

A photograph of a rocky riverbed with several small pools of water, surrounded by lush green trees and a cloudy sky.

Financing access to basic utilities for all

Meeting report

First regional multi-stakeholder
consultation

Brasilia, Brazil
11-13 December, 2006



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Meeting report¹

¹ This report is based on the salient features of presentations and discussions that emerged during the meeting. The report was prepared by staff of the Financing for Development Office. The views expressed do not necessarily reflect the position of the United Nations or of any other institution represented at the meeting. Comments and suggestions on the text should be addressed to Daniel Platz (e-mail: platz@un.org). More details on the meeting, including the list of participants, can be found at: <http://www.un.org/esa/ffd/Multi-StakeholderConsultations/NGOs/indexutilities.htm>.



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Overview

The consultation was organized by the Friedrich Ebert Foundation in collaboration with the Financing for Development Office of the United Nations Department of Economic and Social Affairs, the UNDP International Poverty Centre and the Ministries of Cities of the Government of Brazil.

It was held in the context of the Follow-up process of the International Conference on Financing for Development held in March 2002 in Monterrey, Mexico. In its resolution 60/188 of 22 December 2005, the General Assembly requested the Financing for Development Office to organize multi-stakeholder consultations in collaboration with experts from the public and private sectors, academia and civil society. These consultations are aimed at better enabling member countries to implement their commitments as agreed in the Monterrey Consensus. The consultation in Brasilia gathered around 30 mostly Latin American experts from central and municipal governments, utility providers, intergovernmental institutions, civil society, private sector, trade unions and academia. The first two days of the discussion (11-12 December) addressed long-term financing mechanisms and cost recovery strategies for extending access to water and electricity to the poor. Participants also focused on economic and social factors to be taken into account in developing long-term financing strategies for basic utilities. On the third day of the meeting (13 December), participants presented their findings and outcomes to high-level government representatives, the broader public and media in an open plenary session.



A major part of the conference centered on important Latin American experiences of utilizing financing options at the international, national, and sub-national level. Participants exchanged their views on the potential of development aid, municipal banks, municipal bonds, pooled financing arrangements, and other local financing mechanisms to mobilize long-term finance. The discussion ventured further into the question of generating sufficient internal revenue and ensuring sustainability of services in the water and electricity sector. Participants addressed implications of the privatization of utilities for the poor, as well as the role of tariff settings and regulations. Among many concrete initiatives to extend utilities to the poor in Latin America, experts highlighted the success of the Brazilian “Luz Para Todos” programme, the importance of fiscal legislation, the effective participatory approach employed by the city of Porto Alegre, Buenos Aires’ strategy to subsidize water for poorer households through higher charges for wealthier users, as well as Mexico City’s strategy to improve its water networks through technological innovations, including a more advanced pipe system and more effective treatment of residual water. In addition, experts debated the macroeconomics of financing basic utilities for all. In this regard, participants focused their interventions on possible macroeconomic implications of capital inflows, the implications of financial market liberalization, exchange rate, interest rate, inflation and regulatory risk, the implications of public-private partnerships and appropriate monetary and fiscal policy. This report is divided into four sections following the agenda of the meeting. Section (1) will focus on the mobilization of stable and predictable financing



mechanisms for utility providers at all levels. Section (2) will summarize the discussion on ensuring sustainable access to water and sanitation for the poor through internal revenue generation while section (3) will discuss the challenges of internal revenue generation in the electricity sector. Section (4) will highlight macroeconomic factors to be taken into account in the discussion of financing basic utilities for all.

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1. Mobilizing finance: Stable and predictable financing mechanisms for utility providers at the sub-national level

Sub-national bonded debt

This session focused on developing countries' experience in raising finance at the sub-national level, in particular through bonds. It was emphasized that financing needs and possibilities for self-financing among municipalities varied widely. State and municipal bonds had only been issued by a small number of developing countries. Moreover, the success of sub-national bond issuance was closely tied to the overall state of national and international capital markets. In times, where corporate bond market were eyed critically, international investors were even less



likely to invest in national or sub-national debt. Participants stressed that national creditworthiness would impose a ceiling on sub-national ratings, .i.e. prospects of cities and states to raise finance on capital markets could never exceed those of the federal government. Many countries in Latin America, such as Honduras had been unsuccessful in attracting investors to their sub-national bonds.

It was highlighted that the first city in Latin America to successfully issue a bond in the international capital markets was the municipality of Rio de Janeiro. The city had issued a bond in July 1996 to re-finance its existing debt, (10.3/8% for US\$125 million over 3-years). The bond was unsecured despite the fact that this was the municipality's first public international debt issue. The Argentinean province of Mendoza had also successfully issued an international bond in August 1996 with a USD 125 million six-year offering to refinance its debt. The bonds were secured by oil royalties paid by oil companies. It was noted, however, that there were several restrictions in Latin American countries regarding debt issuances of sub-national entities.

In Brazil, the main restriction was the Fiscal Responsibility Law (Supplementary Law 101, of May 2000), which was aimed at ensuring macroeconomic stability. It spelled out that public debt as a percentage of current receipts could not exceed a limit established by the Brazilian congress for states and municipalities (2 x total net current income for states and 1.2 x total net current income for municipalities) nor the total personnel expenses (60% of the total net current income). If a municipality did not respect those limits it was not allowed to



contract internal or external credit operations, including revenue anticipations, except for the refinancing of the updated principal of securities debt. Due to the fact that almost all of the more than 5500 Brazilian municipalities had approached or exceeded the limits established by the Fiscal Responsibility Law, no significant sub-national bond issuance was taking place in Brazil. Fiscal transfers therefore remained the most relevant source of finance for municipalities in Brazil.

Similar laws existed in other Latin American countries. As a result, very few municipal bonds had helped finance long-term infrastructure in Latin America. Because of this lack of new issuances of sub-national debt international financial institutions like the World Bank had reduced their efforts to promote municipal bonds in Latin America and other developing countries. Instead of promoting single issuances of bonds these institution had recently started highlighting the benefits of pooled financing arrangements through municipal development funds and other financial intermediaries.

The role of financial intermediaries

Ideally, these intermediaries could raise international capital and lend it on to sub-national entities. For instance, in Colombia, the financial institution “Findeter” supervised by Colombia's banking regulators had some success in helping local governments finance their infrastructure and develop banking relationships.

In South Africa, Infrastructure Finance Corporation Limited was a privately owned and operated infrastructure debt fund that drew on local and international



market funds, raised through a series of INCA bond issues and long-term loans by international financial institutions. Similar funds existed in low-income countries in Asia, including India and the Philippines. However, some participants mentioned that most of the financial intermediary programmes had not been very successful in financing infrastructure in poor municipalities, highlighting a recent mostly negative report of the Independent Evaluation Group on the World Bank's financial intermediary lending programme.

It was also stressed that one possible advantage of financial intermediaries could be their ability to reduce the time it took for a city to obtain a loan from an international financial institutions, which usually ranged from 1 to 2 years. In this regard, it was underlined that it was important to analyze what factors could facilitate access of municipalities to multilateral, bilateral and national development funds. As an important initiative to facilitate the exchange of experiences, ideas, and knowledge between cities in East Asia in raising funds one speaker referred to the "InfoCity" initiative. The long-term objective of this initiative was to institutionalize the knowledge sharing activities among East Asian cities by anchoring the activities in an organization based in the region. The "Cities Alliance" was also highlighted as another promising effort to help cities develop sustainable capital investment strategies. The Alliance was a global coalition of cities and their development partners, bringing cities together in a direct dialogue with bilateral and multilateral agencies and financial institutions.



Current members of the alliance, which was housed at World Bank Headquarters, were cities in Brazil, Canada, Ethiopia, France, Germany, Italy, Japan, Netherlands, Nigeria, Norway, Sweden, South Africa, United Kingdom, and United States. Participants also highlighted the importance of capital investment plans. Attracting long-term finance called for a sound long-term financing strategy. It was seen as crucial to identify which parts should be financed by grants, national or international credit instruments or internal revenue generation. Moreover, discussants thought it was critical that the project was well-governed and financing was not misused for vested interests such as salary increases for financial intermediary employees or preferential treatment of certain municipalities.

Participants also elaborated on the challenge for municipalities in developing countries to obtain an international credit rating. Fees to obtain a rating from a major credit rating agency (e.g., Moody's, S&P, Fitch) were often prohibitively high, while an insufficient number of local rating agencies existed in developing countries. It was noted that further efforts should be put into connecting local with international credit rating agencies. Moreover, pooled financing arrangements of municipalities within and possibly even across countries could reduce risk and make it easier for issuers to be considered creditworthy.

The debate then ventured into the issue of risk. While the interest rate on international capital markets were often better than on domestic capital markets, borrowing in international markets would add exchange rate risk. Borrowing locally in domestic currency versus borrowing internationally in foreign currency would thus



entail a significant tradeoff of risk versus borrowing costs. Moreover, bond issuances would have to be very large (in the region of 500 Million USD) to be able to attract international investors.

Legal aspects of sub-national bonded debt - The experience of the Ministries of Cities in Brazil

In addition to severe structural challenges, such as high poverty rates, social inequalities, and a lack of supporting infrastructure, Brazilian municipalities had faced severe financial challenges when it came to providing access to water and sanitation. These include restrictions on new public debt, exceptionally high financing requirements due to high interest rates and high levels of tax burdens for a prolonged period of time. To provide adequate resources of financing to municipalities, Brazil had established a public fund for compulsory saving called Fundo de Garantia do Tempo de Serviço (FGTS) in 1966,. The fund was based on a contribution equivalent to 8% of the employer's payroll. The FGTS served two purposes. Firstly, it was an unemployment insurance fund for dismissed workers and secondly, it was used to fund Federal urban development projects (water, sanitation and popular housing) at low interest rates.

Yet, as explained above, fiscal measures, including the Fiscal Responsibility Law had restricted lending to the sub-national public sector. However, participants highlighted that recent legislative developments in Brazil could help municipalities in raising finance for utilities. According to the law, the federal government would



acknowledge the difference between current and investment expenditures of municipalities and states and would address the fiscal implications of these two types of expenditures differently. Discussants were optimistic that new parliamentary legislation would make additional funds, including those of the FGTS, accessible to municipalities. Investment needs were huge, in particular in slums or remote urban areas where no adequate conditions for extending connections to utilities existed.

There would still be need for additional funding in addition to federal transfers and above-mentioned funding sources, possibly through market lending. However, it was noted that the experience of Brazilian municipalities with market lending had not been very positive in the past. Private funds seemed to be more effective for large scale investments that did not have an immediate impact for the poor such as the construction of new water treatment stations.

While the federal government of Brazil established guidelines and provided part of the financing for basic utilities, the actual responsibility for service delivery was with the states and municipalities. The new law did spell out a framework of public-public partnerships between states, municipalities and the federal government. Such a legal framework was also important in order to establish guidelines for how to deal with state-owned companies, which were responsible for the bulk of service delivery in Brazil and many of which were bankrupt in the country's poorer states. Moreover, the new legislation would also increase social participation in extending water and sanitation to the poor. In 2007 the Ministry of Cities planned to develop a national sanitation plan. The new legal environment



would facilitate the funding of this plan as it would allow municipalities to move away from a current stop-and-go policy towards a medium and ultimately long-term national strategy. This could provide financing space for municipalities in a fiscally responsible manner.

2. Ensuring sustainable access for the poor through internal revenue generation – electricity

Pre-conditions for Successful Sustainable Investment into utilities

This section highlighted the importance for municipalities to raise revenue through cost recovery mechanism and appropriate local tax policies. The first part of the session focused on the importance of local institutions as prerequisites for sustainable investment into basic utilities.

In a typical scenario the host-investor provided the resources, capital and local manpower while the promoter-investor brought financial capital and the appropriate technology. In any investment decision the local needs and context as well as democratic and cultural traditions, institutions, and existing users' judgment should be taken into account. It was seen as equally critical to identify local «champions» and leaders to promote the project.

In the course of the debate discussants went through a draft checklist of critical actions to be taken before, during and after investing into basic utilities. Before any investment decision preliminary research should be done on the national



investment climate, the territory, the regulatory climate and the fiscal and legal framework, including anti-corruption laws. Technology selection and calibration should be measured against their effectiveness for the locally expressed needs and have a small footprint, i.e. they should be green, clean, and lean and fit with the eco-development strategy, as expressed in the UN Agenda 21.

Participants stressed several factors as critical ones during the implementation process. These included the nurturing of partnerships, the dissemination and transparency of information, genuine stakeholder involvement and collective learning and training of skilled labour. Moreover, eco-development should ideally rest on four pillars: (a) a level-playing field; (b) ongoing balanced capacity-building; (c) appropriate institution-building and (d) long-term sustainability. In addition, implementation should be flexible, i.e., the timing and scheduling should not be rushed and room should be left for the possibility of testing, retrying and improving technologies locally.

A proper feedback cycle was seen as an important conclusion of the implementation phase. This phase should be based on policy and structural autonomy through collaborative maintenance and ownership, which could be promoted through creating and supporting local networks. It would also be important to make sure that the project was properly integrated into the regional energy systems.

To ensure long-term sustainability one should keep in mind the implementation of the long-term goals of the national eco-development strategy.



Economic sustainability could also be promoted through the mobilisation of local private sector capital where it had the potential to free public funds.

With regard to the technology employed participants highlighted the importance of the transfer of appropriate knowledge and the need to focus on climate-proof projects. Moreover, local technologies should be updated and innovation promoted as long as it was appropriate to local circumstances and needs. In addition, discussants thought it was essential to stimulate local research and development policies in cooperation with the population and NGOs.

Ensuring sustainable access to electricity for the poor - The potential of renewable energy in Brazil

Participants agreed that any modern definition of poverty should take into account access to clean energy. Great differences existed among developed countries and developing countries with regard to indicators for living standards and energy consumption. The World Bank estimated that the share of people without electricity was reduced from 51% in 1970 to 41% in 1990. Aggregated data of 2000 showed that the number of people without access to electricity in the world stood at 1,64 billion or 27% of the world population. More than 99% of the population without electricity lived in the developing world, eighty percent of whom were located in rural areas. Participants also mentioned that increased attention should be put on improving energy access in urban areas. While only 30% of the world population



lived in urban areas in 1950, this share had climbed to 47% in 2000 and was expected to rise further to 60% in 2030.

Nowadays 40% of the poor of the world lived in slums. It was noted that electricity in urban areas was on average 7 times cheaper than in rural areas due to the larger proximity between dwellings and the electricity net. For instance, the less industrialized Northeast area of Brazil, which represented about 30% of the population of the country had the lowest per capita domestic consumption of energy (262 kWh/capita in 1999). The Southeast area with about 42% of the population was an area of larger industrial development with the highest regional per capita consumption in Brazil (678 kWh/capita in 1999). However, closer proximity to electricity nets could also lead to a bigger number of illegal connections, interferences with meters or non-payment of tariffs.

It was further highlighted that there seemed to be a positive correlation between the degree of human development as measured by the Human Development Index (HDI) and access to energy.

Decentralizing the generation of energy and employing local resources more effectively were seen as viable strategies to confront this issue and bring more access to electricity to the poor. Huge potential would lie in the promotion of off-grid access to electric power services to the poorest layers of the population through renewable energies.

Some of these efforts had been spearheaded by international groups, including the Global Network on Energy for Sustainable Development (GNESD), a



UNEP facilitated knowledge network of developing world centers of excellence and network partners. Barriers to renewable energies that had to be overcome were to a small extent technical barriers and to a bigger degree political and institutional. Financial and economic barriers existed as well due to the relatively high initial fixed costs of small scale systems. To overcome these barriers it was essential to build markets of a minimum size.

The “LUZ PARA TODOS” initiative

Participants also discussed President Lula’s “LUZ PARA TODOS (LIGHT FOR ALL)” initiative, a joint effort of the Ministry of Mines and Energy, Centrais Elétricas Brasileiras ELETROBRAS (Brazilian Electrical Sector Holding Company), state and private distribution utilities (63 in total), state and municipal governments, and other partners, including civil society.

The main objective of this initiative was to extend electricity to the whole population in Brazil by the year 2008. To reach this goal, there was a need for 2.5 million new connections. The estimated cost would be 6 billion, more than 70 % of which would be covered by the federal government. It would lead to at least 300,000 new jobs, technology transfer, local and regional capacity building, and increased social inclusion.

As supply options, the programme would use grid extension as well as local renewable energy systems for more isolated areas, such as palm oil, photovoltaic (PV) cells for community and domestic use, and micro and small hydro plants. Rural



areas in the Amazon Region would mostly rely on palm oil, as a replacement to the diesel alternative. Another advantage of renewable energies was that the reduction in emissions of carbon dioxide could free up new financial resources through carbon emission trading on the international market. Finally, participants stressed that access to clean energy was fundamental to the achievement of the Millennium Development Goals as it increased productivity, reduced poverty and promoted environmental sustainability.

Promoting sustainable access to electricity – Lessons learned from the African experience

At the onset of this session participants stressed that more than 526 Million people did not have electricity in Africa amounting to more than 75% of the population. It was emphasized that the issue of ensuring access had been largely overlooked in the 1990s when countries around the world had implemented major reforms of the electricity sector. These reforms typically focused on unbundling, deregulation, liberalisation and privatization of utilities. According to the World Bank and other multilateral and national development agencies, privatization and deregulation of energy networks was believed to reduce costs and thus increase the affordability of connections, as well as extend grids provided there was competition. However, the results had been disappointing. For the last 15 years power sector reforms had been incapable of increasing access to electricity among the poor. Yet, increasing electricity to the poor was particularly important due to its potential reduce



poverty. Electricity could promote education by providing lighting, ICT, and teacher training. It could also support health-promoting measures such as refrigeration, lighting for safe procedures, and operations.

The discussion then focused on issues related to extending electricity to rural versus urban areas. Participants highlighted that the low connection rate in rural areas was caused by several factors including the fact that the unconnected segments of the population were those with the lowest capability to pay for services as they were earning the least income. Moreover, rural areas were characterized by high cost of service delivery due to a dispersed population, which provided little commercial incentive for any distributor to provide services. As a result, rates of access to electricity in urban areas were higher than in rural ones since extension costs were lower.

However, ability and willingness to pay in poor urban areas was limited as well, which often resulted in social exclusion and high levels of illegal connections. It was also noted that decentralization of services had raised the importance of independent electricity distributors. Yet, cost recovery was extremely difficult for utility providers operating in areas with low income, high unemployment and low consumption. While these were the distributors most in need of funding they were also the least likely to be able to obtain it. Another consequence of the power sector reform was that prices had increased in most countries following a shift to 'marginal cost pricing', although it was often unclear what costs should be covered. Would this include currency fluctuation, leakages and shortages as well as private sector



profits? Moreover, what could be justified as a “fair return” as demanded by providers.

Several options existed to increase internal revenue generation. System losses could be reduced through targeting illegal connections, decreasing technical faults and avoiding billing errors. Options for payment enforcement included the use of prepayment meters and the radical measure of disconnecting services for non-payment. In addition, revenue generation could be improved by encouraging community support (e.g., ease of payment measures, the use of community agents etc.). Many participants referred to subsidies as a necessary means to ensure sustainable and universal access of electricity. Consumption subsidies were seen problematic as they benefited the better off rather than those that had not yet received a connection. Subsidising connections would be the preferable option but effective targeting was seen as difficult. In addition, discussants focused on cost reducing measures.

These included the reduction of leakages and improved productivity on the side of the utility provider as well as more efficient energy efficient usage on the side of the consumer. In rural areas off-grid systems might represent the cheaper technology option. While middle income countries might be able to finance increased access through internal revenue generation, low income countries would have to rely on additional support. Participants highlighted the need for a national strategy formulated through a coordinated participatory approach. By way of such a strategy poor users should be supported through more appropriate billing systems and



payment mechanisms and better tailored subsidies. Moreover, local development factors needed to be taken into account to evaluate the long term sustainability of any project.

3. Ensuring sustainable access for the poor through internal revenue generation – water and sanitation

Raising internal revenue generation through participatory approaches - The experience of Porto Alegre

Discussants focused on the experience of expanding utilities of the water and sanitation company, DMAE, of the city of Porto Alegre, Brazil. DMAE presented a success story of the public sector in developing countries. DMAE was fully owned by the municipality of Porto Alegre but had operational and financial independence. The utility supplied water to 99.5 per cent and sewage to 87% per cent of the city's population. The remaining half percent lived in high-risk areas such as flooded or mountainous regions that were reached by water trucks. Porto Alegre, a city of one million and four hundred thousand inhabitants and known for hosting the World Social Forum was thus hailed as a reference point for other cities in developing countries.

Attempts to privatize public services in Porto Alegre were rejected and public provision rooted in political goodwill and appropriate government interventions had proven to be successful. An innovative aspect of the model applied in Porto Allegre



was its participatory character where public stakeholders could exert control over quality and reach of the services provided. Consumer protection highlighted as a critical tool in this regard. Residents of Porto Alegre took part in financial decisions through a participatory budget process (Orçamento Participativo), allowing them to choose which of their priorities the municipality should implement. Moreover, a “deliberative council” had been established as the equivalent of a Board of Directors. It was made up of representatives of different civil society organizations, which were appointed by the mayor. Moreover, strong public accountability had enabled DMAE get the public behind price increases where they were seen as necessary for new investments. User’s willingness to pay seemed to increase where price increases resulted in tangible improvement of services.

Data from 1994 to 2004 confirmed the success of this approach. It showed that while population in the city grew by 8.5%, water services expanded 23% and the coverage of sewage treatment grew by 40%. 70% of these new investments were financed through tariffs. It was seen as important that revenue from tariffs for utilities not be spent on expenditures unrelated to the provision of utilities. A further important element was cross-subsidization. Extremely poor households would only be charged a control tariff and receive a subsidy of almost 80%, while households that consumed a monthly average of up to 20 cubic meters received smaller subsidies. The subsidies would be financed through “luxury consumers“, including shopping malls and airports that use well above 20 cubic meters per month. DMAE’s cross –subsidy is supported by the institution’s financial self-sufficiency for its



operating costs. No governmental or municipal subsidies had been received, nor were other public services cross-subsidized.

Since financing needs for investments could exceed internal revenue generation-DMAE had also relied on multilateral loans. In his regard, it was stressed that public-public partnerships between the federal government, states and municipalities, including public banks like BNDES and CAIXA could help fill financing gaps. Eliminating bureaucratic obstacles as promoted by President Lula was seen as a critical factor that would facilitate this process. Discussants also cautioned against potential conflicts of interest between private providers of utilities and users. Some corporations would tie their services to certain suppliers, which was not necessarily in the interest of the people and could raise the cost of services. Where companies had monopolies these private needs could dominate social needs of the population. Awareness also needed to be raised as regards corruption. In the experience of Porto Alegre, participation and public monitoring helped to expose and phase out corruption and increase efficiency of the services provided.

Applying cross-subsidies - The experience of Buenos Aires

Another part of this session focused on the experience of Buenos Aires in applying cross-subsidies in an area covering 9.6 Million people living in Buenos Aires and 17 surrounding municipalities. It was noted that 38% of these people lived below the poverty line. The plan had been to finance the programme exclusively through internal revenue generation and to not rely on state finance, as state



subsidies were not seen as viable. In 2001 a “social rate” for water was introduced, which was financed as a cross-subsidy. Annually, four million US Dollars were to be transferred from richer to lower income households. The main objective was to offer a discounted tariff to households in critical socioeconomic situations.

The system proved to be successful as it was transparent and participatory (among the participating entities were the User Committee of Ente Tripartito de Obras y Servicios Sanitarios (ETOSS), the Argentine Under-Secretariat for water resources, the province of Buenos Aires, the city of Buenos Aires, 17 municipalities regulatory entities and utility providers). Moreover, it managed to minimize targeting errors, and had low administrative costs. The subsidy was targeted at families below the income of \$210 per month. Payment capacity was envisaged to be around 4% of incomes in line with WHO recommendations (3,5 % for water and 5% for water and sewer system). To identify the target groups correctly a social survey was undertaken, assessing data on income, health and consumption related variables. Benefits of the “social rate” programme included a reduction of the bill for the poor and the adjustment of existing debt according to payment capacity. Another challenge lay in the distribution of the funds for the social rate among the 18 jurisdictions. Total funds were distributed in \$4 Dollar units and had to be requested by the user to be disbursed. In order to be beneficiaries, users had to have taken part in the social survey.

Municipalities and the government water regulator ETOSS, identified and selected the beneficiaries, while ETOSS also supervised the process. The discount



in the invoice was applied by the utility provider. As of September 2006 the social rate had reached approximately 116.000 users (4,5 % of total users). Its funds had reached 6,1 million pesos annually (0,9% of the total turnover). The average discount for a beneficiary was 40% and the average invoice for water and sewage after the introduction of the discount stood at \$6 for month. Elaborate proceedings had been put in place to deal with bad debt of users. Concessions were made in the amount of 9.5 Million Dollars, which reduced the percentage of users with debt from 70% to 20% within the first twelve months.

The social rate and extended benefits, such as the cancellation of debt incurred before 1999, had also been offered to institutions that serve public interests, such as universities and hospitals.

Increasing internal revenue generation through minimizing losses - The experience of Mexico City

During this session participants appraised the experience of Mexico City with providing water and sanitation to its citizens. The 9 million inhabitants of Mexico City correspond to 1,895,750 households, which were billed approximately 380 million dollars for water usage in 2006. Mexico City suffered from inequitable distribution of water. Consumption of water was 20 times higher per capita in rich neighborhoods than in poorer areas. Consumption subsidies had proven to be ineffective in targeting the poor. While the rate of payment had been increased over the last years the distribution of the water still relied on a subsidy of the Federal District



Government of about 60% of total distribution costs. Enhanced efforts had been put in place to increase access to water for Mexicans in the last decade. From 2001 to 2006, 107 wells had been improved and repaired while 58 wells had been replaced, altogether accounting for about 3.6% of the total water consumption of the City.

Leakages, however, continued to be a major problem. Currently, about 35% of water was lost. The fact that one third of Mexico City's water would come from sources that were located further than 160 km outside of the city would aggravate the problem. On average, distribution networks were 50 years old. Moreover, tectonic movements below the ground of the city would further damage and dislocate the water pipe system. Annually, about 30,000 not visible and visible leaks had to be repaired in the water distribution system. To tackle this problem, old pipes had been substituted by High Density Polyethylene (HDPE) pipes, which exhibited higher resistance against environmental stress cracking. From 2001 to 2006 more than 822 km of secondary networks (6.7% of the total) were substituted and about 156 km reinforced.

Another geographical phenomenon that had complicated matters was the fact that the foundation of the city kept on sinking further into the ground. In this regard, it was also stressed that an improved drainage systems and better water pumps had played a critical role in preventing flooding and increasing sustainable use of water in Mexico City. Further efficiency-enhancing measures included the creation of 336 sub-sectors of the water network, which had enabled authorities to control volumes more precisely and to reduce the potential loss from leakages. Water management



was further improved through the establishment of 117 new hydrometric stations over last five years, which were projected to help avoid the leakage of up to 3,000 l/s during the next three years. As regards improvements of the quality of water, it was mentioned that a central laboratory of the city coordinated the collection of up to 50,000 random samples per year checking for 70 different bacteriological, chemical, and physical irregularities.

In a collaborative effort, the Federal Government, the Government of the Federal District and of the Government of the State of Mexico coordinated improvements through “Fideicomiso 1928”. The goal of this joint endeavor was to increase the efficiency of the water and sanitation system, including through recycling residual water more effectively. Further important action to increase access to water was environmental protection. It was mentioned, that 56% of the Federal District, approximately 88,442 hectares, was protected from urban settlement. 30,000 hectares of this area were treated as nature preserve.

4. Macroeconomic factors to be taken into account

Appropriate fiscal and monetary policies for public investment

During this part of the debate many participants underlined that the privatisation and commercialisation of public services were not compatible with poverty reduction. Moreover, in low-income countries they were also not compatible with achieving the Millennium Development Goals.



The fundamental questions regarding the provision of public services were how access to public services—such as water, sanitation and electricity—could be financed and how cost recovery (commercialisation) could be reconciled with ensuring access to basic utilities for all, particularly poor households. Participants stressed that two-thirds of households in Africa (83% in rural areas), 59% of households in South Asia (70% in rural areas) and 49% of households in rural Latin America were without access to electricity.

To tackle this challenge public investment had to be dramatically scaled up. In this regard, costing the public investment needed to reach the MDGs had provided a stronger impetus for a change in strategy. Yet, public investment had been in a long-term decline. In Asia, public investment as a share of GDP fell from 10 per cent in 1980 to seven per cent in 2000. Latin America had been the most adversely affected by declining public investment. In Argentina, Brazil and Mexico, public investment as a share of GDP rose to a peak of 10-12% in the late 1970s and early 1980s but plummeted to 2-3% by 2000. Moreover, investment in infrastructure (such as water systems, roads and electricity) was cut sharply and dropped to 1.6% of GDP in Latin America in 2000.

This tendency was caused by financial tightness of the public sector. Debt crises in Latin America in the 1980s and the financial crisis of Asia in the 1990s had resulted in exaggerated caution to borrow for public investment. The tendency to scale back public investment was also rooted in the belief that private investments in infrastructure would blossom after privatization. However, private investment had



been insufficient due to high risk and low profitability, in particular where appropriate regulatory and supervisory regime where absent. According to proponents of public spending investment in infrastructure was justified for several reasons. First and foremost, it would stimulate private investment and not dampen it as experienced in the power sector. It would also increase the productive capacity of the economy so inflation was less of a problem.

Moreover, governments should borrow to finance public investment as it would create future revenue and benefits while current revenue should cover current expenditures. Hence it was normal to incur deficits in the fiscal capital account for such purposes. Discussants then highlighted the macroeconomic implications of expanding basic utilities. Fiscal policies needed to be more expansionary and investment focused while monetary policies should be consistent with fiscal expansion. Often macroeconomic policies would be characterized by an inflation phobia even though low inflation targets (3-5%) could be counter-productive in some situations, particularly in the short term.. Achieving such targets could drive up real rates of interest, which in turn would slow private investment and make public borrowing more expensive. With regard to the role of capital inflows in financing basic utilities it was noted that for low-income countries, a dramatic increase of Official Development Assistance needed not be destabilizing.

Fiscal policies, such as increased government spending needed to be coordinated with adequate monetary policies. It was also seen as important to properly manage the exchange rate and the capital account in order to constrain the



potentially adverse effects of the mostly volatile aid and volatile private capital flows. Concerning the role of capital inflows in financing basic utilities discussants noted that private investment in basic utilities had often been unreliable. In addition, its focus on profits often conflicted with the moral prerogative of ensuring access to all. The long-term challenge would lie in achieving long-term capital accumulation and growth as well as equity in access to basic utilities.

Macroeconomic risks, aid and debt relief

Three key issues highlighted in the course of this part of the discussion were risks related to maturity mismatches, interest rate risk and exchange rate risk. It was noted that borrowing from financial markets on a short term basis was inappropriate for long term infrastructure investments and could lead to maturity mismatches and financial fragility. This would be worsened by the fact that costs could only be recovered very slowly in the water and electricity sector although loans had to be paid back much earlier, usually within a two-three year period. As a result, many poor governments had to reborrow, in order to finance their borrowing. Another source of financial fragility would be interest rate risk. As the financial sectors in the developing world had become much more deregulated over the last decade, interest rates were moving more freely. Due to external factors or increased demand for funds itself interest rates at the time of borrowing could differ from the time of refinancing adding a factor of uncertainty and risk to the loans taken out for investments.



Borrowing from abroad would add a third source of risk. While many governments, in particular those in low-income economies, did not have the options to raise funds from international markets, multinational companies involved in infrastructure finance in developing countries through public private partnerships (PPPs), concessions or lease holdings could access international financial markets or get financing from multilateral sources in foreign currency. This, however, could result in a currency mismatch as revenues were generated in local currency while international loans had to be paid back in foreign currency. Indebtedness of the developing country could rise if foreign exchange rates moved unfavorably. The critical challenge for developing countries would be to raise funds not greater than the market rate on a long term basis without being exposed to these types of risks. In the developing world national development banks (NDBs) used to provide such funds to industries prioritized by the central government. Yet, the role of NDBs had diminished in the course of increased financial deregulation. Only a few NDBs were left in developing countries, of which only some focused on infrastructure investment.

Finally, the discussion focused on the role of debt relief and official development assistance. Most Latin America countries that were part of the Highly Indebted Poor Countries-initiative had reached completion point at the time of the meeting with the exception of Haiti. Whether debt relief for the other Latin American countries (Bolivia, Guyana, Honduras and Nicaragua) would free up additional resources for infrastructure investment remained to be seen.



As regards development aid it was stressed that most Latin American countries were not dependent on foreign assistance but that aid was more relevant for the budgets of low-income countries, in particular in Sub-Saharan Africa. Participants highlighted that supply-side constraints could limit effective aid absorption and had the potential to cause Dutch Disease, i.e. a loss of competitiveness of certain export sectors due to an appreciation of the exchange rate. However, it was pointed out that considerable underemployed resources existed in most low-income countries and supply-side constraints should not be exaggerated. Moreover, it was stressed that aid for infrastructure would in itself increase absorptive capacity.

The role of public private partnerships in Latin American infrastructure investment

Some participants stressed that as a result of decentralization, state and local governments had been given more responsibility to fund infrastructure investments. Yet, at the same time federal transfers to these sub-national entities had declined partly as a result of conditionalities imposed on national governments by international financial institutions, in particular through the IMF and World Bank. Moreover, fiscal restrictions such as fiscal responsibility laws referred to above made it difficult for municipalities to raise additional funds on their own.

The most highly indebted municipalities were often the ones most in need of assistance yet the more financially sound ones would have easier access to capital.



In addition, legislation in many Latin-American countries would rule out bail-outs of sub-national government by the federal government. A case study for Bolivia was quoted, which described an 11% cut of federal transfers to states and cities after Bolivia's GDP had dropped in 2001. As a result of the Bolivian fiscal law, municipalities that went bankrupt were not bailed out. This led to the disconnection of services for many parts of the population. On a related note, it was observed that methods to target municipalities directly had been developed through a joint World Bank/IFC Municipal Fund. Several participants saw these loans as risky as they would not be secured by the government. It was also noted that lending directly to sub-sovereign entities in developing countries could also be against the World Bank articles of agreement

Several participants emphasized that the financing potential of PPPs was often exaggerated. Public-private partnerships had to be carefully designed and balanced. For example, some preference was expressed for a model in which the private sector entity would be responsible for the construction and extension of the service, while delivery would be handled by the public sector. The issue of who retained the profit was also seen as contentious. In the eyes of many participants, profits should be reinvested in utilities in developing countries and not be distributed to shareholders in developed countries.

Participants recalled cases, in which the public sector had to bail out private sector entities facing bankruptcy in PPPs. This phenomenon would impose additional risk on the government, which was labeled "bankruptcy risk". It was



highlighted that PPPs usually implied loan guarantees for the investor. However, these loan guarantees would often be off-budget, i.e., it was treated as a contingent liability that did not show on the main balance sheet of the municipality or government. The IMF for example, had warned about the vulnerabilities of municipalities with off-balance sheet items related to PPPs.

Discussants also deplored the absence of regulation and competition in the water and electricity sectors. For example, in Chile, a lack of transparency in the water sector had raised several issues with a water provider consortium in Santiago. Because the legal boundaries of the consortium were unclear to the government and regulatory bodies, they did not keep the consortium from contracting out the water treatment process to one of their subsidiaries, although this was a violation of Chilean law as the project had not been put out to bid. Finally, fiscal spending decisions should also be demand and people-oriented and focus on the provision of social services