THE UN-HABITAT
WATER AND SANITATION TRUST FUND
ANNUAL REPORT 2008

FOR A BETTER URBAN FUTURE
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UNO HABITAT
Although sanitation has been hailed as “the most important medical advance since 1840”, over 2.5 billion people – most of them in sub-Saharan Africa and South Asia – lack access to basic sanitation. The world is not on track to meet the 2015 Millennium Development Goal (MDG) for sanitation. For the drinking water MDG, progress is better, but the situation still critical in some regions. Meanwhile in the slums of cities such as Nairobi, Dar-es-Salaam and Mumbai, the daily reality is an extended struggle to find water, a place to defecate and a convenient location to dump or burn one’s rubbish.

The primary objective of the UN-HABITAT Water and Sanitation Trust Fund (WSTF) is to contribute to the international efforts to achieve the Millennium Development Goals for Water and Sanitation. The strategy of the WSTF is to target the key constraints by focussing on:

- The countries that are not making sufficient progress, such as the lagging countries in Sub-Saharan Africa and Southern Asia;
- Training and capacity building to overcome institutional weaknesses and inefficiencies;
- Increasing the flow of investment, especially investment where it is needed most, in the expanding slums and shanty-towns where the urban poor are concentrated;
- Addressing information gaps by improving the information systems used to monitor service coverage and progress in meeting the MDGs.

Operational activities under the WSTF focus on countries which are not on track in achieving the Millennium Development Goals for water and sanitation. The map on the opposite page displays the countries where operational activities are taking place and their status in terms of progress in meeting the MDGs.
The twin phenomena of urbanization, and the proliferation of slums and shanty-towns, together pose the most daunting challenge to human settlements today. Unsound dwellings, overcrowding, and lack of basic infrastructure, characterize neighbourhoods whose residents endure poverty, insecurity, and squalor. Many ‘illegal’ communities, including inner city pocket slums and squatter encroachments on municipal fringes, are unacknowledged in urban statistics. Despite the damage to social stability, their inhabitants’ needs are neglected. This situation, which affects a significant proportion of the global population – perhaps as high as one-sixth – is at the forefront of UN-HABITAT’s concerns. Ways must be, and are being, found to break down barriers to change, and transform degraded urban spaces into decent, safe and sustainable human settlements.

At the leading edge of this endeavour is activity to promote environmental sanitation and clean water supplies – services without which dignified and healthy living is compromised, and which can act as a vanguard for much broader community transformation. In 2002, under the impetus of the Millennium Development Goals (to halve by 2015 the proportion of those without service access in 1990), a Water and Sanitation Trust Fund was set up within UN-HABITAT. Its task was to bring in new investment and ideas, expand service coverage for poor urban dwellers, and help build momentum behind MDG attainment. The Fund’s key donors have been the governments of Canada, Netherlands, Norway, Spain and Sweden. Speeding up progress towards the MDGs is a lodestar guiding all the Trust Fund’s activities.
Since every municipality would prefer its slums to go away, and officials fear that ‘improvements’ will prevent that from happening, there has been a tendency to disregard the realities of urban squalor and under-invest in efforts to address it. This is an outcome of historical attitudes to urban planning that will take decades to erode. Today, official coverage figures suggest – because this is what has been reported – that the urban developing world is close to meeting the MDG for water, with sanitation not far behind. In reality, this is far from being the case.

Water and sanitation deficits in poor urban communities are often under-estimated. Indicators used for assessing drinking water supplies coverage, such as distance between standpipes, are suited to rural environments only. In a slum, this may mean hundreds of people relying on one tap. With sanitation, criteria for ‘improved facilities’ are derived from spatial considerations also borrowed from rural settings where household plots are large enough to contain a separate ‘toilet cabin’ for every family. Shared toilets or toilet blocks – the only possibility in many densely crowded urban areas – are excluded from MDG recognition. Thus there is both major under-reporting of the problem, and under-recognition of practicable ‘improvements’.
To dispel the obscurity surrounding water and sanitation problems in urban areas and address them effectively requires radical mind-set changes: false perceptions of the problem’s scale and nature are just one aspect. Municipal authorities need to be inspired to engage actively with low-income areas, and familiarized with ways of doing things that make dramatic improvement possible. Wherever urban poverty is acute, the whole service delivery culture needs re-orientation. Principles of equity, efficiency, customer care and gender sensitivity need to be firmly planted in public health engineering portfolios.

In 2007, the Water and Sanitation Trust Fund undertook a thorough review. A five-year strategic framework was developed for Fund activity over the period 2008-2012, to be carried out within the parameters of UN-HABITAT’s overall vision for sustainable urbanization and human settlement development. The framework is very wide-ranging, identifying strategic opportunities from macro to micro level. The main strategic ideas are as follows:

- Nothing succeeds like success
- Where models are successful, market them
- Prepare the ground for large investments
- Help operators perform better
- Bring community actors on board
- Spread information about methods, tools, good practice
- Improve monitoring and accountability
- Communicate, communicate, communicate

Pilot projects launched in 3 countries in East Africa aimed at providing improved sanitation for 45,000 poor persons
In its short history the Fund has managed to facilitate changes in urban water and sanitation policy and service delivery on a scale vastly beyond its own resources. Normative work and practical operations proceed in tandem, via hands-on contact with service users and providers. There is no substitute for direct experience in establishing the credibility of the approaches the Fund promotes; its flagship initiatives, as well as generating results in multi-town localities, act as laboratories for cutting edge ideas with implications for other settings (see box). Where openness, resources and practicable solutions come together to achieve the best possible outcomes, the contribution of water and sanitation services to improving the quality of life in poor communities can be immense.

Lake Victoria and Mekong regional initiatives

The Fund’s two principal model-setting initiatives are situated in the kind of fertile river basins where human settlement naturally congregates. Small towns (50,000 to 100,000 inhabitants) in such environments are overlooked in comparison to large city slums. However, due to the attraction of their settings, they are absorbing much of today’s rapid urbanization – without the infrastructures, revenues, job possibilities, or other attributes needed to ease the burden. For this reason, UN-HABITAT has been developing an approach specifically designed to enable such towns to expand and upgrade their ‘watsan’ services so as to reach the MDGs.

Their problem, by definition, is not natural resource shortage. Rather, it is often that the level of water service provision is inadequate for the growing population due to underinvestment, system breakdown, low capacity, operational expense and managerial shortcomings. Well over half the population may be obliged to rely on private water vendors whose activities are uncontrolled and whose water is untreated. Sanitation systems, even where sewerage exists, typically extend to a small and elite proportion of urban households, and storm-water drains and solid waste collection services are plainly deficient.

In the Lake Victoria case, seven towns – two each from Kenya, Tanzania, and Uganda, and one border town, all located on the lake – were initially included, with three more recently added and another fifteen to be added shortly. Phase 1 of the project (new pumps to increase water volumes, network extensions, management training for providers, mobilization of stakeholders and community groups) was concluded in December 2008. The next phase envisages long term infrastructure improvements and more extensive capacity-building to create dynamic and sustainable service institutions.

The Mekong Region Water and Sanitation Programme is an initiative focused on secondary towns’ MDG attainment in the four countries that share the Mekong river basin: Cambodia, China (Yunnan Province), Lao PDR, and Vietnam. Project proposals, mostly with a strong community emphasis and contributions, come forward from the local utility or public health department to UN-HABITAT for co-funding. A typical example is revolving funds for household water connections and toilet construction. At present, 13 towns have completed, or are in the process of, project implementation.

The Trust Fund’s work is fully identified with the overall UN-HABITAT vision and plan of action set out in The Habitat Agenda and the 2008-2013 Medium-Term Strategic and Institutional Plan. Its work is situated within broader UN-HABITAT priorities, and focuses on synergy between the built and natural environments, bringing energy efficiency and environmental conservation into its engagement with municipalities on water and sanitation. The diversity of its work is difficult to capture in a short report. Many interventions are components of larger programmes and defy neat categorization. Activities at all levels are vital reinforcements to one other, and that the ultimate goal of all efforts is to reduce the misery endured by so many urban dwellers around the world.
Breaking investment barriers: leveraging resources

To overcome the neglect in which poor urban communities have languished, many activities need to be undertaken simultaneously, from data collection to capacity-building, from community mobilization to institutional reform. Assessed on a geographical and demographic basis, demands are similarly huge, especially in Asia which contains two-thirds of the population without adequate water and sanitation. Every development programme looks for ways of multiplying the impact of its own activities, by replication, scaling up, spreading good practice and by advocacy. But nothing can be done without resources. For this reason, leveraging new resources has been a top UN-HABITAT priority.

The Trust Fund has been very successful in bringing much vaster resources than its own into programmes that prioritize the needs of poor communities. This has been accomplished from two directions. One is to assist in preparatory work – studies, training, business plan development – directly linked to substantial investments from international lending institutions. This function of helping lay the groundwork for major investments is an integral part of the Fund’s operational strategy, and its whole information output – normative and advocacy – is designed to open up such opportunities. The other direction has been to develop model programmes and component parts of programmes, which can be added to, scaled up or replicated in new settings by larger-scale investment.

The development of collaborative mechanisms with regional development banks – the African Development Bank (AfDB), the Asian Development Bank (ADB), and the Inter-American Development Bank (IADB) – has been of special importance. Memoranda of Understanding between the respective banks and UN-HABITAT have provided large-scale resources for an exhaustive array of activity under the flagship Water for Cities regional programmes (see box). The Fund’s facilitating work has found ways of enhancing both the quantity and effectiveness of pro-poor investments. On-the-ground activity has been structured flexibly, so that communities experience improvements in a timely and positive manner. The operational procedures of large lending institutions have been dovetailed to the detailed subtleties of local water and sanitation development by creative adaptation and inter-stakeholder negotiation. Breaking bottlenecks and reducing bureaucratic inhibitions remain an ongoing challenge.

MOU concluded with the Inter-American Development Bank
In some instances the time needed for the project preparation has been substantially speeded up, as illustrated by a practical example from Zanzibar, whose freshwater reserves are under great pressure. During 2008 the Fund took part with the AfDB in the formulation and preparation of a US$61 million water and sanitation project for Zanzibar, to be funded under the Water for African Cities programme. Activities included the development of a Strategic Business Plan to rehabilitate urban systems, introduce conservation measures, reduce water wastage via metering, and raise revenues. This modest Fund input had the effect of accelerating financial approval for the whole project, saving precious time in getting it underway within months. Subsequently, the Water and Sewerage Authority in Harar, Ethiopia, asked for this activity to be replicated in an AfDB-financed project of their own. The National Water and Sewerage Corporation of Uganda, a close partner of the Fund, was contracted to help Harar develop a Strategic Business Plan and train their staff to carry it out. Developing performance improvement models for utilities so as to make pro-poor urban projects attractive to investors is becoming a special UN-HABITAT strength, helping to overcome the long drought of investment of this kind.

In Asia, extra resources have been leveraged on the back of promising results from existing initiatives. In Madhya Pradesh, India, the positive outcomes of the four-city programme funded by an ADB US$181 million loan under the Water for Asian Cities programme outstripped expectations, especially of the state government. This catalyzed state-wide sector reform to put in place the community-based funding mechanisms and gender mainstreaming strategies deployed in the four cities, in whose design UN-HABITAT was instrumental. To carry out these reforms, the state government sought an additional US$71 million ADB loan. This and other collaborations in the Asia and Pacific region have fortified investor relationships and brought in other donors. For example, in Lao PDR a local mining company, Oxiana Ltd., has committed US$208,000 to a three-year water and sanitation project in four urban villages of Vilabouly, one of the country’s poorest districts. Activities include poverty mapping, water supplies construction, environmental sanitation, and hygiene education in schools.

Struggling for water in Mumbai’s slums

Mumbai has a population of 15 million, more than half of whom live in slums. Of these, only some are provided with limited piped water and a few public latrines, leaving much of the slum population unserved. The burden of searching for water falls on women, who often have to walk long distances through mud, and face down fights at the public tap.

Sagira lives in an illegal slum of 30,000 people. She gets up at 3.30 a.m. to search for water, and often has to pay for her kitchen supply. Shazia, in the same slum, recounts how they steal water by illegally tapping into the water pipe, and even make a business charging families a few rupees to use their tap.

The police know about this, and they place a look-out. When the police are coming, they cover everything up.

Shalini is from another slum settlement of 3,000 families. Two years ago, a group of families collected money and each obtained a water connection. But after a while the taps dried up, and they were back to buying water at considerable expense. The families hire auto-rickshaws to bring the water from illegal sources set up by businessmen, who install illegal pumps on water lines entering large buildings. This water cost five times the amount charged by Shazia to her neighbours.

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New and expanded partnerships

Relationships with other multilateral bodies, such as the World Bank and the European Investment Bank, have also been expanded. In Ethiopia, approaches pioneered under the Water for African Cities programme are being scaled up for poor urban populations throughout the country to the tune of around US$119 million from the World Bank. One of these project proposals is for the provision of US$105,000 for the promotion of rainwater harvesting in Addis Ababa to provide cost-effective services for poorer citizens. In Nepal, systems of loan financing and micro-credit have been developed for all 29 small towns involved in the ADB-supported programme – an example of leveraging resources from communities as well as external and national sources.

The two regional model projects in the Lake Victoria and Mekong areas offer somewhat different examples of leveraging possibilities. In these cases, the Trust Fund has undertaken the initiatives from within its own resources, matched by counterpart funds from the participating water and sanitation services boards. By providing a laboratory for professional capacity-building, and for building links into communities and mobilizing their involvement, the Fund has created a model for future replication in wider networks of secondary towns. Already, the AfDB is planning to finance the extension of the Lake Victoria initiative to another 15 towns, and the European Investment Bank is also showing interest. Impetus is added by the implication that the MDGs can be met in secondary towns without major investment, via a streamlined system of service upgrading and local participation. In the Mekong area, two towns in Lao PDR have shown interest in trying out the new model of community-based water supply, with funds entirely provided by local authorities, utilities and communities.
Water for Cities programmes

There is barely a city in the developing world which does not confront a water crisis, and in every case the crisis takes its heaviest toll in poor and overcrowded neighbourhoods where flowing taps and decent toilets barely exist. The three ‘Water for Cities’ programmes in Africa, Asia and Latin America, undertaken by the UN-HABITAT Water and Sanitation Trust Fund under MOUs with the respective regional banks, were put in place to address this specific crisis. The pioneering Water for African Cities programme began in 1999, and established a pattern subsequently repeated in Asia and Latin America. In each case, the MOU framework allows for a Trust Fund grant of around US$10 million, to be used to facilitate development bank lending to urban projects in selected cities, under credit lines running into hundreds of millions of dollars. For Africa, a second MOU with the AfDB, signed in 2003, provided for a US$15 million Trust Fund grant, and extended the scope of the programme to 17 cities in 14 countries.

The Water for Asian Cities programme was launched in 2003 at the 3rd World Water Forum, and its initial country operations were focused on four cities of Madhya Pradesh, India; small towns and peri-urban centres around the Kathmandu Valley, Nepal; and other locations in China, and Lao PDR. In mid-2008, UN-HABITAT and ADB held consultations concerning collaboration under their latest MOU. UN-HABITAT’s contribution of around US$4.5 million towards capacity building over a four-year period is expected to be linked to ADB investments in Nepal, Lao PDR, Vietnam, Indonesia and Pakistan amounting to US$321.5 million. The latest strategic partnership with the Inter-American Development Bank (IADB) for a WATSAN-Latin America and the Caribbean cities programme was formalized in 2008, with a grant input of US$10 million from UN-HABITAT and a target of US$1 billion in annual loans, for which multiple urban projects in Bolivia, Colombia Mexico and Nicaragua are being prepared.

These Water for Cities programme umbrellas enable a wide variety of practical country-level projects to be developed and implemented, with all sorts of partners from utilities to small-scale providers, NGOs and community-based organizations, private water companies and simple vendors with donkey-carts and buckets. Normally, conduits to shift large-scale bank resources into small-scale enterprises for rainwater harvesting, low-cost sewerage, wastewater disposal and recycling, and to establish and pump-prime community management structures, are not easy to create. But by acting as facilitator, project proposal generator, and general factotum, UN-HABITAT has constructed such channels and smoothed the passage of funds and information through them. These Water for Cities programmes are therefore not only the Fund’s most important leveraging vehicles, but its most useful frameworks for operational and normative activity. Within each region, tools and best practice information are shared; and there are also opportunities for inter-regional cross-fertilization among technical, municipal and organizational partners.

A few highlights from 2008:

• **Ghana**: In partnership with WaterAid, new public toilet blocks with flush connections are being constructed in Sabon Zongo, a slum in Accra with 18,000 residents, to replace disgusting – and therefore underused – public pit facilities. Currently, many people defecate into plastic bags, which block the roadside drains, render them foul-smelling and spread disease.

• **Nicaragua**: An existing integrated development programme for informal settlements in Acahualinca, Managua, was adjusted to include extra social and environmental ingredients, and to improve solid waste management in the city and region. Special emphasis is being placed on strengthening livelihoods from waste collection, recycling and disposal, including those of informal waste-pickers currently facing health risks.

• **Nepal**: In the town of Lalitpur, 56 traditional stone spout drinking fountains (hites) had fallen into disrepair. A partner NGO, the Centre for Integrated Urban Development, developed a community-based water management system in extremely poor localities where the public system supplied water only once in five days. Communities were mobilized to rehabilitate three hites, and set up user committees to manage them with one-third women representatives. Around 4,500 people are already benefiting.

• **Ethiopia**: In Harar and Dire Dawa, mobile toilets have been introduced for use in markets and other crowded urban areas. These are managed by unemployed youth as an income-generating activity. Other community members have organized the sale of water by the jerry can from public water points constructed under the programme.

• **Asia and Pacific**: The Asian Institute of Technology and the Government of Thailand collaborated in a training workshop on ‘Sustainable Fecal Sludge Management’. Eighty participants from eight countries, including government officers, utility personnel, and staff from private sector organizations and NGOs, exchanged practical experiences on faecal sludge practices and visited a Thai facility.
Under the pressures of rapid urbanization, water and sanitation provision in many towns and cities of the developing world has become extraordinarily problematic. Utilities fight a losing battle to provide a functioning service in the face of many difficulties: increasing demand, overload on existing sources, contamination of streams and rivers, build-up of solid waste in informal settlements, budgetary shortfalls, and a long list of operational and management failures. As nearby water sources dwindle, and the cost of power to pump water around the system rises, a vicious circle develops in which the service is so poor that it cannot recover its costs from users, and the income generated so low that the service cannot be improved. Reforms, including decentralization and privatization of utilities to introduce cost efficiencies, have been introduced. A transformation of service delivery which goes deeper than better technology and cost recovery, additionally targeting job motivation and satisfaction, is needed.
These areas of programme activity are normally grouped under the umbrella of ‘capacity-building’; but this bureaucratic term does not capture its many and diverse characteristics. Both operationally, and in terms of developing guidelines, manuals, tool-kits and performance indicators, the UN-HABITAT Water and Sanitation Trust Fund has tried to get under the skin of poor service management and break down barriers to better performance. Among the problems is that demoralization in the face of overwhelming difficulty has led to disregard of leakages and water wastage, management ineffectiveness, and failure to feel obligation to customers – least of all those without connections or facilities in the poorest parts of town. Providers trained under the old public health engineering regime of supply-led approaches do not naturally respond to demand-based management or understand the real meaning of accountability. Re-orientation of providers towards management to meet demand, and in particular to be aware of the needs of women, is a Trust Fund focus.

Over 600 persons trained, with focus on service providers, municipalities and community organizations
The development of strategic business plans and performance models is part of the ground-laying activity undertaken with water service providers. Training in a wide variety of techniques has also been facilitated, from rapid participatory assessment to water quality monitoring; computerized billing to stakeholder mobilization; sludge management to rainwater harvesting. In a number of cases, partner organizations or technology institutes with demonstrated capacities have been identified, and used to train utility and water company personnel. The revelation of what is possible, and practical assistance with equipment and tools, can have a dynamic effect on company leadership and morale. So can systematic exchange of best practice. The Fund has been backing the establishment of Water Operators Partnerships on a regional basis. A milestone was reached in 2008 with the inauguration of the Global Water Operators Partnership Alliance (see box).
An example of successful capacity-building in 2007-2008 comes from the Lake Victoria initiative. In partnership with the National Water and Sewerage Corporation of Uganda, UN-HABITAT implemented a capacity building programme for service providers in four of the participating towns. The local water companies, newly-created by recent sector reforms, were confronted by having to achieve financial viability from inadequate infrastructure and a low revenue base, with no clear idea how to do so. Since the capacity-building exercise, there has been a significant improvement. Operating revenues have increased by an average of 65% while the rate of unaccounted-for-water has dropped from 56% to 42%, and continues to drop further. More water is therefore available to extend services to poorer neighbourhoods. The companies now have a results-oriented approach to management, an interest in customer and community relations, and a reinvigorated staff. A set of five Guidance Manuals has been produced for replication of these training activities.

Groundwork in place for the full operationalizing of the Global Water Operators Partnership Alliance during 2009
A different focus of capacity-building for services in low-income areas is training for engineering and construction staff in unconventional technologies. During the International Year of Sanitation 2008, low-cost toilets and sewerage attracted extra interest. The Sulabh International Institute of Technical Research and Training (SIITRAT) in India was contracted to train 41 professionals from utilities and water companies in 13 countries under the Water for African Cities programme. Sulabh has particular expertise in building and operating commercially viable, well-managed public bathing and toilet facilities for poor urban neighbourhoods. Subsequently, public toilet blocks were constructed in Accra, Addis Ababa, Harar, Dire Dawa, Ouagadougou and Yaounde, serving altogether around 10,500 people per day. Training in community management and public awareness was also carried out: these elements are essential for such services to be maintained at a high level of cleanliness and remain used over the longer term.

In Nepal, UN-HABITAT has advocated rainwater harvesting for several years as a useful water supply
technology for municipalities facing water shortage. Capacity-building and demonstration projects around the Kathmandu Valley paid dividends in 2008. The Department of Urban Development issued a directive for the installation of rainwater harvesting systems in all government buildings. At the national level, the government has prepared a policy for the promotion of rainwater harvesting and its inclusion in municipal bye-laws. One municipality has announced that it will give a 30% subsidy on the cost of a building permit if a rainwater harvesting system is installed. In some small towns of Lao PDR, gravity-fed supplies, with treatment in slow sand filters, has similarly reduced the need for mechanization and reduced fuel costs.

Other technological innovations include small-bore sewerage, a low-cost version of conventional sewerage using smaller-diameter pipes and other simplifications well-established in Latin America and now under trial elsewhere. Demonstrations were undertaken in Douala and Edésea (Cameroon), and Ouagadougou (Burkina Faso). These three systems currently benefit 690 people, and
could serve 3,500 people in full operation. Small-bore sewerage, well-managed at community level, has great potential for urban communities one step off the bottom rung, where community lanes are well-established and housing solid. This is the case in many peri-urban African neighbourhoods where rural communities have been absorbed into growing towns. In Senegal, demonstrations of these systems are being undertaken in association with the World Bank-assisted ‘Projet d’assainissement de quartier peri-urbain de Dakar’ (PAQPU). Under the Lake Victoria Water and Sanitation Initiative, conceptual designs on low cost sewerage are being developed for three pilot towns, with implementation expected to start in 2009.

Elsewhere, interventions have had to take into account wider environmental and social considerations. In Managua, Nicaragua, an initiative to improve solid waste management by efficiency savings, recycling, and hygienic waste transfer has come out of involvement in a

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**Energy audits**

In keeping with the Trust Fund’s strategic commitment to ensure synergy between the built and natural environment, energy saving by service providers is a particular area of concern. As energy costs typically account for over 60% of utility operating costs, fuel savings are an integral part of operational efficiency and service extension. Rainwater harvesting and gravity flow systems are naturally cheaper. Other possibilities include developing alternative sources of fuel. In Kisii, Kenya, micro-hydopower is being examined as an alternative to electricity from the national grid. Nearby in Homa Bay, the collection and use of organic wastes for generation of biogas is under consideration. Three major water utilities in Africa, in Addis Ababa, Jos (Nigeria), and Accra, requested energy audits during 2008. The Energy Resources Institute of New Delhi is undertaking the audits, and will produce a Guidebook on energy audits in Sub-Saharan Africa.
programme to improve living conditions for people living in the Acahualinca area, near the main municipal dump. Many residents live off the business of waste-picking from the site. The introduction of better waste management systems in Managua has to respect the necessity not to destroy these families’ livelihoods, while reducing risks to their health. This requires reaching a better understanding of the composition of wastes from different neighbourhoods, and their better separation and redistribution for treatment, composting, recycling and dumping. Improvements will take into account where and how profits can safely be derived, including from organic matter currently rotting in the open and causing environmental contamination and disease. Another idea encompassed by the formulation of the new city-wide strategy is to try to upgrade the solid waste system to meet Cleaner Development Mechanism criteria, and thereby bring financial benefits to Managua in the shape of carbon credits.

Small-scale water vendors

In many small towns, as much as two-thirds of the water supply to households is provided by private vendors – so limited is the outreach of piped supplies. These vendors typically sell water at prices exceeding by many times the standard household water rate, from tanks that they fill from the town supply (often illegally), or take from rivers and lakes whose contents may not be clean. These vendors have often in the past been seen as exploiters; but their role as providers is now increasingly recognized.

In Kisii, Kenya, staff from the water service provider, the Gusii Water and Sewerage Company, the local Public Health Officer, and members of the Multi-Stakeholder Forum were recently trained in rapid microbiological water-testing. They were given kits to use on the spot instead of having to send samples miles away to government laboratories. They are now in the process of registering the local water vendors into an association. In future, the vendors will receive water from the public supply, pay for it at subsidized rates, and sell it at an agreed price. Their water will be regularly tested and given a safety guarantee.

The public will be advised only to buy water from a licensed and uniformed vendor. The Multi-Stakeholder Forum will act as watchdogs and facilitators.

In West Africa, a management toolkit has been developed by an NGO, CREPA, to promote this kind of formalization of water vendor operations. The toolkit describes the process, from census of informal providers, to their organization in recognized bodies, training in management and negotiation skills, and the need for water safety. In Ouagadougou, 200 vendors have been trained and organized, and now receive water on a special tariff. The approach is subsequently being extended to Bamako in Mali.
Obstacles to the provision of good-quality water and sanitation services for low-income urban communities start with the lack of proper assessments of need. Once the shortage of facilities in poor neighbourhoods is properly assessed and acknowledged by the authorities, providers have to overcome the many financial, technological and managerial problems associated with remedying the situation. Communities may start by being skeptical after many similar promises have not been delivered. So the new services have to be designed in such a way that they can afford them, feel that they own them, and sustain them over their future life. This requires an engagement with customers and society at large unfamiliar to engineering staff, whose training and experience has been devoted to technical issues. Bringing about the necessary change in attitudes and practice often requires considerable effort, with collaborative workshops for utility staff undertaken by NGOs, research and training institutes, and civil society groups.

Mapping the existence and non-existence of services in poor areas is an important starting-place. UN-HABITAT has a special partnership with Google (see box p …) which has potential to break down information barriers even in the poorest communities. Pilot activities are underway in African locations to facilitate the collection of on-the-ground geo-referenced data, showing the pattern of existing installations and who has access – poor/rich, male/female – matched to health, environment and socio-economic data. In Vietnam, partner utilities have

US$135 million leveraged through a stronger focus on pre-investment work and new and expanded partnerships
made GIS-based poverty mapping an essential planning tool. Information generated can be put into the public domain, and service providers in different localities compared according to common benchmarks such as cost-effectiveness, energy efficiency and service quality. Citizens can also be locally involved in service monitoring, feeding news about matters such as breakdowns and repairs back into the system to keep water quality and delivery performance up to scratch, either via mobile phones or by using the ‘citizen report card’ system pioneered by the NGO WaterAid, one of the Fund’s regular partners.

Establishing an organizational framework for community involvement in water and sanitation activities is essential.

The mechanism recently developed by UN-HABITAT and its partners in the Lake Victoria regional initiative, in which great expectations are now vested, is the ‘Multi-Stakeholder Forum’. This is a town-level organization that includes representatives of all stakeholder groups: local NGO and community-based organizations such as women’s and youth groups; local councillors and town hall representatives; religious organizations; social services departments; teachers and professional persons; local utilities and water companies; MPs and business people. There is no set institutional design. With help from a workshop process, each town establishes its Stakeholder Forum according to its own requirements and preferences, and elects its leaders.

The town of Sayabouly, capital of Sayabouly province, has a population of 25,000 of which around one-fifth live on the left bank of the Nam Houng River, a Mekong tributary dividing the town. The left-bank population has been much neglected compared to the right-bank, where infrastructure – drainage, lighting, piped water, solid waste management and river bank protection – has been exclusively focused.

To repair this inequality, Sayabouly successfully appealed to UN-HABITAT for a project under the MEK-WATSAN initiative. Without needing to expand water treatment facilities, piped water supplies are being laid on for 895 left-bank households. The project required full participation of the community and local authority at all stages of implementation: as in many small river valley towns, it is essential for citizens to understand that dumping waste in the Nam Houng River will cause its contamination and destroy the quality of the freshwater resource. Tariff structures have been agreed with community representatives, revolving funds have been put in place for loans for water connections and toilet construction, and there has been extensive awareness-building concerning environmental sanitation.

Classroom activity around clean water, sanitation and hygiene based on values of mutual respect and healthy living, has been introduced in Sayabouly. The school setting is seen as the key environment for bringing about long-term change in behaviour and understanding around cleanliness and freshwater conservation.

Community-based water and sanitation in Sayabouly, Lao PDR

The town of Sayabouly, capital of Sayabouly province, has a population of 25,000 of which around one-fifth live on the left bank of the Nam Houng River, a Mekong tributary dividing the town. The left-bank population has been much neglected compared to the right-bank, where infrastructure – drainage, lighting, piped water, solid waste management and river bank protection – has been exclusively focused.

To repair this inequality, Sayabouly successfully appealed to UN-HABITAT for a project under the MEK-WATSAN initiative. Without needing to expand water treatment facilities, piped water supplies are being laid on for 895 left-bank households. The project required full participation of the community and local authority at all stages of implementation: as in many small river valley towns, it is essential for citizens to understand that dumping waste in the Nam Houng River will cause its contamination and destroy the quality of the freshwater resource. Tariff structures have been agreed with community representatives, revolving funds have been put in place for loans for water connections and toilet construction, and there has been extensive awareness-building concerning environmental sanitation.

Classroom activity around clean water, sanitation and hygiene based on values of mutual respect and healthy living, has been introduced in Sayabouly. The school setting is seen as the key environment for bringing about long-term change in behaviour and understanding around cleanliness and freshwater conservation.
The Forum takes on many roles, but its principal purpose is to be a channel of information between the community and those responsible for service provision, and ensure healthy dialogue between all parties. Multi-Stakeholder Forums in Western Kenya have helped to bring the community on board during the upgrading of infrastructure, for example by negotiating the passage of pipes across private plots. They have also established criteria for operating new communal facilities, such as water kiosks and public toilet blocks. Where income-generating possibilities exist – for example, from solid waste collection or water-vending – the MSF can oversee the candidate selection process and monitor whether the business is properly conducted. The Forum can, in effect, become an independent force for community development, regulation, small-scale enterprise and hygiene education. Members are invited to participate in capacity-building activities also geared for service providers: water quality testing, low-cost pit toilet construction, micro-credit savings, and amenity mapping.

Gender issues also rate a high priority within Trust Fund priorities for developing user-friendly services. When women are enabled to express their views, their demand for water points, decent toilets and a clean living environment is higher than that of men; rectifying service inequities often means making it possible for women to access or install facilities, by provision of loans or income-generating opportunities. This was a finding of a study into the impact of sanitation on the lives of women and UN-HABITAT has worked with the Gender and Water Alliance to mainstream gender issues in the Water for African Cities (phase II) programme. Rapid gender assessments were conducted in 17 cities to identify the particular problems faced by women slum residents, and their potential roles in local water governance, to be able to mainstream gender in improvement projects. The information collected showed the following:

Women-headed households – widows, divorcees, single women – often comprise a majority of poor urban residents, because their education is lower than that of men and can only live by market vending or other informal activity.

Women do almost all the work of water collection and solid waste removal, digging rubbish and toilet pits, and keeping the environment clean. Despite this, women occupy few seats on local development committees.

Functioning water points are often fewer than they should be and provide inadequate service; vendors may charge high prices; toilets are communal and in poor condition; discarded faeces and other waste in alleyways are common.

When there are epidemics of diarrhoeal disease, women care for the sick and shoulder most of the burden. Poor drainage and lack of decent sanitation exacerbate the cycle of illness and impoverishment.

Raising awareness of these issues helps orient service planning and delivery in ways that serve women’s interests. However, incorporating women into governance positions is not straightforward: they lack confidence and are too busy dealing with survival issues.

Rapid Gender Assessments
girls in Addis Ababa under the Water for African Cities programme. Micro-credit revolving fund schemes for female-headed households have been set in motion in Accra, Dire Dawa and Harar (Ethiopia) and Jos (Nigeria), and similar initiatives are planned in Bamako, Dakar, Ouagadougou, and Yaoundé. In towns participating in the Lake Victoria initiative, sanitation micro-credit schemes under the management of NGOs with suitable experience are responding to women's expressed demand for toilets, and are particularly targeted for women-headed households and other vulnerable groups.

Ultimately, smaller-scale schemes – water kiosks, rainwater harvesting tanks, localized solid waste collection, women’s income-generation, training masons to build low-cost toilets – which characterize appropriate water and sanitation systems in many urban environments have to be managed in participation with local community organizations. Re-orienting utilities and water companies to accommodate this reality and serve their customers in the poorer parts of town with a greater degree of efficiency and respect remains one of the most important areas of the Fund’s activity. Even the task of monitoring progress towards the attainment of the MDGs requires a genuine commitment to community-based activity, as the Fund is helping to demonstrate. In a real sense, the work of UN-HABITAT through its many programmatic and capacity-building opportunities is helping to shift the locus of decision-making around services closer to the consumers they are meant to serve.

Advocacy and awareness activities intensified through participation in key international and regional events
The Water and Sanitation Trust Fund was set up to provide targeted opportunities for investments in water and sanitation services to help reach the MDGs for the poor urban sector. Its resources were seen as strategic and gap-filling. But as often happens with a new initiative, more gaps opened up than were foreseen, as did more opportunities for addressing them. Demands upon the Fund have grown exponentially and its portfolio has expanded beyond recognition. Activity remains pinpointed and strategic; but the effect has been to spread out in every direction. Today, the Fund operates under a very broad tent, in terms of geographical spread, partnership base, and operational scope.

Earlier sections of this report have emphasized the range of institutional entities with which the Fund interacts, from the international financing institutions, through large- and small-scale municipal service providers, down to the NGOs, community-based organizations, mini-entrepreneurs and customer groups. The Fund has
The Google Initiative

The need to monitor progress towards the MDGs more effectively was the impetus leading to a partnership between Google and a consortium of international water and sanitation organizations, coordinated by UN-HABITAT. The under-reporting associated with existing methodologies of water and sanitation service coverage has already been identified earlier in this report. A specialized monitoring tool to establish baseline coverage levels, and track progress towards MDG achievement was operationalized during 2008, as a result of cooperation between the Fund, UN-HABITAT’s Monitoring and Research Branch, and Google.Org.

Data collection has many other critical functions than MDG tracking: it is essential for developing policies and designing services; it enables providers and their customers to be better-informed; and it contributes to accountability and advocacy for improvement. At one end of the scale, easy access to information can help multi-stakeholder forums in the Lake Victoria region pressurize water providers to turn up promptly and mend leaks. At the other end, data on phenomena such as the impact of urbanization within the Mekong River catchment can be the starting point for encouraging major new ADB investments in towns along its banks. Information provides leveraging power of many kinds in the campaign to improve urban living.

Google has been keen to identify ways in which it can help organizations to use the power of information and technology to address development challenges, especially in relation to poverty and basic services coverage. The problem it is ultimately hoping to tackle in partnership with UN-HABITAT is lack of service provider accountability to citizens. By building geographic information systems using innovations in geo-spatial technology, data can be fed up to special water and sanitation Google.Earth platforms and placed squarely in the public domain. Information and knowledge can be processed and shared among stakeholders within a local area, and across the entire world.

An important Google contribution has been to create a data framework for the Global WOPs Alliance. Within the regional WOPs, a key activity is ‘benchmarking’. Member utilities submit their performance details according to prescribed indicators, enabling them to compare their operations with others of similar size and thereby identify improvements. This independent assessment process also helps utilities under pressure from politicians or vested interests defend decisions based on equity, cost-recovery, efficiency and other appropriate management criteria. Web-based platforms, once providers know how to use them, can be empowering for those committed to service enhancement, as well as providing a common data-base for monitoring purposes.

carved out a role of acting as interlocutor between institutions, both within a particular level, such as that of service operators, and across the spatial and geographical boundaries that otherwise separate them; and between the various levels, from top to bottom.

This bridging function is used in a variety of ways. Partners that would otherwise never hear of each other’s activities or have a chance of exchange, can interact and share their data via web-based information platforms operated by Google (see box). Channels can be smoothed between external support agency investment interests, and the capacity of ground-level action to bring about their realization. This ‘gap’ – between resources available and services delivered right down into communities and owned by them for future sustainability – is the most common gap in all basic services expansion activity, and the most underestimated in terms of its power to stall real progress.

Pre-investment activities ongoing for another $500 million in follow-up investments from the development banks over the next 3 years
Horizontal partnerships

Vertical links are supplemented by horizontal partnerships. The Trust Fund’s operations have many links with other UN-HABITAT programmes, notably housing and infrastructure for slum upgrading. In this case the notional big tent in which its work is situated is that harbouring the whole framework of urban policy, rather than the network of institutional connections in the water and sanitation sector. Water supplies and environmental sanitation are one of the entry points for slum upgrading as they tend to rate highly – along with incomes and employment – on slum-dwellers’ lists of priorities.

One of UN-HABITAT’s most ground-breaking initiatives is the Kenya Slum Upgrading Programme (KENSUP). The rapid growth of Kenyan slums is an outcome of rural-urban migration, increased urban poverty, lack of affordable land for housing, and a number of other phenomena by no means exclusive to Kenya. This leaves the country with a high proportion of the urban population living in slums (over 60%), and local authorities overwhelmed. In Nairobi, only 22% of the slum population has water connections, and many people use open spaces or plastic bags thrown into alleyways as their toilet. Epidemics of diarrhoeal disease are exacerbated by underlying ill-
health and poor nutrition. KENSUP addresses two objectives close to slum-dwellers’ hearts: the need for water and sanitation, and creation of economic opportunities. Governance, roads, housing, security of land-holding, and better health are also in the frame.

Due to past experience, inhabitants of informal settlements tend to be extremely suspicious of slum improvement schemes. They fear that these are synonymous with destruction of their dwellings and eviction. Under KENSUP, therefore, all planning exercises and improvements are planned with the full participation of community members. All construction is carried out by organizations prepared to hire and train local labour; those with rudimentary skills such as carpenters and masons, and members of local youth and women’s groups, are taught how to build and run community facilities. Co-operative associations are formed to enable residents to save up for housing. It is a principle that, once the initial survey of residents has been completed, no-one on the list can be displaced by construction and forced to leave; but by the same token, no-one new may join the community. Building neighbourhood solidarity is a core value.

In partnership with the Kenyan Ministry of Housing, UN-HABITAT began its programme of slum upgrading for Nairobi’s vast Kibera slum in 2007, in a neighbourhood called Soweto East inhabited by 70,000 people. Each of four zones has been mapped and resident households enumerated. Everyone eligible has been encouraged to join their zone co-operative so as to start saving money for their upcoming mortgages; that in Zone A already has 1,700 members. Each zone also has at least two new toilet-and-water blocks, painted blue and white.

Crowdedness in the slum means that it is difficult to find spaces for building new facilities which do not attract resistance. A special Facilities Management Group is set up in each zone under the Co-op, and they identify appropriate spaces. In Soweto East, they have received help from bodies such as the Soweto Youth Group, an organization that has been working to improve life in the slum since 1999 – with football teams, alleyway clean-ups, and now with communications, bicycle transportation, and income-generating ventures. The Soweto Youth Group have a representative on the Facilities Management Group, and have been a catalyst for change in the neighbourhood.

The new water and toilet facilities were built under the supervision of a local NGO, Maji na Ufanisi (meaning ‘water and development’) using community labour, and are operated by community members. The water and the electricity for pumping are charged by the Nairobi water authority on the basis of their meter reading. To recover these costs and pay an attendant, each person who fills a 20 litre jerry can with clean water pays 2Ksh. To use the flushing toilet, including toilet paper, costs 3Ksh, and to have a shower 5Ksh. A rota of women share the work of manning the kiosk and taking the fees. Any profit is channelled into Zone A Co-op funds.

The programme in Soweto East will eventually become entirely self-governing. Activities in the neighbourhood are conducted by established community groups. Where training and capacity building opportunities are offered, members of such groups are first in line. Recently, two of the Youth Group were trained in how to make cement blocks out of waste construction materials such as quarry dust and stones, using standard specifications and moulds. In future construction projects including the new housing when it begins, Soweto East will be able to draw on its own internal economy, keeping costs low. Such materials will also, hopefully, attract buyers in the wider market.

New facilities in Soweto East

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A programme to develop innovative sector monitoring tools launched in partnership with Google.Org
Links also extend to other kinds of institutional actors. In India, for example, UN-HABITAT has entered into a partnership with the National Housing Bank (NHB). In an effort to promote housing among poorer customers, the NHB has recently been channeling resources into microfinance institutions for onward lending to would-be home-owners. Since their chances of water and sanitation services are low, the UN-HABITAT-NHB deal will provide extra revolving funds for these improvements. A grant of US$375,000 will be matched by up to US$2.5 million in NHB loans for micro-finance institutions, who will organize lending to self-help groups for water pipes and connections among their members. Not only will poor householders be able to build a house, but that house can have its own piped water tap and – wherever possible – pour-flush toilet. Overall, the partnership is intended broaden the framework of housing micro-finance, to enable water and sanitation to be fully integrated even into modest dwellings.

Underestimation of water service coverage around Lake Victoria

UN-HABITAT has developed a tool for surveying towns and cities in such a way as to capture accurate information from slum neighbourhoods: the *Urban Inequities Survey*. This tool was adapted for assessing access to water and sanitation in seventeen secondary towns around Lake Victoria, during preparatory work for UN-HABITAT’s regional water and sanitation initiative.

Taking the five Kenyan Towns as an example (Migori, Kisii, Homa Bay, Siaya and Bondo), the official statistics placed water supply coverage levels at around 70% in four out of five of the towns with only Bondo at a lower level (52%). But when the inequities survey was completed, the reverse turned out to be the case: considerably more than 70% were *unserved* using fuller definitions, with three towns having over 90% unserved. The three factors that changed the picture were:

- **Amount** of water: applying a minimum standard of 20 litres per person a day reduced coverage tallies considerably; in Migori, coverage dropped from 70% to 50%, in Bondo, from 52% to 39%.
- **Cost** of water: if households spending more than 10% of their income on water were additionally excluded, coverage tallies plunged further, with the largest drop from 71% to 10% (Kisii), and no town having coverage higher than 26% (Homa Bay).
- **Distance** to the source; if a round-trip of more than an hour was required to fetch water, coverage dropped still further. Highest coverage including all factors was in Homa Bay with 21%; lowest was Kisii with 2%.

Energy audits completed for 3 major water utilities
The threat of slum proliferation to land degradation and water pollution is another context in which linkages across sectors are needed, in this case to protect the natural environment. The attempt to factor in clean development criteria to the new solid waste management strategy for Managua, Nicaragua, has already been noted. Another example comes from Ghana. Here, the Weija catchment and water reservoir in the Densu Basin within metropolitan Accra was seriously deteriorating under the impact of human excreta and other wastes.

For Rosette Nalule, a trader at the Nyendo market, each market day was marked by an increase in the amount of garbage dumped on the large and growing mound next to her stall. Without proper provision for solid waste disposal, the market authorities would dispose of the vast amounts of solid waste generated each market day in one corner of the market.

Sanitation was also a serious problem for many of the traders at the market. "As we did not have any toilet facilities in the market, many people were also throwing plastic bags with human waste into the pile of garbage. This was a serious health problem for us, particularly during the rainy season as all the waste would be swept back into the market," says Rosette.

This was before the implementation of interventions by the Lake Victoria Water and Sanitation Initiative. With the provision of solid waste disposal skips and the construction of eleven public sanitation facilities in the town, three of them located in the Market triangle, the sanitation and solid waste situation has improved drastically for Rosette and other traders in Nyendo market triangle.

"We thank UN-HABITAT for helping us with the problem of garbage which was really serious. Now we have proper places to throw away our garbage which is collected regularly, so the smell is not there anymore. Women are also very happy because we have toilets with showers. We do not have to wait until evening to go to the toilet." Says Rosette. The initiative also undertook repairs of tractors and solid waste disposal trucks which had been in disuse for many years.

The Lake Victoria Programme Improves Sanitation and Solid Waste Disposal in Marketplace

Tuesday is market day in Nyendo – Ssenyange, a satellite town of Masaka Municipality located some 80 kilometres to the west of Kampala. The town’s market triangle becomes a beehive of activity as fish, agricultural produce, clothing, and a wide range of household goods change hands, with many of the sellers and buyers coming from villages on the outskirts of the municipality.

Drawing upon UN-HABITAT’s Guidebook for management of local catchments in cities, and assistance from WaterAid, the Ghana Water Company developed a set of new regulations. An aggressive media campaign to enforce anti-pollution measures has paid off. This clean-up success has attracted considerable attention and there will be likely spin-offs in other areas where pollution represents a similar problem.
Advocacy and communications play a pivotal role within the work of the Trust Fund, at all operational levels from global, through regional and national, to local level. The principal need is to raise political awareness of rapid urbanization and its implications for the poor, and of new knowledge and experience of improving life in slums and shanty-towns. At the global level, UN-HABITAT participates fully in UN-Water, the consortium of UN bodies whose mandates include water resources and water-related services, and in working groups to co-ordinate activity on particular issues and within UN country programmes. All appropriate opportunities are taken to advance the case of the urban poor in global debates on water resources, on the environment more generally, and on basic services. UN-HABITAT also participates in events such as the World Water Forum and the Stockholm World Water Week. During the International Year of Sanitation 2008, the Fund played an active role in the UN task force steering IYS activity.

During 2008, concerted efforts were made to raise the political profile of urban water and sanitation services in regional councils. UN-Water has a special Africa Group, in which the Fund acts as lead agency for urban water and sanitation. This provides a platform for developing common positions and speaking as one in forums where high-level political commitment is needed for policy change. Working in close collaboration with UNEP (currently the Group’s chair), UN-HABITAT helped
spearheaded input to the 11th Ordinary Session of the Assembly of the African Union, held in Sharm el Sheikh, Egypt, in June 2008. Heads of State and Government gave special attention to water and sanitation challenges, including expansion of safe water and improved sanitation coverage; the need to protect watersheds and ecosystems; increased investments in water management and infrastructure; and greater stakeholder participation. Subsequently, a meeting in Addis Ababa held by UN-Water Africa, the African Ministers Council on Water (AMCOW), and the AfDB followed up these commitments by formulating action plans. In November, the AMCOW Executive Committee met in Nairobi. In all these events, UN-HABITAT had a strong and visible presence.

There were similar opportunities in Asia. UN-HABITAT took part in the 2nd Asia-Pacific Ministerial Conference on Housing and Urban Development, facilitating deliberations on the ‘Delivery of MDG for Water and Sanitation’ (Tehran, May 2008); also in the Singapore International Water Week (June); and the 4th Session of the World Urban Forum (WUF IV) held in Nanjing, China, November 2008. UN-HABITAT is also coordinating the theme on ‘Water and Governance’ during the 5th World Water Forum to be held in Istanbul in 2009. There has also been active participation in UN-Water activity in Asia, helping develop the United Nations Development Assistance Framework (UNDAF). In India, Nepal and Lao PDR, UN-Water has country teams, in which UN-HABITAT’s Water for Asian Cities programme is represented.

Preparatory activities on track to expand Lake Victoria Water and Sanitation Initiative to a further 18 towns in 5 countries
Communications also play an important part in the spreading of tools, guidelines, and best practice materials at international, national and sub-national levels. The publications output of the Fund is extensive, ranging from information brochures on individual programmes, to manuals and ‘how-to’ guides of a technical variety. A flagship publication, *The Global Report on the State of Water and Sanitation in the World’s Cities*, is produced every three years, in time for the next World Water Forum. In September 2008, a *Global Atlas of Excreta, Wastewater Sludge, and Bio-solids Management* was published as a contribution to the International Year of Sanitation, and to help push the issue of human waste management higher on the international agenda.

Workshops provide ideas-spreading opportunities, both for introducing technological innovations and for cultural issues, such as gender awareness and mainstreaming. The Gender and Water Alliance (GWA) is partnering UN-HABITAT with a series of training workshops under the Water for Asian Cities programme; and a number of workshops have been held under the auspices of African WOPs to familiarize members with the Google benchmarking system, and to set up the first twinning arrangements between municipal utilities across Africa.

At field level, the value of communications for sound service delivery and programme effectiveness is well-understood. This is demonstrated by the Google partnership whose huge potential for community empowerment is as yet barely glimpsed by prospective beneficiaries. Opening up lines of communication between customers and service providers, and ensuring maximum community participation in planning and implementing
programme components, is integral to UN-HABITAT’s philosophy. Wherever practicable, staff are embedded in municipal offices so as to improve mutual ties and flows of understanding. Only with constant repetition and reinforcement can the introduction of new ideas – on demand-based management, hygiene and health education, water resource protection, livelihood support – bring about the behavioural and attitudinal changes necessary for sustainable progress. Beyond immediate audiences, advocacy can multiply impacts. Increased visibility of the Trust Fund’s work helps mobilize additional official and public interest, brings in resources and donor support, and leads to further replication and scaling-up. The Fund is constantly engaging with new challenges and learning new lessons. One of the most important is that there is no substitute for the hands-on involvement in on-the-ground activity offered by relatively modest Trust Fund investments in demonstration programmes. The application of all kinds of actions set to derive from the Fund’s pioneering work in the secondary towns around Lake Victoria, for example, will be prolific – assuming the necessary attention to documentation, dissemination and knowledge-sharing. Concerted efforts on all fronts are needed to meet the water and sanitation Millennium Development Goals. Even if there is shortfall in some poor urban environments – which seems, sadly, inevitable – at least by 2015 there should be proven approaches in every region, and plans of action in every country, to bring within reach the ultimate target of ‘Water and Sanitation for All’.

Gender mainstreaming in Asia

The *Water for Asian Cities* programme has adopted a series of gender sensitive norms and standards in recognition that water collection, waste removal and household sanitation are primarily assigned to women; but that women normally have little say over allocations of household resources to meet these needs. Water utilities would understand this better if there were more women in decision-making positions. In Nepal, eight municipalities (Bharatpur, Hetauda, Ratnanagar, Banepa, Dulikhel, Panauti, Bidur and Kamalamai) have carried out ‘gender assessments’; in Lao PDR, three town utilities have developed action plans and budgets to enhance the role of women in planning and decision-making functions; and in India a Gender Mainstreaming Strategy has been prepared for the WAC programme. The Gender Water Alliance (GWA) is developing a specific Gender Resource Book for Asia.

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<td>61.20</td>
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<td>9,527,800</td>
<td>93.3</td>
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<td>Replicable Model Setting Initiatives</td>
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<td>Sub total - Operational Activities</td>
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<td>12,643,840</td>
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<td>Programme related costs</td>
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<td>17,506,200</td>
<td>96</td>
<td>28,713,300</td>
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* Includes: gender mainstreaming, advocacy and public awareness campaigns, training and capacity building, human values in water sanitation and hygiene education.