

# Urbanisation and Water

## 1. Background

1.1 By the time the International Development Committee produces its report in April 2007 more people will be living in cities than rural areas, for the first time in human history. The primary driver of urbanisation<sup>1</sup> is no longer rural-urban migration but internally generated population growth within urban settlements or migration between them.

1.2 Urbanisation has already started to neutralise the impact of previous investments and efforts to meet the Millennium Development Goals<sup>2</sup>. Urban areas in developing countries will house 87% of population growth by 2015<sup>3</sup> and 95% by 2030<sup>4</sup>. Urbanization in developing countries is increasingly dominated by settlements of less than 500,000 people and in non-regional / district capitals. Less than 15% live in cities over 5 million. The rate of slum formation is almost the same as the rate of urban growth. One in every three people is living in life-threatening slum conditions<sup>5</sup>. The rapidly growing urban poor are, in many cases, worse off than their rural counterparts in terms of health and nutrition.

1.3 A large number of people without adequate provision for safe water and sanitation live in urban areas. WHO and Unicef report that global water supply coverage rates in urban areas have remained unchanged since 1990, at 95%. This implies that many governments and water supply providers are managing to keep up with urban growth. But this is now threatened by rapid urbanization over 2005-2015. Global access to sanitation in urban areas is, however, projected to increase coverage from 80% in 2004 to only 82% by 2015. In many developing countries, however, the urban water supply & sanitation situation is far worse. In urban Sub-Saharan Africa, for example, as many as 50% of the population do not presently have adequate water supplies, while 60% lack adequate sanitation. It is estimated that almost half a billion persons who require water and sanitation services will be added to urban population in the SSA countries within the next 25 years. There is a need for urgent measures to improve and extend provision in urban areas, for new as well as existing households, if outbreaks of such diseases as cholera are not to become a more regular and frequent occurrence in the continent.

Urban population growth in some regions of the developing world will be accompanied by the rise of urban poverty. The sprawl also has implications for the deterioration of environment – through pollution, increased resource demand, depletion of ground water, and encroachment of forest areas, with consequences for climate change. This also has implications for sourcing fresh water and waste management.

<sup>1</sup> Although there is a lack of consensus on the definition of **an urban area**, an analysis of countries in: UN HABITAT State of the World's Cities Report, show that “different criteria and methods are currently being used by governments to define urban”, including data on administrative criteria, population size or population density, economic characteristics, and urban infrastructure. According to the report, 100 countries defined cities by population size or density, with minimum concentration ranging from 200 to 50,000 inhabitants. **Urbanization**, however, occurs when increasing number of settlements show these characteristics either through rural-urban migration and or through internal population growth or migration between urban areas. This may occur in small towns, towns, cities or mega-cities.

<sup>2</sup> According to JMP 2004, “the urban population served with improved drinking water sources saw an increase of nearly 36% from 1990 to 2004. Despite this major effort, the number of urban people unserved is increasing over time. Despite an increase of almost 40% in the number of people served with improved sanitation over 1990–2004 the deficit of urban unserved is growing. Specifically, “urban drinking water coverage has remained at 95% since 1990. Urban sanitation coverage has increased by only one percentage point, from 79% to 80%”, despite the fact that about 770 million and 700 million urban people gained access to improved drinking water and sanitation, respectively, during 1990–2004.

[http://www.wssinfo.org/pdf/JMP\\_06.pdf](http://www.wssinfo.org/pdf/JMP_06.pdf) Pg. 12

<sup>3</sup> UNDP, Human Development Report (2004). New York: UNDP; 2004: Human Development Indicators: Demographic Trends.

<sup>4</sup> UN HABITAT 2006

<sup>5</sup> UN HABITAT, 2006

1.4 Donor support to water and sanitation services is generally on the decline<sup>6</sup> and though a higher proportion of this is spent on systems that serve urban populations, because the total aid envelope is shrinking, donor assistance to urban WSS systems are also shrinking. DFID's own support for addressing urbanization challenges and urban water and sanitation has been difficult to monitor under current spending plans, and appears geared towards facilitating international private sector involvement in the running of public utilities.

1.5 The impact of urbanisation on water and sanitation services is discussed further below: impacts on the provision of water and sanitation in urban areas with implications for **Service Delivery, Investments and Sanitation** and brings with it a need for **Participatory Social Audits**.

## 2. Challenges of service delivery

2.1 Urbanisation is enlarging the areas and number of people un-served by public water supply utilities. This results in more people, especially the poor who live in urban slums who are forced to buy their water from non-state providers (NSPs), usually at a price that has been estimated to be between 20% - 100% higher than that charged by the utility.<sup>7</sup> In Sub-Saharan Africa, it has been estimated that between 30%-60% of the urban population is unconnected to the public water supply system, and are served by NSPs.

2.2 In all developing countries, the public sector carries the primary responsibility for service delivery in urban areas. Public utilities currently serve up to 95% of the population served through piped network systems. Levels of service vary: household connections, yard taps (in compounds serving a small group of households), and community water points (serving larger areas). In many cases, the failure of public utilities to serve the urban poor living in slums and informal settlements is due to city authority laws regarding land tenure, technical and service regulations and city development plans that legally prevents them from serving these areas. Where slum communities are invisible in urban development plans in particular, utility services to these areas do not exist. It is not surprising then that these areas are served by water vendors, in general, operating outside of any regulations or official supervision.

2.3 Public utilities, under government control, have had poor performance records, and are in need of reform<sup>8</sup>. Urban water supply services in the low-income countries and in increasing numbers of middle income countries suffer from intermittent interruptions with increasing frequency and lengthening duration. They fail to serve the poor. Many are bankrupt and saddled with commercial debts, and many fail to meet even their operating and maintenance costs from the income generated. Clearly, these utilities need to turn around their poor performance. The challenge is in understanding the causes of poor performance in order to enable effective reform to happen. Successful reform of public utilities has happened – in Kampala, in Tamil Nadu, in Phnom Penh - and it is important for DFID to learn the lessons and promote these lessons in support of public utility-led reform<sup>9</sup>.

2.4 The World Bank<sup>10</sup> has identified a range of desired reforms in public utilities. These include securing the operational and financial autonomy of the public utility from political interference; ensuring a clear performance contract between the utility and the government agency responsible for its control; establishing independent regulation of the public utility, changing culture so that there is attention to 'customer care'. In addition, experiences especially in Latin America highlight the importance of

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<sup>6</sup> See WaterAid's submission on Financing and aid instruments for water

<sup>7</sup> William Cosgrove, World Water Council.

<sup>8</sup> See for example the International Benchmarking Network for Water and Sanitation Utilities for indicators of performance of public water and sanitation utilities in Asia, Africa, Europe and other regions. <http://www.ib-net.org/>

<sup>9</sup> See Wateraid & World Development Movement, Reforming public utilities to meet the Water and Sanitation MDG [http://www.wateraid.org/documents/reforming\\_public\\_utilities\\_07.06.pdf](http://www.wateraid.org/documents/reforming_public_utilities_07.06.pdf)

<sup>10</sup> Baietti, A.; Kingdom, W. and Ginneken, M. van, Characteristics of well-performing public water utilities (2006) <http://siteresources.worldbank.org/INTWSS/Resources/Workingnote9.pdf>

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independent, citizen-led accountability mechanisms (eg, citizen councils scrutinising the investments and performance of the utility in Caracas, Venezuela and Porto Alegre, Brazil; or multi-stakeholder dialogue forums in Recife, Brazil where directions for improvement are deliberated by the utility with relevant civil society groups and consumer representatives).<sup>11</sup>

2.5 Fees for water supply services are important to the operational functioning of public utilities, though should not be considered the only source of financial stability and sustainability for the utility. There are contrasting views on the level of fees to be charged by the utility, and some social movements have argued for free water, or a lifeline tariff to render a basic minimum supply of water free. It must be said that most public utilities operate a subsidy – and this is currently captured in large part by the non-poor who are connected to the water service<sup>12</sup>. There is also research that indicates that even at 3% of income (the threshold commonly used to determine levels of water poverty), water fees are still unaffordable to the poor. The challenge facing public utilities is designing tariffs and subsidies so that people gain access, and price does not become a barrier, and that those who are poor and unable to pay are able to consume water to the required levels for health and hygiene. DFID can do more to support economic and social impact analysis to inform utilities' decisions on tariff structure and design.

2.6 Over the last two decades, the support of donors, including DFID, the World Bank and other IFIs has gone towards promoting private sector control, management of and investment in public utilities. This has diverted attention and resources away from addressing the substantive challenge of reforming public utilities and improving service delivery. DFID has led in the development of several multi-donor financing and advisory facilities for purposes of facilitating international private sector involvement in developing country water utilities. (Please see annex A for a list of initiatives established over last 10 years in support of private sector involvement in infrastructure services, including water and sanitation).

2.7 In fact, private sector investment in water and sanitation was only 5% of all private investments in infrastructure, in the 90s, during the height of the privatization era<sup>13</sup>. Water and sanitation is not an attractive investment for the private sector<sup>14</sup>. Private operators funded by the IFIs to manage utilities have become a drain on the available funds. There is now a sufficient body of evidence that casts serious doubt on the capacity of multinational corporations to provide affordable access to water and sanitation in developing countries<sup>15</sup>. In the past decade, private companies have managed to extend water service to just 10 million people, less than 1 percent of those who need it<sup>16</sup>.

2.8 Conversely, NSPs or small scale service providers (SSSPs), both for-profit and not-for-profit (e.g., water cooperatives and community-managed schemes) have become the dominant private investors in water supply in developing countries, and the principal providers for the poor in slums and peri-urban settlements. As a DFID study has shown<sup>17</sup>, there is inadequate governance and regulation of NSPs that would help to secure the necessary standards of water safety and affordable prices. NSPs are presently treated with disdain and considered illegal in most countries. And yet they provide often the only service available to the urban poor. DFID should support governments to investigate how to tap the potential of the NSPs, and integrate them as part of the urban-wide structure of public service provision related to the utility (e.g, as a franchise) or independent of it, and regulate them effectively.

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<sup>11</sup> Balanya, Brennan et al, Reclaiming Public Water, Achievements, Struggles and Visions from around the world (2005) <http://www.tni.org/books/publicwater.pdf> See specific chapters on Porto Alegre, Caracas and Recife.

<sup>12</sup> For more discussion on the regressive nature of water utility subsidies, see Komives 2005, World Bank.

<sup>13</sup> See International Herald Tribune <http://www.iht.com/articles/2006/03/20/news/water.php>

<sup>14</sup> According to a WDM's report 'Pipe Dreams' only one per cent of promised private sector investment in water globally since 1990 was targeted at sub-Saharan Africa [www.wdm.org.uk/resources/briefings/aid/pipedreamsfullreport.pdf](http://www.wdm.org.uk/resources/briefings/aid/pipedreamsfullreport.pdf)

<sup>15</sup> The experience of the private sector's role thus far is of higher user fees and a failure to secure affordable access to services for those in absolute poverty and the, so-called, "near poor". Water privatization contracts in Guyana, Tanzania, Guinea, the Gambia and South Africa, have all ended after poor performance

<sup>16</sup> See International Herald Tribune <http://www.iht.com/articles/2006/03/20/news/water.php>

<sup>17</sup> Authored by Richard Batley of IDSS, Birmingham, Study of Non-State Providers (2005)

[http://www.odi.org.uk/speeches/public\\_service\\_delivery\\_2004/meeting\\_17nov/NSP%20DI%20presentation2.pdf](http://www.odi.org.uk/speeches/public_service_delivery_2004/meeting_17nov/NSP%20DI%20presentation2.pdf)

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2.9 The ability of governments to deliver on the MDG targets for water and sanitation in urban areas will be determined by the ability of public utilities to reform and improve performance, and the ability of governments to capture the positive potential of NSPs. DFID needs to consider the role it can play in this agenda.

### 3. Sanitation

3.1 Urbanisation is contributing to a major sanitary crisis in urban areas. And in many low-income countries the dismal state of sanitation in dense urban slum settlements has been the cause of cholera outbreaks. A major challenge for municipal authorities is the lack of attention to urban sanitation. By historical design, water and sanitation are not the direct responsibility of the same government agency - water ministries or the public utilities. Instead, the responsibility for sanitation and environmental sanitation (sanitation in public spaces, waste collection and disposal) is fragmented amongst a number of government agencies and departments. The lack of coordination amongst these various agencies and absence of a clear agency lead is the main institutional cause for the poor attention to sanitation in urban areas. In addition, the areas most in need of sanitation services and improvements are urban slums and illegal settlements – areas where the residents do not have strong access to political influence and where property rights to land are held only by a few. Thus the demand for attention to sanitation in urban areas is often unheard. DFID needs to work with its partner governments and other donors in-country to work towards a coordinated mechanism and an institutional home for planning investments and service delivery in urban sanitation.

3.2 Sanitation requires different strategies that disaggregate beneficiaries and investments. Sanitation solutions are on-site and culture driven. Existing technologies of networked sewerage systems where on-site sanitation systems are linked are expensive, water-dependent and not always appropriate especially in countries that are suffering from water stress and scarcity. Alternative sanitation solutions such as composting toilets (ecological sanitation or ecosan) are being tried and are promising. There is still a need, however, to research and develop lower-cost sanitation solutions, waste collection and disposal and wastewater treatment that are affordable for developing countries. Experiences of development NGOs in Karachi, Lahore, Faisalabad in Pakistan in designing low-cost sanitation and sewerage and wastewater treatment, in collaboration with the public utilities in those cities should be better understood, and the lessons promoted<sup>18</sup>.

### 4. Investments

4.1 Urbanization and the propensity to adopt high cost, complex urban water supply systems have increased the fiscal stress on already strained government budgets. This has made providing basic water and sanitation services (WSS) even more difficult. WSS is not sufficiently prioritised in government or donor budgets.

4.2 IFIs and donors in the urban water and sanitation sector have frequently prescribed urban sector reform aid and loan packages. But these have come with conditions on the direction that reform should take. Although DFID has recently changed its policy on the conditions attached to its aid, other multilateral donors that it provides money to for investing in water supply and sanitation may still retain policy conditionalities to its loans. DFID should review these arrangements, and where necessary, work to prevent inappropriate policy conditions to be attached to loans. At the same time, DFID needs to support the creation of open policy dialogues between utilities, government, civil society and local NSPs in the cities where it operates, so that the direction of reform of public utilities can be publicly debated, owned and agreed.

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<sup>18</sup> For more information on the Orangi Pilot Project's low-cost sanitation model, [http://www.wateraid.org/documents/plugin\\_documents/fromlanetocitypakistan.pdf](http://www.wateraid.org/documents/plugin_documents/fromlanetocitypakistan.pdf)

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4.3 Developing country governments need to structure water and sanitation fees to ensure a minimum daily amount is free or affordable for the poor. Governments need to target subsidies to end the structural inequalities in access to water and sanitation where only the non-poor and rich are benefiting from subsidies, because they are the ones connected to the network. There is a need to subsidize connection fees - making connections free for the poor, investing in widening the coverage of water supply systems, and establishing a subsidized water fee system that is transparent and targeted primarily at poor people. DFID needs to consider how its investments in urban water and sanitation services can help governments to afford these subsidies to the poor, and to assist in ensuring that the subsidies are transparent and targeted.

4.4 There has been an increase in World Bank lending to water and sanitation projects, from US\$0.5 billion a year in 2001/02 to US\$1.8 billion in 2004/05. This represents 8% of total World Bank lending and is the highest new lending for water projects in a decade. The World Bank remains the highest donor in urban water supply and sanitation. In Asia, the Asian Development Bank has also doubled its investments in the sector, and the greater proportion of this is being spent on urban water supply and sanitation. Given the bankruptcy and indebtedness of most urban public utilities in low-income countries, DFID needs to reconsider whether it is advisable that financing urban WSS investments in these countries is done through loans or through grants. At the same time, DFID needs to review whether IFI investments do not exclude the poor from benefiting<sup>19</sup>.

## 5. Publicly Accountable Social “Audit”

5.1 The participation of citizens in pro-poor service delivery has proved valuable for pioneering pro-poor approaches. The establishment of social audit mechanisms in the governance of the water and sanitation sector has enabled effective monitoring of the performance of utilities, including the private sector, and helped to inform choices over further investment options for achieving universal access. There are successful models of “social control mechanisms” in Recife and Port Alegre in Brazil and Caracas, Venezuela.

5.2 There is a need to open up policy reform decision making to stakeholder dialogue and input especially from the urban poor, such as is done in The Water Dialogues<sup>20</sup>, a series of national multi-stakeholder dialogues and research processes that assess whether and how the private sector can contribute to achieving sustainable universal water and sanitation services. DFID currently supports the international secretariat of the Water Dialogues. In addition, it needs to consider how it can work with civil society organizations, partner governments, city authorities and public utilities to develop other ‘social control’ mechanisms that have the capacity to hold utilities and the governments that control them, to account for the quality of services and investments to ensure the poor gain access to public services. Around the world, civil society groups are experimenting with report card / citizen action activities to engage with service providers and to push it towards improving services to the poor<sup>21</sup>.

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<sup>19</sup> See WaterAid submission on Financing and aid instruments for Water and Sanitation, in relation to ADB projects.

<sup>20</sup> See: The Water Dialogues website: [www.waterdialogues.org](http://www.waterdialogues.org)

<sup>21</sup> WaterAid, Bridging the Gap: Citizens Action for accountability in water and sanitation (2006)  
[http://www.wateraid.org/documents/plugin\\_documents/wateraid\\_citizensweb.pdf](http://www.wateraid.org/documents/plugin_documents/wateraid_citizensweb.pdf)

## Key Recommendations to DFID

- Recognize the increasing impact of urbanization in the delivery of water supply and sanitation in the developing world. In the development of DFID’s new water and sanitation strategy, it needs to address the issues of public utility reform, the role of NSPs, urban sanitation, and social control or citizen-led accountability mechanisms
- Develop a programme of work, with recipient governments, to support the reform of publicly-run utilities to deliver pro-poor services. Look to support the promotion of utility-led reforms, and the lessons from well-performing public utilities. Look into supporting partnerships between public utilities for purposes of learning and support for improving performance.
- Assist governments to improve the regulatory environment and to create opportunities for local NSPs to be integrated into the public water and sanitation delivery system.
- Review the applicability of loans as the main source of investments in low-income countries’ urban water supply and sanitation services, in light of the bankruptcy and deep indebtedness of public utilities.
- Consider contributing to the provision of subsidies for the poor to ensure their adequate and sustainable access to water supply services.
- Work with partner governments and other donors to address the urban sanitation crisis, including the creation of national sanitation plans and coordination bodies.
- Support civil society and lend political support to establishment of publicly accountable social “audit” mechanisms that can hold both public and private service providers to account, and water dialogues on direction of urban WSS reform in countries.
- Support more economic and social impact analysis of urban WSS policies.

### **Appendix A**

List of Non-water specific and water-specific financial and Technical Assistance initiatives established over last 10 years in support of private sector involvement in infrastructure services, including water and sanitation.<sup>22</sup>

Financial initiatives	Acronym	Nature	Source	Geographical focus	Key outputs/instruments
Financial Sector Reform Strengthening	FIRST	TA grant	Donors, UK	Global	TA support for reform of financial sectors.
Public Private Infrastructure Advisory Facility	PPIAF	TA grant	Donors, UK, Japan, WB	Global	TA to support private sector participation in infrastructure sectors
Environmental Action Programme	EAP	Task Force	Gov’ts OECD	CEE & NIS	Identified urban water sector reform in NIS as one of key

<sup>22</sup> Environmental Resources Management, The European Union Water Initiative: Final Report of the Financial Component (2003)

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## Additional resources



Task Force					priorities.
Project Preparation Committee	PPC	IFI coordination	IFIs, hosted by EBRD	CEE & NIS	Networking mechanism to coordinate assistance to CEE & NIS
Joint Environmental Programme	JEP	Financing vehicle for TA	Multilateral donors (WB/EC)	NIS & Mongolia	Mechanism for funding feasibility and preparation studies for select investment projects
Private Infrastructure Donor Group	PIDG	Project financing	Donors, Sweden, Neth, UK, Switzerland	Global	Aims to mobilise private investment & controls a Trust, based in Mauritius that can support initiatives such as EAIF and others under preparation
Infrastructure Development Company (Planned)	DevCo	Project Preparation	UK-led, Multi-donors	Global	Creation & structuring of infrastructure opportunities and presentation of these to the private sector through a competitive and transparent process
Development Guarantee Company (Planned)	GuarantCo	Guarantees	UK-led, Multi-donors	Global	Partial risk guarantees for local currency bonds issued by municipalities and utilities for infrastructure work
Emerging Africa Infrastructure Fund	EAIF	Long-term loans	Multi-donors, UK, Sweden, Netherlands, banks	Africa	Long-term lending to infrastructure companies, including WSS for the poorest countries, focusing on Africa. Coordinated approach between donor and banks, including commercial and development banks.
Public Private Partnerships for the Urban Environment	PPPUE	Grants	UNDP and donors, UK, Switzerland, New Zealand	Global	Partnership grants for projects and activities establishing adequate policy, legal and institutional frameworks for PPP at local level, particularly at the urban level
Community-led Infrastructure Financing Facility	CLIFF	Project financing	UK and NGOs	India	Loans/credit guarantees to community-led slum upgrading initiatives
EU Water Fund	EUWF	Sector specific finance	EU member states, EC	EC, ACP	Proposed to provide co-financing and capacity building
African Water Facility	AWF	Investment Support		Africa	
Building Partnerships for Development in Water and Sanitation	BPD	Tri-sector Partnerships, research	Donors, UK, Netherlands, Switzerland	Global	Focuses on exploring the merits of tri-sector partnerships for water and sanitation (government, private sector, community)

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