, to date its loan funds have all come from international lending organizations, primarily the World Bank, whose rates have been considerably lower than those prevailing on the Philippine capital markets.

LWUA's overriding objective is to introduce self-financing local water systems of a high quality to local municipalities. Water systems for communities smaller than 20,000 residents are handled by another government program. The activities of LWUA may be categorized in six major functional areas:

1. Generating increased public demand for clean water systems through public education;
2. Establishing local water districts in municipalities and cities;
3. Providing technical assistance in management of local water districts;

4. Providing financing for water district system improvements;

5. Providing training for local water district staff; and

6. Assisting in setting up local water rates.

The following sections discuss the activities of LWUA in these major categories.

Generating Greater Demand for Improved Water Services

Making local water systems self-financing requires that consumers pay the total cost of constructing and operating the local water system. Since the heavily subsidized systems in the past had very low rates, the LWUA has had to generate demand for water at considerably higher rates than consumers were formerly paying. LWUA has faced several problems in doing this. First of all, it is difficult to prove the benefits of protected water systems other than improved convenience to consumers. Secondly, with heavy seasonal rains in the Philippines, at certain times of the year water is literally everywhere for the catching. This depresses demand for piped water, particularly in poorer communities, during that period.

LWUA has embarked on a public education campaign that seeks to instill an expectation that piped water is a necessary component of a rising standard of living. It is a broad-based campaign to make piped water a minimum acceptable standard. To do this, LWUA has initiated both mass media campaigns as well as educational campaigns in the public school system. Additionally, targeted campaigns have been initiated in water districts to create a bandwagon effect for households connecting to improved water systems (see the discussion of Cagayan de Oro City below).

LWUA's educational activities have grown in size and scope over the few years of LWUA's existence as the critical nature of public demand has become more appreciated. Without that demand, LWUA has found that local residents are simply unwilling to pay the water rates necessary for financially self-sufficient local water systems.

Assistance in Setting Up Local Water Districts

Water districts are set up by local initiative with a considerable amount of promotional activity by LWUA staff. To date, approximately 180 local water districts have been set up out of a potential 700 candidate communities. It should be noted that this number is considerably more than the initial program planners for LWUA envisioned when the LWUA program was designed in the early 1970's. LWUA has developed an eight-step process by which local water districts are formed. The process includes:

- LWUA staff conduct preliminary talks with interested local government entities,
- interested local governments conduct hearings to develop a consensus on whether or not to form a local water district,
- the local legislative body secures nominations for candidates for the water district's board of directors from the community,
- the mayor or governor appoints the directors of the local water district board,
- the local legislative body enacts a resolution to form a water district including the names and terms of office of the appointed board of directors,
- the mayor or governor approves the resolution and forwards it to LWUA,
- LWUA reviews the resolution to determine compliance with regulations, and
- if the resolution complies with the requirements, LWUA files the resolution and the water district is formally created.

The process is designed to insure local support and control of the water district but with careful supervision and consultation from the LWUA.

While LWUA is mandated to develop districts in 700 communities, its initial activities were targeted on 100 provincial urban centers following a planning study in 1975-76 to develop a priority list for water district development. The survey targeted the largest municipalities outside of Manila, which meant that the initial water districts formed tended to be larger municipalities with higher incomes, larger service areas, more dense settlement patterns and a large percentage of functioning water systems in the country. These are the municipalities where self-financing water systems are most likely to be able to be readily established. As LWUA moves to smaller communities, it appears to be more and more difficult to satisfy the self-financing requirement for the water districts. There is some speculation within and outside of LWUA that smaller water districts may require some form of ongoing subsidy from either local or national sources.

Assistance in Establishing Sound Management Systems of the Local Water Districts

From the very beginning of setting up a local water district, management advisors from central LWUA staff work with the local water district staff and officials. Each local water district is under the direction of a full-time General Manager who reports to the locally appointed board. The local water district is mandated to run in a business like manner. Central LWUA staff assist the water district in setting up the local staffing plan, accounting and financial management systems, water rate calculations and reporting systems. In cases where local management cannot manage the water district competently, LWUA can even place a LWUA staff

member in the role of acting General Manager (although this happens very infrequently). In addition to institutional development assistance, LWUA also provides water district staff training. While institutional development services are provided free of charge, training services are paid for by the districts.

For financial management, LWUA designed a Commercial Practices System for the water districts. This includes procedures for billing and collection, purchasing and inventory control, and accounting and budgeting. Central LWUA staff also maintains frequent contact with water districts, with LWUA's Commercial Division Staff spending the bulk of their time in the field visiting local water districts throughout the country.

The implementation of the local water district program occurs in two major segments. First is the the transitional period between the old municipally run system and the new water district system. It involves a program called "Early Action Works" which involves:

- repairing the existing system to reduce leakage and improve the quantity and quality of water,
- installing meters on all outlets,
- setting interim water rates,
- providing equipment for water district personnel, and
- initiating a businesslike relationship with the public.

The second phase of the program is to develop a well planned and comprehensive water system for the community which normally involves considerable expansion of the system. The long-term program involves:

- a comprehensive feasibility study and assessment,
- system design, and

- capital construction.

System development is normally phased in over a long period of time. The indepth feasibility study is the key to the long-range plan. In addition to a detailed study of the physical characteristics of the community and the existing system, the feasibility study devotes considerable attention to the "marketing" of water supply services. Marketing studies are carried out to determine the residents' ability and the willingness to pay for water services within the service jurisdiction. This determines the range of rates that can be charged and the prospective number of customers at the various levels of rates. This in turn determines the potential revenue of the water district and sets cost parameters for capital construction and operating expenses. A major outcome of a feasibility study is a loan ceiling established by LWUA which sets the amount of money that LWUA will lend to the local water district. This loan ceiling effectively determines what the local water district can do in terms of capital construction since LWUA prohibits local water districts from borrowing form non-LWUA sources if they obtain any lending from LWUA at all.

In the past, LWUA feasibility studies have been carried out by international consulting firms as a requirement on the loans that LWUA secured from international lending agencies. This has added to the cost of the projects and, from time to time, imposed unnecessarily stringent requirements on the design of local water systems. It now appears that the LWUA staff has sufficient experience and competence in conducting such feasibility studies that outside consulting firms should no longer be

required. (This determination has been made by U.S.AID which is providing additional loan funds to LWUA.)

LWUA provides design and construction management assistance to local water districts in carrying out their long-term capital improvements. LWUA, in fact, manages the tendering and awarding of construction contracts for these projects. Construction is carried out by private contractors who are awarded contracts under a formal bidding process of LWUA. The demand that LWUA has created for skilled engineers within the Philippines has rebounded on LWUA somewhat in that LWUA staff are constantly being hired away by private contractors to build water systems. This has created a considerable amount of turnover on the LWUA professional engineering staff.

Training for Local Water District Staff

To support the development of self-sufficient local water districts, LWUA has developed an extensive training program for water district staff. The following lists the separate training programs run by LWUA.

- Engineering "Cadetship" Training for university engineering graduates to give them specific "hands on" skills needed for engineering activities in local water districts.

- Technical training for experienced engineers in local water districts to improve their technical skills with new systems and equipment.

- Pre-Construction Seminar for water district staff involved in supervision of construction activities, including construction inspectors.

- Management Seminars for managers of newly constituted water districts.

- Financial Management and Control Seminars for the water district General Manager and financial officers to familiarize them with financial control systems.

- Policymakers Seminars designed for board members of local water districts.
- Trainer Training Programs aimed at water district training staff.
- Water Well Drilling Inspector Seminars.
- Operation and Maintenance Seminars for O&M division chiefs, production chiefs, maintenance/service foremen.
- Operator Certification Program aimed at technicians and service personnel.

In support of its training program, LWUA has built a training center at its headquarters in Quezon City (on the outskirts of Manila) which contains a laboratory, a working model of a local water supply system, classrooms and workshops. This fully-equipped center allows LWUA training staff to conduct all courses in a "hands on" setting where the trainees can carry out actual operations in the training center.

It should be emphasized that the major thrust of the LWUA training program is to provide specific job skills to water district staff. Every skill required in the running of the local water district, from policymaking of the locally elected board to the repair of water meters, is covered in the LWUA training program.

LWUA has also recently embarked on an additional training approach which is to use established (and well run) water districts to provide more localized training in their regions of the country. Since the the population of the Philippines is spread out over a number of islands, establishing regional training centers at existing water districts appears to be a cost-effective approach to local water district training. The centers are being set up with grant funds from LWUA with ongoing costs met by training fees paid by the water districts whose staffs are being trained.

This is consistent with current LWUA policy in which training costs are met by the water districts themselves.

Providing Loan Financing to Local Water Districts

LWUA is essentially a specialized lending institution which makes two types of loans to local water districts. Short-term loans (for a period of up to five years) are made for the initial improvements to local water systems and the transition from the municipal system to the water district authority. Long-term loans (up to 25 years) are comprehensive loans for rehabilitation and expansion of water district systems. Both loans have an interest rate of nine percent per annum, which was established in 1974 and has not been increased since. As mentioned above, LWUA borrows money from international lending institutions (primarily the World Bank) and relends it to local water districts. It is too early to fully assess LWUA's performance on these loans since all of the loans carry with them an initial grace period of several years. Similarly, LWUA may capitalize the first several years interest on its loans to local water districts, so it does not have a great deal of experience in collecting payments from local water districts.

There are, however, some potential problems on the horizon. Some local water districts have been delinquent in making their loan payments, which has created a potential cash flow problem for LWUA which must begin to make major repayments on its international loans in the coming years. Slow payments on the part of local water districts seems to be primarily a result of over-optimistic forecasts of the rate at which subscribers would connect to the systems, delays in completing construction projects which delay

subscriber connections and high disconnect rates during the rainy season in some communities. LWUA has identified this potential cash flow problem and is taking steps to correct it. These steps primarily involve closer counseling with local water districts, rescheduling some debt of the local water districts and, in general, acting more like bankers -- i.e., getting the water districts to pay what they can. LWUA is also building up more experience in estimating construction time requirements and forecasting realistic rates of subscriber connections to the system. This experience is finding its way back into the feasibility studies which will produce more realistic assessments of debt capacity and repayment periods.

Assistance in Setting Local Water Rates

The setting of user charges is the heart of a cost recovery system. Consequently, the LWUA pays close attention to the rate setting process. There are a number of factors taken into consideration in setting the rate structure for local water districts. First, rates may vary between different water districts with the individual rates determined by the factors particular to each system. This removes a major constraint faced by many fee-for-service systems in developing countries where local rates are set nationally. Secondly, since full cost recovery rates are well above what consumers are used to paying, water districts must adopt a strategy for raising rates incrementally from initial rates to full cost recovery rates. Thirdly, the setting of rates depends in large part on an assessment of the ability to pay and willingness to pay of potential consumers in the service area. Fourthly, a sliding scale of rates is used which provides water at low cost to small residential consumers and higher rates to larger volume

consumers and different classes of consumers. Fifthly, rates reflect the actual cost of running the water district, including operating cost, capital costs and reserve fund requirements. Finally, the interaction between level of service and cost is well recognized in the feasibility and design stages so that system designs are often changed to meet lower ability to pay.

Water rates are a volatile subject and LWUA has not been spared in the political debate over higher water rates which have followed in the wake of LWUA's activity. Indeed, during one period LWUA was shut down for one month because of political outcry following substantial rate increases in a number of water districts. This was followed by a Presidential decree limiting rate hikes to 60 percent at any one time.

Since user charges are the sole source of revenue for local water districts, the only way to increase revenues is to increase the number of consumers and/or the water rates. Where forecasts of the number of participants have been over optimistic, water districts have been forced to raise rates more than anticipated to cover revenue shortfalls.

In determining what rates can be applied, the water district has had to deal with the twin concepts of ability to pay and willingness to pay. Using previous studies, the LWUA has determined that households have an ability to pay equal to an average of five percent of disposable income. On the other hand, based on marketing studies in watered districts, LWUA has determined that the willingness to pay equals, on average, only 45 percent of its estimated ability to pay. When the water district goes beyond the willingness to pay threshold, it experiences problems of high increasing disconnect and slowed new connection rates. This in turn has spurred the

water districts and LWUA to increase greatly its public education campaigns to raise the willingness to pay level closer to their targeted ability to pay for water.

Since water districts go through a period of development in which they go from a subsidized to a self-sufficient system, the rate structuring is somewhat flexible to accommodate differing abilities and schedules to meet the self-sufficiency threshold. For some "marginal" water districts, the reserve requirements may be waived and interest due capitalized during the engineering and construction stages in order to allow the district time to develop its consumer base and avoid abrupt increases in rates.

The foregoing has described the overall operations of the LWUA with respect to local water districts in the Philippines. In order to better understand how the system works at the local level, the case of Cagayan de Oro City was also examined. The following section presents information from that water district with particular emphasis on the initial problems of implementing the self-financing concept.

6.2.5. Experience in Cagayan de Oro City Water District

Cagayan de Oro City Water District (COWD) was the first water district established in the Philippines. By all accounts, COWD is one of the best managed and most successful water districts in the Philippines. When the water district was formed in 1974, the water utility was under the authority of the National Water Works and Sewerage Authority (NAWASA). The system had approximately 3,000 customers and was producing approximately 3 million gallons of water per day. While the system was metered to a large

extent, fully 80 percent of the meters were not working. At present the system has 16,000 customers with an output of 5 million gallons per day.

The physical improvements in the system were made relatively easily with LWUA loans. COWD did, however, experience a number of marketing problems that are common to the development of cost recovery water systems throughout the rest of the Philippines. Once the refurbished and expanding system was in operation, applications for new service connections were well below the number projected. There were a large number of private wells in the COWD service area which essentially competed with COWD for customers. The initial connection fee of 1000 peso ($125) was too high for most prospective COWD subscribers. The COWD dropped the connection fee altogether, providing "free" service connection (with the actual cost of connecting included in the rate base). To further reduce the cost of tap lines from the household to the main, would-be consumers were given a bonus of 30 meters of installed pipeline free.

Initially, there was a considerable amount of red tape in applying for service connections which discouraged COWD customers. The office of the City Engineer, which processes applications, was persuaded to simplify the application procedure.

Water rates in Cagayan de Oro City became a political issue in the mid-1970's. Going from a flat rate of 3 pesos to a minimum rate of 10 pesos caused a public outcry which led the COWD Board to freeze the residential minimum rate in 1977 at 10 pesos per 10 cubic meters. This occurred at a time when energy costs were soaring for all energy users in the Philippines. Since the COWD was prevented by local officials from increasing its rates,

the water district concentrated on rapidly expanding its consumer base. COWD revised its water system development plans to target areas where low cost extensions of branch lines could tap new consumer areas.

The water district also embarked on a public relations campaign to increase the demand for participating in the water system. The water district produced official looking signs which restaurants fixed to their doors notifying the public that they were attached to a "safe" drinking water system. Competition among restaurants soon spread to local bottling plants (even those which had their own protected water systems). Workers complained about factories which did not have approved COWD connections. In short, COWD quickly raised the level of expectation through a clever and relatively inexpensive manipulation of public opinion. So successful were the combined strategies of COWD that the number of subscribers rose from approximately 4,500 in 1977 to over 16,000 in 1982.

COWD also endeavored to reduce its costs of construction and water wastage through use of a new type of pipe tubing in service connections and through a stringent metering enforcement policy. In addition, COWD paid very close attention to the productivity of its employees, seeking to maximize the ratio of service connections to employee . In 1980 while the national average for number of service connection per employee was 65, COWD had attained 149 connections per employee. The water district also sought to motivate employee performance by rewarding good performance through a number of different incentive schemes, providing bonuses and perquisites for high staff productivity.

COWD maintains a better than average collection rate among water districts (91 percent versus 80 percent across the country) and enforces its disconnection policy sternly. For example, in October of 1981, COWD had 350 new connections, 132 disconnections for nonpayment, and 85 reconnections.

Exhibit 6.2.1. shows the rate schedule for the COWD. As shown in the Exhibit, the rate structure varies by the size of connection, the quantity used and the type of user. In this way, COWD provides water below cost to small residential users, making up the difference on larger residential and commercial users of water.

Much of the innovation of the COWD system can be traced to the General Manager of COWD who is both professionally well trained and was already experienced in water system management when he took over the management of COWD in 1973. It is difficult to say whether such a productivity oriented approach would have been adopted by the water district under the direction of another person. It is notable that the structure of water districts and the regulations under which they operate permit such innovation. Indeed, the fact that local water districts operate as separate corporate entities forces them to adopt a productivity-oriented approach. The Cagayan de Oro City water district has been fortunate in some respects in that it has a sizeable population and has readily accessible and abundant water sources. However, the fact that it was prohibited from raising rates since 1977 has forced it into new solutions to maintain financial sufficiency. This has led the COWD General Manager to state that "there is no such thing as an inherently viable or a nonviable water district."

Exhibit 6.2.1.

Cagayan de Oro City Water District

Water Charges

1. Service charge for 10 cubic meter minimum

Connection pipe Size (inches)	Category of User: Domestic and Government	Industrial	Wholesale
3/8	P * 10.00	P --	P --
1/2	20.00	50.00	75.00
3/4	40.00	80.00	120.00
1	80.00	160.00	240.00
1-1/2	200.00	400.00	600.00
2	500.00	1,000.00	1,500.00
3	900.00	1,800.00	2,700.00
4	1,800.00	3,600.00	5,400.00

2. Commodity charge for all metered consumption in excess of ten (10) cubic meters per month:

P 1.00/cu.m.	P 2.00/cu.m.	P 3.00/cu.m.

(* 8 Pesos = $1.00)

6.3. Lages, State of Santa Catarina, Brazil

6.3.1. Rationale and Focus

Lages was selected for a case study on the recommendations of Brazilian government officials and staff of the Brazilian Institute of Municipal Administration (IBAM). Lages is noted by these sources as having an assertive and progressive municipal government and for the fact that it is one of the few municipalities in Brazil in which both the Mayor and Legislative Council are from a political party in opposition to the central government. This latter characteristic apparently has two consequences for Lages. City officials in Lages are somewhat in competition with central government and state of Santa Catarina officials for the political loyalty of the population, and Lages receives somewhat less direct assistance from central and state discretionary funds than comparable municipalities.

As a consequence, Lages has developed several programs for either maximizing revenue from their own sources or leveraging existing resources to maximize the level of services. Our site visit focused mainly on three features: (a) a computerized real property assessed-value information system; (b) a self-help housing development project (the Mutirao Project); and (c) several economic enterprise projects designed to generate increased rural sector income in order to discourage in-migration to Lages.

The overall case study focus was to understand the various ways in which a municipality, under resource constraints in part imposed by a semi-unfriendly state and central government, attempts to increase the use

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of available resources. In Lages, these attempts focus both on revenue generation and on the productivity of resource expenditures.

6.3.2. Background and Setting

Lages, with an estimated 1980 population of 180,000, is politically organized as a municipality with an elected Mayor, an elected 19 member Council, and 13 municipal departments with appointed agency heads. The three most important departments, in the view of the Mayor, are Finance, Education and Social Welfare (including Housing). Although the functions performed by Brazilian municipalities are similar to municipal functions in United States cities, the Brazilian municipality has jurisdiction and service provision responsibility over an area more comparable to a U.S. county. Thus, Lages government is responsible for the specific municipal center of Lages and seven other rural population clusters. About 30 percent of the municipality's population is in the outlying areas.

Brazil is a highly centralized administrative system; municipalities have few independent sources of revenue. Funds provided via transfer filter through the state governments. Primary local revenue sources are a real property tax, a five percent surcharge on professional services performed within the municipality and fees from permits, licenses, garbage collection, and so forth. For 1981, approximately 14 percent (CR $14 million) of Lages' total CR $1,020 million revenue came from its own sources. The remainder came from:

- CR $300 million: ICM (essentially a state collected tax on commercial activity, about 20 percent of which is returned to the municipality in which the commerce occurs).

- CR $50 million: ISS (similar to the ICM but on services)
- CR $280 million: Federal capital transfers (defined by law, not discretionary)
- CR $220 million: Credits and borrowing *
- CR $28 million: Other, unspecified

Lages and the surrounding area are relatively prosperous. Through the 1960's, the major economic base was timbering (for regional export to the construction of the capital city Brasilia). The Federal government supported reforestation through the early 1970's and a good pulp and paper business continues. Farming is the second basic economic activity. Lages also has a large commercial and service base providing banking and commercial support for the surrounding regions.

The municipality's developmental problems stem largely from a continuing growth of urban population in Lages proper (doubling every ten years until 1980), and variations in the fortunes of the timber and wood products industry that is dominated by nationally based corporations. More recently, the volume of Federal revenue transfers has declined due to the opposition party status of city officials. Thus, Lages has had to extend city services and deal with housing shortages for an expanding population base with a relative decline in a major revenue source.

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* Maximum debt payments are limited to five percent of the municipality's annual total budget or 25 percent of current expenditures.

6.3.3. Data Sources

The specific elements of the case study documented here were developed in a one week site visit to Brazil, three days of which were spent in the municipality and two days with a consultant and with staff of the Brazilian Institute of Municipal Administration (IBAM). Site interviews were completed with the Mayor and his two chief administrative assistants, the heads of the Finance, Planning, Agriculture, and Social Welfare departments, and four other staff members of the respective departments. Observational visits were made to the self-help housing project, a fish culture project and a cooperative agricultural development project.

Several documentary sources were useful in this case study report. Copies of the municipal budget, the tributary code for Brazilian municipal government, and a political presentation of the general philosophy of citizen participation (published by the party of the Mayor and majority council) were particularly useful. Copies of municipal planning documents, zoning maps and other city documents also were made available on the site visits.

6.3.4. Description of Practices Under Study

Three elements of Lages' financial management practices were examined. The first, a computerized real property assessment system, focuses on increasing one of the few revenue sources available for the municipality's discretionary use. The second, a self-help housing development project, focuses on leveraging a small amount of existing resources to produce a higher level of service per unit of resources. The

third element examined focuses on attempts by the Lages municipal government to reduce the growth in demand for urban services by encouraging rural development.

Real Property Assessment

The property tax assessment administered by Lages is described by city officials as a partially progressive system. Their description of the progressive aspects suggests an implicit analysis of the different types of property owners and their income status. A vacant lot in the city is taxed at one percent of book value; book value in turn is about 70 percent of market value. The addition of a dwelling or other building increases the tax by only .5 percent. The same property owner would pay an additional .1 percent for each separate developed property owned within the municipality. The higher tax (proportionate) on vacant versus developed property and the lower increment for additional developed lots are designed to discourage holding empty lots and to create incentives for developing the property, thus providing more dwellings.

Property values were established by a cadastral survey for which Lages received outside assistance. Property records from the cadastre are computerized, and property is reassessed annually. Reassessments are based on several elements:

- an analysis of sale transactions by area of the city;
- an analysis of municipal improvements by area of the city (streets paved, sewer and water lines extended, street lights installed, etc.);
- a detailed reassessment of sample properties by area of city;
- building permit records for new construction or improvements; and

- windshield inspections to note construction or changes not captured by the permit process.

Since most municipalities make little use of the property tax, relying primarily on Federal and state transfers, the habit of paying the property tax is not well established. City officials estimate that about 30 percent of property owners do not pay their taxes annually, and few legal recourses exist in Brazilian law. The municipality does not have the power to place a tax lien on property, but instead must file suit in a Federal court. Municipal officials in Lages indicated that there would be no point in filing suit since they are part of a minority party.

The instructive aspect of Lages' administration of the property tax is in two areas, a computerized base that permits rapid reassessment and the use of assessments to create incentives for development. Although advanced for many municipalities, the reassessment system depends basically on Lages city employees having a sufficient degree of training and on the development of a computerized system that supplies a uniform area and individual property code for collating information of the various types listed above. The computerized base makes it possible to extract individual property records quickly to take into account property specific or neighborhood changes and to apply uniform changes to all properties as general conditions change. The latter is especially important in a highly inflationary economy. A property tax system unable to make rapid and frequent reassessments would be quickly out of date with the inflation rates of an economy likes Brazil's.

The second innovative aspect of the property assessment system is the nature of the values placed on underdeveloped versus developed property.

Faced with rapid and steady population growth within the urban area, Lages uses the tax assessment system to place the highest (marginal) value on undeveloped property and a decreasing (in proportion to total) value as a multi-lot owner develops additional property.

Mutirao: Self-Help Housing Development

To provide a more rapid increase in the number of housing units, Lages has developed a self-help housing construction project on municipally owned land. Qualified participants are residents of the urban area for at least three years who do not qualify for any other government project (such as a federally built housing project). The land, a building materials "bank" or "warehouse" filled mainly with salvage material from municipal clearing and redevelopment activities, a municipally built brick factory, and technical assistance from 19 city employees are the city's basic investments in the project.

Participants are grouped into workgroups of ten families each. For the first week or two, all ten families work on ten structures receiving training in construction techniques from city employees. For this first time period, no one knows which house will be their's so there is a general incentive to do an equally good job on all properties. Individual, partially completed structures, are then assigned to families by lottery. As the individual family continues to construct the dwelling, materials are drawn from the brickyard or the materials bank with each withdrawl recorded by the family's name.

The total market value of a completed house is estimated at about CR $180,000. The actual cost of construction includes about CR $25,000 in

materials, an imputed value of CR $25,000 in labor, and a land value of about CR $30,000. The city holds a 20 year mortgage; in the first ten years of that mortgage the typical family repays about CR $25,000. Since most of the materials are salvage, the city estimates the full 20 year mortgage represents a breakeven point.

In attempting to develop a rough cost-benefit estimate, we were able to learn of two possible areas of cost underestimation by the municipality. First, the 19 city employees who assist in construction techniques are normally assigned to city public works and other departments. The time they spend in the Mutirao project is not separated, and no real attempt is made to estimate costs. Second, the brick factory is admittedly operating at a higher unit cost than a nearby commercial brick factory. Since it is only recently in full operation, staff of the Social Welfare department had not yet determined if it would become a paying operation, but they were reluctant to consider closing it in favor of purchasing bricks.

As of June, 1981, there were over 370 houses completed, 80 in progress and 2800 residents. The city estimated a need for approximately 3000 more units. Most families had within one to two years of completion extended the basic 6 x 6 meter unit into several modest rooms. City officials attribute the success of the project to two features -- the self-help character of the construction and a genuine mortgage relationship with the city. In contrast, the Federal housing project is heavily subsidized with no ownership provision. It was apparent that much of the citizen participation ideology of the party in power in the municipality was driving the Mutirao project, but the respondents to our interviews were realistically aware of

the current economic problem with the brick factory and of the need to set the mortgage price close to an estimated breakeven point.

Rural Economic Enterprise Projects

The first two elements of our Lages case study focus on revenue and service enhancement -- attempting to maximize the revenue generated by the property tax and increasing the level of housing services delivered per unit of resources spent. The third case study element focuses on three related efforts by the municipal government to reduce the level of demand for urban services by stimulating activities that provide better rural life alternatives. The three efforts include a fish hatchery project, a community cooperative farm, and coop markets for the sale of agricultural produce. The coop markets also provide an alternative source to commercial markets for food purchases by the urban poor. In that respect the coop markets are similar to a national program attempted in Peru in the 1960's for the same two objectives -- a retail outlet for small family farms and small cooperatives and an alternative source of food for the urban poor.

The fish hatchery project takes advantage of an abundance of unpolluted, cold water sources necessary for trout production. Outside technical assistance has been provided by a German private voluntary technical assistance organization and some hatchery employees have received training in U.S. northern states (Pennsylvania and Michigan). The hatchery is still in the development stages, but it has passed the critical point of successfully raising third generation hatchery fish.

The current demonstration phase is designed to show how an individual family farm can operate a small commercial fish hatchery with only start-up

assistance in the construction of facilities. Fish from the demonstration project are being marketed locally, and several jobs are being provided through the income generated. It is still somewhat early to judge the project a success. U.S. experience with trout hatcheries indicates that disease is a particular problem with the brown trout being raised. Rainbow trout are being introduced in anticipation of this problem.

The community cooperative farm project is being demonstrated on the outskirts of the urban area. At the moment, its objective is to demonstrate the feasibility of the cooperative project which provides a broader financial base for experimenting with new crop varieties and carrying out a more intensive cultivation cycle. Given its location, the current demonstration site is not affecting the rural/urban population flow. However, it has attracted interest, and plans are underway for starting similar cooperative farms near several of the other population clusters outside the Lages urban area. The municipality also has started a tractor rental program making more mechanized equipment available to the small, rural farmer. Operating costs, but not the original capital investment, are recovered through the rental rate.

The cooperative farm market venture was established at the time of our site visit in two of the seven rural population clusters. Currently the project consists only of a market location and minimal transportation assistance to help small farmers get their produce to these outlying markets. The objective is to provide a source for food purchases that will reduce the need for the rural population to journey to the urban area for purchases. Current commercial firms have little incentive to develop

commercial markets in these outlying areas. Although the markets are being used, there is no hard information being collected on whether rural residents make fewer trips to the urban area.

City officials seem realistic in their appraisal of the rural enterprise development projects. They are uncertain about the eventual fate of the fish hatchery and rural market efforts, but willing to continue to invest for an unspecified future time. They also volunteered without questioning by the site visit team a recognition of the need for some kind of economic evaluation of the projects at some near term point. The cooperative farm effort seems relatively assured of being an economic success in that participating families were growing much of their own needs and had found suitable markets for an increasing surplus. Given the site, however, it is unclear if the available market outlets in Lages proper would be as viable if the site were located in a more rural area. If the projects do not succeed in the outlying areas, however, the municipality's objective of providing an incentive for people to stay in the rural areas will not be met. City officials were clear that these projects are viewed as means, not as ends themselves. Thus, the city is not particularly interested in engaging in long-term enterprise activity.

Implications

The Lages case study provides useful insight into an expanded perspective on the role of a municipal government in controlling its own environment. In the developing country context, municipal governments often function under the sole guidance of central government agencies. Brazil is clearly on the more developed end of the spectrum, but the role of the

central government is not less evident. Driven primarily by its "outgroup" status, Lages has initiated several activities that are replicable in their generic form if not in specifics.

The particular property assessment system is a model many developed country municipalities could emulate. Lages uses a large computer facility approximately 200 kilometers away. More recent developments in microcomputer technology are making it possible, however, to achieve the same objective with locally operated hardware. However, the system requires a level of technical training and hardware support not immediately attainable in many less developed countries, but increasing sophistication and price decreases in microcomputer hardware may make systems like Lages' more generally accessible. As that possibility increases, the linking of every transaction or event related to every property in a municipality as a means for annually upgrading assessments is worth evaluating. The other innovative feature of Lages' property assessment, the deliberate use of tax rates to create disincentives to holding undeveloped property and corresponding incentives to develop residential dwellings, could be adopted in other countries where law permits. Given the highly centralized nature of most developing countries, legal changes might be required in most countries. Similar mechanisms have been implemented elsewhere, with mixed success. La Paz, Bolivia, for example varies rates with the quality of construction and by different "income zones" through the city. Holland

notes, however, that the differential adjustment mechanisms is ineffective if collections are not enforced. [1/]

Lages also, by virtue of the Brazilian system's definitition of municipal jurisdictional limits, has taken advantage of its position to attempt to alter the incentives for rural to urban migration. These attempts have been less negative in orientation, discouraging in-migration, than positive in encouraging staying in rural areas. The particular projects currently being attempted may or may not work, but Lages officials view them primarily as experiments. Their general character is more important -- the city attempting to alter the environment outside the city proper as a long-run investment in reducing the increase in demand for city services.

Finally, the self-help housing project focuses attention on making-do with available resources. From the municipality's point of view, it is not a carefully costed project, although Lages does intend it to be a breakeven proposition. From the participant's point of view, however, every transaction is fully recorded with a corresponding obligation to repay the full value. There is clearly an element of political party ideology in the

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1/ Daniel M. Holland, "Adjusting the Property Tax for Growth, Equity and Administrative Simplicity: A Proposal," in The Taxation of Urban Property in Less Developed Countries, Roy W. Bahl (ed.). Madison: University of Wisconsin, 1979.

project design, but the general proposition being tested in Lages is that the development of an acceptance of legal debt relationships and obligations to municipal government is an important step in political and economic development. In other case studies included in this volume, we note that the habit of paying taxes and paying for services is often not a part of traditional culture.

Lages is distinguished from the other cases studied in one important respect. The opposition party status of municipal officials and their strong "participatory governance" ideology operates to create a general orientation toward service provision and delivery of adequate services to citizens. Municipal employees in many LDC cities often are in their positions because of central government decisions, not because of any particular orientation toward providing services to local citizens. A number of the recommendations earlier in this volume for improving municipal financial management assume that increasing the level of services provided and accountability for services provided are desired by municipal officials. While that orientation is obvious in a city like Lages, it may not characterize all, or even a majority of LDC municipalities.

6.4. Daejeon, Korea

6.4.1. Rationale and Focus

The principal focus in the case study of Daejeon, Korea is the operation of the Land Readjustment System used extensively in Korea to provide physical infrastructure to urbanizing land on a totally self-financing basis. Since the provision of physical infrastructure is one of the major costs of local governments in developing countries, the land readjustment system of Korea has been identified by some experts in the field as one of the most promising approaches. [1/] A second, and considerably more minor, focus of the case study is on the operation of the local bus system in Daejeon which is operated by a collection of private companies under the regulation of the municipality. Of interest in this area is the collaborative relationship between the bus companies and the municipal government and the forms of cooperation that have been developed among the 14 competing bus companies that serve the city. A third element of interest in the Daejeon case study is the overall organization of municipal finance which emphasizes increasing self-sufficiency in local government operations. It is national policy in Korea that an increasing share of local government expenditures be funded out of locally raised taxes and nontax revenues. The case study examines the extent to which Daejeon has been successful in this effort.

6.4.2. Background

Daejeon is a city of approximately 650,000 population (1980 estimate) located approximately 170 kilometers south of Seoul. Daejeon is a transportation hub, being linked to Seoul and the major cities of the south by four-lane limited access highways and rail lines. Daejeon has grown rapidly over the past two decades, with considerable population increase in the past five years (30 percent). Daejeon is a commercial and manufacturing center with major growth and employment taking place in the manufacturing, commercial and service sectors. Currently, Daejeon has a very low unemployment rate (2.9 percent) which is considerably lower than the national average of five percent in 1981.

Like other major cities, Daejeon is encircled by a "green belt" which is designed to limit urban sprawl and preserve agricultural land on the periphery of the city. The green belt concept is important in urban service delivery insofar as it delimits the spread of settlements that require services, and raises densities of the population that consume urban services. This has a direct impact on services whose cost are directly related to the land area over which they must be provided. It should be noted that the imposition of the green belt has nevertheless left considerable amount of undeveloped land within the city of Daejeon. 2/

While the city economy is currently dominated by manufacturing and commercial enterprises, a research park at Daedeuk on the outskirts of the city has been established and may become increasingly important in the future economy of Daejeon. The creation of the research park is one of many actions that the Central government has taken to attempt to shift population

growth to cities other than Seoul. The research park is modeled on the Research Triangle Park of North Carolina. It contains research facilities of government and parastatal organizations.

Municipal government in Korea is responsible for a wide range of public services. Support for these services is divided between the municipal general fund account and a series of special accounts, the most important of which are self-financing. Exhibit 6.4.1. lists the services and the accounts under which they fall.

The general fund supports expenditures in municipal administration, utilities (sewerage and roads), social welfare (including public health) and civil defense (including fire protection). The general fund relies on four major sources of revenues:

- local taxes,
- nontax revenues (including user charges for utilities),
- national shared tax, and
- central government subsidies.

The principal special accounts are housing, water, land readjustment and industrial estates. Less important special accounts include medical insurance for low income residents (funded by national subsidy), the Samael, or "new village", community development program (funded by transfers from the local general account), and cultural promotion account, (also funded from the local general account.) The four major special accounts are self-supporting, relying on user charges or internally generated income to balance the accounts. The heavy reliance on self-supporting special accounts is consistent with the emphasis on making local government and

Exhibit 6.4.1.

Local Government Services in Daejeon

Service	Account
Water	Special water account
Sewerage	General Fund and Land Readjustment Account (for individual projects)*
Roads/Bridges	General Fund and Land Readjustment Account (for individual projects)*
Housing	Special Housing Account
Garbage	General Fund
Transit	Private companies
Education	Federal responsibility
Health	General Fund and Medical Insurance Special Account
Fire	General Fund
Parks	General Fund and Land Readjustment Account (for individual projects)*
Police	Federal responsibility
Industrial Development	Special Industrial Development Account
Welfare	General Fund plus Medical Insurance Special Account
Electricity	National parastatal
Communications	National parastatal

* Capital construction costs of infrastructure within Land Readjustment Projects is paid by project funds.

public services self-supporting. This parallels the movement to make local general fund expenditures increasingly dependent on locally generated revenues - local taxes and local nontax revenues.

The success in developing self-sufficiency among all Korean cities, and Daejeon, in particular, can be seen in Exhibit 6.4.2. which shows the percent of general account revenues derived from local sources in 1970, 1975, and 1980. Currently, among all cities in Korea approximately 82 percent of general fund revenues come from local sources. In Daejeon the figure for 1980 is 75 percent. While this figure is used extensively for comparisons in official Korean statistics, it does not reflect the importance of locally-generated user charges which are largely contained in the special accounts. (However, user charges collected in local utility service fees, not including water fees, are included in the local nontax revenues of the general account).

In order to develop a more accurate estimate of all sources of local revenue in Daejeon, a composite budget of general and special accounts has been assembled and shown in Exhibit 6.4.3. By including special accounts, which are self-financing and rely in one form or another on user charges, we have a better estimate of true revenue sources for all local government operations and services. From the exhibit, we see that in 1980, locally-generated revenues accounted for approximately 78 percent of total local government revenues with that divided between locally-raised general revenues (local tax and nontax revenues) of 46 percent and user charges (self-financing special accounts) of 32 percent. These proportions are up from 1975 when locally-raised revenues and locally-generated user charges

Exhibit 6.4.2.

Percentage of Local General Fund Account
Derived from Local Taxes and Nontax Revenues

	1970	1975	1980
All Cities	49.6%	53.5%	82.4%
Daejeon	43.8%	49.8%	75.0%

Exhibit 6.4.3.

Distribution of Local Government Account Revenues
Daejeon 1980

		Total Won (100's)	Percentage
1.0	Gen. Acct.	(W18,449,140)	(67.9%)
1.1	Local Tax *	6,185,264	22.8
1.2	Nontax Revenues*	6,243,252	23.0
1.3	Shared tax	2,538,000	9.3
1.4	Subsidy	3,482,624	12.8
2.0	Special Accts.	(8,710,665)	(32.1%)
2.1	Water Utility*	4,298,445	15.8
2.2	Housing*	708,837	2.6
2.3	Land Readjustment*	2,952,400	10.9
2.4	Industrial Complex*	499,377	1.8
2.5	OTHER ACCTS*	251,606	0.9
	TOTAL ACCTS REVENUES	W27,159,805	100.0

* Locally Generated Revenues

1 U.S. Dollar = Approximately 700 Won

accounted for slightly more than 70 percent of total local government revenues in Daejeon. This increase in local government self-sufficiency is principally the result of increased revenue generation within the general fund account, largely the result of increased local tax collections and, to a lesser extent, increases in nontax revenues.

There has been a tremendous overall increase in local government revenues and expenditures in Korea over the past decade. In Daejeon the total amount of revenues and expenditures has gone up approximately seven and a half times between 1970 and 1978 (in current Won). For all Korean cities the increase was slightly higher, increasing eight and a half times during the same period. Part of this increase was due to high inflation during that period. However, even after correcting for inflation, the increase in Daejeon's budget is three and a half times greater in 1978 than in 1970. For all Korean cities the increase is almost fourfold.

While all expenditure categories in the Daejeon local budget have seen considerable increases over the past decade, the largest increases are found in the categories of general administration and social welfare expenditures. Exhibit 6.4.4 shows the comparisons between 1970 and 1980 of the expenditure categories in the Daejeon general fund account. One must be careful in attempting to explain the increase in general administration expenses. For one thing, all municipal personnel costs are included in this line item. Allowing for this, however, the increase in administrative cost as a proportion of the total still appears to be extraordinary. The rapid growth in local government revenues and expenditures mirrors the phenomenal growth rate of the Korean economy over the past decade. Local government revenues

Exhibit 6.4.4.

General Fund Expenditures

Daejeon (Thousand Won)

General Administrator	W227.4	24.2%	W8,637.0	49.6%
Public Utilities	437.0	46.6	4,159.1	23.1
Industrial Development	33.9	3.6	338.0	2.0
Social Welfare	126.6	13.5	3,137.7	18.0
Other	113.8	12.1	1,137.3	6.5
TOTAL	W938.7	100.0%	W17,409.0	100.0%

and expenditures as a percent of GNP have remained relatively constant over that period.

6.4.3. Data Sources

Three major sources were used in conducting the case study of Daejeon. The first was a series of personal interviews conducted with municipal officials of the city of Daejeon and central government officials responsible for local government administration and finance in Seoul. These interviews were carried out in December of 1981, on a visit to Korea. Secondly, a large amount of statistical information on all aspects of municipal finance, city characteristics, population, and urban services was provided by various publications of the government of Korea which maintains an impressive amount of quantitative information on municipalities in Korea. A third source of information was reports from the World Bank concerning urban transportation, land development policy and land readjustment. Several works by William A. Doebele of Harvard were particularly useful in understanding the intricacies of land readjustment system.

6.4.4. Description of Practices Under Study

Land Readjustment

The main practice under study in Daejeon is the land readjustment system. The land readjustment system (sometimes called land consolidation) is a procedure in which urban fringe land, primarily agricultural land, is converted to urban use by providing physical infrastructures and subdividing the land into building plots. The distinctive feature of land readjustment

is that the costs of providing infrastructure is recovered by withholding a proportion of the newly serviced land to be sold on the open market.

Land readjustment represents one of four main approaches to the financing of the urban land development process:

1. If the conversion is carried out by private developers, the government may require the developer to install all infrastructure at his cost during the development process.
2. The municipality may install physical infrastructure and recover its costs through a betterment levy on all affected property owners.
3. The land readjustment system may be used where the municipality becomes the developer and withholds a certain amount of land from the development to sell on the open market to recover the cost of development.
4. The municipality may finance the infrastructure through public monies, recovering the costs through tax and other revenue sources.

The first three approaches recover the cost of conversion and upgrading directly from the owners of the land who benefit from the conversion. The fourth recovers the cost indirectly from all tax payers, although the property tax receipts on affected parcels of land should be increased by the improvements to the sites.

The major difference between land readjustment and betterment levies is that, under land readjustment, the municipality accepts land in lieu of cash payment, and consequently accepts the risk that the value of the land may drop when the city attempts to sell it. (Theoretically, the municipality may also recoup windfall profits if the value of the land rises. However, as discussed below, in Korea the municipality is prevented from realizing profits in land readjustment schemes.)

The process of land readjustment dates back to the early 1900's where it is first formally recorded in land transfer laws in Prussia in 1902. It found its way quickly into Japanese law being incorporated in the City Planning Act of 1919. Land readjustment became an important instrument of urban development in Japan over the next 30 years. Land readjustment was introduced into Korea by the Japanese in the period 1910 to 1920 where it remains today a principal tool of urban land conversion. Land readjustment is also used to consolidate agricultural land holdings to allow for more mechanized agricultural operations.

In Korea land readjustment is primarily carried out by municipal agencies which have the power of compulsory conversion of land to urban uses. By contrast, the Japanese practice has been largely voluntary with most of the conversion done by groups of private landowners. (As noted below, land readjustment by landowner groups has now become a common practice in the city of Daejeon as well).

Land readjustment as a public agency activity tended to die out in Japan with rising land values that made it profitable for landowners to develop urban fringe land themselves. The land readjustment process has also been used extensively in Taiwan and in the Municipal Improvement Trusts of the British colonies. These trusts still operate in India, and the practice of land readjustment is reported to be growing in use in Australia as well. [3/]

The process of land readjustment is quite simple in concept and somewhat complicated in application. There are six major steps in land readjustment as practiced in Korea. These include:

1. Tracts of land are designated by the municipal planning agency for development. The target areas are platted with land uses for each plot designated.

2. The developer for the tract is selected. While most land readjustment in Korea is carried out by municipal land readjustment agencies, first priority is actually given to the landowners of the affected area. Other agencies, such as the housing development agency, may also undertake the land readjustment project.

3. The developer acquires all the parcels of land in the project areas, calculating the share that each landowner puts into the project. The developing agency installs physical infrastructure, producing serviced building lots. The full development of the project site may take place over a number of years.

4. The land development agency distributes serviced plots to the original landowners, holding out enough land to pay for the cost of development and infrastructure.

5. The land development agency sells the withheld land to recover its "investment" in the project (while this is supposed to recover all administrative as well as direct costs of the project, all administrative costs may not always be recovered).

6. Surplus revenues generated from sale of withheld lots, if there are any, are invested in upgrading the land readjustment project since individual land readjustment projects are supposed to balance out completely, i.e., total revenues equal total costs.

Although conceptually straightforward, the land readjustment system in Korea is complicated by several factors. The first of these is that project cost and revenues have to balance for each individual project. Since costs are recovered over a number of years through the sale of lots, it is almost impossible to project the amount of land needed to be withheld to generate future revenues in order to balance the increased costs. Since the price of urban land in Korea has been climbing steadily over the past several decades, land readjustment projects tend to realize greatly inflated revenues which then have to be reinvested in the projects to balance the

accounts. This is normally done by upgrading the original infrastructure, e.g., paving and widening streets.

A second factor which complicates the process is that different parcels of land have different values before and after the land conversion process, with the conversion process itself contributing greatly to these differential values. Obviously, land designated for a commercial center in a development project is considerably more valuable than an equal sized parcel of land in residential use. Even within similar land use categories, lots with certain attributes have greater value than other lots. To account for these factors, Korea land readjustment practice has developed a very complicated series of procedures for valuing land and for determining exactly what proportion of land a landowner "gives up" to pay for the cost of development.

Since the landowners always receive a reduced amount of land from what they had originally, the procedures contain formulas for determining the precise reductions to each landowner's original parcel(s) of land.

There are three major categories of reductions. The first reduction is made to account for land needed for public facilities, including roads, parks, school sites and other public uses. This reduction is the same percentage for all parcels, regardless of size or location. The second category of reduction is called the "cost equivalent reduction" which is the amount of land taken by the development agency to recover its cost in providing physical infrastructure. Within this amount are normally included the administrative costs of the land readjustment agency (the "overhead" on the total operation). Since land parcels differ in value on the basis of

location and site characteristics, the cost equivalent reductions vary by type of land parcel. The cost equivalent reduction is based on the value categories used for real property tax assessment. Exhibit 6.4.5. gives an example of land reductions made in a typical land readjustment project in South Korea. One should note the variation in the cost equivalent reduction based on the land category as shown in the exhibit.

A final reduction may be made in a landowner's parcel when he receives his land after the site development process is completed. These are "road width reductions" which occur on lots fronting on streets with widths greater than the minimum thoroughfare size. The property owners of lots on wide roads essentially "donate" the land required for the added width. This is justified by the fact that lots on wide roads are more valuable than those on narrower roads. The added value compensates for the taking of the additional road width. There are additional, and rather complex, calculations for corner lots and oddly shaped lots as well.

In some cases, an individual landowner will not receive the exact amount of land due him after the land reductions are calculated. Because of difficulties in sizing the plots to the exact land reduction calculations, many landowners will receive slightly more or slightly less land than they should. To smooth out these transfers, the land readjustment agency must monetize the value of the land involved. A series of additional calculations are therefore made to put a precise value on these land adjustments. A system has been developed which assigns relative weights to the factors of road width, land use type, distance from commercial centers, land slope, orientation to sun, distances from parks, schools, and markets,

Exhibit 6.4.5.

Hypothetical Examples of Land Value Reductions
Made in Land Readjustment in South Korea

Land Category	Public land reduction (percent)	Cost equivalent reduction* (percent)	Total reduction ("readjustment") (percent)
Parcels with houses already built	15.083%	6.633%	21.716%
Building site with no house	15.083	6.633	21.716
Paddy	15.083	8.635	23.718
Forest and upland	15.083	11.996	27.079
Land subject to flooding	15.083	18.259	33.342

a. The numbers given are illustrative. In fact, there are no "typical" quantities - they vary extensively from project to project, depending on the site plan, existing conditions on the side, densities to be developed (higher densities bring higher per meter prices and tend to lessen the percentage of "cost equivalent" land needed). Actual reductions ran from 6.6 to 13.2 percent in the projects studied.

b. If a site has a rural house, it is normally removed (with full compensation) when it is necessary to the completion of the project. If it remains, it will continue to be the property of the original owners. Thus, building sites and sites with houses have the same rating.

c. "Upland" in Korean usage refers to nonpaddy agricultural land. It is normally higher than paddy, but need not be hillside or hilltop.

SOURCE: Reprinted from William Doebele, "Land Readjustment as an Alternative to Taxation for the Recovery of Betterment: The Case of South Korea" in Roy W. Bahl (ed.) The Taxation of Urban Property in Less Developed Countries. University of Wisconsin Press, Madison, Wisconsin, 1979.

and other neighborhood amenities. (For a more complete description of the calculations, the reader is referred to William Doebele's article on land readjustment in South Korea).

Land readjustment is the dominant practice in converting urban fringe land to urban use. Exhibit 6.4.6. shows the proportion of residential land being developed under land readjustment as a proportion of the exisiting residential areas for the major Korean cities. From the exhibit it is clear that land readjustment is the principle means by which new residential land is being made available in major Korean cities today.

There have been 23 major land readjustment projects undertaken in Daejeon since 1940. Currently there are seven projects underway containing almost two million square pyong of area (1 pyong = 3.31 square meters). Of the seven current projects, the five most recent are being carried out by landowner associations rather than the municipal land readjustment agency. In each case, the landowners in the target area have formed a separate corporation with a full-time manager and staff to run the development process. Construction loans are received from commercial banks to cover the cost of constructing the infrastructure and paying the staff salaries. Alternative arrangements are also possible in which the land development association trades land for construction services and engineering services of contractors. All work including engineering and construction is contracted out for land readjustment projects. In one of the five projects underway in Daejeon, the association has petitioned the municipality to take over operation of the land readjustment project. This was brought on by disagreements arising among the landowners over the allocation formula.

Exhibit 6.4.6.

Comparison of Area Being Developed
in Land Readjustment Projects
to Existing City Area Classified as Dwelling

City	(A) Land Area Classified as Dwelling - 1975	(B) Land Area of Land Readjustment Projects Underway - 1974	(C) (A ÷ B) percent
Seoul	136.1 Sq Km	72.0 Sq Km	53%
Busan	59.0	24.9	42
Daegu	34.1	18.5	54
Incheon	33.7	24.3	72
Gwangju	21.1	3.3	16
Daejeon	17.1	13.8	81
Masan	11.2	3.4	30
Jeonju	12.2	-	-
Ulsan	14.9	0.3	2
Seongnam	3.8	-	-

SOURCE: William A. Doebele and Myong Chan Hwang "Land Policies in the Republic of Korea, with Special Reference to Decentralized Development" Urban and Regional Report No. 79-4. The World Bank, Washington, DC 20433. August 1979, p. 142.

Since 1940, the percentage of land withheld in lot reductions in land readjustment projects in Daejeon has increased from about 30 percent to almost 50 percent in current projects. This is the result of increasing the level and cost of the infrastructure that is being provided in the land readjustment projects. For example, in the early projects only unpaved streets, site grading and drainage ditches were provided. By contrast, now paved roads are provided with water supply and sewer systems built into the project. In addition, land for public uses has increased over the years providing more areas for parks, markets and other public uses.

A major issue with the land readjustment program in Korea is that it produces relatively expensive land. This has two rather important ramifications. First of all, landowners affected by land readjustment almost always realize a much greater value for their developed plots even after subtracting out the land reductions (which in recent cases approach 50 percent). It is not uncommon for land values to triple or quadruple after conversion giving the landowners a handsome profit. This probably explains the high degree of willingness of landowners to participate in land readjustment which, in turn, explains why the system appears to work so smoothly.

Rising land values also reduce the risk of loss to the land readjustment agency, because the value of the land which they have withheld is constantly appreciating in value. Consequently, individual land readjustment projects almost always run surpluses. This is important since land readjustment agencies cannot recover losses in one project from surpluses in another.

The municipality manipulates land values and prices by controlling the amount of developable land it allows onto the market. This situation, in fact, makes it possible to operate land readjustment in a financially secure manner. It is difficult to say how successful land readjustment would be in a less controlled environment.

The second issue with respect to the high land values created by land readjustment is the problem of providing land to low income residents. It has been suggested that the municipality may recover some of the "windfall profits" produced by land readjustment by withholding a larger fraction of land to accomodate subsidized or low income housing. This approach is being incorporated into a World Bank-funded project in Korea which is in the initial design stages. Under the proposed program, the total amount of land reduction would increase from approximately 45 percent on average to close to 55 percent, with the additional reduction provided for low income housing sites. In this way, the land for housing would be treated the same as common land (e.g., park land) in a normal land readjustment scheme.

There is evidently some resistance to the proposed scheme which is placing an additional, and unprecedented for Korea, burden on one group of landowners. The argument supporting such a policy is that it is the land readjustment process that is creating the incremental value in the land and that the municipality is entitled to recover some fraction of that increased value.

A third issue with respect to land readjustment is that it does not cover costs of infrastructure expenditures outside the project boundaries which are generated by the project itself (for example, widening streets

leading to new project sites). It is argued that these costs are borne by the added tax revenues generated by the project (primarily property tax receipts).

In summary, the land readjustment system seems to have served Korea well by providing a large amount of urban infrastructure at no net cost to the local government. As mentioned above, it is difficult to say whether the system would work as well under less favorable market circumstances. Land readjustment does have several attributes that recommend it as a mechanism for urban land development over the alternatives. First of all, it does provide infrastructure at no net cost to the local government. Secondly, in contrast to the normal private developer practice in the U.S., it allows the original landowners to retain their land and to "profit" in direct proportion to the value created by land conversion. Thirdly, unlike betterment levies, it does not require a cash payment which may force landowners to sell out entirely in order to cover the payments. Finally, it is a relatively painless way to extract user chargers from beneficiaries. As William Doebele has pointed out, withholding land, like withholding income tax payments, has the benefit of deducting payment before the recipient ever has possession of the goods. 4/

By taking land in lieu of payment for services rendered the municipality accepts a risk without a corresponding chance of gain. This makes the Korean model somewhat less appealing as a model to be transferred to other countries. However, there is no reason why this constraint cannot be relaxed, allowing municipal governments to "profit" from added values produced by the conversion process. Indeed, a practice similar in concept

has been used recently in Kenya in housing sites and service projects. In these projects, a proportion of the developed sites are sold at market value to generate a surplus to subsidize sites sold below costs to low income residents. 5/

Daejeon Bus System Operations

The second focus of the Daejeon case study was to examine the operation of the privately owned bus companies in the city. This was focused on one particular aspect of the bus system, namely the mechanism by which private companies have been persuaded to offer service on unprofitable routes in the city. This is a common problem in privately provided services or services mandated to be self-financing. Naturally, the service providers want to provide services to markets on which they can turn a profit, and abandon those markets which they must serve at a loss. This is as much a concern for public water utilities as it is for private bus companies.

Daejeon is served by 14 bus companies supplying bus service over 42 different routes within the city. The companies range in size with the smallest having 13 buses and the largest having 46 buses. The bus system is entirely in private hands, with no subsidies provided by the government. However, fares are regulated by the central government with the designation of routes and frequency of service regulated by the municipality.

In 1974, it became apparent the the present system was not providing adequate service to newly developing areas in the city, because densities were too low and distances were too great to make the routes profitable to the private companies. While the municipality could regulate routes, it could not compel bus companies to service new parts of the city. Under

pressure from the municipal government, the bus companies formed an association which drew up a program for servicing the unprofitable routes of the city which the municipality wanted served. The solution was quite simple. The bus companies rotate all of the municipal routes among themselves on a regularly scheduled basis, so that each bus company has the chance to service the profitable and unprofitable routes alike. In this way, losses from the unprofitable routes are spread over all companies and compensated by profits from the more profitable routes in the city. The system appears to be working quite well. There do appear to be two potential problems, however. The first problem is that it is virtually impossible for new bus companies to penetrate the market since the association of 14 companies acts as a rather effective cartel. Secondly, there will need to be some agreement among the companies as to how growth in company size can be allocated as the market grows. That is, should growth be proportional to size or be equally divided among the 14 companies. These potential problems, however, should not detract from the fact that the system appears to be working quite well and at no cost to the municipal government. It should be noted that the city of Seoul, in contrast, has to provide subsidies to its municipal bus company.

The viability of urban bus systems is aided by two factors in Korea. First of all, densities are quite high in cities, and are going even higher under the green belt system. This appears to be a necessary condition for financially self-sufficient urban transportation systems. Secondly, taxes on private automobile ownership are so high that there really is no alternative to public transit for most residents of municipalities. As with

the land readjustment system, government policy greatly influences the market in which self-financing services are able to flourish.

Notes

1/ See William Doebele, "Land Readjustment as an Alternative to Taxation for the Recovery of Betterment: The Case of South Korea: in Roy W. Bahl (ed). The Taxation of Urban Property in Less Developed Countries. University of Wisconsin Press, Madison, Wisconsin, 1979.

2/ Personal community from staff of planning department, Daejeon, December 1981.

3/ Doebele, op. cit.

4/ Doebele, Ibid.

5/ Personal communication from Mr. Richard Westin, Urban Projects Department, The World Bank.

6.5 Tunisia

6.5.1. Rationale and Focus

The case study of Tunisia is comprised of four financial management practices currently in use or under development in various governmental units in Tunisia. After consultation with various international assistance agencies, most notably U.S.AID and the World Bank, the study team concluded that the practices in Tunisia would exemplify some of the best local government practices in the region and would, indeed, be applicable to many other secondary cities in North African countries whose governmental structure has been strongly influenced by the indigenous cultural traditions and the French colonial experience.

The specific practices, their settings and the element of the financial management process which they demonstrate are:

1. automation of municipal records -- City of Sousse: revenue generation, expenditure control;
2. low income housing program -- City of Sfax: service delivery;
3. management of wholesale market -- City of Sfax: revenue generation; and
4. solid waste collection system -- District of Tunis: service delivery.

The particular mix of practices was chosen because they represent many of the elements of the financial management process. Although some of the practices or programs are not unique to the sites which are described in the case study, the sites represent successful application of the practices.

The study team was gratified to find many examples of successful or potentially successful management practices in one governmental system.

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This is probably due to the relative maturity of the governmental system (Tunisia as an independent country and former French colony has had a well-defined local government system for nearly a century), the number of qualified technicians and administrators and its moderate resource position. It is important at this point, however, to define "successful" in the context of the practices studied in Tunisia. One measure would be a quantifiable impact on improving revenue flows (Sousse, for example), or in making services available to consumers at an affordable cost without burdening the local government unit (housing in Sfax). Another measurement of success may be the degree to which a practice reinforces the integrity of a local government and its ability to conduct its business. Without identifying trends towards centralization or decentralization, the maturity of local units can be judged by the degree to which they are given responsibilities and resources to meet those responsibilities. The design of the solid waste collection system in the Tunis District is noteworthy in this regard.

It should also be noted that some of the practices which are documented in this study are only in an advanced design or early implementation stage. It is, therefore, premature to judge their long-term "success." Rather, it was the study team's approach to identify practices which are well thought out and appeared to have weathered public scrutiny and discussion.

6.5.2. Background

Urban centers historically have played a major role in Tunisia's development. Although the total population of the country is small by

comparison to other countries in the region, it is highly urbanized (47 percent in 1975). Serving as commercial centers and gateways to the interior, the coastal cities continue to accommodate a major share of the country's population. The three largest cities, Tunis, Sfax and Sousse, are situated on the coast and account for 66 percent of the urban population.

As in many countries, the primacy of the capital city is notable. Tunis has a population of a little more than 600,000. However, taken as an aggregate, the population of Tunis and the surrounding suburban towns is slightly more than 1 million or one-sixth of the total country population of 6 million. In 1975, greater Tunis had 50 percent of all the cars in Tunisia, 60 percent of public investments and 42 percent of industrial jobs. It is an area characterized by the traditional high density medina, squatter settlements on the fringe of the city and moderate and high-income villas and apartment complexes.

Sfax, the second largest city with a population of 350,000 has been called the Gateway to Southern Tunisia. Traditionally, its economy has been based on maritime activities and agricultural production, particularly olives from the surrounding region. Recently, however, it has grown in importance as a light industrial center. Sfax's physical growth has been unlike other cities in the region. From the original high-density medina, the city has spread out in moderate-density patterns characterized by villas and small apartment complexes -- a large suburban pattern. Recent growth has occurred at approximately 3.5 percent annually. Some of this has taken place in uncontrolled, substandard squatter neighborhoods.

Sousse, with a population of approximately 100,000, is Tunisia's third largest city. Although it has historical significance as a commercial and cultural center, Sousse has recently emerged as a major tourist center in the region. Many large international-class hotels occupy the beach front in the northern portion of the city. Recent municipal development efforts have focused on modernizing the city while preserving its historical character.

6.5.2.1. Local Government Structure

Reflecting a long history of centralized governments established by various conquering foreign powers, particularly France, Tunisia's existing governmental structure is highly centralized. The national government maintains most revenue generating authority and most services are provided directly through central ministries or nationally organized parastatal agencies. Local governments are left with relatively meager resources and correspondingly few unique service responsibilities. However, because of increasing awareness of the potential importance of local government in the development process, a debate is currently taking place over the proper role of municipal and regional governments. Major changes in intergovernmental relationships since 1975 reflect a growing concern for decentralized development on the one hand and the ambivalence in delegating resources and responsibilities to local units on the other.

Two types of local governments form the base of the governmental structure: municipalities (communes) and governorates. With similar legislative mandates, the governorates are responsible for managing rural areas while the municipalities are responsible for the urban areas. The

major difference between the two units is in the structure of their respective governing boards. The governorates have councils comprised of appointed representatives of principal professional and social organizations. The chief executive is appointed by the President. On the other hand, each commune is governed by a locally-elected board which in turn elects its chairman. The relative importance of the two units is illustrated by comparison of their revenues and expenditures. In 1980, the 167 communes had total revenues of 45.9 million dinars and total expenditures of 40.9 million dinars. The total revenues of the governorates in 1980 were 6.4 million dinars, while their total expenses were 4.8 million dinars.

The administrative staff of municipal governments is a combination of central government civil servants and locally hired administrators. Typically, the secretary general (city manager) of the larger towns is a central government civil servant appointed for a limited term to a particular town. As professional civil servants, they are likely to work in many of the important urban centers in Tunisia. On the other hand, the secretary generals of the smaller towns, who often serve other line functions, are locally recruited. The tax collector, who is responsible for the collection of both local and national taxes, is an employee of the Ministry of Finance.

There appears to be an active network of local government officials which facilitates discussion of urban problems and new approaches to municipal management. One of the principal forces in the network is the local government division of the Ministry of the Interior. In addition to

its reponsibilities for review and approval of local government activities and budgets, the division sponsors seminars and workshops for local officials. For example, sections of the Local Government Division are planning conferences on the role of computerization in municipal management and solid waste management. The National Federation of Tunisian Cities also sponsors annual conferences which focus on continuing training for local elected officials and civil servants.

6.5.2.2 Municipal Finances

Revenue Sources

Local revenue sources consist of a mix of property-based taxes, activity fees and licenses, municipal real estate activities and central government transfers. Exhibit 6.5.1. indicates the relative importance of the principal revenue sources in 1980.

Legislation in 1975 reflected national concern over the need to improve the quantity and flexibility of revenue sources of municipal governments and the need to channel more funds to smaller municipalities. Prior to 1975, the taxe locative (property tax) had been the single most important locally derived revenue source; the tax was levied on residential, commercial and industrial properties. The reforms of 1975, however, split the base of that tax allowing a continued levy on residential property but changing the taxation of commercial and industrial properties. Rather than a property-based tax collected by the local tax office, the legislation prescribed a business tax (0.27 percent of the monthly sales figure) on all commercial and industrial establishments. This tax is collected by the tax

Exhibit 6.5.1.

Revenue Source	Percentage
Property tax	10.9
Business tax	9.7
Markets	11.4
Common fund (central government transfer)	41.3
Real estate activites	12.3
Other	14.4

collector at the same time as other national business taxes and transferred to a local account in the national Treasury. The result of this change has been the creation of a resource which much more closely reflects development activities in the municipality, is simpler for the municipalities to collect and is generally responsive to inflation. It was observed by several tax collectors interviewed that this tax is becoming an increasingly significant local resource.

Because it is one of the oldest and most important local revenue sources, the property tax remains a preoccupation of local administrators. Legislation requires that the rental value of properties (residential) be revalued every three years. One third of all eligible structures are generally revalued every year. The principal problem in the procedure is the lack of detailed valuation criteria. As a result assessments are often subjective and general criteria vary from city to city. There is also difficulity in maintaining the property tax roll. Although the roll must be updated and approved annually by the Ministry of Finance, the lack of clear criteria regarding eligible properties, the lack of properly trained tax office staff and the manual method of maintaining records makes the annual process particularly time-consuming. Following the establishment of the roll, a series of announcements (estimate of tax, convocation for protest of estimate, and payment notice) are issued to property owners. Although tax collectors have recourse to property seizure in case of nonpayment, negotiations with deliquent taxpayers are the most common enforcement method.

The problems in property tax management are particularly felt at a time when rapid growth of most Tunisian cities demands expansion of budgets. The property tax remains vastly underutilized, but with the possibility of improvement in collection relatively easy. Currently, collections are only about 40 percent of the potential.

The reform of 1975 also changed the distribution criteria of central government transfers to local government through the common fund. Prior to 1975 the fund was distributed according to population and tax effort. This criteria contained an obvious bias towards larger towns and with residents who were more accustomed to tax exercises. The new criteria, however, while maintaining the strong weighting towards population and tax effort also have an earmarked portion which is distributed evenly to all municipalities. The objective of this reallocation is to give the smaller municipalities a greater operating base. As a result, the common fund may account for up to 80 percent of local budgets, depending on the size of the town.

All municipal budgets are prepared by the municipal council and reviewed by the Ministries of Interior and Finance. For the smaller towns, final approval is given at the regional level while for the larger cities, approval is given by the Ministry of Interior.

Service Responsibilities and Expenditures

As stated earlier, most services in Tunisia are provided either directly through a central ministry or by parastatal organizations. Although by statute, municipalities can undertake the full range of urban services, in reality they provide few services, other than those which are

not provided by other levels of government. Exhibit 6.5.2. indicates the distribution of service responsibilities for urban public services.

The recent trend in Tunisia has been to create parastatal organizations to provide urban services rather than encouraging and equipping local units to provide the services themselves. While some of the principal utilities, water and electricity, for example, have been in existence for several decades, recently created parastatal organizations have been responsible for services such as industrial and residential development and sanitation. This leaves the municipalities to provide such services as parks and recreation, solid waste collection and markets.

Municipal expenditures consist of two separate budgets: one for operating expenses and the other for capital expenses. Exhibit 6.5.3. indicates the relative importance of specific line items in the operating budget in 1980.

Of the salary expense category, 76 percent is paid to a permanent pool of municipal laborers, while 18 percent is paid to higher level staff.

It is notable that there is a discrepancy continuously between the proposed budget and the actual expenditures. For example, in 1980 the total proposed operating budget figure for all municipalities was 44.7 million dinars. However, the actual expenditures only rose to 40.9 million dinars. This is due to three factors: difficulty in programming expenditures so that they occur in a timely manner, occassional underestimation of revenues and finally a deliberate under-spending so that unused portions of the budget may be transfered to the capital budget the following year.

Exhibit 6.5.2.

Service Responsibilities
P=Primary Responsibility S= Secondary Responsibility

Service	Municipality	Central Government	Parastatal Agency
Water Supply			P
Electricity			P
Sanitation			P
Transportation			P
Telephone		P	
Education	S	P	
Health	S	P	
Food Markets	P		S
Religious Buildings	P	S	
Housing	S	S	P
Employment	S	S	P
Planning	S	P	
Recreation	P	S	
Emergency Services	S	P	
Solid Waste	P		

Exhibit 6.5.3.

	Percentages
Debt Service	1.2
Salaries and allowances	50.8
Equipment and materials	22.0
Social programs	12.0
Contribution to capital budget	13.0
Other	1.0

6.5.3. Data Sources

Background information which led to the identification of some of the case studies in Tunisia was provided through materials and discussions with the Urban Projects Division and the World Bank. More detailed information was obtained during a site visit to Tunisia in March, 1982. During the visit, the study team interviewed officials in the ministries most concerned with local government management, at the District of Tunis, and in Sousse, Sfax and Tunis. Where available, written documentation pertaining to local government affairs and the specific management techniques was obtained.

6.5.4. Description of Practices Under Study

Sousse: Automation of Tax and Personnel Records

The case of Sousse represents the application of technology and improved management systems to render more efficient the accounting, personnel and tax records of the city. Although the original impetus for the change in management techniques arose out of a personnel problem, it was quickly demonstrated that the solution to one problem could also be a solution to a number of other municipal problems.

Personnel records, prior to 1977, were maintained and processed manually for all 790 town employees, whether temporary or permanent. In addition, the pay functions were not centralized. Each division within the town government was responsible for issuing a monthly salary check to each employee within that division. A separate check was given for the various accounts or allowances which applied to each individual - overtime,

hazardous pay, nighttime duty, or retirement. In order to produce checks by the start of the month, processing of records had to start by the 10th of the previous month. Personnel changes or variations in individuals hours due to sickness or job demands which occurred during the intervening time could not be reflected in the payroll. Individual personnel histories were rarely maintained by the individual divisions not to mention by any central service. The results of the manual administration of this complex pay system were frequent delays in processing monthly checks and considerable inaccuracy including duplicate payments or payments to fictitious employees.

A serious problem developed in 1977 during Ramadan when the town workers had not been issued their checks by the 10th of the month. Considerable worker unrest resulted. Soon after, the town finance committee began to study alternate ways for streamlining the payroll system. The purchase of a small computer or automated records system was seen as the most suitable solution. During the next fiscal year a request was made to the Ministry of Finance for 14,000 DT(28,000 U.S. dollars) for the purchase of this equipment and training of town staff. The initial request to the Ministry, however, was turned down for at that point a more centralized computerized system located in Tunis was envisaged by the national government.

Soon after however, a new dynamic secretary general began service in Sousse. Because of his prior experience in the Ministry of Interior and his training in computer applications, the Secretary General was able to study the information needs of the city which were most adaptable to computerization and then to convince the Ministry of the need for the

proposed system. In order to maximize the benefits of installing a computer the property tax also became a target for computerization.

As discussed earlier, the property tax, based on rental value, is one of the most important local tax resources yet it is cumbersome for a local staff to manage efficiently. In Sousse, approximately 25,000 notices for individual property taxes are issued annually. Because each property receives a series of notices a long notification process is necessary. The first notice informs the property owner of the estimated tax on his particular property. Subsequently, a second notice is issued informing the owner of his right to protest the assessment. Ten to fifteen percent of all notifications are protested. Third, a payment notice informs the owner of the amount owed and the place of payment. Finally, subsequent follow-up notices are issued in case of delinquent payment.

The town staff of Sousse estimated that simply to issue manually the first three notices required at least six months. In addition, it sometimes took up to 18 months between the first notice and final collection of the property tax. As a result, tax collections were always in arrears and maintenance of adequate records of the various notices and subsequent payment or nonpayment was difficult. The town staff, therefore, worked more on the required assessment procedure and the subsequent notification rather than the field contacts which are essential to the collection process. It was clear to those involved in town finances that the potential for improved collection of the property tax in Sousse was very great.

With these particular payroll and tax problems in mind the town administration began to conceptualize a new management system which would

improve the efficiency of the two systems. A principal factor in the design of the improved system was the decision to start with a relatively small system which could accomplish a few high-priority tasks and which could be enlarged later, building on existing experience. Because of the inexperience of town staff and decisionmakers with automated systems, the demonstration value of the first applications was important. A small system would have the advantage of being readily operated by local staff; the administration decided that it was more important to upgrade the skills of existing municipal staff rather than recruit new specialists. After examining other business computers in the region, the staff decided to purchase a Burroughs B-90. Other private firms already had similar machines in the Sousse region and, therefore, it was hoped that there would be fewer maintenance problems and that in the event of a breakdown, the records could be processed on another machine. Specific computer programs for the Sousse applications were written by computer specialists at the National Computer Center in Tunis and local staff members were selected for training at the Center.

In addition to the equipment, a central Personnel Department was created to manage all personnel records and financial accounting. In this process salary bases were standardized for all town employees and a single list of employees was generated. Personnel histories of all employees are maintained by the new department allowing the city to monitor the accrual of sick leave and all other time categories and to avoid duplicate or fictitious registration of employees. Through the automated system

up-to-date personnel information can be published as each monthly payroll is developed.

Aside from greater accuracy, one of the principal benefits of the automated system is the speed with which the payroll is prepared and checks issued to employees. Rather than the three weeks required for a manual preparation, the payroll is now prepared in two days. The payroll outlays, are processed to the accounting department so that the city's cash flow position is known immediately.

Property tax records are maintained in a two phased filing system, the contact file and computerized file. A contact file, prepared by the tax collectors staff after site visits, contains background information about each property. At this point, the basis for the files is only numerical as a cadastral survey has not been completed in Sousse. The key variables from the contact file are fed into the computerized file for the preparation of tax bills and notices. With one machine operator reading the updated contact files, the preparation of tax notices now only requires one and a half months. The notices resemble the computerized bills of utility companies which the local citizens recognize and pay readily. With reduced time for processing, the tax collector's staff is able to devote more time to the negotiations with taxpayers which are often necessary for collection.

The improvement in collections since the introduction of the new system is obvious. Previously, the collection rate was approximately 40 percent of the value of the property notices. Currently, however the rate has increased to 60 or 70 percent. Sousse's percentage of direct taxes as part

of all revenues is higher than most other Tunisian cities reflecting, in large part, the improved collection property tax system.

Due to the improved tax collection and increased efficiency of personnel management, the city's investment in hardware and training was paid back within three years. In addition, the modest initial experience with automated systems has prompted the town staff and council to study other information needs which could be computerized, including civil records (birth, death, marriage), election rolls, municipal property and equipment inventories.

Sfax: Low Income Housing

The provision of low income housing is a component of the World Bank's second urban project in Tunisia. In addition to activities in Tunis and the District of Tunis, the project is funding slum upgrading, low income sites and services, small scale enterprise development and traffic improvements in Sfax. This portion of the loan is managed by the Caisse de Prets et de Soutien des Collectivites Locales (Local Government Loan and Support Bank) with technical coordination and supervision by the Ministry of Interior. The onsite work is supervised by personnel of the city. The technical staff of the town are responsible for coordinating activities of participating municipal and national agencies, housing allocation and supervision of the installation of the infrastructure. The cost of the sites and services programs in two neighborhoods projected to be 1,990,000 DT (Tunisian dinars). Of particular interest to the case study team was the development of the first sites and services project in Cimer Sud, and particularly the self-help method of housing construction.

The development of Cimer Sud consists of the purchase and title clearance of 150,000 square meters of land on which approximately 1,000 lots for residential development and a small number of workshops. The entire area will be serviced with basic urban infrastructure (water, electricity, sewerage, roads and a primary school), the costs of which will be recovered through the purchase price of the lot. The costs will be repaid at 6.5 percent interest over ten years. While the majority of lots will be sold without housing construction, about 40 percent will be equipped with a core house for further development by the beneficiaries. The core consists of a perimeter wall, basic living space and an ablution unit, costing approximately 2,400 DT for the total lot.

To those buyers purchasing a bare lot, a 500 dinar construction loan would be made available. To those purchasing a core house, a 250 dinar loan would be available. The town staff makes available to project beneficiaries plans for new houses and expansion of the core unit and gives technical advice as needed. However, beneficiaries are responsible for obtaining building materials on their own and for securing whatever skilled workers are needed.

The first lots allocated to low income residents were made available to those families relocated from upgrading projects where home demolition was necessary. At the time of the case study, 25 of these families had purchased a core unit and were completing construction of a more elaborate house. From the early results, beneficiaries were moving immediately to complete their houses committing their own time on the weekends and employing skilled workers as necessary. Construction materials

were obtained through local stores by requisitions from the town. The project staff estimated that homes constructed this way would be significantly cheaper than homes built through the normal contracting process. In addition, the town staff realized that building the core unit out of poured concrete would be 35 percent cheaper than building out of concrete blocks. In the future core houses will be built in this way in order to reduce cost to the beneficiaries.

Because of the large demand for low income housing, the town staff realized the need to develop objective criteria to select beneficiaries for the project. An interview form to be processed by town case workers has been developed for recording the critical factors in selecting candidates. The factors include age of the head-of-household, family status, number of children, current housing condition (renter versus owner), profession, and salary level and opinion of neighborhood and town authorities. These criteria were assigned a weight and a ranking procedure was established for responses. The initial 3,500 requests for lots were screened and processed by computer and 1,800 families were selected as beneficiaries in the housing program.

Sfax: Management of Fruit and Vegetable Wholesale Market

To promote the public welfare, Tunisian cities are responsible for assuring the distribution of food to the urban population. This is fulfilled through the construction and the management of wholesale and retail markets. Although this service promotes municipal welfare, it is also an area in which particularly efficient management of the markets can

assure the town of additional revenue. Therefore, municipal management capabilities are important.

Sfax has recently completed a large new complex for fruit and vegetable wholesaling. Although the town has constructed the buildings, management of the markets is the responsibility of individuals or cooperatives under contract to the town. Every year the municipality creates a scope of work for the management of the market and the collection of market fees. The terms of reference incorporate standardized management regulations. Bids for perspective managers or "commissioners" are considered on the basis of the volume of activity and the fees which are derived therefrom for the coming year. Annually Sfax currently accepts 13 commissioners to manage the market. Because the commissioners receive a fee as a percentage of gross sales for which they are responsible, there is a built-in incentive for the commissioners to promote as much business as possible. In fact, successful commissioners are known for recruiting farmers to sell at the wholesale market.

Each farmer or cooperative pays two sets of fees for the management of the wholesale market. Four percent of all sales are collected by the municipality to cover the operating expenses of parking, storage, and the price announcers in the market. An additional four percent is paid to each commissioner through whom sales are made. Each commissioner in turn gives one percent of the farmers sales to the town as his fee and keeps the remaining three percent. The fees are fixed by the national government.

In 1979 63,000 tons of fruit and vegetables were sold in the Sfax wholesale market, compared to 54,000 tons sold in 1977. The total value of

sales for the wholesale market in 1979 amounted to 6.6 million dinars. The value of the total earnings by the commissioners amounted to 265,374 dinars. This resulted in approximate earnings by the town of 320,000 dinars. In terms of importance of a revenue source, this corresponds to approximately slightly less than 50 percent of the value of the local property tax. It is reported some producers avoid the wholesale market because of transportation difficulties and potential higher prices elsewhere. However, the municipal market remains the principal wholesale outlet.

Although the number of commissioners has increased rapidly in the last few years, the volume of sales in the wholesale market has also increased thereby allowing the shares of each commissioner to remain stable. A recent study for the town of Sfax recommended that as the current complex is completed and additional warehouse space is available, the number of commissioners be enlarged from the present 13 to 20.

District of Tunis: Solid Waste Collection

The regional consolidation of solid waste collection and disposal is a component of the World Bank's Second Urban Project in Tunisia. The key institution in this activity is the District of Tunis, a planning and coordination agency comprised of the City of Tunis and 12 adjacent towns. The District was officially established in 1972 with the goal of providing technical support in solving regional problems in the Tunis area. Examples of their recent studies have included a traffic study for the City of Tunis, a regional development master plan and an administrative guide for cities. To this point, the District's staff has played a role of technical advisors

in developing planning studies for the development of the District and has not been involved in the actual implementation of projects.

The growing importance of the problems of solid waste collection and disposal has been perceived by both municipal, district and national government agencies and has been the subject of conferences and seminars. By statute, the responsibility for solid waste collection has been delegated to the municipalities. Although each town has exercised this responsibility through its own town staff, they have experienced considerable difficulties in maintaining adequate collection equipment and finding adequate disposal sites for solid waste. As a result, disposal sites have often been chosen on an ad hoc basis without due regard to the environmental hazards which improper disposal creates. Household wastes, dead animals, and other industrial wastes, were often simply disposed of in open fields creating severe problems with polluted runoff and other public health hazards. The majority of solid waste was simply disposed of in illegal dumps.

The District contracted a study of the solid waste disposal system in 1976 in an attempt to solve the growing problem. The study indicated that the collection at the municipal level, although adequate, could be improved and that the major problem was that of regional disposal of solid waste. The study considered three possible solutions: (a) incineration - considered a far too expensive solution, (b) composting - a viable, low-cost solution of the largely organic household waste in the District, but which would require considerable education of potential users for it to be successfully commercialized, and (c) landfills - considered the most appropriate short and mid-term solution. Subsequent studies by the District

and consultants considering potential disposal sites determined that because of soil conditions and ground water levels only two large-scale permanent landfills could be considered. A third potential site, although of marginal suitability was identified in case an additional site was needed. The lack of suitable disposal sites reinforced the need for a regional system of disposal.

Subsequent studies were concerned with the equipment needs for adequate collection and disposal, the arrangement of cities which would be served by each landfill, and the various management structures to oversee the collection and disposal of solid wastes in the District. The sector/structure considerations ranged from a unitary system in which a single organization would be responsible for the collection and disposal throughout the District with no responsibility exercised by the towns, to several separated alternatives in which the towns would be responsible for collection of solid wastes which would be transported either directly by the town or through a series of transfer points to a regionally managed landfill. In order to strengthen existing institutions it was decided to maintain the municipal responsibility for the collection of solid waste while establishing a regional authority to manage the two landfills.

At the time of the case study, the Tunisian government had requested that the District staff be responsible for the management of the landfills. Although this would involve them in the operations of a project, a new role for the District as an organization, it is an institution which is aware of the municipal activities and which is familiar with the evolution of the solid waste project. It is possible that as solid waste management evolves

both regionally and nationally and a number of other problems are treated (e.g., sludge management, commercialization of compost, toxic waste management), a different management structure will be required.

The financing of the disposal system has also represented an attempt by the central government to reinforce the responsibilities of the municipalities. Although initially several specially-created fee or tax systems were considered, the Ministry of Interior rejected the creation of a new taxing system, arguing that sufficient tax resources are available to the municipal governments. Rather than create new funding systems, the Ministry indicated that it would be more desirable to improve the efficiency of collection of the existing taxes. As a result, municipal contributions to the disposal operations will be made through their portion of the common fund, the principal central government transfer to municipalities as described previously. A portion of the funds which would normally be received from the central government would instead be transferred to the management authority. At the time of the case study, it had not yet been decided whether municipal shares would be prorated by population, revenue, or amount of garbage generated. Should the municipal governments wish to improve their financial position because of the channeling of a portion of their normal revenues to the disposal system, it will be their responsibility to improve their collection of existing taxes, particularly the property tax.

The development of the solid waste collection and disposal system in the District of Tunis is a response to a typical urban development problem. It is noteworthy that the solution envisioned at this point works through an

existing institution, although that institution (the District of Tunis) is not experienced in project operations. This solution is somewhat contrary to many other solutions to urban developmental problems in which the government has chosen to create a parastatal agency to assume all responsibility for service delivery. The technical staff of the District has proven to be a highly competent body to consider the various technical aspects of the solid waste problem. The problem of a management structure, however, appears to have been a thornier problem to tackle, and yet it is one of the essential aspects of an efficient and effective long-term solution to solid waste management in the District.

6.6 Tamale, Ghana

6.6.1. Rationale and Focus

Tamale, Ghana was selected as a case study site for a number of reasons. First of all, Tamale has been the focus of several technical assistance programs aimed at improving local government administration and public service delivery. The orientation of these programs is to maximize local resource mobilization and emphasize low cost service delivery models. Secondly, Tamale has undertaken a program to improve its local revenue collection beginning with a wide ranging study of all revenue sources and performance. The city has also embarked on some specific measures to improve revenue collection, primarily in its collection of head taxes, the largest source of locally-generated revenues.

Tamale also serves as a good case study in that it represents a number of common problems in municipal financial management in developing countries. Tamale is a rapidly growing secondary city which has grown from an agricultural marketing town into a major city in the last two decades. Its population is predominantly first-generation city dwellers, many of whom still farm in the surrounding regions. As Tamale is transformed from a rural center into a city, the city leaders are confronted with the need to develop and supply public services, select and apply taxes, and deal with a population which is not used to receiving public services nor paying for them. Additionally, Ghana has embarked on a government decentralization movement, intended to place decisionmaking and coordination of public services in the hands of local councils. This comes at a time, when the

Ghanaian economy is in severe difficulty and there is considerable political instability.

6.6.2. Background

Tamale is the major urban center of the Northern Region of Ghana. It serves as the agricultural marketing center as well as the center of education, finance, and government administration within the Region. The city of Tamale in 1980 had a population of approximately of 160,000. Tamale is located within the West Dagomba District, one of seven districts that make up the Northern Region. The population of the district was approximately 330,000 in 1980 with an estimated annual growth rate of five percent.

The Northern Region has become a major rice producing area of Ghana over the past decade. This growth in rice production has in turn fueled industrial development and support industries in agricultural processing, inputs and services. There has been considerable migration into Tamale from surrounding regions. In addition, Tamale city has expanded outward, engulfing rural villages that were once separate from the town. Much of Tamale's city population still considers itself to be farmers, many of whom now commute from residences within the city to their fields on the outskirts of the town.

The expansion of Tamale city into rural villages has created considerable amount of confusion and disagreement over landownership. Use of lands has traditionally been controlled by the village chiefs, although their have been several statutory changes over the years vesting these lands

in different authorities. With formal transfer of land controlled by the Government of Ghana Lands Commission, formal "ownership" of the land is often hazy since many transactions within the village are not recorded. Village chiefs often sell off the rights to use land to city dwellers that a village farmer may already be using. This problem of land title has direct implications for property tax assessment and collection, which is discussed in some detail below.

As in many rapidly growing third world cities, Tamale has a problem with squatter settlements. Tamale has a rather laborious land registration and building permit process that is not keeping up with the housing needs of migrants. Many migrants simply ignore the regulations and start building houses in haphazard patterns in previously vacant land. (This process has been slowed somewhat by the current lack of building materials on the local market.) The haphazard nature of squatter settlements complicates provision of public services and makes property tax collection difficult since the property tax is keyed to information supplied by building permits.

Local government in Tamale resides in the local district council which is roughly equivalent to county government in the United States. Although Tamale city itself has applied for status as a separate municipality, it still remains governed by the West Dagomba District Council.

Since independence, the local government structure in Ghana has been composed of district councils which are responsible to the Ministry of Local Government. As the principal local administrative unit, district councils have had statutory responsibility for providing various, but limited, governmental services. The Ministry of Local Government has been

responsible for local budget review and resource allocation in addition to training and auditing services for the local units. During the last decade the national government has begun to institute a new local government hierarchy which, in design at least, attempts to decentralize authority and provide for locally responsive institutions.

The new local government legislation requires that the district council serves as coordinating unit for services being provided through all government agencies in the district. Thus, the district council through the principal administrative officer, the District Chief Executive, is to coordinate the activities of the formally autonomous central government departments within the district. It clearly will take a long period of time for the district council to become effective in this coordinating function. Separate departments still tend to look to their home ministries in Accra for direction and support.

Since the departments receive their financial support from their ministries, one would expect the district council to continue to have difficulty in coordinating these departments. Indeed, the district council controls very few public services and relatively little in the way of revenue generation at present. All major public services are provided by separate ministry departments with the exception of street maintenance within the city of Tamale and within other towns and villages within the district. All other services are provided by national ministries or parastatal organizations.

The district council finances reflect the relatively limited control over service delivery and revenue sources. The annual council budget is

approximately three million cedis of which only slightly over four hundred thousand comes from locally-generated sources. The district council is responsible for the development of its annual budget. The budget is based largely on revenues anticipated from council-level resources, grants-in-aid for the national government and any other resources authorized either by the district council or under the General Laws of Parliment regarding revenue.

The district council relies primarily on two local sources of revenue: rates and fees. Rates are taxes levied on real property, personal property and on individuals (per capita tax). Fees are revenues collected from issuing licenses and/or commissions to carry out an activity within the district council area. The most significant category of local revenue in the Western Dagomba District is the basic rate, or per capita tax. Basic rate is applied on all resident adults, with a differential burden imposed on males and females. Adult females pay two cedis per person while adult males are required to pay three cedis.

The collection of the basic rate has been carried out with the use of a registry of all persons residing in a district, the so called "nominal roll". Recent investigation has shown that the nominal rolls are out of date and poorly maintained so that accurate assessment of the number of potential rate payers in the district is virtually impossible. Consequently, for budgeting purposes, the district council forecasts annual estimates for the basic rate on the basis of the previous year's collections.

The property rate is the tax on real property and temporary structures located within the district. The property rate constitutes the second most

important tax base within the district although indications are that it is grossly underutilized. Application of the property rate suffers from poor assessment practices and a lengthy and cumbersome review process during which assessments have to be approved by the Ministry of Local Government in Accra. This procedure creates a lag time between assessment and imposition of the tax of at least two and a half years. Additionally, the property rate appears to be plagued with a very poor information system which make it difficult to know what properties have been assessed and what taxes have been paid. This has resulted in very poor enforcement of delinquency which contributes to the overall poor performance of the property rate system.

The other two local taxes, or rates, of significance are the cattle rate and the bicycle rate. Cattle and bicycles are taxed at one cedi each per year. Although formal surveys of cattle and bicycle ownership have not been carried out, the consensus is that the current estimates on taxable units are very low.

Exhibit 6.6.1. shows the estimates and the actual collections for the four rate categories for 1978/79. The exhibit also shows an additional column containing "independent" estimates of the tax base for the basic rate and the property rate. As noted above, the official estimates are based on extrapolations from previous collections rather than an independent determination of what is, in fact, collectible. To develop the independent estimates, calculations have been made for the basic rate and the property rate, using information generated in studies conducted by the Tamale Land Use Programming (TLUP) project. Estimates of the basic rate use population distributions developed in the Resources Development Handbook produced by

Exhibit 6.6.1.

Revenues from Local Rate (Tax) Collection
West Dagomba District

Rate Category	1978/79 Official Estimate of Collectible Amount 1/	Actually Collected 1/	Independent Estimate of Collectible Amount 1/
Basic Rate (Head Tax)	¢150,000.00	¢132,494.00	¢406,814 2/
Property Rate	124,199.00	51,738.00	698,900 3/
Cattle Rate	30,000.00	19,242.00	N/A
Bicycle Rate	15,000.00	11,262.00	N/A

1/ Source: An Appraisal: The Western Dagomba District Council Revenue Study. Tamale Land Use Planning Project, April 1981.

2/ Source: Population estimates calculated using 1970 population distribution estimates and growth rates from Resources Development Handbook for Western Dagomba District Council Area (First Edition). Tamale Land Use Planning Project and Economic and Rural Development Management Program, July 1981.

3/ Source: Property value based on estimated of 6,989 privately owned housing units in Tamale (Resources Development Handbook - see note 2/ above) and an average value per house of ¢10,000 based on modal value of house cost in survey of four neighborhoods in Tamale conducted in September-October 1980 by Tamale Local Land Use Project (H. Siita, "TLUP Household Survey" mimeo. Research Triangle Institute - September 1981). Assumes tax assessment of ¢.01 per ¢1.00 of value which is the rate for second class residential, Property Rate Code.

the TLUP project. Secondly, property rate estimates have been derived using estimated number of dwelling units in Tamale (Resources Development Handbook) and assessments of housing unit costs from a survey of four neighborhoods in Tamale conducted under the Tamale Land Use Planning Project. While very crude, these property rate calculations show a tremendous potential tax base in residential property alone in Tamale. Erring on the side of conservatism, the property value estimate includes only private residential units within Tamale which have been well surveyed -- it does not include business properties or rural property within the district. Furthermore, the estimate uses a conservative value of housing costs which is considerably lower than the average value reported in the TLUP survey. Even so, the collectible property tax on residential housing in Tamale alone comes to almost 700,000 cedis which is almost 14 times the amount collected.

Local, information estimates also put the total number of bicycles at several times the estimate contained in the district council revenue projections. Overall, there appears to be a considerably larger tax base in the district than recognized in official estimates. Combined with poor collection efficiency (particularly for the property rate), the amount of underutilization of local taxes appears to be very large indeed.

In addition to the four types of rates that are collected, the district council has 37 other categories of licenses and fees on which it can collect revenue. Exhibit 6.6.2. gives a complete breakdown of categories of rates, fees and licenses, showing the official estimated amounts and the amounts collected for each in 1978/79. It is clear from the exhibit that some of

Exhibit 6.6.2.

WESTERN DAGOMBA DISTRICT COUNCIL

REVENUE/ESTIMATES 1978/79

	Rates	Estimate	Actually Collected	Percentage Collected
1.	BASIC RATE	150,000.00	132,494.00	88.3
2.	Property Rate	124,199.00	51,738.00	41.6
3.	Cattle Rate	30,000.00	19,242.00	64.1
4.	Bicycle Rate	15,000.00	11,262.00	75.0
	FEES:			
1.	Market Fees	70,000.00	68,753.00	98.5
2.	Slaughter House	7,000.00	8,200.00	11.7
3.	Dressing Stations	--	--	--
4.	Public Pound	1,000.00	42.00	4.2
5.	Lorry Park	7,000.00	5,300.00	75.7
6.	Charcoal Fee	--	--	--
7.	Conservancy Fee	22,000.00	14,279.50	64.9
8.	Export of foodstuff	15,000.00	16,539.50	110.2
9.	Building Permit	5,000.00	4,655.00	93.1
10.	Entertainment Fee	5,000.00	2,630.00	52.6
11.	Rice Fees	5,000.00	308.40	6.1
12.	Rent/Market Stall	97,296.00	36,530.00	37.5
13.	Day Nursery	5,000.00	7,566.00	151.3
14.	Corn and Rice Mills	4,000.00	2,195.00	54.0
15.	Public Kiosk	7,000.00	1,505.00	21.5
16.	Burial Fees	1,000.00	433.00	44.3
17.	Dust Bins Fees	100.00	10.00	1.0
	LICENSE:			
1.	Liquor Pito	3,000.00	1,748.50	58.2
2.	Herbalist	400.00	326.00	81.5
3.	Hawkers	600.00	383.50	63.9
4.	Hand Carts	7,000.00	3,097.30	44.2
5.	TAXI	4,000.00	2,384.00	59.6
6.	Timber	800.00	475.00	59.3
7.	Self Employed Artisan	4,000.00	1,891.00	47.2
8.	Spirit Bars	8,000.00	3,000.00	32.5
9.	Beer/Wine	2,800.00	2,080.00	74.2
10.	Wholesale	2,000.00	1,000.00	50.0
11.	Hotel	2,440.00	600.00	24.5
12.	Extension of Hours	4.00	--	--
13.	Restaurant	840.00	220.00	26.1
14.	Book Men	1,500.00	758.00	5.5
15.	Fishing	200.00	--	--
16.	Hoarding	300.00	213.00	71.0
17.	Dog	300.00	--	--
18.	Beer/Wine/Disco	720.00	--	--
19.	Petrol/Station License	720.00	--	--

the fee and license categories generate a considerable amount of income while others appear to be hardly worth the effort. In one way, the large number of categories revenued can be a hinderance rather than a help in local revenue generation. It has been reported that revenue collectors in the district are not well trained and appear to be overworked. Reducing the types of revenues with which the collectors have to deal could significantly lighten their load, and allow them to concentrate on the most productive revenue sources for the district. For example, the district attempts to maintain a complete nominal roll as a basis for the basic rate collection. As is discussed in detail below, a one-time canvass of the district generated more revenues in the basic rate than the rather cumbersome procedures using the nominal roll produced previously. By the same token, registration of cattle and bicycles may be better handled by a straight forward licensing system rather than the registry maintained by the revenue collectors. This could free revenue personnel to concentrate on the property rate collection where there appears to be tremendous room for expansion of revenues. This approach is discussed below in the description of the District Revenue Study.

6.6.3. Data Sources

Two primary sources of information were used in conducting this case study. The first included interviews with persons involved in providing technical assistance in the TLUP and IIPUP projects and the ERDM project. Secondly, documents produced by the two groups of projects were reviewed. In addition to documenting the practices referred to in the

study, many of these reports also contained information abstracted from primary data sources within the district council and government agencies located within Tamale. These documents also contained discussions of household surveys conducted by the TLUP and interviews with revenue collectors and student revenue collectors who participated in the basic rate campaign of 1979.

6.6.4. Description of Practices Under Study

There are three sets of "practices" contained within the Tamale case study. The first practice is actually a set of technical assistance programs to local district government to improve government administration, service delivery and revenue generation. The second practice under study is the detailed revenue study and set of recommendations produced by the Tamale Land Use Programming project. The Revenue Study was undertaken to analyze closely all local revenue sources within the district and to develop a set of improvements in the revenue system to increase revenues for local government. The third practice under study is an experiment to increase revenue collection of the basic rate which was undertaken by the Tamale Land Use Program in the summer of 1979.

Technical Assistance Programs

Four interrelated programs have been undertaken in the West Dagomba District to improve local government administration, service delivery planning and revenue generation. These projects are divided into two groups. The first group includes the activities of the Economic and Rural Development Management Project (ERDM) which operated throughout Ghana under

a grant funded by U.S.AID. The second group includes three separately funded projects, all interrelated and carried out by one contractor, the Research Triangle Institute in Tamale with support from U.S.AID. These projects include the Tamale Land Use Programming (TLUP) project, the Integrated Improvement Program for the Urban Poor (IIPUP) and the Tamale Accelerated Impact Program (AIP).

The ERDM project was aimed at providing management training for local government officials in Ghana in support of the government decentralization movement mandated by law. The TLUP project and its affiliated projects originally began as a land use planning demonstration project and was subsequently expanded into public service delivery coordination and sites and services demonstration projects. The two groups of projects overlap in Tamale where there has developed a considerable amount of cooperation between the two programs.

ERDM is a five-year project funded jointly by U.S.AID and the Government of Ghana. The main component of ERDM is a network of mobile training teams that conduct training throughout Ghana for local officials. The training teams are based in strategic locations around the country and service a wide area. The team based in Tamale serves the Northern and Upper Regions of Ghana. Teams are composed of one expatriate training expert and several Ghanaian trainers.

Training is conducted for local district council members, local administrative officers and staff of ministries responsible for planning and delivery of local public services. The major innovative aspect of the

program, in addition to use of mobile teams, is that the training is conducted in a number of installments over a several year period.

Each training program is focused on a specific target group in each locale. The training program is initiated with a two-week seminar in general management and administration. During this seminar, specific problem areas and priorities of the local group are identified and become the focus for subsequent training activities. Originally, ERDM was designed to conduct a cycle of three training programs for each location, with each cycle containing three workshops of two to three weeks each. In fact, actual training programs have become much more individualized and may include as many as seven or eight separate sessions of varying lengths depending on the needs of the local group.

While ERDM was not originally aimed specifically at financial management concerns, it has often ended up addressing these concerns as priority issues of the local areas. In Tamale, the major focus of ERDM has been on improving the budgeting process of the District Council and Ministry departments. It has included a series of workshops on improved, and coordinated, budgeting for these groups. A set of training materials and guidelines were developed specifically for Tamale in local budgeting systems.

Since ERDM is a nationwide program, there are a number of additional examples of ERDM training impacts found on areas throughout the country. The following lists examples of direct ERDM impacts taken from a recent report summarizing the ERDM experience in Ghana: 1/

- When the head of the Audit Department in Yendi installed the job enrichment plan he had designed with an ERDM team in the seminar, there

was a tripling in the number of audits completed in the district. He broke his department into three competing sections. As news of his reform became public, he began to serve as a local consultant to fellow department heads on how to delegate and use work objectives to aid supervision.

- Following ERDM seminars for regional officers in the Northern Region, the regional heads of the Ministry of Agriculture, using problem-identification techniques, developed a plan to make their operations more cost-effective. They designed a way to reduce their staffs, especially many of their redundant young female laborers. Over 100 laborers were released through their planning and united implementation of a controversial personnel action.

- In Techiman District in Brong-ahafo Region, following a revenue collection control exercise, revenues collected in the market have increased 400 percent. Data collection exercises across the country have indicated an average of only about 20 percent of the collectible income in a district is deposited in the district treasury. This information has been used by ERDM staffs to develop an awareness on the part of local districts how improvements in revenue collection could be made.

- The Electricity Corporation district head in Cape Cost plagued with uncollected funds which resulted in poor service to customers, made the decision to disconnect customers with bills overdue by two months, introduced a new bill collection plan based on job rotation which reduced staff corruption among the collectors, and launched a public relations campaign to prepare people for these changes. It was reported that these changes resulted in 100 percent reduction in uncollected bills in less than two months.

There has been a considerable amount of interchange among the ERDM mobile teams through frequent conferences and workshops. Techniques found useful in one region had been readily transferred to teams operating in other regions. Furthermore, the flexibility of the training approach, focused as it is on priority problems of districts receiving the training, accounts for the good acceptance of the program by local officials and the number of impacts that have already been realized in the program.

One aspect of ERDM that was not readily appreciated at the beginning but which has become very important, is the role of ERDM seminars as a point

of information exchange among local officials. It has been noted frequently that ERDM seminars represent the major opportunity for local officials to come together and discuss common problems. For some local officials it represents the first time that locally-elected officials, local administrators and department heads of the ministries have gathered to discuss service delivery in the local area. This has been particularly true in Tamale where such discussion sessions have been formalized by the Tamale Land Use Planning project on a bi-weekly basis.

The second group of technical assistance projects under study are the Tamale Land Use Planning project and its follow-on efforts. The Land Use Planning project began as a demonstration project in 1978 to demonstrate land use planning controls that could be applied to rapidly growing secondary cities in the developing countries. Tamale was one of three sites in the developing world chosen as part of this program. The project quickly evolved from a planning exercise into a more ambitious effort which involved:

1. urban growth management programs,
2. service delivery coordination at the local level, and
3. local resource mobilization.

The growth management strategy was developed in response to the tremendous rate of growth in the City of Tamale which had outstripped the ability of the local government to provide services or even control the development of new residential settlements within the city. The major instrument of growth management has been the development of mechanisms for a channeling new growth into desired settlement patterns through the provision

of minimum infrastructure to attract residential growth. The strategy includes minimum infrastructure provision (access road drainways, waterlines and graded building plots) in undeveloped areas and "retrofitting" existing squatter areas with minimum infrastructure services. Innovative aspects of the program include adoption of low cost (minimum standard) infrastructure development coupled with a considerable amount of citizen participation in the planning process. Surveys were conducted in the target areas to identify needs of the target groups, levels of service desired and ability and willingness to pay for certain services. Currently, construction is about to begin in two demonstration sites, one built-up squatter area in the center of the city and one undeveloped area on the outskirts of the town. At the same time, the project is working with local public service delivery agencies to coordinate services in the two demonstration sites.

The TLUP project also embarked on a program to coordinate local public service delivery in Tamale. This was undertaken through several means, the first of which was to develop the workshops for agency staffs involved in service delivery. The workshops bring together representatives of the different service agencies to coordinate activities, avoid negative interactions and overlap in service delivery, and identify areas of cooperation. The project has set up a formal steering committee of representatives from the service delivery agencies to advise the district council on service delivery improvements in the two demonstration sites. The project has also succeeded in having professional staff from the ministry departments seconded to the district council to serve in staff positions in planning and implementing the demonstration projects. This is

viewed as a very important step in allowing the local district council to take up its role in local service delivery coordination -- a role which district councils have rarely been able to accomplish to date in Ghana.

A third important facet of the project has been local resource mobilization, including both increased local revenue collection for the district council and acquiring resources of local communities and local service delivery agencies for the demonstration projects. One premise of the technical assistance projects has been that outside donor assistance would only be obtained for those elements which could not be secured from local resources. The only inputs being financed by outside sources are (a) limited expatriate technical assistance, (b)reconditioned heavy equipment for road construction, and (c) limited overseas training for key Ghanaian project staff. All other resources are provided by the district council and cooperating departments of the ministries. In support of local resource mobilization have been two activities supported by the TLUP: (a) a thorough revenue study of the district and (b) an experiment in increased revenue collection for the basic rate (head tax). These practices are described in more detail below.

One important aspect of local resource mobilization being addressed by the TLUP projects is the resistance of local residents to pay taxes. Local citizens are unwilling to pay local taxes because local government does not deliver many services. Consequently, the local government cannot generate the resources to deliver services. It is a circular problem. To overcome this, the Land Use Planning projects (with U.S.AID funding) are assisting the local council in acquiring heavy construction machinery, principally for

road construction within the demonstration sites and generally throughout the district. In addition, the equipment will also be used to construct small water catchments in villages in the district to provide a tangible "service" highly valued by the rural population in the district. This is part of a calculated attempt on the part of the district government to begin to generate a positive attitude of the population toward district government and to increase its willingness to support local government activities.

Local government in Tamale clearly has a long way to go. Surveys conducted in the demonstration neighborhoods, as well as interviews with revenue collectors, elicited very negative attitudes on the part of the population toward local government as a competent provider of services. This, of course, translates directly into an unwillingness to pay taxes for support of local government activities.

District Revenue Study

The second major practice under study in Tamale is the conducting of a comprehensive revenue study of the district government and proposed implementation of its recommendations. The revenue study was conducted under the Tamale Land Use Planning Project; its recommendations are now being implemented under the IIPUP project. The revenue study included a systematic review of revenue sources within the district focusing particularly on accuracy of tax base estimates, collection efficiency, and the relative importance of the various revenue sources in the total local revenue stream. The study includes interviews with revenue collectors to identify problems in motivation and training of revenue collectors, enforcement problems and attitudinal problems on the part of taxpayers. The

study also has identified a number of operational inefficiencies within the revenue collection system and has targeted a number of areas that needed improvement within that system.

The revenue study completed by the TLUP project has been augmented by additional analyses during the current IIPUP project. The current focus includes six major areas of improvement:

1. Concentration of revenue collection activities in high payoff areas. This would entail dropping some revenue sources from consideration and reassignment of revenue personnel to the higher payoff revenue sources.

2. Adopting more efficient collection strategies for the various categories of rates. Strategies for more cost-effective collection of the low-rate items (basic, cattle and bicycle rates) are being examined with attention on one-time canvassing and conversion to licensing systems.

3. Developing a system of interim property rate collection to allow the district to collect property rates while the lengthy review system is taking place.

4. Developing a more efficient information system for the property rate to replace the current disorganized system using individual file folders on individual properties (which makes it very difficult to track progress through the system).

5. Developing cost recovery mechanisms for infrastructure provision in the demonstration sites through the adoption of a plot development charge, allowed in Ghanaian law but rarely used in the past.

6. Investigate the application of incentive schemes for revenue collectors to allow them to be rewarded for more efficient and vigorous pursuit of their activities.

These improvements are currently in the design phase of the IIPUP project with implementation proposed to begin fall of 1982. The IIPUP project has begun to identify models for improved property tax information systems. While computerized systems would be technically suitable, problems with power supply, maintenance and spare parts in Tamale make a manual

system preferable at this time. Moreover, the problem appears to be one of overall organization and management as much as "hardware." It is felt that improvements will focus equally on management and information system design.

Basic Rate Collection Experiment

A number of efforts have been made in the past by the district council to increase the level of revenue collection. Such campaigns have focused primarily on improvement in the basic rate collection and have met with varied success. The district council has tried various strategies to get the government agencies to cooperate in collecting the basic rate at the source of payment. The district council has requested that the basic rate for government employees be paid directly by the paymaster within each government agency. The district council offered to provide revenue clerks to assist each agency in the collection of such revenues. Of the more than 20 government agencies located in Tamale, only two departments responded favorably. The remaining departments either ignored the requests or indicated that they were unwilling to collect the revenues on behalf of the Western Dagomba District Council.

The District Chief Executive has also encountered difficulty in obtaining employee list of all government agencies in the district from the Regional Treasurer. Regional officials argue that it is not part of their responsibility to collect revenues on behalf of the district council and therefore have refused to cooperate. The district council argues in turn that if the basic rate on government employees (which makes up a considerable portion of the work force in Tamale) could be collected directly from the government, field collection of the basic rate could

concentrate on other groups -- artisans, self-employeed persons and nongovernmental workers. Having met with such limited success in these efforts to collect basic rates from employers, the district council embarked on a more radical experiment in basic rate collection in the summer of 1979. At that time, the district council employed approximately 60 students to undertake a special basic rate collection campaign. It should be noted that this experiment took place during the period following the coming to power of the government headed by Lt. Rawling on 4 July 1979. The Rawling government had mounted a program aimed at collecting funds owed to the government by corporations and individuals, generally at the national level. During this period there were a number of public statements asking citizens to pay their rates; however there was no specific program aimed at the district level. The district council undertook a special basic rate collection campaign by employing students on a commission basis to collect the rates. Students were recruited, interviewed, bonded and trained before being employed by the council. Although the geographic focus of this special revenue collection was Tamale city, some rate collection did occur in a few of the nearby villages. The project operated for approximately eight weeks starting in late August and ending in early October 1979. The students were able to collect in excess of 210,000 cedis during the eight week period. The campaign proceeds exceeded the annual basic rate estimate of 150,000 cedis. Subtracting 20,000 cedis for expenses and bonuses paid to the students, the district council netted approximately 190,000 cedis which exceeded the total basic rate estimate by more than 40,000 cedis.

More than 70 percent of the students that participated in the campaign were surveyed by the Tamale Land Use Project team to document their experiences in the exercise. Students were asked to highlight problems observed and individual comments on attitudes that were expressed by the taxpayers. Students' observations during the exercise can be summarized as follows:

- The nominal roll is grossly out of date. There tended to be significantly more adults living in a household than was indicated on the roll.

- The rate payers generally commented that the district council did not effectively use the tax revenues to improve the level and/or quality of services. Citizens generally did not observe any significant activity being carried out by the district council in providing such services. While most citizens did acknowledge some development activity taking place within the district, the activity was not directly linked to district council activity.

- Taxpayers generally felt that the permanent revenue collectors were inefficient and insincere in carrying out their responsibilities.

- A significant number of rate payers indicated that they pay their rates at their place of employment. However, due to the system of recordkeeping by the district treasurers office, it was very difficult to verify that such revenues had been paid.

The successful outcome of the basic rate campaign indicates that a one-time canvass of the district may be the most efficient way to collect the basic rate. This would do away with the cost of maintaining and updating nominal rolls and free revenue collectors to focus their efforts on other revenue sources. Since the amount collected per head is relatively small (slightly more than one U.S. dollar per head for males at the official exchange rate), tracking individual payment/nonpayment by maintaining a registry would not seem to be a very cost-effective approach. It may be possible also to extend the canvassing approach to two other rate

categories, the cattle rate and the bicycle rate, which could be done at the same time as a basic rate canvass. This would make maximum effective use of the canvassing collectors. It would also make it worthwhile to extend the canvassing into rural areas where more revenue per household could be collected. On the other hand, such a combined rate collection canvass might increase the incentives for rate payers to leave home during the canvass. To prevent this, the time of the canvass could be set to coincide with periods when the population is most likely to be in residence.

One variation on the basic rate collection canvass being examined is a bounty system for revenue collectors. The system uses individual chits for basic rate payment which are "sold" to revenue collectors for a discounted amount. The revenue collectors, in turn, would "sell" the chits to rate payers for the full value of the chit. For example, a revenue collector would purchase chits for ¢2.75 each for adult male and ¢1.75 each for adult females. He would then collection ¢3 and ¢2 respectively from the rate payers, pocketing ¢0.25 each as his commission or wage. This system would introduce a strong incentive for revenue collectors to collect aggressively and remove the major opportunities for theft of funds by the collectors.

Note

1/ C. David Esch and Wilfred Owen, Jr. "Using Mobile Consulting Teams for Management Improvement: The ERDM Experience in Ghana". Paper presented to the U.S. Agency for International Development Workshop on Development Administration Programs in Ghana. May 1982.

6.7. Kenya

6.7.1. Rationale and Focus

Kenya is one of the two case study sites included in our study in which we were not able to conduct a site visit to the country. Kenya, however, presents so many aspects of local government finance salient to our study that we have included it as a separate case study, using extensive secondary source materials available outside the country.

Kenya serves as a good case study site for a number of reasons:

- municipal governments in Kenya provide a large number of public services;
- a relatively high proportion of public revenues are raised locally, with considerable reliance on user charges;
- several of the medium sized municipalities in Kenya are well known for sound financial management and have been able to maintain good financial positions even during the current inflationary times;
- local government finance in Kenya has been well studied with a large amount of documentation available on practices there.

Despite the importance of local government in delivering public services and the strong financial position of some municipalities, overall the system of local government finance in Kenya is a system under extreme stress. Actions by the central government have left local governments with precarious financial situations. Over the past decade, the central government has removed several sources of revenue from local government control, changed the nature of central government grants to local authorities, and carried out a number of actions that impact directly on local government expenditures, particularly wage settlements covering local government employees.

This case study will examine the structure of local government finance in Kenya and some of the long-term trends that have been set in motion by central government action. It will also examine some of the major problems being faced by local governments in Kenya and actions being taken by local government to cope with these problems.

6.7.2. Background

There are four levels of elected local authorities in Kenya:

1. Municipal councils,
2. Town councils,
3. County councils, and
4. Urban councils.

The hierarchy generally reflects population size and increasing responsibility for service provision, although criteria for categorizing various elected councils in the four categories are not strictly applied. The central government periodically reviews local authority status, although promotions from one category to the next often appear to be based on political consideration.

There are 11 municipal councils representing the 11 major urban areas: Nairobi, Mombasa, Kisumu, Nakuru, Thika, Kitale, El Doret, Kakamega, Nyeri, Embu, and Meru. There are 11 town councils and 20 urban councils. The municipal, town and urban councils cover distinct urban areas. The county councils serve the 40 government administrative districts which cover all areas outside the municipal, town and urban council areas.

The overall organization and supervision of local authorities is the responsibility of the Ministry of Local Government. The principal executive officer in municipal and town councils is the Town Clerk who is appointed by the local council on the advice of the Ministry of Local Government. The day to day work of the local authorities is performed under the direction of several committees which are appointed by the council with the approval of the Minister of Local Government. A Finance Committee is required by statute. For those local authorities which have responsibility for providing public education services an Education Committee is also statutory. Other committees which are normally appointed include:

- Town Planning, Works and Housing;
- Health Education and Social Services; and
- Staff and General Purposes (often combined with Finance Committee).

The management structure of local authorities promotes considerable involvement of elected counselors through these committees. It has been noted that this involvement often takes the form of political interference.

The larger local authorities in Kenya provide a wide array of public services. The seven largest municipal councils provide the widest range of services:

- primary education,
- health services,
- sewerage and water supply,
- road construction and maintenance,
- solid waste collection,
- markets and slaughter houses,

- public housing,
- beer halls, and
- social services.

The smaller municipal councils have reduced responsibility while town councils have even less responsibility for service delivery than do the smaller municipal councils.

The various public services provided by municipal councils are financed by differing mechanisms. Water supply and housing are provided on a full cost recovery basis with separate Water and Housing Funds maintained to keep these accounts separate from General Fund transactions of the local government. A second set of services are supplied largely on a cost recovery basis with expenditures and revenues incorporated in the General Fund account - sewerage, solid waste collection, markets, slaughterhouses, beer halls and other commercial enterprises. Education, health, social services and road construction and maintenance are financed by general revenues of the local council although a large proportion of education costs are borne by central government grants for teachers salaries. In the past, local councils charged school fees but these have been largely abolished by action of the central government. Grants are also received for drugs and dressings provided by the local health service, although these grants amount to a very small fraction of the total health service expenditures of the local councils.

It has been noted that road construction and maintenance is the one local service for which neither user charges nor central government grants are available to defray their cost. While local authorities require a

relatively high standard of road construction in new residential developments, resources are extremely limited for maintaining, upgrading, and extending the existing road system.

Exhibit 6.7.1. provides a breakdown of recurrent and capital expenditures for the 11 municipal councils for 1975, 1977 and 1979. The largest expenditures were in the areas of education, water systems, sanitation systems, and housing estates. The percentage of the total that each of these areas commands has been maintained relatively constant over the five year period. However, there has been some small decline in the importance of housing expenditures which has been compensated by rising expenditures in water supply and sanitation systems. Over the same period, education as a percentage of overall spending has declined slightly.

The major sources of revenue for local municipalities are, in order of importance, (a) user fees and income, (b) transfers from the central government, and (c) real property rates (taxes). Exhibit 6.7.2. shows a breakdown of the revenue sources for 1975, 1977 and 1979 for the 11 municipal councils. The relative importance of the three major categories has remained constant with some decline in the importance of property rates compensated for by increases in central government transfers. The issuance of licenses and cesses (agricultural production taxes) are relatively unimportant in the overall picture of local revenues.

There appears to be considerable room for improvement in the operation of the property rate system. Kenya employs the site valuation system for assessing property rates. In the performance of property rates, Kenya suffers a problem common to most other developing countries - revenues from

Exhibit 6.7.1.

Percentage Breakdown of Municipal Council Expenditures by Service Delivery Area 1975 and 1979

Service	1975	1977	1979
Administration	12.5%	10.9%	11.2%
Community Services			
Roads	5.5	5.9	5.5
Sanitation	10.9	15.4	13.5
Other	4.3	3.4	3.9
Social Services			
Health	11.6	10.2	11.4
Education	18.4	16.3	16.8
Other	1.2	1.2	1.6
Economic Services			
General Administration	3.6	3.2	3.2
Water System	10.0	12.8	15.1
Housing Estates	17.7	17.0	13.3
Other	4.2	3.6	4.9
TOTAL	100.0%	100.0%	100.0%

Exhibit 6.7.2.

Revenue Sources for Municipal General Fund
All Municipal Councils
1975, 1977 and 1979 (K£'000)

	1975		1977		1979	
	Amount	%	Amount	%	Amount	%
Rates	5,665	26.5	7,137	26.6	7,580	21.6
Licenses and Cessess	210	1.0	452	1.7	596	1.7
Transfers	5,395	25.2	5,326	19.8	10,196	28.9
User fees and income	10,097	47.3	13,950	51.9	16,856	47.8
TOTAL	21,267	100.0%	26,865	100.0%	35,228	100.0%

the property rates are not keeping up with either expenditures or inflation. The major problem appears to be the lack of timely assessment and revaluation of property values. Revaluations are mandated to occur every five years but there is indication that these assessments are frequently skipped. With relatively high inflation in Kenya, infrequent revaluation has two important impacts. First of all, when rate increases do occur, the increase in an individual property owner's rates is quite large. This creates both pressure to postpone the revaluation and resistance to paying the increased tax, when the reassessment is carried out. (This fear of large sudden rate increases has been blamed for the unwillingness of some municipal councils to allow revaluations to take place as scheduled). The second impact of infrequent property rate assessment is that the municipal councils lose a considerable amount of revenue during the period between reassessments. It is evident that more frequent assessments would both reduce the size of individual rate increases and provide more revenues in the process.

The central government transfers also present problems for local municipalities. The transfer program in based on ad hoc appropriations of central government funds and may vary from year to year. The three major grant programs that go to municipal general funds include the education grants, the GPT grant and the grant for medicines and dressings for local health programs. All three of these grant programs were created in response to revenue problems of the local governments created by central government action.

The GPT (Graduated Personal Tax) is a local income tax previously levied by local authorities which comprised the major revenue sources of local authorities. Central government preempted this source, and created a central government grant to replace the GPT which would be phased out gradually over a period of years. It has been noted that the amount of the GPT grant for municipalities has declined more rapidly than anticipated when it was instituted. Presently it is a relatively minor source of revenue for municipalities.

The education grants are composed of funds to pay primary school teachers salaries and compensation for school fees no longer charged to students following central government decree that primary schooling should be free. Similarly, the medicines and dressings grant is intended to compensate local authorities for the cost of providing these items which have been mandated to be provided free to local citizens by the central government.

The ad hoc nature of the grant system makes it difficult to forecast the future financial status of municipalities with any accuracy. This problem is highlighted by an IMF report completed in 1976 which made a number of recommendations for improvements in local government finance in Kenya based on the forecast of revenue and expenditures for the major municipal councils. [1/] An examination of that forecast with what actually happened in years 1976 through 1979 shows that while sources of locally raised revenues were predicted with fairly good precision, central government grants varied considerably from the predictions. During that

period, the education grants greatly increased (which benefited local authorities) while the GPT compensation grant declined.

The variation in the amount of central government transfers distributed among municipalities highlights the ad hoc nature of this relationship. Exhibit 6.7.3. shows the revenues per capita by different revenue source for the municipalities of El Doret, Nakuru and Nairobi in 1979. The exhibit points out the variation in the amount of central government transfers to different municipalities, with Nakuru realizing one-third more grant funds per capita than the other two. The heavy reliance on grant funds in Nakuru means that 45 percent of its General Fund revenues comes from transfers, as opposed to 29 percent for all municipal councils as a group (see Exhibit 6.7.2.).

There has been relatively slow real growth in municipal revenues in Kenya over the past five years. If figures in Exhibit 6.7.2. are corrected for inflation during the period 1975 to 1979, total revenues grew at an average annual rate of two percent. User fees, licenses and central government transfers grew slightly faster than inflation while property rates declined in real terms.

6.7.3. Data Sources

Two sources of data were used in conducting the case study. The primary source included a number of documents (both published and in draft form) supplied by the Urban Projects Department of the World Bank concerning local government finance in Kenya. Of particular importance were two studies, one conducted in 1975 and the other conducted in 1981 of government

Exhibit 6.7.3

Comparison of Per Capita Revenue Collections in Local General Fund - El Doret, Nakuru and Nairobi Municipalities - 1979 (K£)

Revenue Collected	El Doret	Nakuru	Nairobi
Rates/capita	2.81	3.70	5.91
License fees/capita	1.11	0.61	(inc. in user fees)
Transfers/capita	5.18	6.95	5.20
User fees and income/capita	6.56	3.95	3.26
TOTAL/capita	15.66	15.2	14.37
Locally raised revenues per capita			
(Total less transfers)	10.48	8.25	9.17

finance in the municipal councils which allowed for comparison over time of the changing position of municipal finance in Kenya. The second source of information is comprised of interviews conducted with World Bank staff familiar with municipal financial issues and housing in Kenya and with staff of the Kenya Institute of Administration attending a World Bank training program in Washington, D.C. in the Spring of 1982.

6.7.4. Description of Practices Under Study

This part of the case study will examine five major areas of concern, focusing particularly on the experiences of El Doret and Nakuru as examples. Unlike our other case studies, we will be focusing more on problems encountered than on successful application of innovative techniques. This is not to suggest that the municipalities of El Doret and Nakuru are performing poorly. On the contrary, these two municipalities seem to be making relatively good progress in a difficult environment. Many of the problems which they have to overcome are largely created by forces outside their control.

The problem areas under study include:

- local government revenues are not able to keep up with expenditure needs,
- local governments are underutilizing available cost recovery potential,
- transfers from local special accounts to the local General Fund are endangering the long-run viability of the special accounts,
- the property tax system is plagued with problems of valuation and collection, and
- staffing problems are currently hampering all aspects of local financial management.

The following sections discuss each of these problem areas in turn.

Revenue Sources Are Not Matching Expenditure Needs

While per capita expenditures for locally-provided services are growing year to year, they have not kept up with inflation or population growth. Exhibit 6.7.4. shows the per capita expenditures in the general fund accounts of Nairobi, El Doret and Nakuru in 1975 and 1979. To keep up with inflation during this period, per capita expenditures should have increased more than one-and-a-half times. In none of the three cases cited was this growth rate achieved. With population growth averaging four percent per annum and inflation 11 percent per annum for municipalities during the period 1970-79, local expenditures would have to increase by approximately 15 percent per year in current Kenyan Pounds to keep up.

While government grants to local governments increased substantially between 1975 and 1979, the bulk of this increase was generated by the creation of a teachers' compensation grant aimed at removing the burden of supporting teacher salaries from local government budgets. However, while education expenditures continue to rise in recent years, the amount of these grants has leveled off leaving local authorities with increasing amounts of education expenditures to be financed by local sources. Exhibit 6.7.5. shows the impact of this phenomenon in El Doret.

The fact that public expenditures are not rising as fast as inflation is not necessarily a problem if the productivity of those expenditures is rising as well. However, indications are that the cost of service inputs is rising along with general inflation, so that the output and quality of service must be declining proportionately. A major cost component of public

Exhibit 6.7.4.

Per Capita Expenditure in General Fund Account of Nairobi, El Doret and Nakuru Municipal Council 1975 and 1979 (K£)

General Fund Expenditure Per Capita	Nairobi	El Doret	Nakuru
1975 (current K£)	12.08	11.70	10.23
1979 (current K£)	14.08	13.99	14.27
1979 (constant 1975 K£)	9.73	9.20	9.39

Exhibit 6.7.5.

Education Expenditures and Central Government Education Growths for El Doret Municipal Council, 1979 - 1981 (K£)

	1979	1980	1981 (Estimates)
Education Expenditure	149,307	209,240	243,940
Grant for Teachers' Salaries	154,159	196,970	196,970
Surplus (deficit) to be financed from other sources	+ 4,852	(-12,270)	(-46,970)

services is labor costs which have risen as a proportion of local government expenditures from 61.8 percent in 1975 to 66.3 percent in 1979. Rises in labor costs are produced primarily by central government action because it is the central government that sets wage scales for government employees.

Underutilizing Direct Cost Recovery in Service Delivery

Direct user chargers play an important part in local revenue generation in Kenya. From Exhibit 6.7.2. above, it can be seen that user fees represent almost half of General Fund revenues for all municipal councils. Additionally, water and housing funds operate on a totally self-financing basis through user charge collections. If a consolidated budget of the city of El Doret were developed adding together the special accounts and general fund, locally-generated user charges would account for 65 percent of all revenue received by the funds. This percentage, which is typical for the larger municipalities of Kenya, is much higher than is generally found in developing countries as a group.

Despite the relative importance of user charges in local revenue generation, there is indication that these sources are not being exploited to their potential. In recent studies in El Doret and Nakuru it was learned that rents charged for housing owned by the municipal councils are more than 50 percent below existing market levels in the two cities. [2/] However, rent increases appear to be generally unacceptable to local politicians. The problem is exacerbated by the fact that the housing accounts are running current operating surpluses so that the local politicians see no need for raising rents. This, of course, ignores the need for developing surpluses for replacement and expansion of facilities. In addition to the low rents

charged, El Doret appears to have experienced billing and collection problems which reduce their net rental income to approximately 85 percent of the amount estimated. [3/] Given the large number of housing units owned by local authorities in El Doret and Nakuru, a relatively modest increase in housing rents could contribute significantly to total revenues for the municipalities.

Housing and Water Fund Surpluses Used to Offset Deficits in the General Fund

Surpluses currently being generated in housing and water funds in many municipalities in Kenya are being diverted to cover growing general fund deficits. Although technically illegal, the fact that municipal authorities have direct control over the water and housing fund accounts allows them to "borrow" from these funds to cover other deficits. In reality, there appears to be little hope that these borrowed funds will ever be paid back. The stripping of these funds not only reduces capital replacement and expansion within the housing and water services, but also reduces the pressure on local councils to adjust other revenue sources to cover operating expenses. With a constant flow of funds from housing and water accounts into the General Fund, local politicians have been reluctant to raise property rates or even press for the scheduled property revaluations to take place.

The impact of these diversions of funds from the special accounts can be seen in Exhibit 6.7.6. which shows the El Doret water fund surpluses and amounts diverted to the General Fund in the period 1977-81. Steady growth in the amount diverted contrasts with the recent rapid shrinking of the

Exhibit 6.7.6.

El Doret Water Funds Surpluses and Contributions to General Funds 1975-81 (K£)

	1977	1978	1979	1980	1981 (Est)	5 Year TOTAL
Surplus	40,215	94,058	121,634	24,140	16,810	296,857
Amount Directed to General Fund	30,000	30,000	45,000	70,000	75,000	250,000

annual surpluses to effectively erase most of the total surplus generated over the five-year period. The situation is even worse with respect to the housing fund where a five year surplus of almost K£53,000 has been erased by a total of K£65,000 diverted to the General Fund.

Property Rate System Plagued by Problems with Valuation and Collection

Valuation of real property for purposes of taxation is the responsibility of the Commissioner of Lands for all municipalities except the two largest ones, Nairobi and Mombasa. El Doret and Nakuru have experienced considerable difficulty with the services of the Commissioner of Lands in terms of timely revision of valuation rolls. The Nakuru municipal council has decided, with the approval of the Ministry of Local Government, to employ its own property valuator. By employing its own valuator, the Nakuru municipal council expects to have a regularly revised and updated property valuation role. Consequently, property rate revenues are expected to increase both as a result of more frequent revisions of site values and the expansion of the valuation roll. In Nakuru, for example, a considerable amount of land that was previously used for farming is now in residential use. However, the agricultural rates still prevail because the evaluation roll has not been updated.

Expansion of the valuation rolls and timely revaluations appear to be the most feasible way for improving property rate revenues since it appears to be quite difficult to increase the tax rates themselves. In Nakuru, in fact, the municipal council voted recently to decrease the tax rate but the resolution was not approved by the Ministry of Local Government.

Local councils appear to experience considerable amount of difficulty in collecting rate arrears from government departments and parastatal organizations. It has been reported both in El Doret and Nakuru that the Kenya Railways Corporation is considerably overdue on its property rate payments. Since the municipalities appear to have little recourse in forcing payment from government organizations, collection of these arrears may require some form of ministerial action.

The basis on which real property is taxed in Kenya has also come in for considerable amount of examination and discussion. Kenya employs the site valuation system of taxation with tax levied on the value of the site alone, irrespective of the value of the improvements. There has been considerable discussion about replacing the site value system with one of "improved site rating" -- tax on both land and improvements. However, as pointed out in the 1976 IMF study, replacing the site value rating with an improved site rating system would not necessarily increase revenues but would increase administrative costs required by the changeover. 4/ Furthermore, given the current staffing shortages among valuation personnel, it is possible that such a changeover might actually decrease property rate revenues over the period of implementation. The principal advantage to changing the system would appear to be to use the transition to effect an increased tax burden on property. This may circumvent the current problems that local councils have with the approving tax rate increases.

Staffing Shortages in Key Financial Positions

Local government finance in Kenya suffers the skilled staffing shortages common to other developing countries. In recent studies of the

major secondary cities in Kenya, a large number of vacancies in accounting, auditing and revenue collection staffs were identified. 5/

The problem has several dimensions. First of all, the current system cannot produce all the skilled people required in Kenyan local government. The Kenya Institute of Administration is responsible for training government officials and accounting personnel for government service. While the KIA program in local government training appears to be excellent, the production of trained staff cannot match the needs of the local level. The problem is exacerbated by the fact that skilled accountants are drawn away from public service to the private sector as rapidly as they are trained.

A second training problem is that the training course requires local government staff to leave their positions and attend courses at KIA in Nairobi. KIA is interested in developing outreach programs for training local staff at their home sites, but currently does not have the resources to undertake such a program. 6/

KIA appears to present a strong institutional framework on which to build additional capabilities for training in local government finance. Indeed, although KIA is partially subsidized by the central government, it does charge fees for its training programs. It is felt that training aimed at improving local government revenue collection could be placed on a totally self-financing basis, since the increased revenues to the local authorities would more than pay for the staff training. KIA may also serve as an information network to local authorities since many of its former students are employed in local government authorities. This would present a

ready network for disseminating information on improved financial management practices within the country.

Notes

1/ Roy W. Bahl and R. O. Mant An Analysis of Local Government Finances in Kenya with Proposals for Reform. International Monetary Fund (Mimeo) December 1976.

2/ World Bank Third World Project Working Paper "Local Authority Finances and Project Impact". Nairobi, August 1981.

3/ Ibid.

4/ Bahl and Mant op. cit.

5/ World Bank op. cit.

6/ Personal communication, Mr. James Omolo Kayila, Head, Department of Local Government Training, Kenyan Institute of Administration

6.8 Colombia

6.8.1. Rationale and Focus

The betterment tax, or levy, concept may be traced to the Roman Digest of the sixth century and is generally known in the U.S. as a "special assessment." Although often cited as a potentially relevant source of local revenue, its actual implementation has been quite limited.[1/] Based on the benefit principle of public finance (to be discussed below), the betterment levy has a strong conceptual case for broad application, but its actual use has been limited by the perception that it is burdened by technical obstacles, particularly those related to assessing individual betterments and liabilities.[2/]

This case study focuses on the Colombian experience with betterment levies. Colombia and Mexico present the only two "success stories" regarding the use of betterment levies, and the Colombia case is by far the best documented of the two. The study is limited to secondary sources of data and will examine experiences in three Colombian cities. This "between cities" approach permits a more effective use of the available documentation, while providing a broader base for assessing the transferability of the betterment levy to other countries.

6.8.1.1. Conceptual Framework of the Betterment Levy

The betterment levy has its theoretical foundation in the benefit principle of the public finance literature. Simply stated, the

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benefit principle is based on the assumption that those who receive the benefits of a publicly provided good or service should pay for its provision. For the benefit principle to be an effective instrument of revenue collection, at least two conditions must be met:

1. The beneficiaries must be identifiably distinguished from non-beneficiaries. In other words, the exclusion principle must be operative, in which nonconsumers of the good or service are excluded from its benefits. In this regard, betterment levies are appropriate only for publicly provided goods and services which are similar to private goods and services in that external benefits (and costs) are not of significant impact.
2. In order to make individual revenues directly proportional to the individual benefits received, the benefits of each taxpayer must be quantifiable and consistently measurable between benefitting taxpayers.

The benefit principle of taxation has the important characteristic of directly linking the proposed quantity of a publicly provided good or service to the sources of revenues for its provision. In this regard, the betterment levy is quite similar to user charges, which generally also must satisfy conditions described above for effective implementation.

When successfully implemented, the benefit principle also satisfies certain welfare criteria for evaluating a socioeconomic change. Given that the beneficiaries of a change (provision of a good or service)

identify a willingness-to-pay (benefits, B) greater than the costs (C) of producing the good or service, then there has been a net increase in the welfare of the group involved (B-C>0). The potential net improvement in welfare [3/] should generate a demand for the publicly provided good or service which is financed through the benefit principle of revenue (betterment levy or user charge).

It is important to note that when the benefit principle is applied to the public provision of goods and services, there is generally at least a simulation of the market, or price, system. Effective demand only appears when the consumer identifies a potential net increase in his welfare through the exchange. In principle, consumer sovereignty is respected. It is assumed that the consumer can evaluate what is good for his own welfare, and he may elect to not participate in a program if his personal values indicate that participation will decrease his net welfare.

In contrast to the benefit principal is the ability-to-pay principle of public finance. This principle states that consumers of publicly provided goods and services should not be taxed according to the quantity of benefits received; rather those who can pay more (have higher incomes) must pay more. The central focus of the ability-to-pay principle is with income distribution and equity, and it works from the assumption of decreasing marginal utility of income. There is no attempt to directly link level of expenditures with effective demand through a quasi-market in which consumer willingness-to-pay is key.

Rather, the political process is used to establish a desired level and distribution of expenditures, which are financed according to the ability-to-pay of each socioeconomic group of the population. Consumer sovereignty is not respected except as each consumer has the opportunity to participate in the political process. Once the level and distribution of expenditures are established, participation in financing is compulsory, with the exception of those groups judged to have no ability-to-pay.

As noted in section 3.2.1, betterment levies may be considered a hybrid case in actual application. They are intended to be directly proportional to the benefits which the betterment conveys to each beneficiary--in this respect it is similar to a user change. However, participation, or payment, in the levy is generally compulsory, which makes it similar to taxes based on the ability-to-pay principle.

The hybrid nature of the betterment levy is important to an understanding of its acceptance, success or failure. As will be noted below, the Colombian experience with betterment levies includes both benefit and ability-to-pay considerations in its implementation. From this review of the conceptual framework on the betterment levy, the following considerations are key to interpreting the Colombian experience:

- separation of beneficiaries from non-beneficiaries;
- quantification of benefits by individual, or group, beneficiaries;
- consumer sovereignty in relation to public projects and to the political process; and

- the ability-to-pay of benefitted groups.

6.8.1.2. Relationship With Other Local Revenues

Before examining the specific case of Colombia, it is useful to compare the betterment levy with other revenue sources. Having real property as its base, the betterment levy has sometimes been considered superfluous or overlapping with other taxes which have the same base. Below is a brief examination of the relationships between the betterment levy and other revenue sources which have similar conceptual or tax base structures.

Real Property Tax

Some may argue that betterment levies and real property taxes are in effect repetitive and represent double taxation. This argument holds that public works betterments are incorporated in the real property tax and should not be taxed again through betterment levies.[4/]

At the theoretical level, the real property tax is assessed on total site values and seeks to collect the entire net rent of land and improvements.

Site value may be increased either as the result of public betterments external to the site or through owner improvements onsite. The betterment levy seeks only to reflect the benefits confined to the owner of a site through a specific public works betterment.[5/]

In practice, the real property tax is usually regarded as a general revenue which may be used for city-wide, non-localized services, such as

police protection, education, justice and health. All of these services have high externalities, and distinction between beneficiaries and non-beneficiaries is difficult, if not inappropriate. Expenditures may be for investment or consumption purposes, as well as the general expense of administering local government. As real property ownership is assumed to be directly proportional to wealth, the real property tax may be considered as a surrogate for a local income tax, so that city-wide services are financed on an ability-to-pay base.

The betterment levy focuses only on the benefits generated by a public investment, which is generally quite localized. It is not directly linked to an increase in consumption of such services as education or security. Thus, an important distinction is that real property taxes are generally used to finance city-wide investment and consumption expenditures, and the tax is a form of rent for access to general urban opportunities and amenities; the betterment levy is limited to the benefits which directly accrue to the property owner as the result of a localized public investment.

An operational difference between real property and betterment revenues is in the rate structures. The real property tax rate is usually low (often less than 1 percent and rarely greater than 2 percent) and is applied to the value within a site, both land and improvements for perpetuity. The betterment levy is a one-time liability, generally with 50 percent to 100 percent due during the public works period, and refers only to betterments to the property owner generated by public

works external to his property. If only one rate structure were applied to both cases, the result would be of questionable equity impact, with betterments generated by public initiative taxed at the same rate as onsite improvements financed by the property owner.[6/]

Finally, the two taxes may be expected to have different impacts on land use. When the real property tax is relatively low (say, about 1 percent) and paid for in perpetuity, it may not be a strong incentive to transfer land used for speculation purposes to directly productive uses, especially when the tax rate is less than the increase in land value over time because, for example, of demographic pressures on the land market. Also, the landowner knows that any onsite improvements he makes will be incorporated into the real property tax base. As a tax on pure site value, the betterment levy does not penalize onsite improvement of undeveloped land. However, the public investment providing the betterment, and incorporated into the levy to be paid in a lump sum or over a short period, does quickly increase the opportunity cost of the land and provides a strong incentive to put the land to more productive use.[7/]

User Fees

These fees are closely tied to the benefit principle and may be indirect, such as a fuel tax to finance road construction, or direct, as in the cases of a bridge or road toll, or installation and service fees for water and sewage. In the application of user fees, it is assumed that the users are the beneficiaries, which may be separated from non-beneficiaries by making payment of the fee necessary for access to the

service. The public authority which manages the service usually sets the user fee on the basis of projected demand and consequent expected revenues sufficient to recover investment, maintenance and operating expenses, as well as to generate excess revenues which may form the base for future investments.

Using an urban road as an example, the actual users may or may not be property owners, and if owners, their property may not have its value directly influenced by the road. Property owners within a physical influence area of the road may expect to have their site values increased by the improved accessibility of their site. They may never use the new road,[8/] but their property's value is enhanced, or bettered, by the increased potential accessibility offered by the new public investment. Thus, user fees and betterment levies have different functions. The former seeks to recover costs and, at times, finance future investments, through charging users for access to the service. The betterment levy seeks to recover the benefits accrued to landowners which result from a public investment.[9/]

Capital Gains Tax

Although the capital gains tax is normally not a local tax, there are a number of similarities and distinctions between it and the betterment levy which should be noted.

- Capital gains taxes accrue to increased value of real property, whether this increase results from improvements internal or external to the site, while betterment levies focus only on improvements resulting from public investments external to the site.

- Capital gains are taxable only at the time of sale, while betterments are levied at the time of the investment conveying betterment.

- Capital gains are generally not intended to tax increases in real property value, per se, although they do have this effect; their purpose is usually to supplement income tax revenues as a tax on "increase in wealth." In this sense, the capital gains tax tends to discourage owner-initiated capital improvements onsite, while the betterment levy finances public capital improvements and stimulates owner-initiated investments onsite, as discussed earlier.

- Betterment levy rates generally approach 100 percent, while the capital gains rate is normally around 25 percent.

Although capital gains taxes and betterment levies may differ by taxing authority, taxing principle, timing and rates, there is, nonetheless, merit to the argument that there is a substantial overlap in the two. This question of fiscal equity, or justice, may be resolved by deducting the amount of betterment levies from capital gains liabilities.[10/]

6.8.2. Background and Setting

Although in Colombia the concept of betterment, or valorization, may be traced as far back as 1599, the current form of the betterment levy began in 1921, with the national law regulating flood control and irrigation projects, which permitted investment cost recovery through levies on benefiting property owners. Later, the levy's potential scope was extended to virtually all public works projects that resulted in an increase in real property value, and the limitation of changes to cost

recovery was removed. Currently, all levels of Colombian government may use betterment levies, but municipalities have been the principal users.[11/]

In the interpretation of the cases presented below, it is useful to consider the following basic issues regarding implementation of a betterment levy:

- Should the valorization charge be viewed as recovering a benefit otherwise bestowed gratuitiously on the landowner by the State (that is, recovery of betterment), or primarily as a way of increasing municipal solvency by recouping the actual cost of public investment?

- How is the principle of betterment to be applied in low income neighborhoods?

- How can a steady, self-sustaining series of betterment based projects be maintained in the face of liquidity and collection problems? 12/

6.8.3. Description of Practices Under Study

The approach taken here is to examine the process of betterment assessment and levy collection in Colombia, taking three cities as case studies. This approach allows us to treat the issues raised above in a comparative manner and to identify the conditions under which the betterment levy concept may be transferred to other national contexts. Emphasis is not on the technical instruments of land value assessment; these instruments are widely discussed in the literature of local taxation, as well as in that of Colombia.[13/]

Although the betterment levy has financed a fairly wide range of public investment in Colombia, in urban areas road construction is by far the most common type of application. Furthermore, much of the non-

road urban public works financed through betterment levies are road-related, such as service networks, drainage systems, bridges and parks.[14/]

Medellin: Example of Urban Betterment Levy

Under Colombian law, municipalities have wide autonomy in betterment levy administration. Medellin is the Colombian city having the greatest experience with the levy, which has been in use continuously since its creation, in 1948, through establishment of the Betterment Department (Departamento de Valorización). Although autonomous at the local level, the Betterment Department receives technical and legal support from the National Betterment Directorate (Dirección Nacional de Valorización) of the Ministry of Public Works. At the local level, the Department's effectiveness has been greatly enhanced by the development and growth of a new class of professionals specialized in the techniques of betterment assessment and revenue collection. These specialists work in public administration as well as consultants to both the municipal government and to individuals or groups of citizens affected by the betterment levy. All administrative and investment costs of the Department are expected to be self-financing through the betterment levy.[15/]

Over the past three decades, Medellin has financed a substantial proportion of its physical infrastructure through the betterment levy, and the approach has become an accepted part of public expectations, as exemplified by the popular catch phrase "Medellin is made of betterment levies." Quantitatively, betterment levy revenues currently are approximately equal to those of real property taxes.[16/]

The process of betterment levy and collection in Medellin is summarized below.[17/]

Determination of the Benefit Area of the Project

Although there is a general requirement that all properties within the benefit area will receive a differential benefit, there is no legal limitation of a geographic nature to define the area, and the methodology is relatively flexible and nonspecific. For example, the usual definition of the benefit area as a strip following a proposed road may be adjusted for such factors as intersections and river crossings. In other cases, the benefit area may be strictly determined, as with sewer systems, which benefit properties served by the system. This initial step of the betterment levy process may also incorporate certain management and policy decisions. For example, there may be a poor district composed of numerous, small lots. The relatively small increase in each site's value may not justify the administrative costs of collecting a betterment levy; or, the poor area may be excluded from the levy because of income distribution policy.

Property Owner Survey and Representation

After determining the benefit area, a survey of property owners is made, concentrating on their income levels. Simultaneously with the survey, property owners living in the benefit area are called to a meeting in order to elect representatives. If representatives are not elected for any reason, they are appointed by the responsible agency.

The representatives are expected to participate in preparation of the public work's budget and in determining the distribution of benefits and levy quotas on the basis of expected increases in property values. The representatives have voice but no vote in management of the investment. Thus, they cannot halt implementation of a project, but they do have a supervisory role in the investment of funds, and they must have access to all relevant information regarding the project.

Estimates of Increases in Aggregate Value

The aggregate betterment of the affected area must be estimated in order to satisfy a legal limitation: total levy revenues must not exceed the investment and administration cost of the project, nor the amount of benefits received by property owners. In other words, it must be determined whether total project implementation expenditures are more or less than the benefits received by the area. If benefits are greater, the apportionment of costs is made based on the total cost. If they are not, costs are apportioned proportionately. For these estimates, pragmatism is the general rule. Usually, real estate assessors are used to calculate the expected increase in value of a sample of properties throughout the benefit area. The sample is then expanded for total area estimates. Recognizing the potential margin of error in such a procedure, the betterment levy process usually only continues when the expected increase in property values amply exceeds projected costs.

Determination of Individual Liability

This step presents a delicate process, which usually stimulates intense interaction between resident representatives and technical specialists. The operation calls for the use of lot sizes as the basic point of reference for prorating costs. It is important to note that the property tax cadaster is normally used only as one of several input factors.[18/] Individual liability is determined by consideration of a number of factors which convert the physical area of each lot to its virtual, or weighted, area:

$$V_i = (F_1 \ldots F_j)_i \, A_i$$

where: V_i = virtual area of property i;

F_j = different factors, 1 to j; and

A_i = the physical area of property i.

Next a conversion factor is calculated, which is the total cost of the public works projects divided by the number of the virtual property areas of the benefit area, which yields the betterment cost per unit of virtual area:

$$T = \frac{P}{\sum_i V_i}$$

when: T = the conversion factor and

P = cost of the project.

The individual levy for property i, C_i, is thus:

$$C_i = T \, V_i$$

In summary, the individual levy for each property is the result of assigning to the weighted, or virtual, area of the property its proportion of project cost, spread over the sum of weighted property areas.

Although assessment of individual betterment liability is algebraically simple, determination of virtual or weight factors, F_j, is key to acceptance of the levy assessments and to success of project implementation. Techniques for determination of these factors differ widely, and argreement on procedure results from negotiation among the Betterment Department, independent consultants and property owner representatives.

Assignment of F_j values can become quite sophisticated, with the degree of complexity depending on the type of project. For example, for a sewage system, it may be assumed that all properties receive exactly the same benefit. The distribution of drainage benefits may depend on the relative altitude of each property. For a road project, several physical, socioeconomic and institutional factors may come into play. Because betterment levies have been most common in Medellin road projects, and in order to describe a more general process, the remaining discussion will concentrate on the relatively more complex situation.

In the formulas above, the F_j factors are multiplicative. This is the most common situation and implies that each F_j be positive (a negative value results in a property owner credit), although in some cases an F_j may be 0, which nullifies the levy liability. However, if

for some reason there is a decision to include internal subsidies within the project (because of a decrease in land value according to one or more factors, or because of an income policy), then a summation procedure which allows for negative F_j values may be preferred. Following are examples of the most commonly used factors in Medellin.

1. Ideal Factors

This factor seeks to measure benefits received by each property in the form of indices. It is similar to estimation of the increase in aggregate value discussed above, but it differs in concentrating on the relative differences in property betterment, not on absolute differences measured in monetary units. It is sometimes called the "basic factor" because it provides the first basis for weighting, based purely on benefits; it is "ideal" because relative measures are made assuming that all properties have ideal shapes and measurements, with actual shapes and locations taken into account by later factors. The most common indicators used in determining the ideal factors are:

- distance between the property and the project, with greater distance generally lowering the relative value;
- access to other services, measuring the degree to whcih the new project opens opportunities to existing services;
- current exploitation, with higher quality of surrounding uses, the higher the element's weight; and
- constraints on use, tending to decrease the weight when the property owner has barriers to use of the project--in some circumstances, this may make the factor equal to 0, eliminating the levy.

2. Shape-of-the-Lot Factor

While the ideal factor is calculated on the basis of ideal, or standard, lots, this factor seeks to adjust for lot shape. In general, it is assumed that lots with greater frontage in relation to their perimeter have greater value per surface unit. Similarly, topographic conditions may be included in the factor wright.

3. Socioeconomic Factors

The public works project may benefit population groups with different socioeconomic characteristics. These characteristics are identified in the survey step discussed above and detailed at this factor level. In Medellin the procedure has usually been to assign a value of 1 to higher income properties and a value less than 1 to lower income properties. This is a departure from the benefit principle, incorporating ability-to-pay considerations, and its use appears to have greatly facilitated acceptance of the system. Even higher income groups have supported this factor, although it is contrary to their direct interests.

4. Density and Land Use Factors

Particularly in the case of large public works, changes in land use and densities may be anticipated, and these considerations may be weighted.

5. Institutional Factor

Although as a rule no properties are exempt from Colombia's betterment levy, exceptions occur in the cases of public welfare, educational

and charitable institutions. When used, this factor has a value less than 1, reducing its relative levy burden, and it may reach 0, resulting in levy exemption.

6. Current Use Factor

Consistent with the betterment principle for betterment levies, in Colombia, as a rule, no levy is imposed on improvements; the levy base is restricted to land value. However, in some cases it was found that giving higher weight on land with improvements when compared to vacant land, facilitated acceptance of the system. Similar to the socioeconomic factors, this factor incorporates the ability-to-pay consideration and appears to appeal to the Colombian sense of fiscal justice.

Levy Collection

Collection is probably the weakest link in the betterment levy system. Experience includes liability assessed before, during and after project execution. Generally, the earlier the assessment occurs, the higher the probability of collection.

Payment is made on demand, generally with a discount, or in installments, with interest. In general, there has been no system for adjustment to changes in price levels, except during the period of levy liability determination and completion of the project. Thus, inflation has been an incentive to delay levy payments.

Even with some problems in levy collection, Medellin has had periods during which betterment levy revenues exceeded real property tax revenues.

In 1963, for example, total Medellin municipal tax revenues per capita were 115 pesos, of which the betterment levy accounted for 54 pesos (47 percent) and the property tax 42 pesos (36 percent).[19/]

More recently, Medellin has been experimenting with an innovative, consolidated system of user fee revenue collection. Although currently limited to services provided by the Medellin Public Service Company (Empresas Públicas de Medellin--EPM), this approach could be applied to the betterment levy. Under the EPM system, billing is computerized, with bills on a monthly cycle basis and due 10 days after receipt by the subscriber. A consolidated bill for water and sewerage, electricity and telephone services is presented, with each service charge shown separately. If the subscriber does not settle his account within three months, all utility services are disconnected. With this rigid policy, the level of outstanding and overdue accounts is generally low.[20/]

Bogotá

The betterment levy's first use was in Bogotá, in 1938, although it has had several interruptions, largely because of public opposition to levy design. Since 1966, however, the system has been in continuous effect, with general public support.[21/]

Compared to Medellin, Bogotá is a larger, more complex and less homogenous city, and the betterment levy has had relatively less importance in Bogota. This may be attributed to greater political interference in the levy process and to less competent levy management. Even so, the betterment levy has provided about half as much local revenue as

the real property tax and about 25 percent of the city's total tax revenue.[22/]

Betterment levy operations since 1972 have been the responsibility of the semiautonomous Institute of Urban Development (IDU), although the District Water and Sewer Enterprise (EEAB) and the National Ministry of Public Works have also carried out projects on a betterment levy basis in Bogotá. Collection of levies for these two agencies have been made by IDU, for which it receives a 20 percent commission.[23/]

Betterment levy projects are approved by the Bogotá District Planning Board and the Board of Directors of IDU, with the exception of sewer projects, which are the responsibility of EEAB. Approval from the City Council is also required, except for streets of less than 200 meters in length, which may be authorized by the mayor.

Once approved, the betterment levy process in Bogotá is quite similar to that in Medellin, including determination of the benefit area, the ideal factor and "adjustment" factors such as lot shape and socioeconomic characteristics. Although ability-to-pay considerations are included in the levy factors, there appears to have been less emphasis on affected property owner representation in project design and supervision in Bogotá. This may partially explain why, as of December 1973, 65 percent of payments on all betterment levy projects undertaken by IDC remained to be collected. On average, about one-third of levy obligations were collected in the first project year, and one-half by the end of the second year.[24/]

Cartagena

The betterment levy was created in Cartagena in 1953. An Office of Betterment was established in 1957, but it had very limited activity. Its main function was to collect betterment revenues for projects executed by other local agencies. This procedure separated the betterment produced by the investment from the levy collection. This separation apparently undermined the chief characteristic of the betterment levy, directly linking investment benefits with levy payment. Thus, Cartagena had an initial experience with the betterment levy which was essentially ineffective, due primarily to its refusal to learn from the experience of other Colombian cities.[25/]

In 1971, a new Department of Valorization was established. The new Department made a serious study of other Colombian betterment levy experiences, especially Medellin and Bogota. The betterment levy process in Cartagena is essentially the same as that described in Medellin, with particular emphasis on taxpayer participation. Each affected property owner is assured of at least information and indirect voice (through his representative) regarding each essential step of the levy process. In addition, he may take legal recourse, which is limited, however, to his own property's liability. Collection procedures are also similar to those of Medellin. In addition, proof of full levy payment is a condition of property transfer, and the Department may, after due judicial process, auction off land for which the levy has not been paid and use the proceeds as collateral for the debt.[26/]

Transferability and General Implications

Colombia is one of the few countries in which the betterment levy has been used as an effective instrument for collection of local revenues. Although the cases examined are surely not free of problems, both conceptual and operational, the following appears to be especially relevant to transferability and the general implications of betterment levy use.

Political Commitment and Management Skill

Effective implementation of the betterment levy requires a local, and often national, political commitment to the betterment levy as a legitimate source of local revenue. This commitment usually implies that the levy process be removed from the personal and partisan political arena, with responsibilities and authority concentrated in a technical agency. This agency should integrate benefits and costs of public works projects, based on the benefit principle of the levy, and be managed by people who combine technical competence with skills in building consensus on project goals, areas of influence, operation and individual liabilities. With proper political commitment and management, the affected population should be convinced that the agency represents a legitimate effort to provide needed services, financed through fair mechanisms in which all consumers have a net increase in welfare. With this positive environment, betterment levies should not replace other revenues, rather they should increase revenues for clearly demanded services.[27/]

Public Participation

Both the Medellin and Cartagena cases highlight the need to effectively involve affected property owners in all phases of the betterment levy process. In addition to building consensus and cooperation on project design and implementation, they can contribute to key value judgements, such as use of the ability-to-pay criterion in some cases, which can greatly enhance the levy's legitimacy and acceptance, and consequent probability of timely payment.

Land Use and Value Impacts

While in general betterment levies raise land values in the benefit area, they tend to exert an overall downward pressure on land prices as the levies permit a relatively rapid extension of the city's service network, increasing the aggregate supply of serviced land. This, in turn, may be expected to lower residential densities and improve access between housing and employment. In general, betterment levies tend to discourage land speculation and encourage the transfer of idle land to productive use.[28/]

Limiting the Levy to Cost Recovery

Although founded in the benefit principle, in successful practice the betterment levy has been limited to recovery of public works project costs. Its acceptance hinges on all levy payers being convinced that the project's benefits they expect to receive will be greater than their contributions to cost recovery. A general conclusion is that this

acceptance will only be probable in those cities experiencing rapid rates of population increase, with the associated high demands for urban services. In older cities of more developed countries, with low or negative rates of population increase, the betterment levy may be expected to have very limited appeal.

Start Small

The Colombian experience shows that the betterment levy process should be started on a small scale. This permits a clear identification of benefits on the part of property owners, facilitates the building of neighborhood awareness and consensus, and allows technical and management skills of the implementing agency to be acquired gradually and steadily. Large projects in a complex city may make the identification of the relationship between public investments and increases in site values so intricate as to undermine the betterment levy process.[29/]

Footnotes

1/ William A. Doebele, Orville F. Grimes, Jr., and Johannes F. Linn, "Participation of Beneficiaries in Financing Urban Services: Valorization Charges in Bogata, Colombia," Land Economics Vol. 55, No. 1 (February 1979), p. 74. For a broader review of betterment tax implementation, see Jorge Macon and Jose Merino Manon, Financing Urban and Rural Development Through Betterment Levies: The Latin American Experience (New York: Praeger, 1977).

2/ Macon and Manon, p. 1.

3/ This criterion (B-C>0) for evaluation of a socioeconomic charge is termed the Kaldor-Hicks, or Pareto potential improvement, criterion.

4/ Macon and Manon, p. 13.

5/ William G. Rhoads and Richard M. Bird, "Financing Urbanization in Developing Countries by Benefit Taxation: Case Study of Colombia," Land Economics Vol. 43, 1967, pp. 405-406.

6/ Macon and Manon, pp. 13-14.

7/ Rhoads and Bird, pp. 406-408, present a similar argument, but with a different emphasis.

8/ Local, or national, legislation often requires that before a toll road is approved, an alternative access is available via public, free access roads.

9/ See also Macon and Manon, pp. 10-12. As will be noted below, betterment levies may also be limited to cost recovery, but the levy is nonetheless limited to property owners.

10/ Ibid., pp. 12-13.

11/ Doebele, et al., p. 75.

12/ Ibid., p. 74.

13/ See, for example, Macon and Manon, and Doebele, et al.

14/ Macon and Manon, p. 48.

15/ Macon and Manon, pp. 46-47.

16/ Ibid., p. 47.

17/ This summary is taken from Ibid., pp. 48-62.

18/ When there is a cadestral system taking into account the factors concerning intrinsic value of the land, which also meets the requirement of a constant ratio of cadestral value to market value, it is possible to dispense with these factors. See Macon and Manon, p. 61.

19/ Rhoads and Bird, pp. 409-410.

20/ The World Bank, Staff Appraisal Report No. 2795-CO: Colombia Fifth Telecommunications Project-Empresos Publicas de Medellin (EPM), (Washington, D.C.: The World Bank, March 7, 1980), p. 16.

21/ Macon and Manon, p. 47.

22/ Rhoads and Bird, p. 409.

23/ Doebele, et al., p. 75.

24/ Ibid., p. 81.

25/ Johannes F. Linn, Urban Public Finances in Developing Countries: A Case Study of Cartagena, Colombia, (Washington, D.C., The World Bank, Urban and Regional Report No. 77-1, January 1975), Vol. II, pp. 318-323.

26/ Ibid., pp. 331-334.

Footnotes
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27/ Rhoads and Bird, pp. 409-410, found that the betterment levies had a net positive effect on total local revenues.

28/ Doebele, *et al.*, pp. 86-87.

29/ Rhoads and Bird, p. 412, and Doebele, *et al.*, p. 91.