



Environment

Water & Environmental Sanitation Network (WES-Net India)



Solution Exchange for WES-Net India Consolidated Reply

Query: Financing urban water and sanitation projects that include the poor, from USAID-India, New Delhi (Experiences).

Compiled by Jyotsna Bapat, Resource Person and Moderator; additional research provided by Ramya Gopalan, Research Associate
27 March 2006

Original Query: Chetan Vaidya, USAID-India, New Delhi

Posted: 13 March 2006

USAID and the Union Ministry of Urban Development are jointly working on a national program to address urban infrastructure needs in five states in India. The program focuses on capacity building of state and municipal institutions for the development, financing and management of viable water and sanitation services with market-based financing.

The project aims to increase urban infrastructure investment by increasing participation of municipalities, the private sector, and community organizations in the development and delivery of commercially viable urban infrastructure services; improving capacity of municipal and state governments, infrastructure agencies, and other urban professionals to manage urban growth, mobilize resources and improve infrastructure services; and supporting development of a market-based urban infrastructure finance system

The Objective of the Indo US Financial Institutions Reform and Expansion (FIRE) Project is develop commercially viable urban infrastructure projects including the water sector and sewerage and the current need is to base the recovery estimates, on the entire balance sheet of the Municipal Corporation as a whole, rather than project itself.

In this context, I would be grateful if members could share examples of commercially viable projects that have provided increased access to water and sanitation services by poor people living in the cities, in projects funded under market based financing (like bonds, pooled finance or private sector participation). In these projects were the poor covered through a separate grant or cross-subsidized by other users, and what considerations were taken into account in determining the approach to take?

Responses received with thanks from:

1. [Digbijoy Bhowmik](#), GoI - UNDP project 'National Strategy for Urban Poor', New Delhi
2. V. Kurian Baby, Socio-Economic Unit Foundation (SEUF), Kerala ([Response 1](#), [Response 2](#))

3. [Padmaja Nair](#), Independent Consultant, Lucknow
4. [Nirmal Mohanty](#), Infrastructure Development Finance Company Ltd. (IDFC), Mumbai
5. [Manish Ahluwalia](#), CMI Social Research Centre, New Delhi
6. [M.P.S. Puri](#), Sustainable Business Development, S Y N E R G Y International, New Delhi
7. [Jyotsna Bapat](#), UNDP, New Delhi
8. [Ashok Paikaray](#), Mahavir Yubak Sangh, Bhubaneswar

Further contributions are welcome!

Summary of Responses

Members' responses provided examples of commercially viable urban infrastructure investment projects, where municipalities raised money through financial markets in the form of Municipal bonds, for extending access to drinking water and sanitation services for poor people living in cities. Specifically, on the one hand, members cited many examples of state governments, using market borrowings from Government Financial Institutions on low interest rates like the Tamil Nadu Water Supply and Sewage Board raising capital on 20 year bonds from open markets at 5% rate of interest. On the other hand, there were very few instances, of projects raising money through financial instruments or private capital in the open market, cited by members. Similarly, members pointed out the lack of projects with specifically targeted strategies, to include poor, through separate grants or cross subsidy by other users.

Respondents shared various innovative financing mechanisms for water supply utility. They cited the example of multilateral funded projects, which usually bear low interest rates on long term loans, like the Bangalore water supply project in [Karnataka](#) where the focus is not just on service delivery to its urban customers but also vulnerable communities living in slums. The Indore city project in [Madhya Pradesh](#) was another example mentioned by members, where residents associations were formed in an effort to encourage their participation particularly through in-kind contributions.

Hailing the the Ahmedabad Parivartan project, [Gujarat](#), as noteworthy, members shared that the Ahmedabad Municipal Corporation, a private textile mill, and a local NGO shared equally in the capital cost of infrastructure. Members alluded to the Public Works Department's initiative in Satyameopur district, [Haryana](#), to resolve the water situation, by levying a flat monthly charge of Rs. 70 per household, while the principal and interest costs of capital costs was met by the State government. Members referred to a group of villagers in [Punjab](#) where they are in the process of owning a Solar Powered Drinking Water Disinfection system, and making the project sustainable by selling water to the villagers and generating income.

Members shared the vital example of a community based/demand driven urban water supply program in Thrissur, [Kerala](#) with division level communities and user groups registered as separate entities. Members pointed out that these entities own, manage and operate the system, clearly demonstrating the viability of a PRI centric community managed water delivery mechanism in the urban context based on full recovery.

Through the above-mentioned examples, members emphasized wide ranging issues that require consideration and addressing in the development of finance mechanisms for providing urban infrastructure services, some of which are:

- State governments are more willing to pay installments for capital works but not to maintain it which should be undertaken by other stakeholders.
- The need to change the mind set of 'free water' and understand that cross subsidization, unless very selectively employed, would kill ownership and equal voice ,
- Municipalities are reluctant to invest in infrastructure services due to the legal status of slums, so they prefer to deliver water through municipal tankers rather than build connections in these illegally established slums.
- Low prices of water only results in poor services being tolerated and accepted, an aspect repeatedly highlighted. Pricing therefore is necessary to atleast sufficiently cover costs of operation and maintenance.
- In the provision of these services, while inclusion of poor households is important, equally crucial is the inclusion of vulnerable groups belonging to a particular caste or ethnicity. This aspect needs to be carefully addressed when projects are being funded by the private sector.
- Most of the time, the responsibility of providing water for the poor is placed on the government, while recommending clear separation between the responsibility of an infrastructure service providers and social responsibility of ensuring that poor are not left out.

The experiences cited above by members highlighted privatization and charging reasonable user fees for basic services, participation of service providers like municipalities or PWDs and ownership and participation of communities as user groups. These various experiences and issues thus emanating are provided in greater detail below.

Comparative Experiences

From [Digbijoy Bhowmik](#), *Gol - UNDP project 'National Strategy for Urban Poor', New Delhi*

Karnataka

Cauvery Water Supply Project, Bangalore

Being executed by the Bangalore Water Supply and Sewerage Board this is an example of how despite apprehension in civil society as regards the protection of interests of the poor after privatization of some portions, the project is well on its way to become one of the first multilaterally financed schemes. For details see [Bangalore Water Supply and Environmental Sanitation Master Plan Project](#)

Haryana

Drinking water project, Satyameopur (Mewat)

This 425 crore project for 503 villages, an area with rainfall averaging of 600 to 1200 mm inhabited by a poor minority community called Meo's. Initially the supply "standard" was less than 20 LPCD with about 50% of water containing high TDS (5000 mg/l). To resolve this, The PWD (Public Health) provisioned three Ranney wells & additional deep tube wells. A monthly flat rate is charged, only after supply standard of 70 LPCD is reached. The concerned State Government has committed to returning capital costs & for last two FY's the State budget & Central share therein have kept their promise.

From *V. Kurian Baby*, *Socio-Economic Unit Foundation (SEUF), Kerala* ([Response 1](#), [Response 2](#))

Kerala

Swasrayakudivella Padhathi (self dependent water supply programme)

The programme has 10% capital cost contribution from user households and 100% O&M cost recovery. Of 27 schemes planned in 2004, with estimated project cost of Rs. 237 lakhs and coverage of about 4000 households, 19 have been completed. The ownership of all commissioned schemes has been transferred to communities concerned. The Corporation, though initially committed own funds to subsidize the capital cost of 90%, later they have pooled in both own and plan funds (Kerala has devolved about 33% of the plan funds to the PRIs), for the purpose. For details please contact [Thrissur Corporation](#)

From [Padmaja Nair](#), Independent Consultant, Lucknow

Madhya Pradesh

Indore Municipal Corporation

This project has some conceptual merits, a partnership between state government, beneficiary community and private stakeholders, wherein beneficiaries shared in the cost & loans were also raised from HUDCO. Subsequently, over last few years, Indore Municipal Corporation also formed residents associations outside slums encouraging participation in maintenance of water supply pipelines, etc., mainly through in-kind contributions. Additionally IMC issued municipal bonds & raised funds from private institutional investors for upgradation of services.

Gujarat

Parivartan Project, Ahmedabad

In this project a partnership was forged between the Municipal Corporation, the private sector (primarily Arvind Mills), local NGOs (SAATH) and the community, with the first three stakeholders sharing equally in the cost of physical development of the slum. The AMC's share was raised through a loan from HUDCO; the community resorted to loans from their SHGs and the SEWA bank. See [Ahmedabad Parivartan](#)

From [Manish Ahluwalia](#), CMI Social Research Centre, New Delhi

Government of India sponsored Sector Reforms Projects in Rural Drinking Water Supply.

These are 'demand driven' projects implemented in rural areas of different states. Important feature of the rural water and sanitation projects have been community contribution made by households for getting access to piped drinking water supply. In these projects vulnerable groups like clusters of poor households often belonging to a particular caste group of ethnicity are left out because they cannot afford to pay even that 10 % cash contribution needed to connect to it. Thus is a relatively small and more or less homogenous community if poor people are left out of these new schemes.

From [M.P.S. Puri](#), Sustainable Business Development, S Y N E R G Y International, New Delhi

Punjab

'Naiade' - Solar Powered Drinking Water Disinfection system

This has been installed where drinking water presently consumed is contaminated with bacteria and power supply is not reliable. Ideally an individual / group in the village own the equipment and make the project sustainable by generating revenue by selling water to the villagers for a nominal amount. Designed and developed in the Netherlands meeting specific requirements of any developing country like India Naiade disinfects 2,500 litres of water in 10 hours by a UV lamp

of 20 watts and gets power from a solar panel of 80 watts, also awarded 2004 European Award for Environment. It has been tested in Europe, Africa and India (at ATIRA, Ahmedabad). Please see [Certificate](#) from ATIRA & [brochure](#) for details.

From [Ramya Gopalan](#), Research Associate

Tamil Nadu (TN)

Clean Water Revolving Fund, Valasaravakkam Township

USAID's Development Credit Authority (DCA) offers a cost effective pooled financing mechanism for implementation of water and sanitation projects in the state. The Valasaravakkam Township, with a population of 26,260, has an inadequate water supply system. Credit enhancement is provided under the DCA program. Total project cost will be \$402,760, with 90% of funds coming from borrowing. The DCA subsidy cost for the program is \$392,000, a 16:1 leverage with per capita cost of approximately \$11.00. \$6.4 million has been made available to all TN municipalities participating, providing benefits to an estimated 593,000 people. Go to [Clean Water Revolving Fund](#)

Tamil Nadu Urban Development Fund (TNUDF)

A municipal development fund, linking capital markets with development projects and capacity augmentation. Over 500 projects covering water supply and sanitation, solid waste plants etc in 90 out of 110 municipalities are financed. Provides grants to ULBs to subsidize the capital cost, provide training and equipment, support project process, capacity building initiatives, privatization & other schemes. Fund resources come from bond issuances, loans & grants from state and central governments, World Bank loans, & loans from domestic financial institutions, forms of credit enhancements & guarantees. See [Connecting Markets and Cities: The Case of Tamil Nadu Urban Development Fund \(India\)](#)

International Experiences

Mexico

The Infrastructure Investment Fund (FINFRA) was created working along with Banobras (National Public Works Development Bank) involving federal government resources to encourage higher participation of private sector in the development of basic infrastructure (running water, sewerage, and sanitation). Two types: A - risk capital subscribed initially by federal government, B – subordinated capital always subscribed by the federal government , total not exceeding 49 per cent of project's total investment. For transparency in project selection process approvals are submitted to a joint committee of concerned stakeholders. See [Towards More Efficient Urban Water Management in Mexico](#)

Related Resources

Recommended Organizations

Karnataka Urban Development Infrastructure and Finance Corporation (KUIDFC)

(from [Digbijoy Bhowmik](#), GoI - UNDP project 'National Strategy for Urban Poor', New Delhi)

<http://www.bangaloreit.com/html/govtinformation/frms/karurbanfrm.htm>

Provides project details on urban infrastructure development in the State adopting different financing mechanisms

Socio-Economic Unit Foundation (SEUF), Kerala (from [V. Kurian Baby](#), *Socio-Economic Unit Foundation (SEUF), Kerala*)

<http://www.seuf.org>

Provides technical and community intermediation support to the Thrissur Corporation, facilitating demand generation and awareness programmes

From [Ramya Gopalan](#), Research Associate

Municipal Administration and Water Supply Department

Tamil Nadu Urban Development Fund, Government of Tamil Nadu

http://www.tn.gov.in/policynotes/municipal_administration-8to9.htm

Provides details of implementation of TNUDF, enabling the strategic link of capital markets with development projects and capacity augmentation in urban areas

Global Environment and Technology Foundation

<http://www.getf.org/ourwork/template.cfm?FrontID=4763>

Develops project financing options, ranging from unique partnerships to revolving funds, for international organizations & businesses seeking to finance water projects.

The International Center for Environmental Finance (ICEF)

<http://www.getf.org/ourwork/template.cfm?FrontID=1652>

Is an environmental finance program to help countries create permanent, self-sustaining, market-based environmental finance systems.

USAID

http://www.makingcitieswork.org/urbanThemes/environment/water_supply

Has a multi dimensional involvement in the theme of urban water supply and distribution

Recommended Contacts

The Secretary, Corporation of Thrissur, Pin: 680001

Phone: 0487 2422070

Has details on the 'Swasrayakudivella Padhathi' program implemented by the corporation in Central Kerala

Recommended Websites

From [Ramya Gopalan](#), Research Associate

Representative ICEF Projects

<http://www.getf.org/ourwork/template.cfm?FrontID=4637>

Provides examples of institutional capacity building by ICEF in Russia, Ukraine, and Kazakhstan, indicative of the potential to expand the programs to other countries

Privatizing Water and Sanitation Services

The World Bank

<http://rru.worldbank.org/PapersLinks/Privatizing-Water-Sanitation-Services/>

Focuses on contract design details; market structure & competitive arrangements; access & service targets definitions; economics of forms of financing; & benchmarking regulation

Urban Water Supply and Sanitation

The World Bank

<http://www.worldbank.org/html/fpd/water/urban.html>

Provides a briefing of The World Bank's activities in urban water and sanitation development

Recommended Documentation

Bangalore Water Supply and Environmental Sanitation Master Plan Project (from [Digbijoy Bhowmik](#), GoI - UNDP project 'National Strategy for Urban Poor', New Delhi)
AUSAID & Bangalore Water Supply and Sewerage Board
<http://www.ausgovindia.com/public/news/2000/mar/2902.htm>

Provides project brief aiming to plan, implement & deliver water supply, sewerage & environmental sanitation services to its customers, focusing on vulnerable communities.

Ahmedabad Parivartan (from [Padmaja Nair](#), Independent Consultant, Lucknow)
http://www.wsp.org/publications/sa_ap_folder.pdf (Size: 1.25 MB)
<http://www.sewabank.org/activities/parivartan.htm>

Describes the partnership forged between Municipal Corporation, private sector, local NGOs and the community, the first three stakeholders sharing equally in physical cost.

'Naiade' - Solar Powered Drinking Water Disinfection system (from [M.P.S. Puri](#), Sustainable Business Development, S Y N E R G Y International, New Delhi)
<http://www.solutionexchange-un.net.in/environment/cr/res27030601.pdf> (Size: 1.2 MB)

Brochure details the achievements and other information about this system, developed by the Netherlands yet suitable for needs of developing countries like India

From [Ramya Gopalan](#), Research Associate

Connecting Markets and Cities: The Case of Tamil Nadu Urban Development Fund (India)

Dr. HK Pradhan, XLRI, Jamshedpur, September 2004

<http://www.developmentfunds.org/pubs/Connecting%20Markets%20and%20Cities-%20the%20Case%20of%20Tamil%20Nadu.pdf> (Size: 206 KB)

Elucidates the TNUDF, as a strategic intermediary linking capital markets with development projects and capacity augmentation in the urban areas

Clean Water Revolving Fund

A USAID/EPA initiative, World Water Forum 2003

http://www.usaid.gov/our_work/economic_growth_and_trade/development_credit/factsheets/water_revolving_fund.pdf (Size: 76 KB)

Details the USAID & EPA framework for use of local currency capital investment financing mechanisms pioneered in the US implemented in selected developing countries

Towards More Efficient Urban Water Management in Mexico

Lilian Saade Hazin, SEMARNAP, Mexico City, Mexico

<http://www.gdrc.org/uem/water/mexsaade.htm>

Article describes efforts of Mexican government toward efficient management of water resources focusing on new financing schemes, and greater private sector involvement

Financing Major Water Projects in Poorest Economies

Elie Elhadj, Occasional Paper No 35, Water Issues Study Group, School of Oriental and African Studies (SOAS), University of London, July, 2002

<http://www.soas.ac.uk/waterissues/occasionalpapers/OCC35.pdf> (Size: 99 KB)

The focus of this study is on financing water for drinking and household use in developing economies, especially the poorest.

Developing markets for watershed protection services and improved livelihoods

International Institute for Environment and Development (IIED)

<http://www.iied.org/NR/forestry/projects/water.html>

Project aims to promote maintenance of watershed services supporting local livelihoods by increasing understanding of the potential role of market mechanisms

USAID Credit Guarantees Water and Infrastructure Finance

http://www.usaid.gov/our_work/economic_growth_and_trade/development_credit/water_finance_credit_guarantees.htm

Offers world wide examples of projects in the sector using different market financing mechanisms promoted/guaranteed by USAID

Public Private Partnership in Urban Water Supply and Sanitation Sector in India

UNESCO

[http://www.unesco-ihc.org/downloads/WB_VC09.10.03/India_PPPinWSS\(HSMI\).pdf](http://www.unesco-ihc.org/downloads/WB_VC09.10.03/India_PPPinWSS(HSMI).pdf) (Size: 132 KB)

Identifies and details existing sources of finance, financial issues, investment requirements, trends and reforms in the sector

Roundtable Discussion on Private Sector Participation in Urban Water Supply in India Materials on Private Sector Participation

ADB

<http://adb.org/Water/Financing/PSP/2005/roundtable-materials.asp>

Report of the roundtable discussions between ADB and senior Government officials on the private sector's role in reforming the country's water supply and sanitation

Urban Water Supply Innovations in Cote d'Ivoire: How Cross-Subsidies Help the Poor

http://www.wsp.org/publications/af_bg_ci.pdf (Size: 1005 KB)

Explains three mechanisms to help the poor: subsidized household connections, a rising block tariff, and licensed water resellers in informal settlements

PPP Models in Urban Water Management

Aquamedia, Vienna

<http://www.aquamedia.at/templates/index.cfm?id=9375>

Enumerates various Public Private Partnership (PPP) models functioning to ensure appropriate decision making and establishment of legal framework

Marketing Sanitation in Rural India

Water and Sanitation Program and Water Aid

http://www.wsp.org/publications/sa_marketing.pdf (Size: 1139 KB)

This case study examines how WaterAid-India stimulated the demand for sanitation through social marketing and hygiene promotion

Taking Urban Upgrading to Scale: Where are the bottlenecks?

Jennifer Davis, Massachusetts Institute of Technology, Cambridge, MA, November 2002

<http://www.wupafrica.org/toolkit/action/Davisupgrading.pdf> (Size: 242 KB)

Paper discusses challenges to expanding successful, small-scale urban upgrading initiatives in developing countries - "scaling up" comprising inclusion & institutionalization

Sustainable Urban Development in India: An inclusive Perspective

Darshini Mahadevia, UNRISD

[http://www.unrisd.org/unrisd/website/document.nsf/70870613ae33162380256b5a004d932e/56c9aa313b79ff03c1256f3c003fddca/\\$FILE/chap2.pdf](http://www.unrisd.org/unrisd/website/document.nsf/70870613ae33162380256b5a004d932e/56c9aa313b79ff03c1256f3c003fddca/$FILE/chap2.pdf) (Size: 76 KB)

Presents a new inclusive approach to sustainable cities in India with the central perspective of poor & marginalized, describing the means by which it might be achieved

Community-driven development for water and sanitation in urban areas

David Satterthwaite et al, IIED, ISBN: 1843695588, (priced publication)

http://books.google.co.in/books?vid=ISBN1843695588&id=5CDMmF2T_jsC&pg=PA27&lpg=PA27&dq=finance+urban+water+examples&sig=ZnJbJvjmjT5gLoii-DZf1uO6YAO&hl=en

Discusses alternative means to improve provision and financing improvements in water and sanitation through loans and subsidies

Urban Water Demand Management and Planning

Duane D. Baumann et al, ISBN: 007050301X, Mc Graw Hill Professional, (priced publication)

<http://books.google.co.in/books?ie=UTF-8&vid=ISBN007050301X&id=TeKHph4L1vsC&pg=PA162&lpg=PA162&dq=finance+urban+water+examples&sig=PQoaZSNFjmOT8mAiLNMarUICBOY>

Details urban water use, forecasting models and applications together with price structures & pricing structures to enable urban water planning and management

Responses in Full

Digbijoy Bhowmik, GoI - UNDP project 'National Strategy for Urban Poor', New Delhi

State Governments have used market borrowings (including those from Government FI's at considerably high rates) to meet capital requirements of establishing water supply systems. Until a few years ago, State Governments did not have adequate access to private capital market and had to contend with high interest rates controlled by the Central Government (administered through HUDCO, NCRPB etc.). While systems being laid in virgin areas (i.e. new planned development) could absorb some of the capital costs of the supply infrastructure through EDC (external development charges), system upgrades being laid (or re-laid) in existing settlements have always had a problem recovering capital costs. In such cases, only O&M charges have been recovered, and that too after promised supply standards are met at the source discharge level.

This has however, not deterred the State owned utilities from availing IEBR's or other forms of credit. During my years at a Government FI, my institution managed to offer rates of interest as low as 6.5% (simple, effective rate after availing performance benefits). During 2004-2005, our portfolio stood at over 1,200 crore of commitments for water supply projects alone, covering both urban as well as rural – and that too drinking water only. Recently, it was brought to my attention that the Tamil Nadu Water Supply and Sewerage Board had managed to raise capital at rates of 5% for a repayment period of 20 years (also simple interest) from the open market.

One outstanding example would be that of the Cauvery Water Supply Project for Bangalore, being executed by the Bangalore Water Supply and Sewerage Board – see <http://www.ausgovindia.com/public/news/2000/mar/2902.htm>. Despite apprehension in civil society as regards the protection of interests of the poor after privatization of some portions, the project is well on its way to become one of the first multilaterally financed schemes.

Another example that particularly stands out (albeit not urban, but the similarities are many) is that of a 425 crore drinking water project for 503 villages of the newly created district of Satyameopur (Mewat), Haryana (four blocks of Gurgaon, two of Faridabad). The area has

rainfall averaging between 600 to 1200 mm per annum (with some documented instances as low as 400 mm/ annum), and a particularly poor minority community called Meo's. At the time of formulating the project, the supply "standard" stood at less than 20 LPCD, and about 50% of the area had water with extremely high TDS (5000 mg/l). To resolve the situation, The PWD (Public Health) has provisioned three Ranney wells in the river bed of Yamuna, over 40 km away in Faridabad district, and hauls water over this distance to ensure a supply of 70 LPCD per day (as per CPHEEO standards). The other half of the district is fed by additional deep tube wells, which are recharged by a system of directed fissure and injection wells dug further west at the foothills of the Arravallies. The PWD (PH) levies a monthly flat rate charge of Rs. 70/- per household, but only after the supply standard of 70 LPCD has been reached. As far as the capital costs are concerned, the principal along with interest has committed for returning by the concerned State Government, and so far, as far as the last two FY's are concerned, the State budget and Central share therein have kept their promise.

The conclusion here is simple – State Governments are willing to pay in installments for capital works, but not to maintain it – that part must be taken up by beneficiaries themselves. As an FI, my erstwhile organization always insisted on recovery at a minimum rate of Rs. 5/- per kiloliter in urban areas and a flat rate plan of Rs. 70/- per H/H in rural areas – as long as the water is NOT diverted from the source for irrigation.

V. Kurian Baby, Socio-Economic Unit Foundation (SEUF), Kerala

I would like to share with the members our experiences in piloting and scaling up of community based/demand driven urban water supply programme in Thrissur Corporation in central Kerala. The corporation is having a total population of 317 lakhs, in 52 divisions and an annual budget of about (plan and non plan) Rs 17 crores.

The programme is called "Swasrayakudivella Padhathi" (meaning self dependent water supply programme), with 10% capital cost contribution from user households and 100% O&M cost recovery. Out of 27 schemes planned in 2004, having an estimated project cost of Rs. 237 lakhs and a coverage of about 4000 households, 19 have been completed, and the remaining under advanced stages of implementation. The ownership of all the commissioned schemes have been transferred to communities concerned and are fully owned, operated and managed by them through full cost recovery. The Corporation, though initially committed own funds to subsidize the capital cost of 90%, later they have pooled in both own and plan funds (Kerala has devolved about 33% of the plan funds to the PRIs), for the purpose.

The project has a scheme cycle of 24 months, for planning, implementation and post implementation. SEUF, a watsan NGO has provided the technical and community intermediation support to the Corporation, facilitated demand generation and awareness programmes, including community mobilization and capacity building. Institutionally, division level committees have been constituted and the user groups registered as separate entities, with powers to own, manage, operate, fix, levy and collect user charges. Each household has contributed Rs. 900 to 2500 fully in cash (no labour contribution), depending on the technology option towards capital cost and they are charging Rs. 35 on an average towards the O&M. Since most of the schemes were in the water starved periphery/outskirts, people came forward to contribute their share. The corporation has transferred the existing assets, mainly public water sources like wells, ponds etc., to the user group. The schemes predominantly have house connections, for improved service level. Cross subsidization was not adopted as a tool for inclusion. Though about a third of the population is BPL, there are no slum dwellers. Interestingly, in many of the scheme locations, public water supply schemes were are co-existing.

This is a unique experiment in Kerala and perhaps in the country, that demonstrated the viability of a PRI centric community managed water delivery mechanism in the urban context based on full cost recovery. Even when the water sector reforms are largely moving around the rural sector in India, such efforts are worthy, in all its limitations.

For details please contact:
The Secretary, Corporation of Thrissur,
Pin: 680001. Phone: 0487 2422070

Padmaja Nair, Independent Consultant, Lucknow

You may perhaps like to look at the much talked about SNP projects, initially tested in Indore and subsequently in Ahmedabad and Vadodara.

The Indore project, although having received both awards and brickbats for various reasons had some conceptual merits. It was a partnership between the state government, the beneficiary community and private stakeholders, wherein the beneficiaries shared in the cost of both sewerage and drinking water connections and loans were also raised from HUDCO. Subsequent to this, over the last few years, the Indore Municipal Corporation has I believe also formed residents associations outside slums and encouraged them to participate in the construction of roads, maintenance of water supply pipelines, etc., mainly through in-kind contributions. On its part the IMC has issued municipal bonds and raised funds from private institutional investors for upgradation of services.

I however, find the case of Ahmedabad and its 'Parivartan' project more interesting. Here a partnership was forged between the Municipal Corporation, the private sector (primarily the Arvind Mills), local NGOs (SAATH) and the community, with the first three stakeholders sharing equally in the cost of physical development of the slum. While the AMC's share was raised through a loan from HUDCO, the community resorted to loans from their SHGs and the SEWA bank.

It will be worth looking into the present status of the beneficiaries of these two projects and the financial status of the municipal corporations especially in the light of the recently launched National Urban Renewal Mission and its' clear agenda of encouraging 'public -private participation' or in other words 'privatisation' and charging 'reasonable' user fees for basic services to make municipalities financially more viable and sustainable.

V. Kurian Baby, Socio-Economic Unit Foundation (SEUF), Kerala

As my second response to this query I would like to correct a mistake in my earlier [response](#). The population of Thrissur Corporation is 3.17 lakhs and not 317 lakhs. Secondly, as informed, overall participation of BPL is about 35%, which is near / above the BPL percentage. We have insisted on cash contribution, which the households were willing to pay, irrespective of the income status. In Kerala, for a BPL family, mobilizing 10% capital contribution of a typical cost effective drinking water scheme based on local sources is not a serious issue as the market wage is around Rs. 250 per day per person. The issue is to change the mind set of "free water". Cross subsidization, unless very selectively employed would kill ownership and equal voice. However, the chances of exclusion are there for the destitute. Even this exclusion is from access to improved service level and not from access to drinking water, as many options co-exists, including public stand posts. We have not conducted any process/inclusion audit so far. We would document the experience,

and exclusion aspects would be specifically looked into and the results shared. Our colleagues are welcome to visit the programme, the value of which is in its urban context.

[Nirmal Mohanty](#), Infrastructure Development Finance Company Ltd. (IDFC), Mumbai

Following are my views on water provision for the poor:

1. There is a view that the poor are underserved when the private sector is the provider of (piped) service. My suspicion is that this is just an excuse for vested interest groups to stall private participation. Be that as it may, it is important to disabuse at least the bureaucrats and politicians of this view.
 2. Even though the poor are paying several times more per kl to the private tankers than the rich, they would perhaps not be willing to pay anything when the municipality is the provider.
 3. An important issue relates to the legal status of the slums. Since slums are not legal, municipalities are unwilling to give them connections. They would rather have municipal tankers providing water in the slums. As you know, cost of provision through tankers is much higher than through pipes.
 4. Pricing is an important issue. In the name of poor, prices are kept at ridiculously low level. This is a very blunt instrument for equitable distribution of water. It would perhaps be better to make 30-40 lt a day free for all individuals; but cover the operating cost through all provisions beyond that level.
 5. Low recovery hurts expansion including to the poor.
 6. Low prices results in poor services being tolerated and services going from bad to worse.
 7. Greater priority should perhaps be given to sanitation rather than drinking water supply.
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[Manish Ahluwalia](#), CMI Social Research Centre, New Delhi

I have recently been involved in evaluation of Government of India sponsored Sector Reforms Projects in Rural Drinking Water Supply. These are projects implemented in rural areas of different states. These are 'demand driven' projects. Important feature of the rural water and sanitation projects have been a community contribution made by households for getting access to piped drinking water supply. In these projects often vulnerable groups like clusters of poor households which often belong to a particular caste group of ethnicity are left out because they cannot afford to pay even that 10 % cash contribution needed to connect to it. Thus is a relatively small and more or less homogenous community if poor people are left out of these new schemes.

Given this reality when the projects are funded by private sector the chances of poor being left out are even more. Especially if the private sector will be more interested in servicing the debt and will focus on cost recovery.

[M.P.S. Puri](#), Sustainable Business Development, S Y N E R G Y International, New Delhi

The question is a valid and valuable one in the present context in urban/peri urban water supply. Poor are not on anybodies radar. They are useful numbers for making policies and but they do not get any hard core benefits from such policies. The time has come to walk the talk.

In fact, things would not have become so difficult to change today, if for years, poor were not promised water, electricity, sanitation etc and that too free-of-cost. Since, these were never delivered and hence no one asked the poor to pay. But now, if someone, wants to deliver safe drinking water or power to them, he finds it very difficult to charge even a very nominal service fee from the poor, to make the project self sustainable.

Nevertheless, we are trying to change the mind set of the have-nots, by setting up a few successful examples in the country. Currently we are in the process of installing a 'Naiade' - Solar Powered Drinking Water Disinfection system in a village in Punjab, where the drinking water presently consumed is contaminated with bacteria and power supply is not reliable. We would like an individual / group in the village to own the equipment and make the project sustainable by generating revenue by selling water to the villagers for a nominal amount. We are happy to say that villagers are slowly but surely getting convinced to consume safe water and to pay for it.

Naiade was designed and developed in the Netherlands keeping in mind the specific requirements of any developing country like India. It disinfects 2,500 litres of water in 10 hours by a UV lamp of 20 watts and gets power from a solar panel of 80 watts. Naiade was awarded 2004 European Award for Environment. It has been tested in Europe, Africa and India (at ATIRA, Ahmedabad). Please see [Certificate](#) from ATIRA & our [brochure](#) for details.

[Jyotsna Bapat](#), UNDP, New Delhi

This is a very interesting query and I think it is time to revisit the question, to get some clarity. Providing drinking water supply like any other infrastructure provisioning a service is to be provided by the service providers. The same rules of efficient delivery and cost recovery should therefore apply to it. Thus when money is raised in the market and an interest is being paid then the person who makes the investment has a right to and should recover the cost through user fees.

The main issue is safe drinking water is an essential commodity and therefore every one including the poor should have access to 'subsistence levels'. No debate about that. The question is who should pay for it? As a welfare state it is the responsibility of the government to pay for it. There are mechanisms available and implemented in say Cuba or USA where the poor are identified, tracked, and targeted for various services by the social welfare department. As has been our experience in India, the blunt instrument of blanket subsidy does not work in most cases. Thus if the state has a commitment for helping the poor, then it should foot the bill for helping them and put mechanisms in place to ensure that they are targeted. The rich and the middle class already pays taxes so additional sharing of their wealth should be a voluntary choice that the state can continue to facilitate like tax rebates against donations.

But interestingly at micro community levels when there are no stings to the label of being 'poor', within a community in a village hamlet neighbors ensure that the starving is fed, and have water. Even in urban slums say in Delhi households look out for each other.

[Ashok Paikaray](#), Mahavir Yubak Sangh, Bhubaneswar

I have some comments on Mr Mohanty's views while giving the definition of urban poor. I have visited some slums within Bhubaneswar city having Community Management Groups by the Bhubaneswar Municipal Corporation. Whenever the administration wants to rehabilitate those people living with slums ,after getting the rehabilitation schemes they came back to their previous places of living. When comparing to provide sanitation and water provision for

those poor we should think about their participation to the programme. It should not be complementary as compared to people living in rural areas, contributing their share under the Total Sanitation Campaign (TSC)

Many thanks to all who contributed to this query!

If you have further information to share on this topic, please send it to Solution Exchange for WES-Net at se-wes@solutionexchange-un.net.in with the subject heading "Re: [se-wes] Query: Financing urban water and sanitation projects that include the poor, from USAID-India, New Delhi (Experiences). Additional Response."

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