Financing Urban Infrastructure.

Innovative Financial Instruments for Cities.

Challenges and solutions with instruments and best practices from German Financial Cooperation.

KfW ENTWICKLUNGSBANK

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Content

1 Background and Context

Global efforts to meet the MDGs and to build an inclusive global society will depend on how well we will manage urbanization. In the coming years, local governments will have to tackle a huge demand for infrastructure in their burgeoning cities. Asia's cities, for example, have to accommodate more than two billion additional people over the next 20 years. And they will need water, sanitation, transportation, housing and power. In some parts of the world urbanization has become synonymous with slum growth, posing additional challenges for the cities' social fabric. According to UN-Habitat, more than 70% of the urban population of Sub-Saharan Africa live in slums.

The need to finance urban infrastructure in developing countries is immense. In India alone, the necessary urban infrastructure investment is estimated at around EUR 300 billion for the next 5 years; in Sub Sahara Africa, annual infrastructure requirements are estimated to be between 17 to 22 billion US-Dollar. While urban infrastructure is still mainly financed from national budgets, especially in poorer developing countries, there will be a growing need for private sector finance. Therefore, providing urban services and infrastructure will require a blend of finance, technical and planning capacities, and a close cooperation between the public sector, development partners and the private sector.

2 Challenges of Urban Infrastructure Finance

While decentralization of public urban services has generally improved the basic conditions for urban development, increased responsibilities are not always in line with the capacities and financial means of local governments. In many cases local government institutions and public utilities are not well-prepared to meet the challenges they face in providing the services and infrastructure required.

This has led to shortfalls in coverage, service levels and service quality.

Main challenges of urban infrastructure finance are:

- Overall lack of adequate funding, as a result of
  - ineffective and inefficient fiscal transfer systems from the central government,
  - insufficient municipal revenues from taxes and fees, and
  - limited access to loans and other forms of debt financing;
- Shortage of qualified staff and lack of technical and administrative capacities to plan, implement, operate and maintain urban infrastructure facilities;
- Lack of coordination between different line agencies;
- Insufficient legal and administrative frameworks for private sector participation such as insufficient investment laws, tariff laws and policies, intransparent and unreliable planning and procurement processes, and insufficient accounting standards of local governments.

While the need for increased private sector participation in financing and operating local urban infrastructure facilities is widely recognized, important preconditions for private sector activities are not yet in place.

3 Constraints for Private Sector Involvement

There are different possible forms of private sector engagement in the provision of urban infrastructure:

- Private management, i.e. service contracts;
- Private investments, i.e. Build Own Operate Transfer (BOOT) contracts;
- Financing provided by commercial banks and other financial institutions.

How and to what extent the private sector is engaged depends on the specific national, sectoral and local context. There is no blueprint solution but a need for tailor-made approaches. However, any one form of private sector involvement requires a minimum of enabling institutional and legal framework conditions as well as commercially attractive investment and financing opportunities.

Clean drinking water for Maroccan villages

In many developing countries there are several, often interlinked and self-reinforcing constraints for increased private sector participation at both the national and the local level. To name a few:

- Inadequate legal frameworks such as insufficient investment laws and laws on property rights, inadequate creditor protection;
- Intransparent planning and procurement standards and procedures;
- Political influence on tariff setting and on enforcement of tariff payments;
- Lack of cost covering tariffs;
- Lack of political and administrative stability;

- Government policies and political interference in urban infrastructure investments;
- Intransparent financial management of local governments;
- Low level of local good governance;

Additional constraints for commercial infrastructure financing are a lack of “bankable” infrastructure projects. Typically, local infrastructure financing has a high cost /low return profile due to high screening and transaction costs and to a low revenue potential.

Market stall in Mozambique

In particular, medium-sized and small cities have problems to access private funds due to their low absorptive capacity for outside financing, resulting from local budget deficits. Furthermore, their financing needs are comparatively small and unattractive for commercial financial institutions. In addition, underdeveloped capital markets in partner countries and restrictions on sub-sovereign lending are further constraining factors (for example, ratings on cities are often not available).

Improving or creating an enabling environment for increased private sector participation normally requires sector and often additional legal reforms. This takes time and will only be successful if development partners have the political will to undergo sensitive and sometimes painful reforms and policy changes. This refers in particular to the issue of adequate user fees and tariffs.

4 Closing the Funding Gap

Development Finance Institutions (DFIs) can assist local governments in various ways:

- Improving the funding situation, e.g. improving the fiscal transfer system, increasing municipal revenues and providing access to municipal loans and other financing instruments;
- Enhancing technical and administrative capacities of local administrations and institutions;
- Creating an enabling environment for increased private sector participation through sector and policy reforms;
- Preparing and structuring projects attractive for private investors and introducing innovative financing instruments.

Generally, DFIs assist partner countries to increase their financial resources and to use available resources more efficiently and effectively.

In practice, DFIs and their development partners combine different approaches:

1. Providing funds for **sector programs** to
   - Finance investments such as rehabilitation of water supply systems or improvement of urban transport facilities,
   - Improve the legal and institutional framework for more effective operation and management of respective sector utilities;
2. Supporting **multisectoral local development funds** to
   - Finance communal and urban infrastructure investments, together with
   - Capacity development for local governments;
3. Contributing to broad **reform programs** for **decentralization and local governance** comprising reform elements such as
   - Fiscal decentralization, including performance-based transfer systems and increased local revenues,
   - Strengthening local governance,
   - Strengthening local institutional, technical and administrative capacities;
4. Improving **access to commercial and capital market financing** by
   - Extension of loans and guarantees in local currency,
   - Supporting the development of municipal bond markets,
   - Strengthening municipal financial institutions,
   - Preparing and structuring municipal investments as “bankable” projects,
   - Providing innovative instruments and approaches for sub-sovereign lending.

5 Best Practices from German Financial Cooperation

German Financial Cooperation (FC) assists and supports partner countries to improve urban sector infrastructure facilities and services in many developing countries in Africa, Asia, Eastern Europe and Latin America.

Through KfW, FC supports **sector reform programs** in African countries such as Benin and Zambia. In Latin America, the Water Supply Sector Reform Program in Peru shows how important policy reforms are in order to improve the performance of sector utilities and local governments, and to prepare for future private sector engagement.

Box 1 Peru: Water Supply Sector Reform Program (EUR 39 million)

Background: In Peru, municipalities are responsible for water supply and sewerage, while various ministries formulate and supervise sector policies and regulations. The water supply and sanitation sector is characterised by political, legal and institutional deficits, resulting in shortfalls in coverage, service levels and service quality. Financial constraints and limited institutional and managerial capacities hamper the ability of local governments to provide the necessary services.

Objective: To establish an adequate legal and institutional framework for improved performance of water supply companies in Peru. German FC together with the Banco Interamericano de Desarrollo (BID) supports the Peruvian Government's Program "Agua para todos", which aims at significantly increasing the access of the poorer population to drinking water and sanitation until 2015.

Program executing agencies: Ministry of Economy and Finance (Ministerio de Economía y Finanzas) and the Ministry of Housing, Construction and Water Supply/Sanitation (Ministerio de Vivienda, Construcción y Saneamiento).

Program measures and outcomes: The sector reform program started in 2008 and is designed as a three-year budget support program to be released in tranches subject to the fulfilment of various reform steps (disbursement triggers) according to an agreed policy matrix. The policy matrix formulates amongst others improvements in the areas of the water sector's institutional framework, financial and fiscal policies, tariff policies, management of the water supply and sewerage companies and private sector participation.

Examples of KfW/FC projects supporting **multisectoral local development approaches** are found in Rwanda and Mali in Africa as well as in Nepal in Asia. In Latin America KfW/FC supports similar projects in Colombia, Ecuador, and El Salvador. In Colombia the program "Conflict Management and Violence Prevention in Suburban Areas of Bogota – Convivencia" aims at reducing conflict potentials through investments in social infrastructure and slum upgrading.

Box2 Colombia: Conflict Management and Violence Prevention in Suburban Areas of Bogotá – Convivencia (EUR 6.1 million)

Background: Violence is widespread in marginalized suburban areas of Bogotá and has many self-reinforcing causes. High unemployment rates and a low level of education together with insufficient infrastructure facilities are the typical breeding-ground for social conflicts. In addition, rampant corruption and the absence of land titles further add to the overall sense of discrimination which leads to frustration and social exclusion. Violence within families and against women and children are another problem that is not tackled appropriately due to lack of awareness and counselling facilities.

Objective: Support a culture of conflict management and violence prevention.

Program executing agency: Secretaría Distrital de Hábitat (SdH) /Subdirección de Barrios

Program measures and outcomes: The third phase of the program will start in October 2008 and is scheduled to end in 2012. It supports small investments mainly in urban social infrastructure (sanitation, roads, playgrounds, and community centers) accompanied by social programs. The program targets the poor population of marginalized suburban areas in Bogotá. The people are actively involved in the process of planning, implementing and operating the infrastructure investments and will be trained in techniques of peaceful conflict management and violence prevention. Through this participatory process the self-help capabilities of the population and their willingness and ability to cooperate within the neighbourhood will be strengthened. Small infrastructure investments in housing, erosion control and flood protection will improve the general living conditions. It is hoped that these measures will help inhabitants to better identify with their neighbourhood, increase their self-esteem, and ultimately decrease violence in the neighbourhood.

Growing city in Latin America

KfW/FC also contributes to broad **reform programs** for **decentralization and local governance**, amongst others in Tanzania. The project is an excellent example of performance based financial transfers, local capacity building and participatory planning approaches as important prerequisites for fiscal decentralization. Reliable and transparent fund allocation mechanisms lead to a more transparent and accountable use of funds at the local level. Likewise, the project demonstrates the importance of close cooperation between different donors and the Government of Tanzania through a basket-funding mechanism.

Box 3 Tanzania: Local Government Capital Development Grant System (EUR 8 million)

Background: Tanzania is divided into 21 regions with 132 districts and cities (Local Government Authorities-LGAs). During a process of decentralization, which began in the 1980s, LGAs received the mandate to provide public services in the areas of primary education, basic health services and water supply. However, the LGAs' performance is hampered by typical local constraints such as lack of qualified staff, lack of performance incentives, unpredictable and insufficient financial transfers from the central level, lack of decision-making power over human resources and interference from the central level in the local planning processes, often overruling local or even grassroots based investment decisions. The Local Government Reform Program (LGRP) started in 2000 and aims at strengthening the LGAs' capacities and central level policy directives.

Objective: To strengthen local administrative structures and to increase access to and improve service quality of local urban infrastructure facilities in particular for the benefit of the poorer population in Tanzania.

Program executing agency: Prime Minister's Office-Regional Administration and Local Government (PMO-RALG)

Program measures and outcomes: The Local Government Capital Development Grant (LGCDG)-System was developed within the context of the fiscal decentralisation reform component of the LGRP. German Financial Cooperation started in 2005 and supports the LGCDG-System with several consecutive grants to the total of EUR 11 million with further assistance being currently considered. The LGCDG provides a fiscal transfer mechanism to finance investments at the district level and capacity building measures for LGAs. The LGCDG-System has two discretionary financing windows: The Capital Development Grant (CDG) provides funds for local infrastructure investments and accounts for almost 90% of the fund transfers. The Capacity Building Grant (CBG) supports capacity building measures at the district level, including the financing of equipment. Further windows earmarked for specific sectors such as water and education also work according to the rules of the LGCDG.

Access to the LGCDG is performance based and provides incentives for a transparent and efficient administration. To qualify for funding the LGAs have to meet minimum standards (planning, financial management, reporting requirements, counterpart contribution), which are assessed annually. The allocation is based on a transparent allocation formula taking into account the population, poverty level and geographical scope of each LGA. Additional performance criteria such as quality of planning, finance management and operation and maintenance of infrastructure facilities determine whether a bonus or malus will be administered. In fiscal year 2007/2008 121 LGAs applied for LGCDG funds, of which 92 met the eligibility criteria. All LGAs, including those that do not qualify, receive support for capacity building if they can provide a Capacity Building Plan for the coming year.

Infrastructure investments are identified and planned through a participatory approach involving the local population. The LGAs are responsible for planning, implementing and operating the infrastructure facilities and have to finance at least 5% of the total investment costs from local contributions.

A good example of how to assist local governments in gaining better **access to private financing and capital markets** is the Urban Infrastructure Development Program for the state of Tamil Nadu, India. It shows one way to increase necessary private sector and capital market finance in urban infrastructure investments.

Suburban railway in India

Box 4 India: Urban Infrastructure Development Program Tamil Nadu (EUR 77 million)

Background: The Urban Infrastructure Development Program Tamil Nadu (India) commenced in 2008 with the objective to improve the urban infrastructure and to mobilize private financing from the capital market for urban infrastructure investments. The core problem in Tamil Nadu is that neither state nor municipal budgets can shoulder the necessary investments. Hence, the majority of infrastructure has to be financed by the financial system and the private sector. However, financing urban infrastructure is deemed too risky and costly for private financial institutions. Therefore, support from DFIs is necessary to make these investments “bankable” by reducing costs, shouldering some of the risk and developing new financing mechanisms.

Objective: To mobilize private capital for local urban infrastructure financing and to support capital market development in Tamil Nadu (for capital market component)

Program executing agency: Tamil Nadu Urban Development fund (TNUDF)

Program measures and outcomes:

The Program provides a EUR 65 million loan to finance urban infrastructure investments at the municipal level. In addition, the Program has a component (EUR 10 million) to support capital market financing of municipal infrastructure investments for a period of 3 years. The component provides capital for a newly established special purpose vehicle - the Master Finance Indenture (MFI). The MFI will be established by the TNUDF as a permanent platform to pool bonds from different local governments. TNUDF has been established as a public-private partnership fund in 1996 with the Government of Tamil Nadu and three private banks as owners. TNUDF has a track record as innovative intermediary to foster increased participation of capital markets and the private sector in local infrastructure financing.

The MFI will provide loans to selected ULBs and refinance these loans on the Indian capital market by pooling them and issuing bonds to be sold to private and institutional investors. The pooling will significantly reduce the transaction costs and diversify the risk. In order to make municipal bonds even more attractive the FC loan will be used to finance the sub-ordinated tranche (35%) of the bond issue on a revolving basis. Together with the first loss tranche or equity of 10% this will provide a cushion against loan losses in favour of the senior tranche of 55%. FC involvement together with other credit enhancements will also be instrumental to achieve an attractive credit rating (local AA) for private investors.

The MFI model has various advantages. For the ULBs it provides permanent access to the capital market at better terms than direct bank loans and will reduce their need for budgetary support from the central government; for private investors it offers an attractive investment opportunity; and for the local population it will result in better infrastructure facilities and services.

A similar approach to increase private capital financing in urban infrastructure on a world wide scale (but with focus on Africa) is the Currency Exchange Fund (TCX).

Box 5: The Currency Exchange Fund – TCX (capital: USD 590 million)

Background: In many emerging economies long term financing in local currency is not available. As a consequence suppliers of urban infrastructure must choose between two equally risky and inadequate alternatives for financing: Either they finance their investments in water supply or urban transport systems with revolving short-term loans in local currency, or they accept long-term financing in foreign currency from international financial institutions. Both options create a financial mismatch. Urban infrastructure suppliers that finance long-term investments through short term loans take a large prolongation risk (risk of increased interest rates). Urban infrastructure suppliers with income mainly in local currency who accept long-term financing in foreign currency bear undesired foreign currency risks that can adversely affect their projects (devaluation of local currency and therefore inability to pay back the loan). In order to improve the access to long term financing in local currency, the G8 summit 2007 in Heiligendamm has called upon the G8 governments and leading development finance institutions to develop new instruments for long term financing in developing country currencies.

Objective: To develop a global instrument providing solutions for long-term financing in local currency.

Program executing agency: The Currency Exchange Fund NV (TCX)

Program measures and outcomes: To extend long term loans in local currency, local banks and international financial institutions must have a hedging partner providing long term currency swaps in emerging economy currencies. Since such instruments are rarely available, the Dutch and the German Governments together with FMO, KfW and other renowned international financial institutions founded the first ever local currency fund for developing country currencies – The Currency Exchange Funds NV (TCX). TCX is a Public-Private-Partnership with a current capitalisation of USD 590 million. Founding public shareholders are e.g. EBRD, AfDB, IADB, KfW/DEG, FMO, Norfund and BIO. Founding private shareholders include large commercial banks like ABN Amro and private funds and non governmental organisations like the European Fund for Southeast Europe (EFSE), Oikocredit and Oxfam. KfW Group holds an equity participation of USD 70 million in TCX. In addition to this, the German Government supports the development of long term local currency lending in Africa via an investment of approximately USD 60 million in TCX. So far, TCX has transacted in 26 emerging market currencies from Bangladesh Taka to Zambian Kwacha. The total nominal value of the portfolio is USD 810 million. Approximately one third of the long term loans hedged by TCX with long term local currency derivatives are for urban infrastructure. TCX´s goal is to become a leading catalyst for the development of local currency denominated long-term funding in emerging markets, through the provision of products and services that are additional to those provided by the market.

Members of a Maroccan community discussing an infrastructure programme

6 Lessons Learnt

Important success factors to improve urban infrastructure facilities and services seem to be:

- Close coordination and cooperation between different donors, especially in the areas of policies and sector reforms;

- Adequate combination of investment and policy/reform components seem to reinforce each other and contribute to the overall success of the project/program;
- Participation of the local target population in the process of identifying, planning, implementing, operating and maintaining urban infrastructure facilities will have a positive impact on the ownership and sustainability of project and program measures;
- Harmonization of required adequate user fees and tariffs with necessary access of poor households to local services by cross-subsidization, voucher systems or bloc tariffs.