



USAID
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BACKGROUND PAPER



DEVELOPMENT INNOVATION

**MUNICIPAL FINANCE:
INCREASING LOCAL
GOVERNMENT RESOURCES
TO FUND MULTI-SECTORAL
FACILITIES**

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1. Introduction

An exciting paradigm shift is emerging in developing and transitional economies. With increased decentralization and urbanization, local governments have taken on greater responsibility in the provision of basic municipal services. To help fund education, solid waste management, water and sanitation, and other economic development projects, municipalities have turned to innovative financing schemes to meet local demand. Since central level government support cannot meet finance the service needs of most municipalities, local governments are increasingly turning to (1) own-source revenues such as taxes, licenses and permits, user fees for services, and municipal assets; and (2) capital markets borrowing.

This paper provides an overview of the paradigm shift that is occurring in many developing countries, movement towards market-based municipal financing, and serves to assist USAID and others in designing strategies that increase the supply of local government resources to finance infrastructure, housing, health care, education, economic development, and other public services. The paper focuses heavily on the process of capital markets borrowing, either through borrowing from banks or issuing debt instruments to investors. We touch briefly on own-source revenues and cash transfers only when needed to articulate the interface between borrowing and the other two sources of funds (own-source and transfers).

2. The Paradigm Shift

Many developing countries are in the midst of a paradigm shift on how to generate resources to increase the delivery of municipal services such as drinking water, sanitation, roads, and schools. Conventional thinking and practice has been that the central government is the primary financier of municipal projects. This environment was further supported by an international development community focused on grant funding and concessionary loans. However, this model for development finance was unsustainable given limited budgets of both central governments and donor organizations.

Fiscal deficits and other investment priorities have significantly reduced central government transfers to local municipalities, limiting the provision of basic municipal services. The situation is compounded by rapid urbanization. Demand for municipal services, which already exceeds supply, is increasing exponentially with more people living in urban environments. The inability of municipalities to meet demand has resulted in the spread of diseases such as cholera and typhoid, the failure of cities to realize economic development potential and generate own-source revenues, and the increased cost of building infrastructure within existing settlements.

A new paradigm is emerging given that cash transfers from central governments and grants and concessionary loans from bilateral and multilateral donors can only meet a small portion of total infrastructure and services need.¹ Local governments have

¹ The Government of India estimates that the total requirement for financing needed of water supply and sanitation from 1996-2006 is US\$46.3 billion, US\$4.6 billion per year. Compared with an annual flow of plan funds from state and central governments to local governments at US\$1.04 billion, this leaves an annual gap of US\$3.5 billion. Source: Rakesh Mohan Committee.

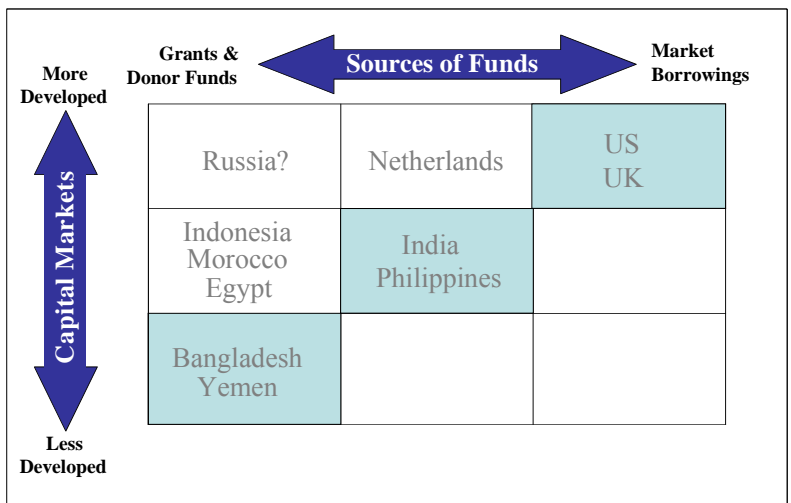
become more innovative in obtaining sources of funds to finance economic development with many municipalities turning to the local capital markets to fund municipal projects. In Mexico, alone, local governments have raised US\$10 billion from the domestic capital market to build municipal infrastructure. Governments and development organizations alike are beginning to realize the potential of local markets.

The prospects of utilizing the local markets are tremendous. In most developing and transitional economies, the supply of capital available from the domestic private economy greatly exceeds the opportunity for investment. Investors in many countries are seeking alternative investment vehicles if provided the products. The result of tapping into the private markets is not only good for municipalities, but for economic development. A significant portion of local funds are invested in low paying central government bonds, unproductive real estate assets, or sent abroad.

<i>Sources of Funding for Building Municipal Facilities</i>	
<u>Old Paradigm</u>	<u>New Paradigm</u>
Cash transfers from higher levels of government, and/or Grants and below market-rate loans from bilateral and multilateral donors	Leveraging market-based local currency loans through strategic use of cash transfers, grants and concessionary loans

3. Paradigm Shift Diagnostic

A diagnostic analysis of a country’s capital market development status shows where a given country fits within the old to new paradigm shift. The figure below provides a simple comparative matrix for the diagnostic analysis:



In countries with less developed capital markets, such as Bangladesh and Yemen, municipalities must rely primarily on the old paradigm approach: cash transfers from central government, grants and concessionary loans from donors, and municipal revenues that can be generated through increased collections and/or reduced operating costs.

Many municipalities, such as those in India and the Philippines, have reduced their reliance on government cash transfers and donor loans and grants through own-source revenues. Increasing own-source revenues provide new funds to pay for building critical infrastructure. To increase own-source revenues local governments have adopted programs to: improve billing and collections; reduce operating costs by implementing energy efficiencies; and, in the case of water supply, minimize lost water due to leaks. These actions are all within the manageable interest of municipal elected officials and managers and do not require difficult political decisions such as raising rates. In some instances, where there have been improvements in service delivery, governments have been able to raise service rates and tariffs to increase local revenues.

In countries with more developed capital markets, municipalities are able to rely more on new paradigm approaches - raise funds directly from market-based sources such as banks and investors (generally with the support of grants and concessionary loans). As an example the total development cost of a municipal facility is determined. A feasibility analysis is used to determine the sources of funds available for a market-based borrowing. The gap between market-based sources and total development cost is filled with grants and less than market rate loans. An example is the Chesapeake Bay Foundation in the Eastern United States where grants are competitively awarded to local governments within the watershed to help finance wastewater treatment facilities. The grants provide an incentive for municipalities by decreasing borrowing costs, while achieving a larger policy objective of reduced pollution for all residents living in the watershed.

Grants and below-market rate loans may be structured on a competitive basis to achieve policy objectives. The US Environmental Protection Agency provides grants to help states establish State bond banks. The bond banks use the funds to reduce the cost of borrowing for municipalities through pooled finance and revolving funds. These are described in Section 5 Municipal Finance Strategies.

Countries between the two extremes rely on carefully mixing old paradigm sources of funds to prepare them for eventually realizing new paradigm sources of funds.

Unless thoughtfully applied, the use of bi- and multi-lateral donor loans with below-market rate terms and conditions will preempt the development of domestic capital markets, and make it more difficult to realize the new paradigm approach of municipal market-based borrowing. The less-than-market-rate terms and conditions will crowd out private sector lending, as municipalities will always borrow at the lowest possible cost. Moreover, municipalities will only postpone the arduous process of coming to terms with the reforms and discipline needed to access sustainable supplies of domestic loan funds.

4. Diagnostic Indicators

There are several markers that can be examined to determine where a country fits within the paradigm shift matrix:

Interest Rates

Interest rates and their close relative inflation provide one clue. Long-term interest rates are set, to a great degree, on estimates of long-term inflation. Interest earned over time on the principal amount of a loan will help to offset the depreciation in value of the loan principal due to inflation. It is difficult to borrow long-term in countries with high rates of inflation and interest, as the amount to be repaid may be as much as three to four times the amount of principal borrowed. Countries with low inflation and long-term interest rates are prime candidates for new paradigm strategies.

Loan Repayment Period

The repayment period for loans, especially on government borrowings is another sign. Unless a country is subjected to directed credit where the government sets interest rates and repayment terms, the market for central government borrowing establishes the longest repayment period. In other words, capital markets set long-term interest rates for non-government borrowing by observing the market reaction to government borrowing. Another factor is that infrastructure to a municipality is similar to a house to a family. Very few can afford the entire cost up front; and the longer the repayment period the more affordable it is to repay the loan. Repayment periods of at least 7 to 10 years are required to use new paradigm approaches in municipal finance.

Stock Market and Debt Market Development

The level of development in a country's capital markets is also an important factor. Capital markets are essential to the mobilization of private long term capital since they are the place where investors and investment opportunities come together. Most capital market development starts with creation of a formal market for launching and trading equities (stock) and the related institutional structures of brokers, analysts, and market regulators. For municipal finance, the subsequent development of a debt market is crucial, although it need not be highly sophisticated to start. The emergence of investment banking (either within or outside of commercial banks), the use of credit rating agencies (domestic or international) and the broadening of financial securities regulatory systems to cover debt as well as equity securities will facilitate long term municipal borrowing.

Pension Fund & Insurance Deregulation

To promote long term lending, there need to be sources of long term funds. Long term funds are the result of long term savings within a country's financial system, and hence the existence of pension funds and life insurance are a good indicator that long term savings are taking place. If these two types of financial services are controlled by the central government, the long term savings they generate are normally directed into long term central government treasury bonds and commercial real estate. As pension funds and insurance companies are given more independence and eventually become privately managed and privately owned, they will seek to diversify their investment portfolios and will look for long term securities with a predictable risk and return. Long term municipal bonds can benefit from this evolution if they are introduced to long term investors as an opportunity for them to diversify (and hence

reduce the risk) their portfolios.

Credit Rating

A credit rating system has three primary actors. The first is a municipality in need of external resources, and has the authority to raise revenues, borrow funds and pledge collateral. The second is a credit rating agency with the motivation and experience to examine the financial condition of the municipality and draw conclusions about the municipality's capacity to effectively raise revenues, repay debt, provide good financial management, and maintain a stable political environment. And, the third is private sector investors who have the resources and the incentive to invest in municipal debt. Credit rating agencies are independent third parties that offer a simple to understand credit score of a potential borrower or issuer of debt such as a municipal bond. Investors compare credit scores across similar types of debt. They rely on the score to make judgments about investment risk because they cannot evaluate the creditworthiness of every potential investment opportunity.

5. Market-Based Financing Strategies

Several market-based financing strategies may be used to provide municipal services, including: micro/small enterprise loans, bank loans, municipal bonds, pooled finance, and revolving fund. For most of these strategies to succeed, however, several enabling conditions need to be accomplished and are discussed in Section 7 Enabling Conditions at the National Level and Section 8 Enabling Conditions at the Local Level.

Micro and Small Enterprise Loans

Micro and small enterprise loans are often used to provide basic municipal services, primarily for the poorest slum households. For example a tea stall vendor will borrow to connect to a reliable supply of clean drinking water. A small-scale manufacturer will borrow to develop a dependable source for electricity to run machines. Access by slum dwellers to microenterprise finance is especially important, as this market is most difficult to service by conventional lenders such as banks. Some reasons why are

- Slum dwellers require weekly, sometimes-daily repayment schedules,
- Traveling long distances to branch bank outlets to make payments is difficult,
- Slum dwellers are unable to secure loans with assets, and
- Group loans do not meet standard credit underwriting criteria.

Other examples of small-scale municipal service providers utilizing microenterprise financing include private sector medical clinics; taxi services; solid waste collectors; and child-care early education providers.

Bank Loans

Banks represent the simplest strategy for providing loans to municipalities; the repayment period, however, is likely to be 3 to 5 years, much shorter than needed for large projects. This is because banks rely primarily on deposits to make loans. Proper portfolio risk management requires that deposit terms be matched with loan

terms. Like a home loan, to be affordable capital projects such as water, sanitation and roads often require longer repayment periods; this is difficult for banks given portfolio management risk restrictions. Banks rely on standard loan agreements. These agreements often have terms and conditions that are not in the best interest of a municipality as a borrower. For instance banks may restrict the use of loan funds or require a pledge of assets in excess of the amount borrowed, which will limit further borrowing by the municipality.

Municipal Bonds

Municipal bonds are a bit more complex. Municipal bonds are an improvement over bank borrowing as the municipality creates a debt instrument with term and conditions that meets its needs and the needs of the investor. The interest rate and repayment period are negotiated. The use of funds and collateral requirements can meet the needs of both the municipality and the investors. Upon completion of the

Ahmedabad Municipal Bond

To improve its water supply a municipal bond was sold by the city of Ahmedabad to institutional and individual investors located in the city. In addition to a market rate of return, investors also gained because their business would derive economic benefits from the water improvements. In addition to the financial incentives individual investors were attracted because they would personally benefit from increased water supply.

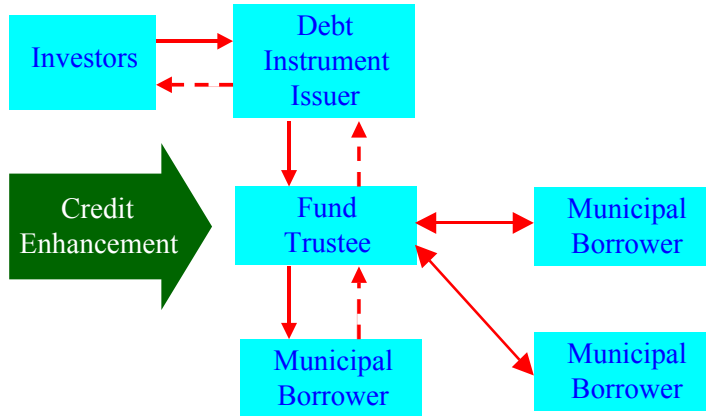
economic and financial viability analysis, credit rating, and legal agreements, a bond prospectus is prepared. The purpose of the prospectus is to inform investors of the risks they undertake by purchasing shares in the bond transaction. Thereafter the debt instrument is sold to investors. An example is a municipal bond transaction sold to investors by the city of Ahmedabad in India.

Credit enhancements are essential for municipal bonds. They provide comfort to investors by providing layers of protection against non-payment by the borrower. The typical credit enhancement is a reserve fund. The first layer is an initial deposit equal to 1.25 times the annual debt service payments held by a trustee. The municipality pledges a stream of income to ensure that the fund is always at 1.25 times the annual payment. If the municipality is unable to make subsequent payments into the reserve fund a second layer of credit enhancement is often used. The second layer is an intercept of cash transfers from higher levels of government to the municipality. If the municipality is unable to keep the reserve fund at 1.25 times the annual payment, the trustee intercepts sufficient funds to cover the municipality's payment.

Large-scale capital projects require longer repayment periods. Life insurance companies and pension funds prefer investing in long-term securities. Both collect streams of income from individuals over many years before payout occurs due to death or retirement. Investing these funds in long-term securities like municipal bonds is the best way for them to manage their portfolio risk. Vast amounts of resources are tied up in pension funds and life insurance companies. Because of this many central governments place rigid controls over their investment choices. The need to finance municipal facilities combined with the inability of central governments to transfer sufficient funds needed by local governments will drive the policy reforms needed to unlock these funds.

Pooled Finance

Pooled finance is a more complex variation of a municipal bond. A new entity (a special purpose institution) is created to issue a bond to investors. The proceeds of the investment are passed through a trustee to a number of municipal borrowers. The



borrowers use the proceeds to build projects, and pledge a stream of income to pay to the trustee. The trustee passes the repayments to the debt instrument issuer, which in turn pays the investors. Credit enhancements, financial viability analysis, credit ratings and offer prospectus are

similar to those used for municipal bonds. An example of a pooled finance transaction is the city of Bangalore in India (see KUIDFC Pooled Finance).

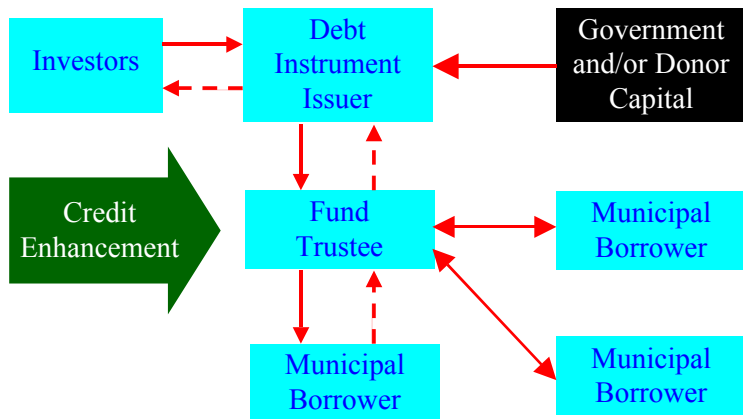
Pooled finance works best where a series of municipalities have smaller projects and are willing to structure the projects in a similar fashion. This provides significant savings in origination costs over each municipality issuing its own individual bonds. The pool sets the standards for the projects (e.g. all are water supply), and defines the collateral requirements to be met by each individual municipal borrower. Pooled finance is less of a repayment risk to investors, then a single municipal bond. The risk is spread among all the borrowers in the pool. The chance of one project failing is much greater than all of the projects within the pool.

KUIDFC Pooled Finance

Bangalore is India's Silicon Valley. Due to the rapid expansion of India's IT sector, several municipalities surrounding Bangalore were unable to provide drinking water to meet the needs of the growing population. With the assistance of private sector consultants, eight municipalities identified and prepared water supply projects for financing. The Karnataka Urban Infrastructure Development and Finance Corporation (KUIDFC), a state level financial intermediary, developed the physical and financial standards for the pool of projects to be included in the bond transaction. Upon completion of the legal documents, prospectus and a credit rating, KUIDFC sold the bond to the investors. The municipalities used the proceeds of the bond transaction to construct the facilities.

Revolving Funds

Revolving funds are a variation of the pooled finance theme. Under pooled finance a one-off special purpose institutions is created for each bond transaction. The revolving fund approach is to create a long-term financial intermediary with assets that it will contribute to the pooled finance transactions.



The best examples are the state bond banks established in the US to finance municipal water and waste water facilities. By the early 1990s it was evident that the US federal government didn't have the resources to fund municipal water and sewer needs throughout the US.

Legislation was created that allowed the US Environmental Protection Agency to provide grant funds to states as seed capital for state bond banks.

The seed capital is used in a number of ways such as:

- Providing assets for bond banks to demonstrate sufficient net worth to attract investors,
- Mingling bond bank funds with funds from investors to reduce the overall interest rate to the municipality,
- Reducing the proportion of total project development cost covered by investors, and
- Providing additional layers of credit enhancements in addition to those provided by municipalities.

Revolving funds are particularly well suited as an approach to avoid bilateral and multilateral funds distorting domestic capital markets. Instead of financing individual municipal projects, donors can provide concessionary loans to help establish revolving funds that will attract private capital market investors into the municipal finance sector.

USAID's Development Credit Authority

While not a financing strategy *per se*, USAID's Development Credit Authority (DCA) is an invaluable tool for developing sustainable supplies of municipal financing from indigenous capital markets, and can be used in combination with the strategies described above. Many projects are financially viable because the income from the venture is sufficient to pay operating costs and repay the loan. Lenders, however, are reluctant to make the loan because of reasons such as:

- Unfamiliarity with the market for the product or service, and
- Lack of adequate collateral to guarantee repayment.

DCA Pooled Finance Facility for Karnataka

For the KUIDFC transaction described in the pooled finance example, the DCA partial guarantee is a third layer of credit enhancement. The DCA guarantee is not called upon unless the first two layers fail.

The first layer of credit enhancement is the reserve fund that contains 1.25 times the annual debt service payments. The second layer is the unrestricted ability of the trustee to intercept of cash transfers from higher levels of government to the municipality. The DCA provides the third level of credit enhancement. If for any reason the cash transfers were unavailable to be intercepted by the trustee, the US Government would provide 50 percent of the funds needed to pay into the reserve account.

KUIDFC is a government entity. Its assets are majority-owned by the government and its management is majority-controlled by the government. DCA provides a partial guarantee of repayment to the private investors who purchase the bonds.

DCA can be used to share the risk with the lender to help them move into new loan products and sectors. This is beneficial to the financier as significant business expansion opportunities may arise as a result of taking a partial risk with the US Government.

With DCA involvement, the Mission will have access to additional human resources to structure the transaction and undertake the risk analysis. To assist missions with achieving their strategic objectives, USAID's Bureau for Economic Growth, Agriculture and Trade (EGAT), Office of Development Credit (ODC) will assist the mission with utilizing a US Government partial guarantee of local

currency loans. The explicit cost to the mission is the funds needed to provide an initial deposit into a loan loss reserve (called a subsidy). The amount is based on a credit risk analysis provided by ODC. Depending on host country and inherent project default risks the subsidy amount generally varies from 3 percent to 10 percent of the amount to be guaranteed. In high risk countries, it can be much higher. The guarantee cannot exceed 50 percent of the total project development cost and can only be used to guarantee private sector investors and banks.

The DCA has been successfully used to provide additional layers of credit enhancements for municipal finance transactions such as:

- KUIDFC pooled finance transaction in Bangalore India
- Local Government Unit Guarantee Corporation's (LGUGC) municipal bond transactions in the Philippines

6. Understanding Debt Risk

In structuring municipal finance programs, it is important to understand debt risk. Municipal projects are potentially risky, so USAID officers must be actively engaged in program risk mitigation. The following provides a list of possible risk factors that underlie municipal finance transactions:

Repayment Risk

There is a risk that the borrower may not be able to repay the loan. In spite of extensive analysis and financial modeling, unlikely events such as political upheavals

and natural disasters may disrupt loan repayment. This risk can be mitigated through a reserve fund held in escrow by a trustee. Most reserve funds usually have an initial capitalization greater than the first year's debt service payment. Other credit enhancements such as intergovernmental transfer inceptors and credit guarantees may be used. An intercept of transfers funds an additional escrow account for debt repayment. A credit guarantee mitigates losses to lenders should the borrower fail to make its payment obligations.

Construction Risk

Another primary risk is construction risk associated with completing construction on time and within budget. If the time to complete a project exceeds the initial estimate, the project may require additional investment resources - potentially increasing debt levels. Construction delays also prevent the project from generating revenues that will likely add to already higher costs. In the Philippines this risk is mitigated by requiring that municipalities hire professional construction management services to ensure completion on time and within budget mitigates this risk.

Foreign Exchange Risk

Foreign exchange risk is a major concern with internationally financed capital improvement projects such as those developed under build-operate-transfer approaches. The principal amount of foreign-currency loans will rise or fall in value over time, as exchange rate values of foreign and local currency fluctuate. Historically developing country currencies fall in value. Under the old paradigm this is a major issue. Loans in foreign currency denominations are converted to local currencies to build municipal facilities at an initial exchange rate and reconverted to the foreign currency at time of repayment. Over time local currency devaluation results in ever an increasing principle amount to be repaid.

Wrongly, foreign exchange risk is often borne by the individual borrower. Unless a borrower such as a municipality has access to a supply of foreign currency, which is not the norm, the loan is more likely to be in default at one point or another.

Under the new paradigm loans are made in local currencies. Donors use credit enhancements such as guarantees (DCA), or foreign currency grants and equity as seed capital to establish local currency revolving loan funds. This is why it is critical to develop local currency markets to finance municipal projects. Local currency financing means that foreign exchange risk is not a factor in the risk analysis.

7. Enabling Conditions at the National Level

Moving from old to new paradigm in terms of sources of funds requires a series of policy and regulatory actions at the central level. Reforms are needed to establish the enabling conditions that are needed across a country for a successful municipal finance sector. An early diagnostic will help to set priorities for allocating technical assistance and training resources.

For USAID Missions that wish to pursue a municipal finance agenda, the enabling

conditions at the national and local level provide a menu of activities to pursue a policy reform agenda with host country governments. A detailed list of technical assistance and training activities that the Mission can engage in to move the reform agenda forward includes:

Level of Decentralization

Decentralization of authority to local governments is a worldwide phenomenon. Many central governments are in the process of shifting responsibility for providing basic services to the local governments. This is good, as local officials can be held accountable for the quality of service delivery. And shifting responsibility for the provision of services is politically easy. What is also required to complete the process is shifting authority for raising resources and managing costs. Higher levels of government, however, are often reluctant to shift authority to local governments. Unless local governments have both the responsibility for delivering services and the authority to raise revenues it will be difficult to apply new paradigm approaches.

Legal and Regulatory Environment

Legal and regulatory authority is required for local governments to borrow funds and pledge collateral. Municipalities must have the legal authority to

- Enter into loan and bond agreements,
- Pledge revenues from taxes and fees as credit enhancements, and
- Mortgage assets such as land.

Regulatory constraints can often be overcome by convincing approval authorities at higher levels of government that initial municipal finance transactions are trial or pilot activities to better understand what, if any, reforms will be needed to replicate the transactions.

Municipal Accounting & Financial Reporting Standards

Municipal accounting and financial reporting standards are the bedrock for

- More accountable and transparent local government,
- Increased civil society participation in local government affairs, and
- Establishing a municipal credit rating system.

Key actors involved in setting policy and implementing regulatory aspects include the central government ministry responsible for local governments, and the national certifying body for chartered accountants. Most countries follow generally accepted accounting principals for private sector corporations. The approach will be to promote similar accounting standards and guidelines for use by local governments.

Clear municipal accounting standards and reporting guidelines based upon double entry accounting, means that local government financial management will not be ad hoc. Municipal managers are able to understand the consequences of decisions, higher levels of government are able to monitor performance, and civil society is able to hold elected officials accountable.

Credit rating agencies are independent third parties that offer a simple to understand

credit score of a potential borrower or issuer of debt such as a municipal bond. Municipal accounting standards enable rating agencies to compare financial performance across local governments and make judgments about risk. As a result investors are able to compare credit scores across similar types of investments.

Depending on the type of transaction the credit rating agency may rate the debt issue or the municipality, or both. The primary benefits of a rating for the municipality are

- With a credit rating a municipality has access to a broad number of potential investors, which reduces the municipality's borrowing costs as investors will compete for more creditworthy borrowers; and
- The municipality will understand why and how it earned its creditworthiness score and can decide what changes are needed to improve its credit rating, thereby reducing its borrowing costs.

Regulatory Reforms

Independent regulatory frameworks are essential for pricing of municipal services and for setting standards for performance and privatization. A fundamental issue is setting the price for municipal services. In the case of municipal water supply the process is highly politicized as individual households and businesses have a strong stake in the outcome. An independent regulatory authority places responsibility for setting pricing with a third party that does not have an identity of interest with the outcome.

Setting prices requires that there be minimum performance standards for municipal service delivery. Using water supply, some examples of performance standards include:

- Twenty-four hour supply
- Minimum percentage for unaccounted for water lost due to leaks
- Target ratios for operating costs as a percent of billable income
- Individual house connections in higher income neighborhoods versus stand pipes in slum settlements
- Minimum response time on requests for maintenance

Standards for private sector participation in the delivery of municipal services are also essential. It is very easy for uninformed local government officials to enter into contracts that give too many advantages to the private sector. Standards will provide a level playing field for both parties to achieve their objectives.

In addition, changes to regulations for municipalities and debt markets may be needed to undertake pilot municipal finance transactions. This is especially true for the municipal authority to borrow funds, pledge collateral and generate own-source revenues. The initial diagnostic will identify the key regulations that need changes. In many cases the first financial transactions can be used as pilot projects to better understand the regulatory issues. In other cases changes in legislation such as the law establishing municipalities may be needed.

Revenue Generation

Matching responsibility for provision of municipal services with the authority to raise *revenues* is critical. It seems that the entire world is going through the process of local government decentralization. Too often responsibility is devolved to the local level without the authority to raise revenues. Key policy actors are central government finance ministries and local government. Technical assistance on regulations to increase local government revenue generating powers may be needed. Technical assistance could include something as simple as business licenses, or as complicated as the ability to issue debt instruments.

Cash transfers from the center based on incentives for municipalities to undertake reforms are needed as local government officials and staff are often reluctant to change. In many cases central governments use add hoc approaches to allocate revenue sharing funds. The reform here is to carefully target these cash transfers to achieve needed reforms. For instance funds may be allocated on a competitive basis to municipalities pledging to institute double entry accounting systems, or develop pro-poor policies to ensure that people living in slum settlements have access to clean water and sanitation. A portion of the cash transfer can be used to pay for local accounting firms to provide assistance to the municipality. Other examples are decreasing operating costs, increasing customer services, and instituting energy savings improvements.

Identifying and conceptualizing the physical and financial aspects of bankable projects is a primary hurdle to overcome. In addition to creating incentives to deliver increased services, cash transfers may be used to hire financial analysts, planners, engineers and architects to support project identification and development.

Clearinghouse & Training Network

Creating an information clearinghouse and training network within a national municipal finance resource center is essential to scale up the initial successes accomplished with USAID's support, and to ensure long-term sustainability of the municipal finance system. An information clearinghouse will be able to disseminate the lessons learned from the USAID support, as well as other donor supported best practices. The resource center will act as a primary source of information on municipal finance including conferences, and training opportunities. It can act as a market place to bring together municipal projects being planned with:

- Private sector consultants to help conceptualize them
- Private sector municipal service providers and financial institutions
- Investors interested in participating in the project.

The resource center will use the clearinghouse to develop and implement a unified municipal finance training network. The network will build on existing training institutions, providing them with content and access to a market of potential trainees. Institutions participating in the training network will be provided with an assessment of municipal training needs around which to develop new courses. New training

institutions can be created based on an analysis of gaps in training provided by existing institutions, combined with the need for training on the part of local elected officials and staff. The resource center will help develop course material based on lessons learned from USAID's support and other donors best practices, and if needed provide training for trainers to support the development of the network. The clearinghouse and training network may be self-sustaining through membership fees, services and central government cash transfer incentives for local government to support the training of municipal officials.

8. Enabling Conditions at the Local Level

There are a series of enabling conditions that are required to accomplish successful municipal finance transactions. As with enabling conditions at the center, USAID supported technical assistance and training will be required to achieve the reforms needed to create these enabling conditions.

City development strategies are essential for identifying a municipal vision and prioritizing strategies needed to achieve the vision. Through a successful process proven by the World Bank in multiple countries around the world, stakeholders representing citizens, NGOs and CBO, businesses and governmental agencies are gathered to reach a consensus on what the long-term image of the city should be. Is it a manufacturing hub, a university center of higher learning, or a tourism dominated economy? Once this is decided a series of strategies to support the vision are identified and prioritized. Many of these will include capital projects such as water and sewer, housing, health and education facilities. A participatory approach to strategic planning is essential to develop committed stakeholders willing and interested in carrying out the strategies.

Capital improvement plans are needed to estimate the cost, and to prioritize which basic service improvement projects to undertake within budget resources that are available to the municipality. Building on the priorities identified through the city development strategy process, the capital improvement plan will estimate the total development cost of each project. It will match the cost of the projects with the resources available over the coming five years to fund projects. For countries relying on old paradigm sources of funds, projects in the early years will rely on cash transfers and own-source revenues. As the paradigm shifts, municipal finance will play an important role in increasing the number of projects to be undertaken.

The last process is comparing project costs against funds available and identifying which projects can be undertaken within one year, two years and up to five years. The first year is clearest, with out years being the fuzziest. The capital improvement planning process is repeated every year to take into account changes in project costs, priorities and resources available to build the projects.

Financial management and accounting improvements are essential to identify collateral to be pledged to finance projects in the short-term, and to help build the credit rating system and replicate initial trial municipal borrowings over the long-term. The support needed here is to install and train municipal staff on using a double entry accounting system. Initially a series of pilot municipalities are identified based

on willingness to participate in reforms needed to increase the supply of municipal resources through borrowings. Cash transfer incentives will help them move forward through greater revenue sharing including a portion to pay for local accounting support. The national resource center will identify training courses and facilities for training.

Focusing resources on a few municipalities to create some initial successes will provide incentives to other municipalities and gather momentum towards replication. Achieving creditworthiness, a credit rating, a municipal borrowing and the construction of a much-needed facility will demonstrate the results of initiating accounting reforms to other municipalities.

Operations and maintenance improvements are needed to ensure that the asset's value will not diminish due to physical deterioration. Once substantial human and financial resources are invested in providing the basic services, they must be operated and maintained properly or the asset's value will diminish due to physical deterioration.

Management contracts may be an effective way to benefit from private sector participation. Privatization strategies, such as BOT, where the private sector owns the asset have mostly failed. With technical support provided by USAID, management contracts are easier to develop and negotiate as the physical asset remains in the hands of the municipality. For instance billings and collections, and/or operations and maintenance for a water and sewer facility can be contracted to local firms on a performance fee basis:

- Increased revenues will determine how well the contractor has performed under the contract, and
- The municipality will benefit from sharing the increase in revenues with the private sector contractor.

Project preparation by effectively conceptualizing the financial and physical aspects of basic services projects and planning for implementation will help make them bankable. As described earlier there is sufficient capital available from local investors. And there are overwhelming needs for the construction of municipal facilities. The problem is that municipalities lack the capacity to identify, package, and describe municipal projects in a manner that is understandable to lenders and investors. USAID assistance with pilot municipalities can help to demonstrate how this is accomplished. It can help to build a market between municipalities and private sector financial consultants, architects and engineers to replicate pilot transactions in other municipalities.

Effectively procuring contractors to spend the proceeds of the long-term borrowing will ensure that additional interest costs will not accrue due to delays starting construction once the money has been borrowed. Municipalities need capacity building on how to efficiently and effectively contract for goods and services. Model procurement documents combined with on-the-job training on how to solicit, evaluate, negotiate and award contracts will accomplish the task. Support to a few pilot municipalities will demonstrate the way for others. A more open and transparent process will reduce costs and help to alleviate corruption in the procurement process.

Budget and scheduling overruns can be mitigated through construction management

services. Once the contract is awarded to build the facility, the main risk is completing construction within budget and on schedule. The local government must be ready to initiate procurement of contractors to spend the proceeds of the long-term borrowing; otherwise additional interest costs will accrue due to delays starting construction. Support provided by USAID can help the municipality contract with local architects and engineers to provide construction management services with pilot municipalities.

Increasing own-source revenues provides resources will provide the municipality with the financial capacity to undertake priority projects without awaiting a borrowing. As described in Section 3 there are several areas that are well within the manageable interest of municipalities. USAID support to a few pilot municipalities will demonstrate this approach for other municipalities and help to create a market between municipalities needing services and private sector consultants adept at this approach.

9. Observations on Municipal Financing

As more developing countries shift towards the new paradigm on municipal finance, several key observations may be useful in assisting USAID officers in designing and implementing municipal projects.

1. Creating bankable infrastructure projects is key to facilitating the development of viable capital markets for municipal finance.

As discussed elsewhere, the lack of bankable projects is one of the primary constraints to the development of municipal finance markets. There are many examples of lenders, both internationally and in the US, that were unable to make loans due to a lack of loan applications. Increasing the supply of applications can be achieved through helping potential borrowers identify why they are borrowing, how they will repay the loan, and what collateral they are willing to put at risk if the loan is not repaid.

For municipal finance USAID has successfully addressed this issue in South Africa. USAID supported the development of the Municipal Infrastructure Investment Unit (MIIU). The MIIU allocates grants on a competitive basis to municipalities to hire local consultants to help with project development such as:

- Project identification,
- Preparation of economic and financial analyses,
- Preparation of preliminary engineering sufficient to develop a realistic total development cost analysis,
- Preparation of legal and tender documents, and
- Management and operating plans.

If the project does not reach a financial closing the grant is forgiven. If the project proceeds to construction the grant is repaid from the loan proceeds.

With large-scale municipal projects the cost to prepare a project for financing is enormous; perhaps five to ten percent of the total development cost. If the project turns out to be unfeasible for financial and other reasons, the project preparation

costs will not be repaid. Few project developers, either municipalities or private developers, are willing to assume these levels of risk. The MIIU support mitigates this risk for South African municipalities by forgiving the grant if the project turns out to be unfeasible. Another benefit of the program is that MIIU's activities have helped to build a market place where municipalities and project development service providers come together to form project development teams. This has stimulated the development of a whole host of private sector businesses offering project development services to municipalities. This in turn has provided the impetus for more projects submitted for financing by municipalities.

2. Developing larger capital facility projects requires financing strategies utilizing long-term repayment periods that result from municipal bond, pooled finance, and revolving fund strategies. Examples of projects include large-scale water distribution, sewer collection, bridges, hospitals, housing, schools, commercial complexes or industrial parks.

A Mission objective of widely replicating increased supplies of potable water, housing development, school construction or industrial parks will be more appropriate in countries where new paradigm strategies are possible. Longer repayment periods, lower interest rates, decentralization of authority and responsibility to local government, and the ability of a municipality to borrow funds and pledge capital are important for these strategies to succeed.

Where the *paradigm shift diagnostic* shows that conditions exist for moving from the old to the new, it is possible to start strategically by developing one-off projects, while applying multi-year technical assistance and training resources to promote policy reforms and establish enabling conditions at the center and local level.

Large-scale project development during the startup period requires a commitment of cash transfers from higher to lower levels of government, plus donor support. A good example of donor collaboration is the US-Japan Clean Water Initiative. The Japan Bank for International Cooperation (JBIC) has agreed to work with USAID Missions in India, the Philippines, Indonesia and Jamaica to combine the use of DCA partial guarantees with JBIC sovereign loans to increase the supply of drinking water, especially for the poor.

3. It is also wise to begin with smaller-scale capital facilities that can be undertaken with bank financing. Examples would be improvement projects tied to increasing municipal revenues: reducing unaccounted for water combined with energy improvements to water supply systems, school repairs to increase enrollment, hospital expansion and improvements to public markets. Income generating projects are important starting points as they result in a stream of new income for the municipality to make the payments on the loan.

Another good example is solid waste collection and management. With the exception of acquiring a site for controlled solid waste disposal, there is little required in the way of capital improvements. And the immediate benefits to the population are immense. Lack of solid waste collection was found by India's supreme court to be the primary cause of the 1996 outbreak of bubonic plague

outbreak. Uncontrolled landfills contaminate rivers and aquifers, the primary sources of drinking water. The actions needed to improve this can be financed with short-term loans from banks and much less sophisticated technical support and training.

4. Private sector delivery of municipal services provides new skills and resources to municipalities. It is also possible to utilize micro and small enterprise businesses to provide the services. And DCA can be used to help leverage bank financing.

Two examples of health care services are private health-care clinics where doctors are the owners and borrowers, and mother and child health care and family planning clinics owned and operated by midwives. The doctors can borrow from banks. The midwives will need assistance to borrow from micro and small enterprise lenders.

Some capital facilities can also be provided by the private sector. Housing is normally a private sector endeavor. Municipalities should not provide housing, but should facilitate the process by providing infrastructure such as water, sanitation, roads, and surface water management. The housing developer includes the cost of the site, municipal sewer and water connections, the house, and utility connections to the municipal infrastructure in the cost of the house. Purchasers borrow from lenders such as banks to repay the cost for the house.

Private sector hospitals and emergency care clinics can be built and operated by consortiums of doctors. The private sector can build and operate toll roads, electric power generating capacity, and natural gas supply networks. Long-term local currency loans will help make these facilities less expensive with reduced risk of repayment due to foreign currency valuation.

Attached (Appendix 1) is an illustrative analytic framework that can be applied at an early stage to assist Missions with determining which financing strategies are most appropriate to pursue when designing a municipal finance program. The framework identifies the public and private sectors that a Mission targets in its strategic objectives, and pinpoints the facilities and services that will be improved through technical assistance, training and capital investment leveraged through DCA partial guarantees. The framework links that facilities and services with the most appropriate financing strategies.

Appendix 1: Illustrative Analytical Framework

	Micro and small enterprise loans	Banks	Municipal bonds	Pooled finance	Revolving funds	Development Credit Authority
<i>Public Infrastructure facilities consist of</i>						
Water supply and sewer collection networks		✓	✓	✓	✓	✓
Water treatment and sewer treatment and disposal		✓	✓	✓	✓	✓
Solid waste disposal sites		✓	✓	✓	✓	✓
Roads, bridges and underpasses		✓	✓	✓	✓	✓
Parks and recreation facilities		✓	✓	✓	✓	✓
Surface water drainage		✓	✓	✓	✓	✓
Electric supply		✓	✓	✓	✓	✓
Natural gas supply		✓	✓	✓	✓	✓
Community level improvements for slum upgrading projects		✓	✓	✓	✓	✓
<i>Public/Private Infrastructure services include</i>						
Solid waste collection	✓	✓				
Facility operations and maintenance		✓				
Street lighting	✓	✓				
Street cleaning	✓	✓				
<i>Private Housing includes</i>						
Individual residences		✓		✓	✓	✓
Utility connections		✓		✓	✓	✓
<i>Public/Private Slum upgrading includes</i>						
Housing improvement and expansion	✓	✓				
Utility connections	✓	✓				
Community improvements	✓	✓				
Informal sector commercial and industrial activities	✓	✓				
<i>Public Health care facilities include</i>						
Hospitals		✓	✓	✓	✓	✓
Emergency clinics		✓	✓	✓	✓	✓
Public sector health clinics		✓	✓	✓	✓	✓
Public sector drug outlets		✓	✓	✓	✓	✓
<i>Private Health care services include</i>						
Private sector well family, child care and family planning	✓	✓				✓
Private sector doctors' clinics	✓	✓				✓
Private sector drug outlets	✓	✓				✓
Medical equipment providers and servicers	✓	✓				✓
Medical testing laboratories	✓	✓				✓
<i>Public/Private Education facilities include</i>						
Public schools		✓	✓	✓	✓	
Private schools		✓	✓	✓	✓	✓
Maintenance and administration facilities		✓	✓	✓	✓	

<i>Public/Private Education services include</i>					
Facility operations and maintenance		√			
Early child care and education centers	√	√			√
<i>Public Economic development facilities include</i>					
Commercial developments		√	√	√	√
Industrial developments		√	√	√	√