Overseas Development Institute

RELATIONS BETWEEN THE EU DEVELOPMENT POLICIES AND THE ONGOING EU POSITION IN THE WTO/GATS NEGOTIATIONS ON THE LIBERALISATION OF WATER SERVICES

REPORT

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This project comprises case studies of Mexico, South Africa and Senegal carried out by the Overseas Development Institute-ODI, based on a review of available literature and key informant interviews held in the three countries in the last quarter of 2004. Interviews were held with a cross-section of stakeholders including government, private sector, NGO representatives and academics.

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It should be noted that the views expressed are those of the authors alone and do not necessarily reflect those of the EC or DFID.

An Executive Summary (16 pages) and separate report of the Mexico case study accompanies this Report.

CONTENTS

ABBREVIATIONS

AMCOW	African Ministerial Council on Water
BOO	Build, Own and Operate
BOT	Build, Operate and Transfer
BTO	Build, Transfer and Operate
CADF	Comisión de Agua del Distrito Federal - Water Commission of Federal District, Mexico
CNA	Comisíon Nacional del Agua - National Water Commission, Mexico
DEM	Direction de l'Exploitation et de la Maintenance, Senegal
DF	Distrito Federal – Federal District, Mexico
DPLG	Department of Provincial and Local Government, South Africa
DTI	Department of Trade and Industry, South Africa
DWAF	Department of Water and Forestry, South Africa
EC	European Commission
EU	European Union
EU WI	EU Water Initiative
FAN	UK Freshwater Network
GATS	General Agreement on Trade in Services
GDP	Gross Domestic Product
GEAR	Growth, Employment and Redistribution Economic Policy, South Africa
IWRM	Integrated Water Resources Management
JOWAM	Johannesburg Water Management Company
LDC	Least Developed Country
MCMA	Mexico City Metropolitan Area
MDG	Millennium Development Goal
MEAs	Multilateral Environmental Agreements
MIIU	Municipal Infrastructure Investment Unit, South Africa
NAFTA	North American Free Trade Agreement
NEPAD	New Partnership for African Development
ODA	Official Development Assistance
NGO	Non-Governmental Organisation
ODI	Overseas Development Institute
OECD	Organisation for Economic Cooperation and Development
ONAS	Organisation Nationale d'Assainissement du Sénégal
PSP	Private sector participation
ROM	Rehabilitate, operate and maintain
SACMEX	Sistema de Aguas de la Cuidad de México - Water Systems for Mexico City
SARH	Secretariat of Agriculture and Hydraulic Resources, Mexico
SDE	Sénégalaise des Eaux
SEDUE	Secretariat of Urban and Ecological Development, Mexico
SEMARNAT	Secretaría de Medioambiente y Recursos Naturales – Mexican Ministry of Environment and Natural Resources
SMEs	Small- and Medium-Sized Enterprises
SONEES	Société Nationale des Eaux du Sénégal (pre-1994)
SONES	Société Nationale des Eaux du Sénégal (post-1994)
SRH	Secretariat of Hydraulic Resources, Mexico
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNICEF	United Nations Children's Fund
WHO	World Health Organization
WRC	Water Research Commission
WRM	Water Resources Management
WSSA	Water and Sanitation Services South Africa
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization

1. INTRODUCTION

Water is a limited resource: a fact that is becoming increasingly apparent. Global freshwater consumption rose six-fold between 1990 and 1995 - at more than twice the rate of population growth (UNEP, 2000) - but within the next two decades water supply per capita is expected to drop by a third (UNESCO, 2003). The resulting so-called 'global water crisis' has several dimensions. The first is geographical; some regions are arid while some have water in abundance. Tensions are rising in many parts of the world where countries share a finite water resource, such as a river basin. A second dimension is the type of usage; how to share a limited resource between agriculture (irrigation is the largest user of freshwater), industry and household consumption.

There is little debate over the significance of the water crisis but fundamental differences persist over how best to address it. On the demand side, the focus has increasingly been on treating water as an economic good to ration its use. On the supply side, water services are suffering from underinvestment, particularly in developing countries. These factors have led some governments and donors to encourage private investment in the water sector in developing countries to maintain quality and quantity of the basic service to growing populations. However, critics of this approach argue that unlike other services, public good aspects (water is essential for human health and welfare) mean water management must remain under the authority of government utilities.

The General Agreement on Trade in services (GATS) was conceived as a basis for WTO Members to liberalise their services trade. It has wide-ranging coverage as it regulates all trade in services, covers all ways (or modes) to provide a service and covers all types of domestic regulation. Through opening markets to foreign firm rivalry, regulatory authorities can, in theory, play foreign and domestic investors against each other which could result in better licensing concessions from a public welfare perspective. There has, however, been little systematic consideration about how the inclusion of water services under the GATS could affect the global water crisis and affect the world's poor people. Proponents of the effort to liberalise water under the GATS claim that it would help meet the Millennium Development Goals on water by bringing about predictability for foreign investors, thereby increasing investment in water infrastructure. Critics argue that the GATS is a threat to public-provided services such as water and that it forces governments to privatise and allow competition in public services.

This report presents the results of a research study of the key relationships between the European Union's development policies, under the EU's Water Initiative, to provide equitable access of water services for the poor, and the EU's position to promote foreign private sector participation in the provision of water services in developing countries in the context of the GATS. This report has particularly studied the experience of three developing countries:

- Senegal: situated in the drought-affected Sahel and one of the countries in its region to start liberalisation and (re-)privatisation of the water sector. It was reclassified as Least Developed in 2001.

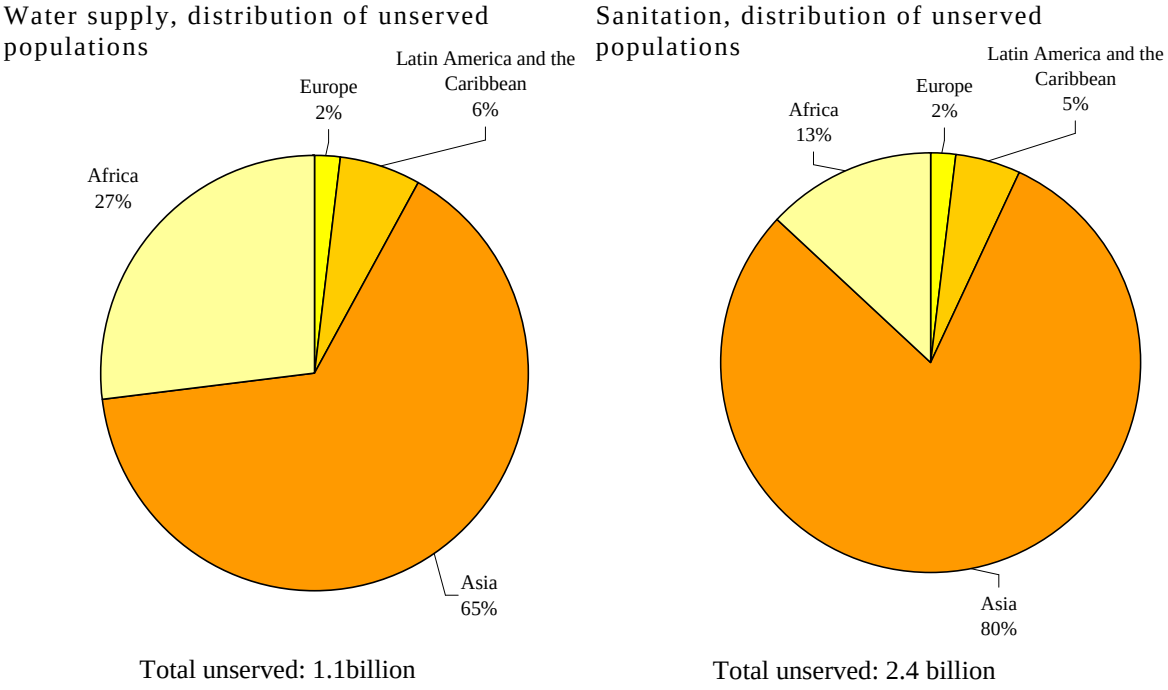
- Mexico: a Latin American country which has established a national water regime designed to promote private sector participation. The country provides an example of water-related poverty in low-income areas within a middle-income country.
- South Africa: An example of an economy that combines features of both an industrial and Least Developed Country. Post-apartheid South Africa has pursued a progressive and innovative approach to water sector reforms which seeks to combine private sector participation with a strong commitment to poverty reduction.

The report proceeds as follows. Section 2 reviews the deficiencies in the provision of water services in developing countries and Section 3 discusses the driving forces behind these. Section 4 provides an overview of potential solutions that have been put forward by the international development community to finance the development of water service infrastructure and ration demand. Section 5 presents arguments for and against the provision of water services by the private sector in developing countries. Sections 6 and 7 examine the impact of private sector participation in the water sector and the various methods that have been used to delegate (and regulate) water service functions to the private sector. Section 8 discusses the issue of water in the WTO, focussing on the role of the GATS, its *modus operandi* and commitments that have been made so far in the water sector. Section 9 discusses the results from the country case studies and analyses the extent to which concerns over the liberalisation of water services in the context of the GATS, and doubts as to the consistency of such liberalisation with the wider social and developmental objectives in the water sector, are justified. Section 10 presents some conclusions and policy recommendations.

2. DEFICIENCIES IN THE SUPPLY OF WATER SERVICES

There are deficiencies in the current reach of public water and sanitation networks in developing countries: an estimated 1.1 billion people do not have access to clean drinking water and 2.4 billion people – around 40 percent of the world's population – lack safe and hygienic sanitation (OECD, 2003a) - see Appendix 1. Most of the world's unserved population live in Asia (see Figure 1) but as a proportion of the population living in each region Africa has the lowest levels of household connections (34 percent of the population) followed by Asia (50 percent) and Latin America (67 percent) (Hardoy *et al.*, 2001; Estache and Kouassi, 2002).[1] For many people, public standpipes and latrines are a considerable distance from their home.

Figure 1: Distribution of unserved population: Water supply and sanitation

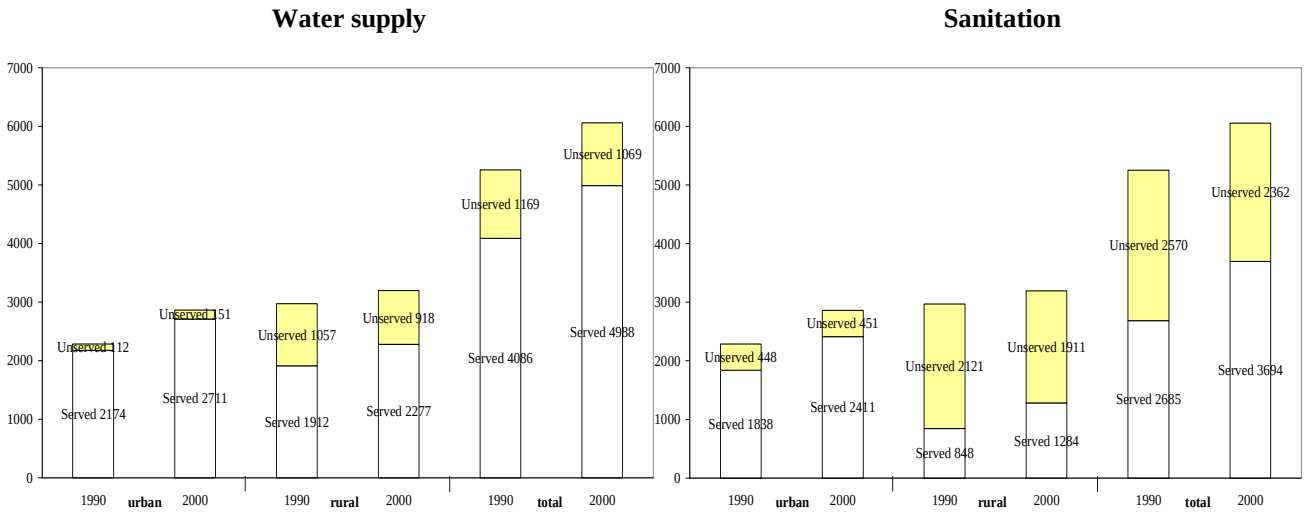


Source: Extracted from the Executive Summary of the World Water Development Report, WHO/UNICEF Joint Monitoring Programme, 2004.

Service provision levels are lowest for poor people, living in rural and peri-urban areas of developing countries (see Figure 2), where household delivery of drinking water is often severely deficient or non-existent: potable water is often delivered through intermediary private sellers, including delivery from water trucks, sometimes making water up to ten times more costly than in developed countries.

[1] These are average figures, so that variations in connection levels within each region are not shown. Africa is on aggregate the least well-connected region of the three and Latin America the most connected; as seen in Section 7.2, this is in inverse proportion to the levels of private sector investment where Latin America has attracted the greatest degree of private sector participation.

Figure 2: Global rural and urban population (thousands) served with water supply and sanitation



Source: WHO/UNICEF Joint Monitoring Programme, 2004.

Lack of proper sanitation and access to clean water has contributed to the spread of diseases and an increasing number of deaths in both urban and rural areas. Diarrhoea, malaria, and schistosomiasis are common in sub-Saharan Africa and Asia where people are infected after consuming polluted water or coming in contact with disease-carrying parasites that breed in such places. Areas with inadequate supplies of freshwater have seen the child mortality rate multiply by ten to twenty-fold compared to those with proper sanitation. Reducing vector-borne diseases as well as mortality rates lies in providing further access to clean water as well as more heavily promoting better water-management practices (UNESCO, 2003).

Given the fundamental importance of access to water for human health, over 180 countries have endorsed the targets under the Millennium Development Goals (MDGs) to halve, by the year 2015, the proportion of people without sustainable access to safe drinking water, whilst also committing to improve access to basic sanitation. Meeting this goal will require bringing drinking water to an additional 1.6 billion people (60 percent in urban areas) and sanitation services to an additional 2 billion people (50 percent in urban areas), noting regional differences such as water supply needs being highest in sub-Saharan Africa and sanitation needs being highest in Asia (Moore and Urquhart, 2004).

3. DRIVING FORCES BEHIND THE WATER CRISIS

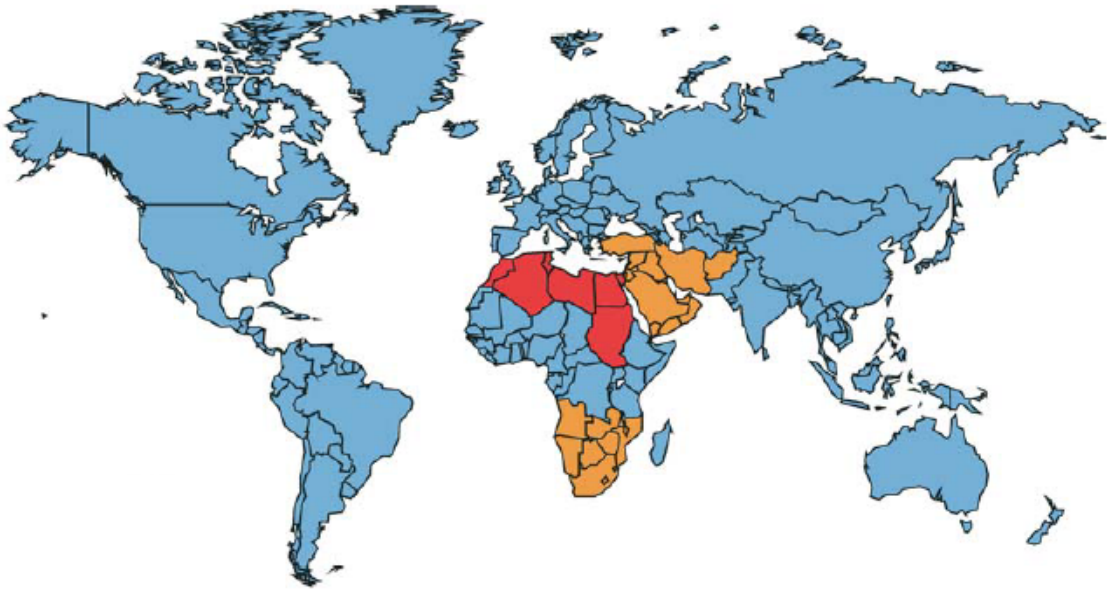
Water is becoming increasingly scarce due to climate change, bad water resource management and high development costs. At the same time, supply is being outstripped by demand due to growth in populations and agricultural production.

3.1 Supply factors

Water stress is said to exist when annual per capita supplies at the national level fall below 1600 cubic metres per year, for all uses including the cultivation of food. A level below 1000 cubic metres is regarded as absolute scarcity. About 30 countries, including Israel, Jordan and South Africa are classified as water stressed and 20 face absolute water scarcity (see Figure 3). Africa is particularly disadvantaged since its available water resources are grossly underused. Only 3 percent of its renewable water is withdrawn annually for domestic, agricultural and industrial use.

By 2015, nearly half of the world's population, more than 3 billion people, will live in countries that are water stressed and, by 2025, one third of the world's population will be living in countries with absolute scarcity (Gleick, 2000). Most countries in the Middle East and North Africa will have absolute scarcity and will be joined by Pakistan, South Africa and large parts of India and China. Recent estimates attribute climate change to a 20 percent increase in global water scarcity in the near future (UNESCO, 2003).

Figure 3: Global water scarcity



Regions are coloured according to their per capita annual renewable freshwater resource. Red – less than 1000m^3 per capita per year, orange – between 1000 and 2000m^3 per capita per year, blue – greater than 2000m^3 per capita per year.

Source: Reproduced from Wallace and Gregory (2002).

Water management systems are crucial in minimising water loss due to inefficiency. Problems such as leakage, theft, and poor accounting contribute to water shortages in developing countries (GDRC, 1999). Inefficient agricultural irrigation accounts for large amounts of wasted water. Presently in countries such as India and the Philippines, average irrigation efficiency ranges from 25-40 percent (Rosengrant *et al*., 2002). Freshwater supplies are diminishing as human, agricultural, and industrial chemical wastes are being disposed of in limited sources of water (UNESCO, 2003). In developing countries, waste water (often used to irrigate agricultural crops) aggravates purification efforts and has implications for human health. Although many countries have invested heavily in cleaning polluted water, they have often used inappropriate methods. Over-pumping of groundwater is a major problem.

The presence of untapped water reserves (especially seawater) has allowed developed and developing countries to explore numerous extraction options but the viability of these remains a challenge as the financial cost is high. In particular, the required technology, transportation, development and implementation of improved water purification and extraction techniques requires substantial investment (Rosengrant *et al*., 2002).

3.2 Demand factors

Problems of water scarcity are compounded by large increases in expected demand for water. By the year 2050, domestic use is expected to increase by 212 percent over current levels; industrial use by 237 percent; and agricultural use by 106 percent. The greatest increase in demand for water will come from Asia and Africa with predicted average annual increases of 10 percent and 13 percent respectively (Gleick, 2000).

The largest consumer of water is agriculture accounting for 80-85 percent of global water consumption. This is not sustainable and by 2015 a number of countries will be unable to maintain their current levels of irrigation (CIA, 2000). Trade in agricultural commodities has helped countries with low per capita water availability avoid food shortages.

Population growth will ensure that by 2015 an estimated additional 3.1 billion people will need access to water services (0.7 billion rural and 2.4 billion urban) and 4.9 billion to sanitation services (2 billion rural and 2.9 billion urban). As well as rising, the pattern of demand is also changing. Rapid urbanisation makes service delivery for the poor, particularly in peri-urban areas and informal settlements, an increasing social priority for governments. However, the tendency to give higher priority to urban service delivery has already contributed to a disparity in service levels between rural and urban areas: in sub-Saharan Africa, about 25 percent of the urban population against 65 percent of the rural population are without adequate water (compared to the global averages of 5 percent for urban and 29 percent for rural) (Salman, 2002).

4. FINANCING WATER AND SANITATION SERVICES

Attempts to transform the governance of water services have intensified since the 1990s. On the demand side, the focus has increasingly been on treating water as an economic good implying a willingness to pay on the part of the consumer. If water is assigned a price, as opposed to being treated as a free good, then information can be passed to consumers about its value and scarcity.

On the supply side, water services are suffering from the cumulative effects of years of under-investment. In a review of its projects in the water and sanitation sector the World Bank concluded that 'financial sustainability of the service providers and resource mobilisation for sector development remain elusive goals' (Yepes, 2002). Currently, investments in the water sector come from the domestic public sector (65-70 percent), the domestic private sector (5 percent), international donors (10-15 percent) and international private companies (10-15 percent) (Camdessus and Winpenny, 2003). Levels of reinvestment from the reserves of water utilities show little change and remain low. International private investment and commercial bank lending have suffered from a general decline in private flows (following the Asian financial crisis) since their peak in 1997. Water and sanitation projects received only 5.4 percent of all private commitments to infrastructure in the 1990s. Year to year figures fluctuate widely – US$4.6 billion in 2000, US$ 2.4 billion in 2001 and US$1.9 billion in 2002.[2] Currency risks, low returns, long payback periods and overall financial uncertainty in the water sector have made it unattractive to private investors. Public funding remains important but it is subject to the fiscal position of developing countries. International aid for water and sanitation has fallen during the last few years (US$ 3.1 billion per year in 1999-2001 compared with US$ 3.5 billion in 1996-98).

Estimates on the funds required for future investment in water services vary. Over and above the existing annual expenditure of US$70-80 billion, the Global Water Partnership (GWP) have suggested that US$180 million for all water uses, including agriculture, is required annually to overcome the crisis of under-provision in developing countries, of which US$ 30 billion is needed for drinking water and sanitation alone (see Table 1). Vision 21, a document produced by the Water Supply and Sanitation Collaborative Council, suggests an additional US$9 billion is required each year, on the basis of population projections.

The source of additional finance is also a contentious issue. The GWP anticipates that 39 percent of future funding will come from the domestic private sector, and 27 percent from the international private sector. These figures, however, are global estimates and regional variations in the future role of the private sector are likely to be considerable.

[2] *Source:* World Bank PPI database.

Table 1: Indicative annual investment in water services for developing countries ($ billions)

	Current annual	Required annual (2002-2025)
Drinking water	13	13
Sanitation and hygiene	1	17
Wastewater treatment	14	70
Industrial effluent	7	30
Agriculture	32.5	40
Environmental protection	7.5	10
Total	*75*	*180*

Source: GWP (2000).

The Third World Water Forum, held in 2003 in Kyoto, provided an opportunity to establish some basic principles, such as identifying under what conditions developing countries could or should transfer water concession to private interests, in exchange for financing. It failed to do this as the debate about delivering water services split into two broad camps.

On the one hand, some argue that governments must redouble efforts, supported by Official Development Assistance, to address the water crisis. Water services are perceived to be public goods that should be excluded from private sector profit motives operating on short-term business cycles. Critics note that foreign private investors and water companies are choosing only a very few developing countries – notably China and some other high-growth Asian countries – in which to invest and have exited most of Latin America. Against this background, the fear is of a regulatory race-to-the bottom in order to attract investment.

On the other hand, there are those who argue that water services are mismanaged by the public sector, such that private sector participation (PSP) is needed. There is a long list of arguments explaining why public utilities may in some cases fail to work: problems in collecting bills (for cost-recovery purposes); failure to adequately plough-back revenues for infrastructure improvements; prone to corruption and political interference; and slow to adopt innovations in technologies and management systems. In addition, the high construction and installation costs of water infrastructure (such as reservoirs and pipeline networks) and the frequently complex demands that they have to meet, as well as potentially costly quality controls, mean that substantial investment in water services is necessary if the service gaps in developing countries are to be filled.

5. THE DEBATE OVER PRIVATE SECTOR PARTICIPATION IN THE WATER SECTOR

In debating whether water services should be provided by the public sector, the private sector or through collaborative arrangements, attempts have been made to argue that, given the innate characteristics of the sector, either one or the other form of provision is inherently better. However, this perspective lumps together very diverse actors and agencies in both the private sector (e.g. informal vendors and multinational corporations) and the public sector (e.g. public utilities, regulators, local authorities and Government ministries). Nevertheless the debate has generated a number of interesting issues. While they may not have come up with any clear guidance on the most appropriate roles for the public and private sectors they have succeeded in identifying concerns that will need to be addressed if water services are to be improved. The arguments for public sector provision (public goods, natural monopolies and human rights) and for PSP (economic goods, state failure) are summarised below.

5.1 The case for public provision of water services

5.1.1 Public goods

A public good is non-rival and non-excludable. Private enterprises fail to supply public goods because they cannot be sold or used up by individuals and they benefit the public at large. It is often argued that since such goods will not be provided by the private sector, they must be subsidised and provided by the public sector. Water services are not strictly pure public goods, but they do provide, for example, important health benefits. In particular, it is uneconomic to exclude people who are not willing to pay (disease can spread from non-users). Thus, some combination of regulation, subsidised provision or obligatory fee is argued to be necessary in order to achieve adequate provision.

Although the case for public sector management is strengthened by evidence of important health benefits, it is misleading to argue the case for more or less PSP solely on this basis. The health benefits of having adequate water service provision may equally be provided through a well-regulated private utility.

5.1.2 Natural monopolies

Monopolies have an incentive to underproduce thereby realising supernormal profits. Natural monopolies exist if total costs are lower when a single firm produces the entire output for a given market than when two or more firms divide total production between them. The most common explanation for natural monopolies is increasing returns to scale - the larger the producer, the lower its average costs. Natural monopolies require some form of public regulation to prevent overpricing, and this has been used to justify public ownership and operation.

The networks required for the provision of water services approximate to natural monopolies because multiple networks competing for the same consumers would

have higher infrastructure costs than a single network. However, the extent to which water services are natural monopolies should not be exaggerated since even limited competition e.g. through unbundling the network (see Section 6) can be an important means of preventing abuse of monopoly power. Moreover, while private monopolies raise a number of regulatory issues, so do public sector monopolies: governance and regulation are therefore critical.

5.1.3 Human rights

PSP in the provision of water services has generated controversy since water is an essential human need. The provision of water is often defined as a service to which people have a *right* regardless of their ability to pay (Rogers *et al.*, 1998). In 2002, the United Nations Committee on Economic, Cultural and Social Rights issued a General Comment declaring that water is not merely an economic good, and that: 'The human right to water entitles everyone to sufficient, affordable, physically accessible, safe and acceptable water for personal and domestic uses' (UNESC, 2002). However, recognition of the right to water does not necessarily preclude the supply of water services by the private sector. The key question is in what circumstances and under what conditions PSP may be effective in bringing water services to the currently unserved.

5.2 The case for private provision of water services

5.2.1 Water as an economic good

The claim that water is an economic good has been used to justify a shift from treating water as a public service to a good for which there is a strong role for the private sector in which users should pay (Bakker, 2003). Classifying water as an economic good defines it as being able to command a price in a market which, if managed by market forces, is argued to bring about efficiency gains and highest value use. The argument is often extended to support full cost-recovery of water services from users on the grounds of promoting economic sustainability. Subsidies – either from the state or through cross-subsidisation from different types of consumer – are opposed because they distort the true cost of service provision and provide an incentive for overuse (Brocklehurst, 2002). This may, however, be politically problematic since many poor users are unlikely to be able or willing to pay the full cost. Moreover, urban water services are difficult to price and charge (water pricing requires meters which are expensive and difficult to maintain) and ignores any public health benefits. But whether water services approximate to a public or an economic good does not determine the appropriate roles for the private and public sector. In practice, a wide range of interrelated factors need to be considered including public awareness of the benefits of adequate water service provision, the ability and willingness of different groups to pay, the quality of local governance, the state of public finance and the interests of private operators.

5.2.2 State failure

The argument for private provision of water services is often linked to the perception that profit maximising incentives would encourage private operators to become efficient. Proponents of this view claim that efficiency gains benefit all service users and, in particular, the poor (as paying customers). However, this argument ignores the fact that not all private operators make profits from being efficient (e.g. they may be able to justify tariff increases on the basis of their inefficiencies, especially if the regulator is poorly informed – see Section 6) while some publicly operated utilities also face commercial incentives.

Advocates of PSP also argue that public provision of water has failed to supply services of adequate quality and coverage. This failure is often attributed to a lack of government capacity which leads to weak performance and low prices for poor services. Despite large amounts of aid, public authorities in developing countries have concentrated on central urban areas leaving peri-urban and rural areas unserved (Winpenny, 2003). They also argue that government-run utilities are often subject to political interference and corruption, especially at the local level. However, the failures of publicly-provided water services can be partly attributed to the public sector's lack of finance which is necessary to carry out infrastructure upgrading and expansion. In particular, the public sector in developing countries, especially at the local and municipal levels of government, is often denied access to sources of private finance as they lack creditworthiness (Haarmeyer and Mody, 1998) – see Section 9.4.2 for the case of Senegal.

The limited contribution that Official Development Assistance (ODA) can make in the provision of water services in developing countries is used as further justification for involving the private sector. Unfortunately, the argument that public and ODA resources will not be sufficient to finance the needed improvements does not imply that private finance will (see Section 9.5.6).

All these factors are claimed to affect the poor most negatively, as it is always low-income groups that remain unserved. When the poor lack adequate water provision they often purchase water from informal vendors, paying per unit prices that are up to 100 times[3] higher than piped water (Collignon and Vézina, 2000). Some argue that that this shows that the ability of low-income groups to pay is often underestimated and that they would be both able and willing to pay prices charged by the private sector for a much higher quality service (Gleick *et al.*, 2002). However, three points are worth noting. First, although the poor do pay high prices for water these are often either for small quantities that are only used for drinking, or only apply for short periods when water is particularly scarce. Second, many informal water suppliers provide a fairly efficient and reliable service (Solo, 1999). Third, high water payments can put pressure on low incomes, which does not imply that households do not suffer as a result (ODI, 2002).

[3] Comparing cost at point of access is misleading as it does not take into account the additional costs involved in acquiring a connection in the first place, which itself may or may not be physically feasible (donkey vendors supply areas pipes can't reach) or economic (insecurity of land tenure in slums).

Transferring operation of water services to the private sector offers the potential to empower user communities to assume more control over the type and level of services provided, as consumers of an economic good. This is the principle underlying the promotion of 'Demand Responsive Approaches' whereby communities are consulted regarding the operation and interaction between consumers and private companies. The World Bank notes that greater responsibility is placed on consumers in communities as they decide how facilities will be set up, how much of the service to purchase and deliver, and how funds are administered, rather than suppliers. Moreover, greater PSP has the potential to create an economically stronger community, when managed appropriately (Nicol, 2000). Of course, while consumers should have a say in the way water services are delivered to their communities, there cannot be a complete handover because some issues may only be handled appropriately on a larger scale (RWE, 2004).

6. THE IMPACT OF PRIVATE SECTOR PARTICIPATION IN WATER

It is unlikely that the debate over public versus private provision of water services will be easily resolved. It is also unclear that it needs to be for two reasons. First, the question is not whether privatisation in itself is good, but rather, under what conditions can the transfer of ownership or operation from public to private entities guarantee the protection of health and welfare benefits associated with water services? Second, large private operators currently have a very small share in developing countries. Small-scale independent water providers, operating small pipe networks, distribution at kiosk and water trucks, currently play a major role in developing countries, where in many cities half of the population or more is served by water suppliers other than the utility (UNCTAD, 2003). Only 5 percent of the world's water is actually distributed by the private sector covering 330 million customers, largely in developed countries like France. Even when the private sector has taken charge, this has usually taken the form of a public-private partnership (Hilary, 2003).

It follows that the public policy portion of the water debate should focus on a narrow set of issues: namely, examining the sufficiency of domestic regulations in developing countries in balancing the public good with profit motives and the shorter-term time horizons of private interests. This may sound straightforward but it is an article of faith that countries that undergo privatisation introduce competition policies. In practice, the lesson from privatisation is that more, not less, regulation is needed to ensure that markets function efficiently. In addition, there appears to be very little with which to take comfort that domestic regulatory authorities are able to address these and other issues effectively. In developed countries, there are many examples in which regulatory and competition bodies were overwhelmed as public sectors underwent restructuring, deregulation and price-based competition. Ensuring an orderly transition from public to private ownership is even more problematic in developing countries, given their inherently weaker regulatory, monitoring and enforcement powers.

Under the right circumstances, it may well be possible for PSP to promote efficiency and increase the financial resources available for improving water services. However, it can also direct finance to urban centres that are already comparatively well-served, have implications for equity (especially when prices rise) and create new regulatory problems. Much depends on the way PSP is developed and the local context.

An increasing number of governments are turning to the private sector, in hopes of taking advantage of specialised skills, greater efficiency in service and delivery, and more direct access to finance for new investments (World Bank, 1997). The benchmark of privatisation, therefore, is whether water services actually improve for citizens. Indicators for measuring this might include improvements in access (physical), and service reliability (water quantity and quality), plus the expectation that prices will decline (in the medium to long term),[4] and the assurance that if private companies do access capital markets to pay for expensive infrastructure investments, then public finances are not adversely affected (e.g. in securing subsidised loans or tax breaks as a precondition of the investment). Private companies should also be able to

[4] Is some instances prices may have to rise, at least in the short term, to make up for the historic failure of public authorities to set prices for water which are anywhere near cost-recovery rates.

provide cost-effective and appropriate solutions that do not increase reliance on foreign markets, know-how, and finance (WEED, 2001).

Measuring efficiency is complicated since it is by definition a relative term. However, a widely used indicator to gauge the efficiency gains of privatisation of services in general is the extent to which they lower consumer prices (Beesley and Littlechild, 1992).

OECD (2002) shows that liberalisation of services has led to price decreases and other economic gains in sectors such as telecommunications and financial services. However, for the numerous cases of PSP in water service provision the collective results have been mixed.

On the one hand, PSP has been associated with development gains. Galani *et al.* (2002) find that in Argentina, where 30 percent of the municipality water systems were privatised between 1991 and 1999, covering 60 percent of the population, privatisation has been associated with decreased child mortality rates from 7 percent to 5 percent, owing to improved water and sewerage services.

However the costs of service improvement can be substantial. In the now infamous case of privatised water systems in Bolivia, unofficial reports have noted that water prices rose in some poorer districts by up to 60 percent (Shultz, 2000) prohibiting access for large numbers of poor water users. In addition, regulating the private sector is often difficult. In Manila, conditions were attached for private companies to secure universal access to water by 2006, increase sewerage coverage to 83 percent and to offer 24 hour availability, but promised results were not obtained. Instead water charges rose by almost one-half and the contractual target of ensuring universal connections 24-hours a day was not met (Wagle, 2003).

The evidence is mixed because: 1) the water sector is particularly immune to efficient pricing mechanisms; 2) market-based models do not lend themselves easily to the construction of water services infrastructure; and, 3) effective regulation and governance are often lacking.

The first problem concerns water pricing. Since water markets are typically monopolistic, public authorities must develop strategies to regulate water tariffs. If tariffs are set too low, then profit expectations may dissuade investors, while lower tariffs may also defeat other public policy goals, such as sending misleading signals about the scarcity of supply. If tariffs are too high, then distributional and competitiveness issues arise (Action Aid, 2004). Higher rates can also lead to competitiveness concerns in water-intensive industrial and agricultural sectors.

The second problem affects universal coverage. The private sector has its own criteria regarding what it considers to be viable commercial opportunities. The most important aspect for private companies is the potential profit or rate of return. A key consideration is scale. For large-scale water projects, the minimum number of units that make investments worthwhile is in the order of 100,000 (Vaughan, 2003). On the one hand, ensuring universal access has been a source of motivation for many governments to involve the private sector (World Bank, 1997). PSP could be beneficial if companies are able to operate with less political interference than the

public sector. Private companies may also look to expand their clientele base since more customers can lead to increased profits and may increase investment in the sector so as to maximise gains (DFID 1997). On the other hand, there are concerns as to whether private companies would have the incentive to invest in those areas most in need of water services: in slums and shanty towns[5] of large-scale cities in developing countries and poor, outlying rural areas. While conditions of license concessions can specify extension to unserved areas as an obligation, private companies are inclined to invest only in stable and predictable markets that have a reasonable assurance of long-term returns on investment. Projects must also have acceptable levels of financial and political risk, and the attractiveness of the opportunity will also depend on location-specific factors including the extent and condition of existing infrastructure. PSP may be restricted to wealthier states, cities, and areas where residents can afford to pay for more advanced or improved services (UNEP 2004). This is not to say that private operators will not engage in poorer areas; they will do so, at a price and under conditions that justify the risks.[6]

It seems, therefore, unlikely that profit-motivated companies, operating a monopolistic service will provide a solution to the water problems of the poor, many of whom could not afford to meet full cost recovery pricing. Some (e.g. Cockburn *et al.*, 2000) propose a solution to this problem by advocating the provision of subsidies to the poor (not to service providers). Water subsidies and cross-subsidies are commonly incorporated into water tariff structures, through rising tariffs (by volume consumed), social or welfare tariffs (lower charges for poor consumers), banded charges (lower charges for poor areas) or lifeline tariffs (set volumes provided free of charge). Less commonly, direct means-tested subsidies are given to poor households. It is, however, difficult to envisage effective arrangements in developing countries for targeting subsidies directly at the poor, instead of to the service itself. Among the problems in doing this are the cost (given the narrow tax base in most developing countries), the lack of social statistics for defining who are sufficiently poor to merit subsidies and the opportunities for corruption that could arise when deciding who will get a subsidy.[7]

Furthermore, providing subsidies to the poor may only be beneficial to those who have piped connections and/or meters, compared to the poor households that do not. Connection charges are often unaffordable for poor households, especially if they are based on cost recovery in which case they are likely to be much higher where networks are extended to peri-urban or rural areas (Johnstone and Wood, 2001). The World Bank (2002) suggests that if the government is financially limited in providing subsidies, using other technologies may be more favourable to the poor who are not connected to a water supply. Condominial sewerage systems were established in Brazilian slums, for instance, where households lacked connections (World Bank, 1997). Simpler technologies may also be more sustainable in poor communities where technological know-how may be limited (Gutierrez, 2003). Alternatively, some private operators are implementing specific measures to improve provision to

[5] In Nairobi, for example, 'informal settlements' account for some 60 percent of the population.

[6] A key concern here is private sector 'cherry picking' which may remove the opportunity of municipalities reinvesting profits from areas with a strong revenue base in poorer areas, or indeed in other sectors e.g. education and health which are not revenue generating

[7] See for example Smith & Fakir (2003) on 'The struggle to provide water services to the indigent' in South Africa.

unserved low-income areas such as voluntary labour, collective provision of materials and alternative payment arrangements (Hall, 2002). However, such initiatives are not common practice and most of the locations are chosen as pilot projects through public-private-civil society partnerships.

The third problem is the need to establish accountable and transparent government structures. Challenges include ensuring that regulatory authorities set water tariffs and make decisions regarding cross-subsidisation without political pressure; and that competition rules are established and enforced. Of particular concern is the dominance of a small number of multinational water companies in the world market for water services: Suez, Veolia, Thames and Saur. Together these four companies control over 80 percent of the private water market. Governments may also have less experience in negotiating contracts and addressing regulatory issues than these companies with which they must negotiate making it difficult to establish effective regulatory structures – see Section 9.5.5.

In general, it is simpler to regulate competition and industry behaviour under a minimal set of common rules that impose similar standards without discriminating between industry sectors or ownership. However, in the water sector there are no obvious means for removing public sector inefficiencies and encouraging private sector investment without specific regulation to correct for monopoly power. Ideally these strategies should promote competition and improve the efficiency of PSP (see Box 1).

Box 1: Regulatory strategies to encourage competitive PSP

Competition for the market: While the potential to increase competition within a market may be relatively limited, competition for the market itself may be feasible and desirable. Competition for the market requires the right for the private sector to provide water services to be awarded through a process of competitive tendering. In a market with good information and many bidders, this approach leads to an efficient price being charged for water supply as the monopoly rent is competed away through the tendering process.

Unbundling and comparative competition: Unbundling or splitting up water companies into smaller units is a structural reform which can lead to increases in competition. Central to the effectiveness of unbundling is whether competition gains outweigh the costs associated with the loss of economies of scale and the additional transactions costs of using the contractual process.

Third party access to infrastructure: Third party access to water infrastructure can be used to promote competition by permitting firms other than the owner of the water supply network to utilise those services. Access which creates competitive pressure in upstream or downstream markets will encourage water supply companies to minimise their costs and charge competitive water tariffs. While access regimes can bring competition to which would otherwise be monopoly markets, they can undermine incentives for the private sector to invest in infrastructure.

Rate of return regulation: Rate of return regulation defines a maximum level of profits based on a 'fair' rate of return on assets. The utility then sets its prices to achieve that target rate, with the knowledge that it cannot retain any extra returns. There may be a number of practical problems with implementing this approach. First, it is difficult to determine *ex-ante* the regulated rate of return to provide 'fair' profits. Second, even if regulators are able to accurately determine 'fair' rates of return the regulation itself can introduce distortions since it may encourage firms to use more capital relative to other outputs since the profit that a regulated firm is allowed to retain increases as more capital is used in production (Averch and Johnson, 1962). Third, rate of return regulation may also reduce incentives to innovate and reduce costs since if production costs fall so does allowable profit.

Cost-plus pricing: Cost-plus pricing aims to restrict price increases by linking them to changes in all or a selection of production costs. Some of the drawbacks with this approach are similar to those with rate of return regulation.

Price cap regulation: Price cap regulation constrains a utility's future price increases by an index which is outside the control of the firm. The index used in the price cap formula is normally a price index such as a consumer price index. The regulation can also include a negative factor which reduces the rate of increase. The level of this is based on the share of expected or required cost savings to be passed on to consumers. These cost savings may arise from increased productivity, technological change or changes in economies of scale. Price caps have advantages over rate of return or cost-plus regulations since they can allow private sector managers to concentrate on minimising costs and encourages firms to share cost savings with consumers.

7. OPTIONS FOR PUBLIC PRIVATE PARTNERSHIPS IN THE WATER SECTOR

7.1 Modes of private sector participation

The term 'private sector participation' is used to cover a wide range of arrangements between a government agency and a non-public institution, but usually refers to a contractual agreement involving a public agency and a formal (often multinational) private company (Budds and McGranahan, 2003). However, small-scale operators are increasingly being described as private enterprises, as are civil society organisations where they engage in the provision of water services, often on a small scale and to poor areas (Solo, 1999). These organisations are very different to large water companies and often play different roles and operate on different principles (e.g. on a not-for-profit basis). In many countries PSP is a key requirement for meeting growing demand for water services. The perceived gains of PSP for developing countries are financial (capital inflow), technical (optimised operations; technical assistance from other countries; training of personnel) and managerial (billing and fee collection; more efficient organisation structures). Options for PSP range from simple levels of private sector involvement through service contracts to more complex arrangements like divestiture (see Box 2).

Box 2: Types of PSP

Service contracts are the simplest form of PSP. Under a service contract, the service is provided by the private sector using the finances and specifications from the public sector. It is not possible to raise (additional) private investment under this option.

Management contracts are arrangements where the private operator is engaged in operation and management of the service but does not undertake any investment obligations. The commercial and investment risk remains with the public sector.

Affermage contract A private company is paid a fee for the volume of water produced and sold. This price is the parameter that the bidders compete on. Under an affermage contract the operator does not have any decision-making role in the setting tariffs, nor is the fee solely based on the tariffs collected.

Concessions contracts are usually long-term, where the private sector takes responsibility for operations and management and the contract includes detailed lists of investments and service obligations. Concession contracts award fixed term monopoly rights to private firms to provide services.

Divestiture is the sale of a parastatal to the private sector. Selling procedures can take different forms: public offering of shares, private sales of assets or management buyouts (partial or complete). It gives the private operator full responsibility for operation, management and investment.

In addition to these there are also a number of *hybrid* approaches which combine elements of the above:

Build, operate and transfer (BOT): The private sector funds, constructs, owns and operates a facility for a limited period (often around 30 years), at the end of which the infrastructure is transferred free of charge to the government.

Build, transfer and operate (BTO): The private sector operator funds and constructs a facility but transfers ownership to the government immediately after the completion of the construction phase. The infrastructure is then put at the disposal of the private sector again by the government and is operated for a limited period, at the end of which all rights are restored to the government.

Build, own and operate (BOO): The private sector funds and constructs a facility, and owns and operates it for an unlimited period.

Rehabilitate, operate and maintain (ROM): The private sector provides investment for rehabilitating the service infrastructure and then sells its services to a public utility manager according to the terms and conditions of the contract. This option allows for bringing in new management expertise. Investment risks remain with the private sector.

Source: Sarkar and Bhardwaj (2003).

Options for PSP in the provision of services vary in terms of allocation of risks. Under service contracts almost all the risks lie with the public sector, which get shifted to the private sector with divestiture. Other forms of PSP lie somewhere in between (see Table 2).

Table 2: Allocation of responsibilities for modes of private sector participation

	Service contract	Management contract	Concession contract	BOT-type	Divestiture
Asset ownership	Public	Public	Public	Public/private	Private
Capital investment	Public	Public	Public	Private	Private
Commercial risk	Public	Public	Shared	Private	Private
Operations/maintenance	Public/private	Private	Private	Private	Private
Contract duration	1-2 years	3-5 years	8-15 years	25-30 years	Indefinite

Source: Adapted from Budds and McGranahan (2003).

Where political support for PSP is lacking, service and management contracts are often considered beneficial forms of involvement and are in some cases used as intermediate steps towards greater levels of PSP.[8] Typically, PSP options generally used for the construction of new capacity are turnkey construction contracts, BOO contracts and variants of the same. For operations and delivery of services, service contracts, management contracts and concession contracts (for full or partial systems) are preferred.

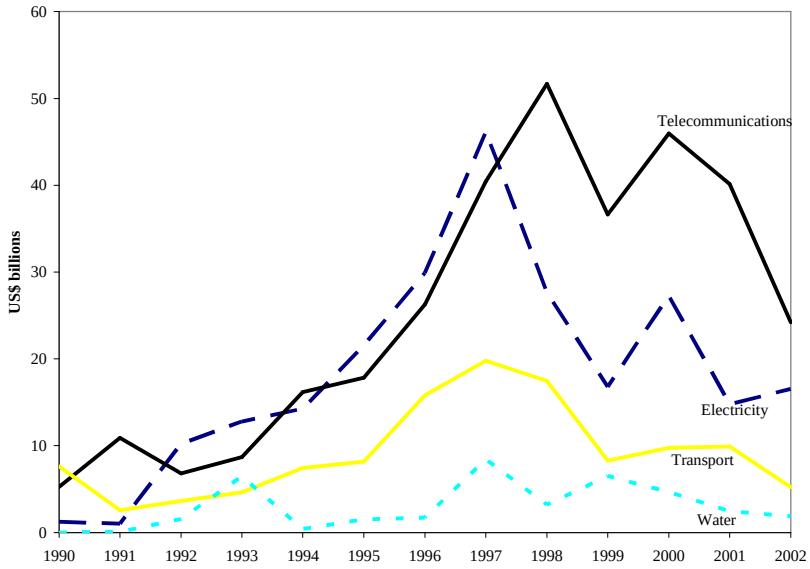
7.2 Levels of private sector participation

Before 1990 there were very few large private initiatives in water services. PSP accelerated sharply in the 1990 and peaked in 1997, after which is started to decline (Silva *et al.*, 1998) partly due to the Asian financial crisis (Izaguirre and Rao, 2000). In the provision of water services lenders and private operators have realised that the sector is more complex and less profitable than originally anticipated. Many of the facilities in the most attractive locations were either privatised during the 1990s or have shown few signs of preparing for PSP – see Section 9.5.6.

Earlier projected levels of PSP in the water sector have proved overly optimistic. The lack of private interest in investing in water services in developing countries is reflected in the extent of PSP both in relation to other utility sectors and within the sector itself. By sector, the highest investment in infrastructure with PSP in developing countries is in telecommunications followed by electricity, transport, water and sewerage, natural gas transmission and distribution sectors (see Figure 4).

[8] As reviewed in Section 9.4.1, Mexico provides an example of this type of gradualist approach e.g. the step-by-step handover of functions to European/foreign companies in the Federal District (at the centre of the Mexico City Metropolitan Area).

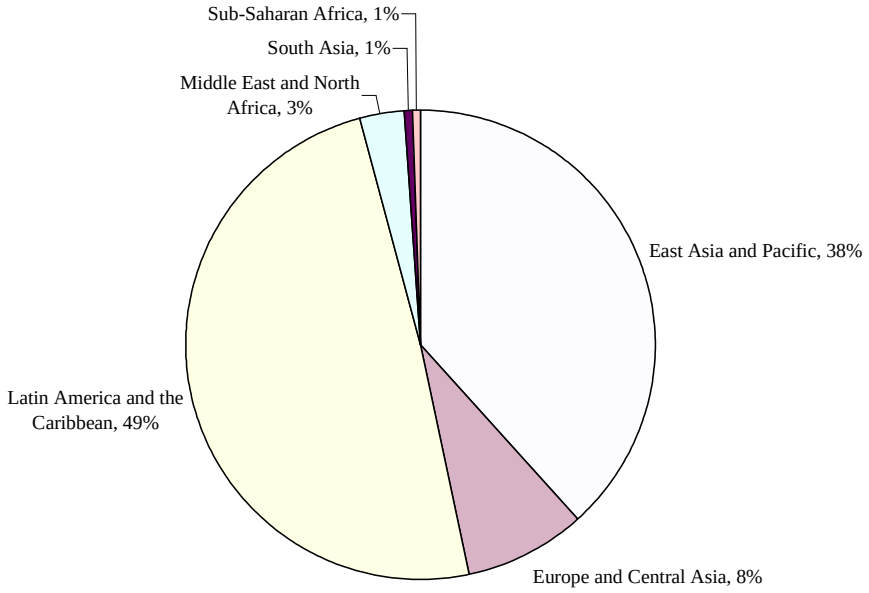
Figure 4: Investment in infrastructure projects with private sector participation in developing countries by sector 1990-2002



Source: World Bank PPI Project Database.

In terms of the regional composition of PSP in the water and sewerage sector, investments are concentrated in Latin America and East Asia. In the period 1990-2002, seven countries within Latin America and East Asia – Argentina, the Philippines, Malaysia, Chile, Brazil, Mexico and China – dominated in terms of total investment. Generally speaking the countries in which investment is concentrated represent those with the largest economies and populations and higher levels of urbanisation. South Asia and sub-Saharan Africa attracted the least amount of PSP during 1990-2002 (Figure 5). With the exception of South Africa, there are almost no investment contracts in sub-Saharan Africa. Virtually all investment in water services comes from ODA in these countries.

Figure 5: Investment in water and sewerage infrastructure projects with private sector participation in developing countries by region 1990-2002



Source: World Bank PPI Project Database.

8. GATS AND WATER

The global environmental goods and services market (including water services, but see Section 8.4 on classification issues) currently represents US$550 billion (Hamwey *et al.*, 2003) and is estimated to have grown by over 14 percent between 1996 and 2000. Half of the market is represented by services. Most analysts expect the industry will continue to grow at 8 percent per year to US$640 billion by 2010 (WTO, 1998). This would make the sector an equivalent size to the pharmaceutical or information technology industries (European Commission, 2000). The developed countries account for about 90 percent of the world market (85 percent for the EU, US and Japan combined) (OECD, 2001). Developing countries are net importers of environmental services although some have been able to develop a solid environmental services sector. Market growth in the developed countries has slowed to 3-5 percent per year. Most of the future demand growth is expected to occur in developing countries and countries in transition at an annual rate of 8-12 percent (UNCTAD, 1998).

The General Agreement on Trade in Services (GATS) entered into force on 1 January 1995 and lays down multilateral rules and disciplines for services trade. It also contained a mandate, under Article XIX, to resume negotiations on all services sectors no later than 12 January 2000 – the GATS 2000 negotiations. In addition, the agenda mandates the continuation of work to develop GATS disciplines covering domestic regulation, safeguards, government procurement and subsidies.

Structurally, the GATS comprises six parts and eight annexes.

8.1 Definition and coverage

Part I of the GATS covers its scope and definition. A sectoral classification of services (MTN.GNS/W/120) was established in the framework of the Uruguay Round, inspired by the UN Central Product Classification. The use of this sectoral classification is not mandatory, but most Members follow it to schedule their commitments. The GATS covers 161 service activities across 12 classified sectors (see Table 3).

Table 3: Classified sectors under the GATS

1) Business	7) Financial
2) Communications	8) Health
3) Construction	9) Tourism
4) Distribution	10) Recreational
5) Education	11) Transport
6) Environmental	12) Other

GATS excludes the greater part of the air transport sector and services which are supplied in the ‘exercise of governmental authority’, the latter being defined as services which are supplied neither on a ‘commercial basis nor in competition with one or more service suppliers’ (Article I:3) – a point we shall return to with respect to water services in Section 9.5.3.

The GATS, also in Article I, defines services trade as occurring through four modes of supply, namely:

- Cross border supply (mode 1): services supplied across borders from the territory of one Member into the territory of another e.g. software on a floppy disk.

- Consumption abroad (mode 2): services supplied in the territory of one Member to the consumers of another e.g. tourism.

- Commercial presence (mode 3): services supplied through any type of business or professional establishment of one Member in the territory of another e.g. foreign direct investment.

- Temporary movement of natural persons (mode 4): services supplied by nationals of one Member in the territory of another e.g. employees working abroad on temporary contracts.

The GATS covers all types of domestic measures affecting services trade and applies to all levels of government (central, regional and local) in each WTO Member.

Table 4: Main provisions of the GATS

Article	Subject Matter
I	Definition. Trade in services covers four modes of supply.
II	Most-favoured-nation (MFN) obligation. Option to invoke exemptions on a one-time basis.
III	Notification and publication. Obligation to create an enquiry point.
IV	Increasing participation of developing countries. High-income countries to take measures to facilitate trade of developing countries.
V	Economic integration. Allows for free trade and similar agreements.
VI	Allows for domestic regulation. Requirements concerning the design and implementation of services sector regulation including qualification requirements.
VII	Recognition and qualifications, standards and certification of suppliers.
VIII	Monopolies and exclusive suppliers. Requires that such entities abide by MFN and specific commitments (Arts. XVI and XVII) and do not abuse their dominant position.
IX	Business practices. Recognition that business practices may restrict trade. Calls for consultation between Members on request.
XIV	General exceptions. Allows measures to achieve non-economic objectives.
XVI	Market access. Defines a set of policies that may not be used to restrict market access for a scheduled sector unless they are listed in a member's schedule.
XVII	National treatment. Applies in a sector if a commitment to that effect is made and if no limitations or exceptions are listed in a Member's schedule.
XVIII	Allows Members to make additional commitments e.g. regarding qualifications, standards and licenses.
XIX	Calls for successive negotiations to expand coverage of specific commitments (Arts. XVI and XVII).
XXIX	States that annexes are an integral part of the GATS.

Source: Adlung *et al.* (2002).

8.2 Obligations and disciplines

The GATS contains general obligations (in Part II) which apply to all WTO Members and specific liberalisation commitments (in Part III) which apply only if, and to the extent that, a WTO Member has accepted them.

8.2.1 General obligations

General obligations fall into two main categories: those applying to all services sectors, even if a country has not made specific liberalisation commitments, and those that apply to the specific negotiated commitments of each WTO Member. Although the former were included in the GATS during the Uruguay Round of WTO negotiations, many issues relating to the latter were left unresolved and left for future negotiation.

For all sectors, the most important general obligation is that of most-favoured nation (MFN) treatment (Article II) which forbids Members from discriminating between foreign services and services providers.[9]

Exporters of services need a transparent economic and legal framework if they are to operate in a foreign market. Article III of the GATS therefore contains a general obligation on transparency to publish all measures related to services trade.

Provisions for further negotiations on rulemaking relate to domestic regulation (Article VI), emergency safeguard measures (Article X), government procurement (Article XIII) and subsidies (Article XV).

For sectors where WTO Members have made specific commitments, Article VI deals with domestic regulation. Since it would be worthless to negotiate market access and national treatment commitments which could then be offset by restrictive domestic regulations, the GATS aims to ensure a predictable regulatory environment. Measures affecting trade in services must be administered reasonably, objectively and impartially and should not constitute unnecessary barriers to trade. They should also be 'necessary' in the sense that they must be adequate and proportional to the objective sought.

On safeguards, some WTO Members consider that countries should have a mechanism to intervene if import surges occur. The discussion is difficult as not only is there no agreement on the need for such an instrument, but also its operation would be very complicated. Statistics for measuring trade in services are currently unreliable, rendering it difficult to measure whether the conditions to trigger any mechanism would be met and the existence of a safeguard clause would affect existing foreign investments.

[9] When the GATS first entered into force, Members were able to seek exemptions to their MFN obligations. MFN exemptions are, in principle, to last no longer than 10 years and are subject to negotiation in the ongoing round. Article V authorises services trade liberalisation in the context of regional integration agreements if they have substantial coverage, and provide for the absence, or elimination, of substantially all discrimination in the sectors covered.

Procurement of government services by government agencies are not subject to liberalisation provided they are not sold or used for commercial purposes. This will require more attention as in many services sectors more than half of total trade is carried out through public procurement activities and international tendering would bring efficiency gains and lower prices. Negotiations on government procurement were originally scheduled to start in 1997 but a work programme was not finally adopted until July 2002. The scope of the mandate is still under discussion. Some Members want to restrict the scope of the negotiations to transparency issues.

For subsidies, services trade does not benefit from any specific rules. The GATS merely provides the right to consult in certain situations and a commitment to negotiate specific rules later. A work programme on subsidies was adopted in 2002 and the gathering of information on existing services subsidies is under way. It mainly seeks to define those subsidies that are acceptable in all cases and those which should always be prohibited (see Section 9.5.7).

8.2.2 Specific liberalisation commitments

Apart from the obligations which are binding on all WTO Members, all other GATS commitments apply to Members to the extent that each has accepted them on a sector-by-sector basis. A Member can make commitments (by mode of supply) to open its market to foreign service suppliers (market access – Article XVI) and/or to guarantee similar treatment to that granted to domestic operators (national treatment – Article XVII). These schedules are listed in a 'schedule of specific commitments' for each WTO Member. There is no minimum for the number of sectors to be included. Some countries have scheduled all the major sectors while others have bound only a limited number (although, to date, all Members have committed at least one sector - usually tourism). Members can also make market access and national treatment commitments *across* sectors (again for each mode of supply) in what are known as horizontal schedules of commitments. Members are free to tailor the sector coverage and substantive content of sectoral and horizontal schedules as they see fit.

Sectoral and horizontal commitments and any limitations that may be attached inscribed in a Member's schedule of commitments constitute legally binding obligations.

Article XVI lists a range of measures that restrict market access which a Member cannot maintain or adopt, unless stipulated in its schedule of commitments. These measures include limitations on:

1) the number of service suppliers;

2) the total value of services transactions or assets;

3) the total number of services operations or the total quantity of service output;

4) the total number of natural persons that may be employed in a particular sector;

5) specific types of legal entity through which the service can be supplied; and,

6) foreign equity participation.

The onus is on the committing country to provide for the limitations to the application of GATS rules that it wishes, in terms which are clear and effective for that purpose.

Article XVII states the national treatment obligation. Domestic laws and regulations affecting domestic services and services suppliers can apply no less favourably to foreign services and services suppliers. Unlike Article XVI it provides no exhaustive list of measures inconsistent with national treatment. Nevertheless it makes clear that all *de jure* and *de facto* limitations that favour domestic suppliers must be scheduled if they are to be maintained.

Within the sectoral schedules:

- An entry of 'none' indicates that a Member is bound to not having or introducing any measures that violate market access or national treatment for a specific sector and mode of supply (but any limitations set out in the horizontal schedule may still apply).

- The tern 'unbound' indicates that no commitment has been made for a particular mode of supply, and the Member is free to introduce limitations inconsistent with Articles XVI and XVII.

- 'unbound*' appears for sectors in which a particular mode of supply is not technically feasible e.g. cross-border supply of water infrastructure services.

- All other entries which include specification of some commitments and limitations are known as 'partial commitments'.

Summing up, specific commitments can be seen as the outcome of a two-stage decision process. Each Member first decides which services will be subject to the market access and national treatment disciplines of the GATS. It then decides what measures will be kept in place for that sector which could violate its market access and national treatment obligations. Viewed another way, the GATS offers a number of options for Members that wish to exclude a sector from the GATS or restrict the extent of its commitments. First a country can simply decline to make a commitment in the sector. Second, the country can apply horizontal restrictions to all services by mode of supply. Third, countries can make commitments in the sector, for each mode of supply, subject to market access and national treatment limitations. Finally, a country could ultimately withdraw its membership from the WTO and, therefore, the GATS altogether (although no country to date has done this).

8.2.3 Progressive liberalisation

Part IV of the GATS sets out future objectives and the time frame for negotiations on services. As a result of the Uruguay Round, WTO Members committed under Article XIX of the GATS to resume negotiations on all services sectors by later than 1 January 2000 – the 'GATS 2000' negotiations. On the basis of this, all WTO

Members were committed to start a new round of negotiations, with a view to *achieving a progressively higher level of liberalisation*. These negotiations were to be comprehensive covering all sectors. Article XIX emphasises the need to take into account the interests of all participants on a mutually advantageous basis as well as to provide for special and differential treatment for developing countries. These prerequisites were reiterated by the Doha Ministerial Declaration which stated that:

> *'The negotiations on trade in services shall be conducted with a view to promoting the economic growth of all trading partners and the development of developing and least-developed countries. We recognize the work already undertaken in the negotiations, initiated in January 2000 under Article XIX of the General Agreement on Trade in Services, and the large number of proposals submitted by Members on a wide range of sectors and several horizontal issues, as well as on movement of natural persons. We reaffirm the Guidelines and Procedures for the Negotiations adopted by the Council for Trade in Services on 28 March 2001 as the basis for continuing the negotiations, with a view to achieving the objectives of the General Agreement on Trade in Services, as stipulated in the Preamble, Article IV and Article XIX of that Agreement. Participants shall submit initial requests for specific commitments by 30 June 2002 and initial offers by 31 March 2003.'*

Source: Doha Declaration WT/MIN(01)/DEC/1, 20 November, 2001.

As part of this, and according to Article XXI, Members can modify their schedules of specific commitments or withdraw any commitment within three years of it entering into force. In such circumstances, any Member may ask for compensation which, if agreed upon, must be extended to all Members (the so-called rule on "irreversibility" discussed below).

8.2.4 Dispute Settlement and Final Provisions

Part V of the GATS sets out institutional provisions for consultation in case of disputes between Members and assigns the WTO's Dispute Settlement Mechanism to resolve and enforce decisions should Members be unable to agree among themselves. Part VI contains the final provisions, including conditions under which a Member may withdraw benefits from another Member and eight Annexes which deal with MFN exemptions, movement of natural persons, air transport services, financial services (2 annexes), maritime transport services and telecommunications (2 annexes).

8.3 The current pattern of commitments[10]

Given the flexibility provided under the GATS, it is difficult to directly compare specific schedules of commitments among all WTO Members. Members have, in principle, complete discretion in selecting which services to make commitments in, under any of the four modes of supply, and whether to include any limitations to liberalisation. The range of scheduling options also includes the possibility to depart from the common classification list, to restrict foreign access to regions within the country and to phase-in commitments at a future date. Moreover, developing countries are covered by flexible provisions in the agreement allowing them to commit fewer

[10] NB: The information supplied is at the time of the carrying out the research for this report, i.e. in November/December 2004.

sectors and liberalise more slowly in line with their development needs (Article XIX:2).

Any analysis of current commitments across WTO Members, sectors and modes of supply must, therefore, be interpreted with caution.

About one-third of Members have scheduled less than 20 of the 160 sub-sectors specified in the GATS classification list, one-third have committed between 21 and 60 sub-sectors and the remaining members have included between 61 and 130 sub-sectors. The last group includes virtually all developed countries but also some developed and Least Developed Countries (Gambia, Lesotho and Sierra Leone) – see Table 5.

Table 5: GATS commitments by Member

Number of committed sub-sectors	Number of WTO Members	WTO Members
≤ 20	44	Angola, Bahrain, Bangladesh, Belize, Benin, Bolivia, Botswana, Burkina Faso, Cameroon, Central African Republic, Chad, DR Congo, Congo, Djibouti, Fiji, Gabon, Grenada, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Madagascar, Maldives, Mali, Malta, Mauritania, Mozambique, Myanmar, Namibia, Niger, Paraguay, Rwanda, St. Kitts and Nevis, St. Lucia, St. Vincent and Grenadines, Suriname, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia
21-60	47	Antigua and Barbuda, Argentina, Barbados, Brazil, Brunei Darussalam, Burundi, Chile, Colombia, Costa Rica, Côte d'Ivoire, Cuba, Cyprus, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Ghana, India, Indonesia, Israel, Jamaica, Kenya, Kuwait, Macau, Malawi, Mauritius, Mongolia, Morocco, Nicaragua, Nigeria, Pakistan, Papua New Guinea, Peru, Philippines, Poland, Qatar, Romania, **Senegal**, Singapore, Solomon Islands, Sri Lanka, Trinidad and Tobago, United Arab Emirates, Uruguay, Venezuela, Zimbabwe
≥ 61	45	Australia, Bulgaria, Canada, Czech Republic, EU (15), Estonia, Gambia, Georgia, Hong Kong, Hungary, Iceland, Japan, Jordan, South Korea, Kyrgyz Republic, Latvia, Lesotho, Liechtenstein, Malaysia, **Mexico**, New Zealand, Norway, Panama, Sierra Leone, Slovak Republic, Slovenia, **South Africa**, Switzerland, Thailand, Turkey, United States

Source: Adlung *et al.* (2002).

By sector, the services most frequently included in Member's schedules of commitments are those areas traditionally considered to carry low levels of restrictions (tourism) but also core services such as financial services and communications (see Table 6). The fewest commitments have been made in social sectors like education, health and sewage/sanitation (included under environmental services - see Section 8.4). Governments have been apprehensive to commit these sectors to the market access and national treatment disciplines of the GATS since within them market failures are particularly acute and governments are heavily involved as regulators, providers and distributors.

Table 6: GATS commitments by sectors

	Business services	Communications	Construction services	Distribution	Education	Environmental
No. of WTO Members	89	86	61	39	33	34
	Financial services	**Health services**	**Tourism services**	**Recreational services**	**Transport**	**Other services**
No. of WTO Members	95	34	116	51	71	8

Appendix 2 contains a summary of commitments in water-related activities currently classified under environmental services. Only 34 out of 147 WTO Members have made commitments for their sewage and sanitation services under the GATS. For these sectors, they have not made any commitments for mode 1 (cross-border supply of water *services* is not technically feasible)[11] and most commitments (with very few limitations attached) have been made for modes 2 and 3 (the latter possibly explaining the desire of some countries to 'flag' water as a sector for investment to foreign investors). However, the scope of commitments for modes 2 and 3 is restricted in a number of cases by horizontal limitations and restrictive definitions of the activities covered (WTO, 2003). For mode 4, only Iceland, the US, Latvia, Morocco, Rwanda, Thailand and Turkey have made binding market access and / or national treatment commitments. So far, the GATS has achieved little by way of actual liberalisation. While establishing new rules, initial commitments have maintained the *status quo* instead of actually deepening liberalisation.

8.4 The negotiation process: request and offer

Although the basic rules and principles for the liberalisation of services trade were included in the GATS during the Uruguay Round, many issues remained unresolved. During the Uruguay Round there were few commitments sector by sector. As a result, while GATS covers all services sectors, only a few Members entered commitments in a comprehensive way. The GATS, therefore, was very incomplete in terms of individual sectoral commitments as services negotiators embarked on the GATS 2000 discussions.

The framework of GATS disciplines is also very much under construction with work outstanding on a number of rules. As the work could not be completed during the Uruguay Round, it was agreed to continue after it during the GATS 2000 negotiations. The leftover issues include those for domestic regulation, autonomous liberalisation, safeguards, subsidies and government procurement.

Since the Uruguay Round negotiations, progress in the GATS 2000 discussions has been uneven due to problems in other negotiating areas such as agriculture. Nevertheless the request and offer process is under way; modalities for the treatment of autonomous liberalisation have been agreed; the issue of emergency safeguard clauses has received attention and disciplines on domestic regulation are being

[11] Although, of course, cross-border supply of water as an economic *good* is technically feasible.

explored. However, negotiations on subsidies and government procurement have enjoyed less success. The Doha ministerial instructed that GATS 2000 should be part of a single undertaking due to finish by 2005. Having failed to progress substantially at the Cancún ministerial meeting, it was agreed in Geneva (on 31 July 2004) to set a revised deadline (May 2005).

Under the GATS negotiating process, individual countries make requests to other countries by asking them to commit particular sectors to the market access and national treatment disciplines of the GATS, then make offers based on the requests they have received and what they themselves are willing to commit.

Initial submissions are often indicative and are subsequently elaborated at a later date or simply replaced. The request process is bilateral and Members submit requests in the form of a letter asking a country to add commitments for a service sector or to remove certain market access or national treatment limitations from a sector which has already been scheduled. Requests can also be used to ask a country to clarify the meaning of a limitation it has included in its schedule of commitments. Initial requests have tended to be comprehensive as negotiators know that only some of their demands may be met.

Offers are used to respond to some or all of the requests made to a Member and take the form of a draft schedule of commitments. Offers are distributed to all WTO Members (not only those who have made requests) and subject to multilateral negotiation. Offers can generate more requests as part of the negotiation process although not all countries may make requests or submit offers. A country is not required under the GATS to offer any liberalisation commitments and each country should only make offers for services liberalisation in response to requests from other Members.

Requests and offers under GATS are usually not public, but the initial requests of the EU to 109 countries were made available (requests to the EU have also been made public, but not by country). Core to the EU's negotiating position is the reclassification of 'environmental services'. Under the proposed classification, 'water for human use and waste water management' become a new GATS sub-sector. The EU initially, in 2002, requested that 72 countries make commitments to open up the 'water distribution' sub-sector in the current negotiating round (see Appendix 3). Some Members have incorporated environmental services commitments in their initial offers: Hong Kong; Korea; USA; New Zealand; Norway; Panama; Japan; Iceland; and, Switzerland. It is on the initial 2002 requests that this study has focused.

Subsequently, in *revised* requests in January 2005, the EC modified its approach. In comparison with the initial requests, the revised requests include a number of clarifications and a reduction of the scope of the requests, especially for LDCs. The revised requests place more focus on advisory (consulting) services where commitments are notably requested for cross-border supply. In the same vein, the requests under other environmental services are restricted to environmental impact assessment and environmental risk analysis, two key activities for sustainable development. For infrastructure services (water and solid/hazardous waste) the request makes a clearer distinction between services supplied directly to business (notably industrial customers), where more ambitious commitments are sought, and

Box 3: Environmental services under the GATS

While there is no agreed template on what environmental services constitute in the WTO, they are included as one of the 12 sectors in the Services Sectoral Classification List which is based on the UN Provisional Central Product Classification.[12] The current definition in use includes: sewage services, sanitation services, refuse disposal services, cleaning of exhaust gases, noise abatement services, nature and landscape protection services. This definition of environmental services has been criticised for being too narrow and not reflecting market realities (Zarrilli, 2003). In addition, several WTO Members are of the view that the UN classification needs to be updated (WTO 1999; 2000) and highlight a series of other drawbacks: i) it establishes only partial correlation with environmental media (air, water, solid and hazardous waste, noise), especially in the case of water and solid waste; ii) it is limited to 'end-of-pipe' services (i.e. it does not cover sustainable resource management); iii) it includes services provided in operation, but not services that make facilities operable; and, iv) it does not capture services provided directly to industry (see Andrew, 2003).

Commitments under GATS were made and can be made according to the UN definition or Members' own sectoral or sub-sectoral classification or definition, with 'sufficient detailed definition to avoid any ambiguity as to the scope of the commitments' (WTO, 2001c). However, many countries argue that there is a need for stability in services classification and that any revisions should be agreed multilaterally so that offers that countries make during negotiations are comparable.

the traditional public services (notably municipal services), where the request is more focussed. In particular, countries (or their local authorities) would keep the possibility (i) to apply exclusive rights (for instance through concessions); (ii) to choose freely the management arrangements for the service (for instance municipalities managing the service directly); (iii) to choose the mode of attribution of the exclusive rights (open competition or not); and, (iv) to change from one mode of management to another (for instance, at the end of a concession contract to return to a public or cooperative management mode). However, in cases where the authorities decide to award exclusive rights through a competitive procedure (call for tender), foreign operators would be granted national treatment in the bidding procedure (possibility to bid) and, if they are chosen, in the operation of the service. For Least Developed Countries, environmental services would be an optional sector to commit, within a group of 5 sectors (telecommunications, financial services, transport, construction, and environmental services).[13]

In contrast to the requests made to its trading partners, the EU's conditional *offer* (made on 29 April, 2003) under the GATS, included sanitation services, but excluded water for human consumption. In addition, the EU offer excluded 'public work functions owned or operated by municipalities, state or federal governments or contracted out by those governments.' (European Commission, 2003b). Similarly Canada, Switzerland and the US have all excluded drinking water services from their GATS offers. While Canada covers engineering services encompassing 'project management services for water supply and sanitation works, turnkey projects', it excludes sewage and sanitation services and makes no mention of potable water services. The US offer is more clear in that it 'excludes water for human use'.

[12] Services Sectoral Classification List, Note by Secretariat, MTN.GNS/W/120.
[13] Abstract of the summary of the 2005 *revised* requests available from DF Trade's web site: http://trade-info.cec.eu.int/doclib/cfm/doclib_section.cfm?sec=176&lev=2&order=date

9. CONSISTENCY BETWEEN THE TRADE AND DEVELOPMENT OBJECTIVES OF EU POLICY: CASE STUDIES FROM MEXICO, SENEGAL AND SOUTH AFRICA

From the preceding reviews of the global water crisis, private sector participation in the provision of water services and the GATS, we continue by examining how the EU's objectives in the ongoing GATS negotiations on liberalisation of water services relate to the EU's development policies in relation to the sector: are the 'pro-trade' and 'pro-development' objectives of EU policy in relation to the water sector consistent and coherent? 'Pro-trade' in the context of services refers to the GATS principles of market access and national treatment (see Section 8.2.2) and the promotion of *foreign* private sector participation in the provision of water services in developing countries. 'Development' is of course a broad term with various interpretations and definitions. However, the current EU development policies on water are set out in the recent EU Water Initiative (see Section 9.2), which we use for the purpose of this analysis. These are essentially to support provision of improved water access for the poor in low and middle-income countries.

Three countries were selected for case study: Mexico (representative of a developing country in Latin America), South Africa (representing a developed country in Africa with high inequality) and Senegal (to represent a Least Developed Country in Africa). These are selected so as to include a range of different examples both by level of development and geographic region. Other key characteristics include:

1) domestic and foreign private sector participation in the provision of water services for the poor (all three countries);
2) scheduled commitments for sewage and sanitation services as being subject to the market access and national treatment disciplines under the GATS (South Africa); and,
3) requests received from the EU in the current round of GATS negotiations to bind access to their water distribution sectors (all three countries).

The results from each study help to illustrate different aspects of the foreign PSP and development debate, according to differences in both the statuses of water services and the decisions which have been taken by the public authorities in these countries**.**

The method has been to carry out research through interviews with representatives of key actors (see Appendix 7), as well as a desk study of written materials, in order to discuss the various perspectives on foreign PSP and its impact on social and developmental objectives in the water sector. Each is a 'live' example of how this interaction is currently manifesting itself in practice, with indications as to how it may do so in future.

The focus of the case studies has been on the provision of water services in the urban context because, in low and middle income countries, it is only in the largest conurbations that private water companies with international operations are participating i.e. where a market for international water companies currently exists.[14]

[14] This is not to ignore the fact that provision of safe, sustainable water services in *rural* contexts, in line with the targets set out in the Millennium Development Goals, also represents a great (or even greater) development challenge.

9.1 EU Position on the liberalisation of water services under the GATS

As discussed in Section 8.4, a key element of the EU's negotiating position in the GATS negotiations is the reclassification of 'environmental services'. The EC has proposed since 1999 a new classification of environmental services aimed at better reflecting trade and sectoral realities, in which the services are classified according to the environmental media (i.e. air, water, solid and hazardous waste, noise etc.). Water purification and waste water treatment (sewage services) were already described as environmental services in the existing classification. The EC proposal adds the distribution of water under a sub-sector on 'water for human use' to reflect the fact that all aspects of water service provision (water collection and treatment, supply, wastewater treatment) must be considered together as they are part of the same water cycle. The fact that it has not previously been specifically included within the GATS sectoral classifications is the principal reason why no government has yet made a commitment in water distribution.

9.2 EU position on the development of water services: The EU Water Initiative

The EU Water Initiative (EU WI) was launched at the World Summit on Sustainable Development (WSSD) in Johannesburg in September 2002. It aims to align existing EU spending on water-related development by concerted action of different parts of the European Commission. The key goal of the EU WI is expressed to be the EU's commitment to the Millennium Development Goals (MDGs), particularly the targets on water supply and sanitation, within the context of an integrated approach to water resources management (IWRM). The targets aim to *reduce by half the proportion of people without sustainable access to safe drinking water by 2015 and halve by 2015 the proportion of people without access to basic sanitation.*[15] In other words, as contemplated by the EU WI, a key goal, in the medium/long term, of the 'development policies of the EU' is the provision of water services to populations in low and middle-income countries who do not have adequate access to them.

The key elements of the EU WI are to:-

- reinforce political commitment to action and raise the profile of water and sanitation issues in the context of poverty reduction efforts;
- promote better water governance arrangements, improve co-ordination and co-operation in the way that water-related interventions are developed and implemented;
- encourage regional and sub-regional co-operation on water management issues, using the integrated water resources management approach
- catalyse additional funding.

The EU WI has a 'strong regional focus' (European Commission, 2003c) with 'modules' in sub-Saharan Africa, Eastern Europe, Caucasus and Central Asia, Asia, Mediterranean and Latin America.

[15] The sanitation target was added by the WSSD in 2002, together with a target to develop integrated water resources management and water-efficiency plans by 2005.

The origin of the EU WI was an EU Council resolution adopted in May 2002 endorsing the Commission "Communication on water management in developing countries" of March 2002,[16] which stressed the need to integrate sustainable water management in national and regional development strategies and to support partner countries in developing sustainable solutions. Such solutions would be sought, as alluded above, within the over-arching policy framework of IWRM, based on a river basin approach, which combined with strong public participation, transparency and accountability, can play a critical role (e.g. particularly for sustainable development and conflict prevention in the case of transboundary waters).

This Communication and the Council Conclusions identified a number of clear priorities, as set out in Box 4.

Box 4: Priorities of the EU Water Initiative

- Ensure a supply of sufficient, good quality drinking water, adequate sanitation and hygiene to every human being, especially the poorest and with a clear focus on the needs of women and children, with the general objective of reducing poverty and improving people's health, quality of life and livelihood opportunities;
- Develop sustainable and equitable transboundary water resources management taking into account all relevant interests, integrating the competing needs of the various users and facilitating South-South co-operation;
- Implement cross-sectoral coordination to ensure equitable, sustainable and appropriate distribution of water between users of different kinds. This requires the mainstreaming of water management principles into related policy area.

A subsequent EC publication (European Commission, 2003c), noted that progress towards achieving the MDG poverty reduction targets, as embraced by the EU WI, was dependent on pursuit of the key objectives which the EU says are 'universally recognised':

- Reinforcement of political commitment towards action and innovation oriented partnership (i.e. raising the policy profile of water within national and regional agendas and particularly with governments);
- Promotion of improved water governance, capacity building and awareness (including political and sectoral reform as necessary);
- Improved efficiency and effectiveness of water management through multi-stakeholder dialogue and coordination;

[16] COM(2002)132 of 12 March 2002, 'Water Management in Developing Countries Policy And Priorities for EU Development Cooperation'. http://register.consilium.eu.int/pdf/fr/02/st08/08958f2.pdf

- Strengthened co-operation through promoting river basin approaches in national and transboundary waters;

- Identification of additional financial resources and mechanisms to ensure sustainable financing.

Much of the attention of the EU WI will be towards the second objective, to support improved water governance. This is a broad concept which, as noted, may include 'political and sectoral reform as necessary'. Clearly one type of sectoral reform which may be made in the water sector *inter alia* is a switch from public to private provision of water services (or a combination of the two) and regulation of these activities.

In relation to the third objective on multi-stakeholder dialogue and coordination, private sector involvement is mentioned in the general statement on the EU WI: 'The evidence suggests that partnerships between public, private and civil society actors are the most adequate way to ensure improved efficiency and effectiveness of water management' as long as they are 'equitable, transparent, safeguard consumers' and investors' interests.' (European Commission, 2003c, p. 22).

The fourth objective concerns increased financing for water services. In this regard EU policy, as recently expressed by the Commission, is that: "there is a need for a significant increase in funding for water and sanitation to achieve the MDG targets, as well as a need to develop better mechanisms to use development aid to leverage other resources (private, development banks, financial institutions, users' contributions, remittances, etc). The work done under both the Finance Working Group of the EU Water Initiative and by the World Panel on Financing Water (Camdessus Panel) in 2003 has shown that the present level of funding is not sufficient. New innovative and flexible funding mechanisms are needed, and ODA should be used to leverage other resources to finance water and sanitation. The Camdessus Panel report 'Financing Water for All' stresses that "the flow of funds has to roughly double, with the increase to come from all sources" (source: informal communication from DG Development)".

One of the principal goals of opening the water sector to PSP, and particularly foreign suppliers, has been to increase much needed capital investment in the sector.

The Commission Communication of 2002 on Water Management in Developing Countries (COM(2002)132), approved by resolution of the European Council, called for partnerships between public, private and civil society actors to be promoted, ensuring that those partnerships remain equitable and transparent, allow free and reversible choices on water services management, safeguard consumers' and investors' interests and maintain high standards of environmental protection.

Commission policy in this area was reinforced at the end of 2003 in a Communication (COM(2003)326) entitled: "The Reform Of State-Owned Enterprise In Developing Countries With Focus On Public Utilities: The Need To Assess All The Options". This Communication was approved both by the Council and European Parliament. It calls for the Commission to play a greater role in the reform process of public enterprises, a task left until now to the Bretton Woods Institutions, especially the World Bank. This Communication set out EC policy that *inter alia:*-

- the Commission would take a neutral stance on the ownership of any enterprise in conformity with Article 295 of the EC Treaty relating to the EU internal market;
- before a decision was taken to reform a state owned enterprise or public utility, all the reform options should be reviewed and their social economic and financial consequences assessed;
- the best option should only be chosen on the basis of this assessment and be transparently implemented with adequate regulatory frameworks and monitoring mechanisms in place.

The first report (October 2003) of the Finance Working Group of the EU WI included, as an appendix, guidelines on water governance which emphasised that the primary responsibility for provision of water services should rest with national public authorities, although there is a need to involve a broader range of stakeholders.

Although not explicitly stated in the EU WI, all of its objectives could have impacts on social and developmental aspects of water service provision, particularly:

- **connections**: extension of coverage of piped water networks to poor districts and households;

- **service**: improvement of the quality and regularity of supply of water to households, including poor households; and,

- **pricing:** whilst payment for water use is a key economic instrument in water management, pricing includes design and application of 'social tariffs', i.e. tariff structures which allow differential pricing and include special treatment for poor households.[17]

9.3 Key research questions

Having discussed the background to the case studies, we proceed by highlighting the key issues addressed in each. A first key question addressed in each case study was the extent to which private operators (especially foreign providers) are participating in the provision of water services: how much are they open to an international market for PSP outside the GATS framework (given that only limited commitments that have been made for sewerage and sanitation services and water distribution has yet to be included as a sub-sector under the GATS)?

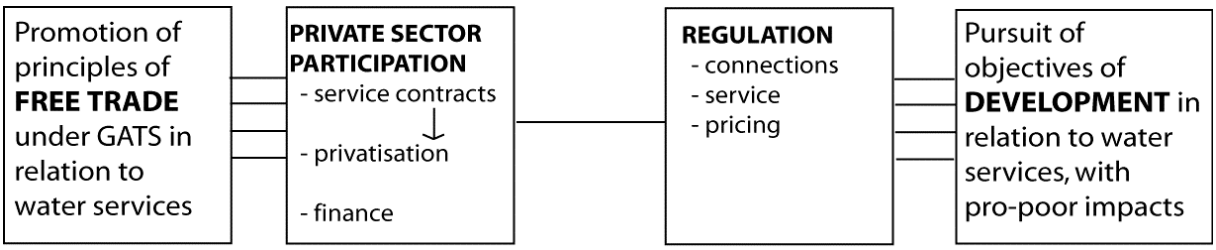
A second key question is the perceptions of GATS disciplines and their applicability to water services in each case study country: whether the benefits of PSP and the regulatory 'space' (Mehta, 2004) needed for governments to secure their citizens' sustainable access to water services would be enhanced or constrained by GATS principles promoting foreign private provision. If pro-trade and pro-development objectives *are* to be compatible and convergent in relation to water services, it must be possible at a national level to liberalise the water services market according to

[17] OECD (2003b) shows that social tariffs are operated in high/middle income countries and the case for their design and development - over time - in developing countries is compelling. Tariffs may also be designed in pursuance of environmental goals (e.g. for reduction of levels of water consumption).

GATS principles and be able to benefit from greater efficiency (pricing and quality of service) and financing (connections) with achievement of pro-poor impacts.

In particular, the introduction of (foreign and domestic) PSP involves modifying the role of public water authorities. The key role change is from provider of water services to overseer and regulator by private sector operators. It is, therefore, important that governments maintain their ability to regulate according to their social and developmental priorities in the sector (see Figure 6[18]).

Figure 6



[18] While, as Figure 6 indicates, the types of private sector participation range from service contracts to privatisation, it is not suggested that service contracts automatically lead to privatisation.

9.4 The status and objectives of private sector participation in the water sector in Mexico, Senegal and South Africa

9.4.1 Mexico

Mexico provides an example of water-related poverty in low-income regions within a middle-income country. Significant gaps in water service provision exist in both peri-urban areas around many cities and rural regions. More than 500,000 southern rural households are without running water and nearly 1 million households without sanitation.

Mexico's national water regime, established in 1992, has been designed to promote PSP. After the first experiences of private water service contracts, including substantial European involvement, with a mixed record of successes and failures, a second generation of PSP is in prospect.

A decade of privatisation has seen efforts to promote small-scale operators (in cities of 50,000 inhabitants and over) and involvement of international water companies in major centres. In late 1993, the Federal District of the Mexico City Metropolitan Area (MCMA) was divided into 4 zones and service contracts placed with Mexico-international joint ventures, according to a 'gradualist' approach of progressive hand-over to the private sector (see Appendix 4). Those first contracts, including *Vivendi* (now *Veolia*) and *Ondeo* of France and *United Utilities* of the UK, have recently reached their duration. Other cities, such as Monterrey (in the north) and Aguascalientes (centre), have granted concessions to Mexican-European groups, with a model water culture said to be developing in the former city and political contestation and difficult re-negotiation affecting the latter (see Appendix 5). The policy of privatisation is intended to contribute to the extension of water services to new customers, including the 'development of service providers capable of supplying services in a self-sustaining manner' and 'user-financed' investment to fill 'the existing service gaps and meet new demands', so that public 'subsidies which are not justifiable in social and economic terms will be progressively eliminated' (National Hydraulic Plan 2001-2006).

Liberalisation of the water sector in Mexico began during the term of President Salinas with reform of federal water policy in the late 1980s which promoted the notion of water as an economic good and endorsed the use of market mechanisms to manage water resources (see Box 5).

Under Mexican law, responsibility for the provision of urban water supply has been passed to municipalities, although in practice substantial supervisory powers are exercised at State (in State Water Commissions) and Federal levels (in the National Water Commission – *Comisión Nacional del Agua*).

As to the reasons for introducing PSP: 'The rationale was that the higher efficiency of a private sector provider would lead to replacing the existing culture of under pricing and non-payment by a commercially sound system based on charging for water services and therefore collecting higher revenues, which in turn would increase the investment capacity needed to renew and expand infrastructure and achieve the system's sustainability' (PRINWASS, 2004).

It was also thought that by introducing PSP, water service programmes would be less disrupted by one of the main weaknesses of public administration of water (and other) services in Mexico, namely lack of continuity caused by frequent changes in the composition of the technical and administrative boards at municipal level every three years.

Box 5: Water sector reforms in Mexico

During the 1980's … important modifications were made in the institutional and legal structure to make PSP possible for water services … Mexico's highly centralised administration of public services of potable water and sanitation, managed by the federal government, was decentralized and handed over to state and municipal governments, in order to allow PSP in the administration of services in the 1990's.

Up until 1982, the responsibility for management of urban and industrial water resources belonged to the Secretariat of Hydraulic Resources (SRH). In 1982, the SRH was replaced by the Secretariat of Urban and Ecological Development (SEDUE), which became responsible for regulation and management of water resources, mainly for urban and industrial use. Then, in 1989 the National Water Commission (CNA) was created as a decentralized organism of the Secretariat of Agriculture and Hydraulic Resources (SARH), and in 1994 water management became the responsibility of the Secretariat of Natural Resources and Fishing (SEMARNAP), in 2000 replaced by the Secretariat of Environment and Natural Resources (SEMARNAT).

Closely related to these institutional reforms in the field of water resources, changes were also made in legislation, first to introduce principles of economic rationality and later to facilitate the conditions for promoting PSP and creating water markets. In 1983, article 115 of the constitution was reformed, transferring the responsibility of water and sewerage system management from the federal government to the municipalities. This article established that supplying potable water, sewerage and wastewater services was the exclusive responsibility of the municipal governments. Then, in 1986 the Federal Law of Water Fees was reformed, introducing water abstraction fees and oriented at promoting higher efficiency in water uses. This law was reformed in 1990, when extraction fees were updated, and again in 1991 when fees for the discharge of polluted wastewater were established.

In 1992 a constitutional reform to article 27 created legal conditions for formally establishing land and water markets in Mexico. This same year, the National Water Law was passed, making PSP possible, creating institutions for management and consultation at basin level, and allowing user participation in the administration and operation of irrigation systems throughout the country. Finally, in 2004, with reforms to the National Water Law, the administrative management of basins was consolidated into newly created governmental bodies, the Basin Organisms. This law also gave the CNA the ability to grant integral or partial concessions for operation, conservation, maintenance, rehabilitation and extension of hydraulic infrastructure built by the Federal Government and the respective supply of services, as well as the responsibility for administering operations regulated by transfers of water rights, denominated 'water banks'. *Ejidatarios* and communal landowners were given the possibility to transfer both their land property titles and their water rights.

Along with transformations at the federal level, modifications also had to be made to the legislation of the provincial states.

Source: PRINWASS (2004).

The process of introducing PSP in the Federal District, as planned in 1993, was to be carried out in three stages, as set out in Box 6.

Box 6: Planned stages of the first phase of PSP in the Federal District

Stage 1: Initial Activities
- mapping of the secondary water distribution network
- completion of a customer census
- installation of meters for all customers

Objectives: to obtain reliable information on users and the state of the distribution and drainage network, and provide both operators and consumers with complete and reliable information on consumption levels.

Stage 2: Customer-Oriented Tasks
- regularization of billing (meter reading, maintenance and the sending of bills)
- shared role in collection of bills
- establishment of customer care centres and telephone care centres
- connect new customers

Objectives: to increase revenues, raise consumer consciousness about the careful use of water and the punctual payment of bills, and ensure billing of all customers.

Stage 3: Network-Oriented Tasks
- operation and maintenance of the secondary water and drainage networks
- detection and repair of visible and invisible leaks (water and drainage)
- rehabilitation and extension of the secondary network (water and drainage)

Objectives: to improve efficiency and quality of water distribution and drainage service to consumers, recover water previously lost through leaks, and reduce operating costs.

Source: Haggarty et al (2001).

Payment to the private contractors during Stages 1 and 2 above was to be on a fee-for-service basis, incurring little commercial risk (assuming their capacity to achieve delivery of the services in question). The idea was that an element of performance-based remuneration be introduced by Stage 3. This would have entailed assumption of higher risk, and potentially greater reward.

In the event, the reality of PSP has been more limited. Although forecast to begin after approximately two years, the third stage did not begin as planned, and, after the election of a new Federal District government which took power in December 1997 (the first to be democratically elected), the original contracts were re-negotiated in 1998. Instead of the private contractors being given full control of operations and maintenance of the secondary network as originally envisaged, the new administration chose to use the contractors to supplement the work of existing organisations in improving the system, by making the contractors more active in leak repair and

upgrading or repairing the secondary network, but on a fee-per-action basis. Whilst new actions have been added to the original plan, these do not substantially redistribute risk and reward between the public and private actors.

The choice of the Federal District authorities has been to engage the private sector in predominantly 'commercial' functions, those listed under Stages 1 and 2, namely meter installation and reading, billing and collection, and customer management (through customer reception 'agencies', six in each zone) with only limited involvement in works designed to renovate or extend water supply infrastructure. As of 2001, no orders for new connections, planned under stage 2, had been signed.

As well as being very partial in scope as far as the provision of water services was concerned, the intention was not that the introduction of PSP should tackle the serious water resource problems facing the city, although the idea was to contribute to a reduction in consumption and waste (both physical and financial losses). Consistent with the original plan, the public authority has retained sole responsibility for water resource management.

The World Bank expresses the view that the reforms were, furthermore, not specifically intended to improve access for the poorest of the city's citizens, but rather to generally increase efficiency in service provision.

As to the advantages of the gradual approach to introducing PSP, it offered the possibility of building up confidence and trust in PSP, within public authorities, and between them and the private operators, and also among the general public, whilst allowing time for the design of regulatory arrangements – thereby helping to avoid social and political opposition often faced by more rapid and radical forms of PSP. Several of the interviewees commented that this gradual approach to contracting has proved appropriate in the Federal District of Mexico City, in that the relationships with the private contractors has been maintained through the different stages of the first ten years and into a new phase, avoiding the kind of upheaval seen in other places, e.g. Aguascalientes, where the concession which was granted by the city was subsequently suspended and a major confrontation and conflict with the private operator ensued.

As reported in interviews with representatives of the public authority and regulator, SACMEX, and two of the private sector consortia (for the northern and south-eastern zones), a second round of PSP contracts has recently been signed in the Federal District. The first round contracts expired at the beginning of 2004 and since then new contracts have been placed with the same private sector companies.

SACMEX states that the new contracts are *sui generis*, in that they mix provisions found in service contracts with those more reminiscent of concessions, with incentives and risks. The companies acknowledge the addition of an incentive arrangement: where companies can increase rates of bill collection, they will receive a percentage share of the increase.

The duration of these new contracts is for 5 years only (as compared with the first period of 10 years), which means that the contract will come under review again relatively soon - as one interviewee commented, after the next round of elections in

the city and the country (it seems that, despite the introduction of PSP, the change of mandate of locally elected representatives is still affecting the planning of water services).

The new contracts were placed without a competitive bidding process which seems to indicate overall satisfaction with performance of those operators during the first phase (the absence of a competitive tendering process is considered in Section 9.5.2 from a GATS perspective).

Decisions on price levels to be paid by water users in the Federal District are made by the public sector.

In summary, within the Federal District, at least under the two contractual rounds to-date, only a small component of water services has been delegated to private service providers. Much remains under public sector management and control, including not only the primary challenge of bringing sufficient amounts of the water resource to the city, but also managing the secondary network, including decisions as to which existing infrastructure is renovated or new infrastructure constructed (the contractors being only fee-paid executants of orders to implement such orders as and when they are made).

9.4.2 Senegal

Senegal suffers from a general shortage of water in large parts of the country; three quarters of it are in the arid Sahel. Most of the population lives in the coastal area in the centre of the county, a long distance from surface freshwater reservoirs such as the river Senegal or the Casamance region. Periodic disruptions to supply in times of drought are a particular problem, with consequences for the health of the general population and the economy. The last outbreak of cholera (in October 2004) was caused in part by shortages in the supply of water. The WHO recommends 35 litres of water be consumed per person per day; the actual coverage in Senegal is estimated at 28 litres per day.

Efficiency in the use of water, as a scarce natural resource, is therefore a high priority for the Senegalese government. The problem is particularly acute in rural areas, which account for the highest proportion of poor people,[19] where it is estimated that 46 percent of water needs are not covered. Urban areas consist of Dakar (which represents about 75 percent of the total serviced area) and 41 out of 75 secondary towns. Urban water shortage is particularly chronic in Dakar; the city is home to between one fifth and one quarter of the Senegalese population and growing rapidly.[20] Two-fifths of the urban population live in non-structured, 'spontaneous' settlements and almost two-thirds of households are considered poor. In 2004, about a third of the urban population had no access to potable water, referring largely to the presence of unsafe wells which are a source for disease.

The water supply in Senegal is organised at the national level. Different organisations, however, are responsible for provision to rural and urban areas. The supply of water

[19] 72 percent – 88 percent of the rural population is considered poor.
[20] The populations of Senegalese urban centres grow by an estimated 4 percent annually.

to rural areas is undertaken directly by the national administration - the *Direction de l'Exploitation et de la Maintenance* (DEM). Urban areas have a different institutional arrangement for the water sector; they are supplied by the state agency *Société Nationale des Eaux du Sénégal* (SONES) and its private partner *Sénégalaise des Eaux* (SDE). Only the urban water sector has PSP in the provision of water services.

In 1971, the creation of the *Société Nationale d'Exploitation des Eaux du Sénégal* (SONEES) resulted from the nationalisation of Senegal's water resources and the subsequent departure of the French water company *Compagnie Générale des Eaux*. By 1991, the Senegalese water sector was experiencing an acute shortage (28 percent of needs were not being covered) and unsustainable use of groundwater reservoirs threatened the possibility of saline intrusion, as the overwhelming majority of the Senegalese population live near coastal areas. Surface fresh water resources were available only remotely from Dakar, in the North of the country (the river Senegal and the Lac de Guiers) or in the Southern region of the Casamance. Large-scale water transfer would have been very costly[21] and – in the case of the Casamance – came with additional political risks as any pipeline from southern parts of the country would have had to go through The Gambia, a state enclosed by Senegal. Other problems included frequent disruptions in water supply (in 1994, Dakar had an average of only 16 hours a day with water) and poor water quality resulting from infiltration of soil water into the pipes in periods of negative pressure.

The situation was aggravated by high levels of unaccounted water usage (due to leaks, illegal connections and non-registration of water meters). Universities, the army, hospitals and, in particular, municipalities failed consistently to pay their water bills. The situation for the municipalities was closely linked to the inefficient use of water at communal taps. Ironically, state authorities thus partly became victim of the success of previous programmes for the extension of communal water connections had failed to go hand-in-hand with the necessary increases in revenue or improved management of the assets.[22] Furthermore, urban areas (particularly Dakar) continued to grow at very high rates, increasing demand for water.

The state-held company SONEES was seen as 'technically a well-run agency' and had in the past efficiently executed a number of donor-funded projects, such as an expansion of the urban water supply setup to 11 cities in Senegal (Brocklehurst and Janssens, 2004). However, it was unable to make the necessary investments in the water infrastructure since it lacked capital. Private borrowing was not possible because SONEES – a state company – did not possess a credit rating. Consequently, Senegal's water infrastructure became dependent on funding from ODA.

In the late 1970s and early 1980s, Senegal suffered from droughts that severely affected its harvests of groundnuts: one of the country's main commodity exports.

[21] One of the discussed options was the construction of a 'Canal de Cayor' from the Lac de Guiers to Dakar. The project would have cost approx. US$100 million. Even if this amount could be mobilised through a BOT arrangement, the costs of the project would have had adverse effects on water prices. In any case, it would not have been a quick solution for immediate needs of the Dakarois population in the 1990s.

[22] The development of communal taps has been promoted since 1991 in order to provide water for poor communities in the country. Communal taps initially distributed water free of charge as bills were covered by each municipality. However, the failure to charge consumers for water led to excessive use and waste.

Together with declines in world prices for other important exports (e.g. phosphate) Senegal was plunged into a financial crisis which added to the pressure for public sector reform, including in the water sector. At the time, public enterprises dominated the Senegalese economy when government policy adhered to 'African Socialism'. Senegal had 21 *établissements publics*, 7 *sociétés nationales*, and 59 *sociétés d'economie mixtes* (Brocklehurst and Janssens, 2004). Nearly half of these companies were in deficit situations by 1980 and therefore required increasing amounts of subsidies. The Senegalese government attempted to improve the service delivery of its parastatals via the provision of performance contracts. However, contract oversight proved to be insufficient and the state failed in its financial obligations. In the 1990s, the financial crisis ultimately forced Abdou Diouf's governments, even though nominally socialist, to lean more towards a policy of privatisation of state companies. In the elections of 2000, the decade-long opposition leader Abdoulaye Wade became President. The change in government did not negatively affect the policy of market liberalisation in Senegal: the 'liberal' Wade government continues to favour private investments, much along the lines of the previous 'socialist' government.

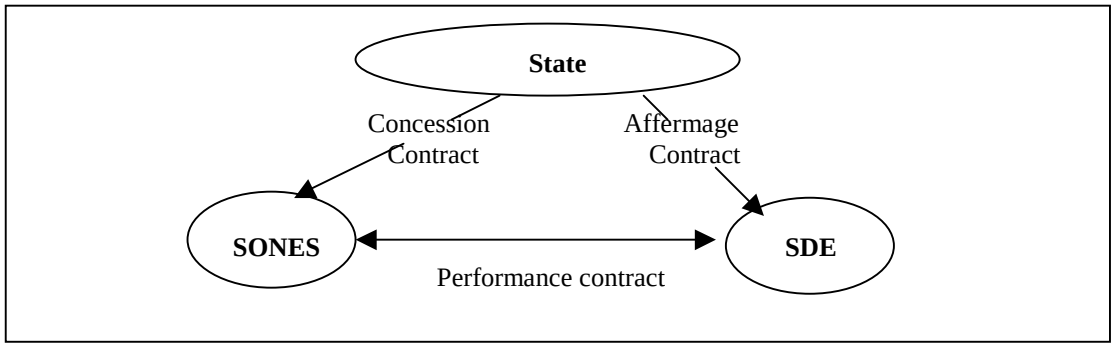
The privatisation of key state enterprises has been highly contested by staff and highly disruptive for the political class in Senegal. For instance, the (failed) privatisation of the state electricity company *Sénélec* (for which there have been several attempts since 1999) led to political unrest, fuelled by worker resistance and supported by other parts of the organised urban population. As the formal labour force is highly concentrated in urban areas, mostly in Dakar, policies affecting the organised work force involve political risks for any Senegalese government. The plans for water privatisation were no exception to this. Employees of SDE held a two-day strike during the privatisation process, which led to water cuts for Senegalese urban centres and applied considerable political pressure on the then ruling party.

A steering committee (*Comité de pilotage*) was established that consisted of delegates from the Ministry of Finance, the Mintere de l'Hydraulique, the Ministry of Industrial Development, the Presidency and the Prime Minister's Office. This committee led the reform process over a period of 18 months, until an affermage contract was signed in 1996. Key players on the donor side were the World Bank, and – to a lesser extent – AfD and KfW. The EU was seen as rather slow in reaction; it apparently did not exercise pressure on the Senegalese government towards any direction in the reform process.

Negotiations for the water sector between the Senegalese government and international donors led to the re-organisation of SONEES in 1994. The company was split into three separate entities: the asset-holding SONES, the service delivering SDE (responsible for billing, meter and infrastructure maintenance), and the *Organisation Nationale d'Assainissement du Sénégal* (ONAS) (managing sanitation). While SONES and ONAS remained under state control, the government tendered for PSP in SDE. It thereby wanted to guarantee that water, as a natural resource, and the assets in water infrastructure remained under public control.

The rural exploitation of water reserves and its maintenance is fully run by a government department. PSP in the water sector is limited to service delivery for the state-owned SONES in urban areas (see Figure 7).

Figure 7: Contractual framework of the Senegalese water sector



The parastatal SONES holds a 30-year concession and was negotiation partner of an affermage contract (see Box 2) on behalf of the Senegalese government in 1996. It is also responsible for oversight of the performance of SDE.

The involvement of the private sector in the provision of Senegalese water services opened the way for greater donor involvement. High levels of investment in infrastructure has come from ODA donors (IDA, AfD, KfW, BOAD). This donor engagement has also enabled SONES to obtain commercial credit to cover its deficit - FCA 11 billion (Niang, 2004).[23]

One of the concerns of the Senegalese decision-makers – after public pressure was put on the government – was retaining the level of employment in the water sector (about 1,300-1,400 staff at the time of reform). SONES kept 50 of these employees, ONAS took on 96, while the overwhelming majority of staff were assigned to SDE. Staff described the situation after privatisation of SDE as marked by higher work standards, and the loss of some employee privileges, such as free water supplies. However, both employment and wages have remained stable so that, overall, staff have been satisfied with the process.

SDE is responsible for service delivery, such as the installation of meters, billing and the maintenance of household connections. SDE's responsibilities were defined by the value of the asset in the affermage contract (a life expectation of below 10 years and costs of no more than FCFA 15 million). If the costs exceeded the fixed amount, repairs and investments are SONES' obligations. This was done on a fixed rate with a capped annual increase and has led to persistent disputes between the two companies about the value of each partner's work, as this has consequences for the distribution of responsibilities between them.

Discussions hint at SDE favouring a clearer division of labour, i.e. to take over more responsibilities from SONES. This would allow for control of investment decisions by the private company. For SONES, this option would mean it assuming a greater regulatory role. SONES points at the risks of capture of state functions by large companies. Another pre-condition for the success of a regulatory authority identified by an interviewee is the strict independence of any regulatory authority from state interference, which would currently prove difficult. The discussion about the future

[23] The 10 percent own contributions to the water sector project was an IDA requirement.

set up is ongoing within the Senegalese government but it will have to be decided later this year when the current affermage contract expires.

9.4.3 South Africa

South Africa is a fundamentally dynamic policy environment (socially, politically and economically) but despite its middle ranking in the Human Development Index around 20 million South Africans (45 percent of the population) live in poverty and inequalities are some of the highest in the world (a Gini coefficient of 0.58). The big challenge facing the water sector is achieving the tenuous balance between social and economic interests within the broader context of social, political and economic transformation. Improving basic services for the previously disadvantaged black majority remains a key benchmark of progress in the new South Africa and delivery of water services in particular is a 'heart string' issue and one which remains subject to intense public debate.

Post-apartheid South Africa has become a global leader in water policy development and implementation pursuing a progressive and innovative approach to water sector reforms which seeks to balance PSP where appropriate with a strong commitment to poverty reduction.

The evolution of water policy can only be understood within the broader context of policy and institutional transformation. Equity issues surrounding water resource management and service delivery have been central to the political debate in South Africa since the development of the Freedom Charter and the establishment of the new Constitution. The resulting Bill of Rights, Constitution of South Africa, Section 27 (1) (b) clearly states that 'Everyone has the right to have access to sufficient water'.

This formed the context for a fundamental reform of water law and policy which included: constitutional development (1994-1996); the development of Water Law Principles (1996); the White Paper on a National Water Policy for South Africa (1997); and the National Water Act of August 1998.

Several other major policy developments have arguably influenced water policy development including the Reconstruction & Development Plan (1994), a key 'benchmark' document which sets out a number of broad policy objectives and standards for basic service delivery (including a minimum of 50 litres per person per day), and the Growth, Employment and Redistribution Economic Policy (GEAR - 1996), a free market-oriented strategy for economic growth and recovery widely regarded as paving the way for greater PSP in the South African economy.

The strategic objective of South Africa's ongoing water policy reforms has been the development of an equitable and sustainable system of water allocation and use which protects the constitutional right to water, encourages productive use of water in the economy and protects the environment. To this end the 1997 White Paper promotes a new vision of water as both a social and an economic good. These principles were subsequently enshrined in the National Water Act (1998) which aims to control the

use of all water resources, to protect them from being abused and polluted, and to ensure that every person has equitable access to water resources.

A closely related act is the Water Services Act (1997) which seeks to ensure and define the rights of access to basic water services and sets out the rights and duties of consumers and those who are responsible for providing services. Crucially it defines provision of water services as a local government competence. A key function of the Act was to create statutory institutions to assist local government to fulfil its obligations in the provision and regulation of water services.

Other important pieces of legislation include a White Paper on Basic Household Sanitation (2001) and a White Paper on Water Services (October 2002) which provide a more detailed outline of specific objectives in relation to each including provision of 'Free Basic Water' (see Box 7).

Box 7: Free Basic Water

South Africa's Free Basic Water policy has attracted considerable attention around the world, but there is an ongoing debate surrounding both the definition of an acceptable level of 'basic' service and how it might be implemented in practice. Free basic water is currently defined as 6,000 litres per household per month. Based on an average household size of 8 this provides approximately 25 litres, per person, per day. Critics have noted that this is insufficient to meet basic livelihoods needs and that in many poor areas the average household size typically exceeds 8 members. It is equally problematic defining standards for basic sanitation. It is important to note that although it is subsidised, free basic water is not fully funded which means that tariffs must be carefully structured to recover the additional costs. While internal cross-subsidisation is possible in wealthier municipalities such as Durban and Johannesburg which have an industrial base of large-scale users, it is very difficult in smaller municipalities with low levels of economic development such as the former townships. Intergovernmental transfers to either users or providers will therefore remain important if equity objectives are to be achieved but critics point out that the 'equitable share' subsidy is provided to local government on an unconditional basis with no means of targeting to areas with the greatest water problems. Furthermore funds for free basic water provision are not ring-fenced.

Subsequent implementation has been further shaped by a number of broader policy initiatives including the development of a National Water Resources Strategy (2003) and a Strategic Framework for Water Services (September 2003) which provide a comprehensive summary of policy with respect to water services in South Africa and set out a strategic framework for its implementation over the next ten years.

The private sector has been involved in the provision of water services in South Africa for over 30 years but PSP has been a hotly contested political issue, both generally and specifically within the sector, from the outset of democracy in 1994.

Civil society groups (e.g. South African Civil Society Water Caucus) have been very critical of the corporations, international development bureaucracies and state elites which they perceive to be pushing harmful neo-liberal policies of privatisation and commoditisation of public services, especially the role of the World Bank and IMF in the development of GEAR and agenda of NEPAD and AMCOW which has been described as 'home-grown structural adjustment'. However South Africa is arguably strong enough (economically if not politically) to resist external pressures and the

water sector is by no means donor dependent as is the case in many smaller, Least Developed Countries.[24]

In the 1990s large multinational water companies adopted an aggressive, expansionist approach to developing country markets. The South African market was targeted particularly by French (*Suez Lyonnaise* and *Vivendi*) and the British (*Thames Water*) companies, backed by the World Bank and seeking long term concessions. However early experience in South Africa has been mixed with a number of high profile failures. Many of the multinational companies are now in the process of reassessing their prospects in the market. Current indications suggest that long-term (20-30 year) concessions are out of favour with investors due to slow rates of return and high levels of (economic and political) risk. Instead international private sector increasingly favours short term contracts (2-5 years) with a tendency towards management support contracts rather than direct operation.

There has actually been very little direct private sector investment in water services in South Africa with only a handful of concession contracts (five to-date). Most of these pre-date the 1994 reforms (Fort Beaufort, Queenstown and Stutterheim) and have mainly been of the BOT variety.[25] The only two concessions since 1994 have been Nelspruit (Biwater) and Dolphin Coast (Saur). In addition to these, private sector companies hold a number of management contracts with large municipalities. One high profile example was the formation of Johannesburg Water in 2001 as part of the (controversial) iGoli plan to 'corporatise' the public utilities of the former Johannesburg Metropolitan Council. The Municipality remains the sole shareholder of Johannesburg Water, it is therefore publicly owned but privately operated by the Johannesburg Water Management Company (JOWAM), a joint venture comprising Suez, Northumbrian Water, and Water and Sanitation Services South Africa (WSSA).

The private sector is also involved in providing a range of goods, materials and services to municipalities and to the Department of Water and Forestry (DWAF), but these are difficult to disaggregate - especially at municipal level where it is difficult to trace allocations by sector. Existing infrastructure has largely been built through private sector contracts, both domestic and international (South Africa has a strong domestic private sector), but it is difficult to derive figures on overall levels of PSP in the water sector.

The Municipal Infrastructure Investment Unit (MIIU) projects likely levels of PSP activity for its stakeholders and publishes information on public-private partnerships in which it is involved. However it is not the sole authority on PSP (MIIU projects are estimated to account for approximately 80 percent of public-private partnerships) and so these figures are not comprehensive. It is currently difficult to distinguish between the domestic and international private sector, and to disaggregate those which relate specifically to the provision of water services. The Water Research Commission (WRC) is planning to produce an audit of the type and level of PSP in the water sector.

[24] It is estimated that over 90% of investment in water services is from local government.

[25] BOTs are typically for 25-30 years at which point companies have the option of handing responsibility back to the public sector. Interviewees noted that in reality this is actually highly unlikely given that long term concessions tend to substitute for, and therefore reduce, public sector capacity in this area.

DWAF estimate that since 1994 more than 11 million people have been provided with improved water supplies. This is undoubtedly a significant achievement but it is difficult to assess the extent to which PSP has contributed to overall improvements in coverage levels. It is equally difficult to say whether progress would have been possible without PSP. Unfortunately, this question currently remains more a subject of ideological debate than empirical analysis in South Africa.

The government's approach to PSP can be described as cautious and gradualist in the face of fierce sustained criticism from organised labour and left-wing academics who perceive a creeping private sector influence in increasingly neo-liberal policies. South Africa has a strong labour union movement which enjoys popular support and has considerable leverage over the government. There exists a firm belief that there is no reason why (a restructured) pubic sector cannot be as effective as private sector, which is reflected in much of the recent local government legislation.

The Director General of DWAF, Mike Muller, has stated that there is a role for private sector but that privatisation should be regarded as an instrument of policy and not an objective in itself. He reflects that policy excesses of the early 1990s led to an over optimistic assessment of the potential of the private sector to plug the 'financing gap' and provide a sustainable model for basic service provision. The main reasons why theoretical advantages of PSP have not always been bourn out in practice in South Africa is due to a combination of over-optimistic revenue modelling on the part of private sector and a lack of capacity within public sector to understand business models and harness them effectively towards political objectives.

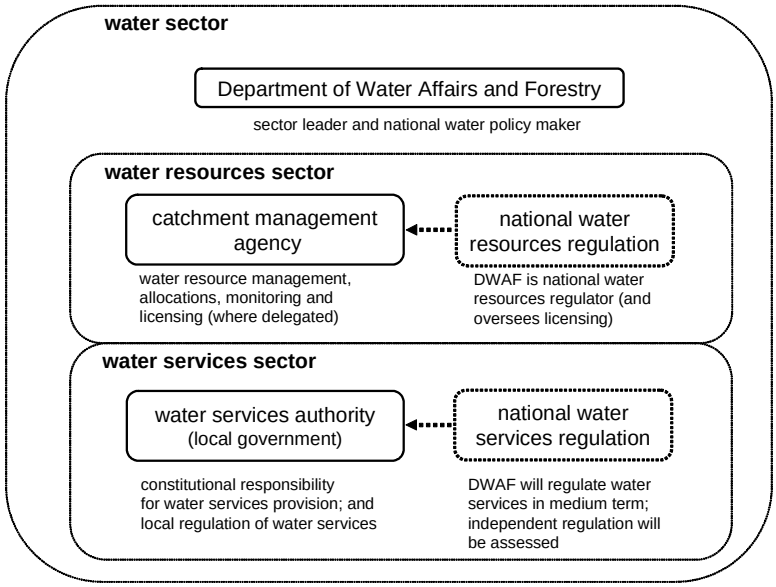
Current strategy states that PSP can help strengthen *capacity* and increase *efficiency* in the water sector, but PSP is *not* expected to leverage significant additional financing for the water sector. The notion of a financing gap is relative to the achievement of time-bound targets (MDGs) and South Africa is 'on-track' to meet and exceed the water and sanitation MDGs through public investment alone (approximately 3 billion Rand per annum). It is argued that the private sector cannot realistically be expected to conform to 'political norms' and will therefore have only a limited role in extending basic service provision, especially in 'non-revenue areas'. Basic service provision therefore remains largely the domain of government which is committed to addressing the so-called 'backlog' and achieving universal coverage.

The Strategic Framework for Water Services emphasises meeting basic needs as a first priority before providing higher levels of service in areas which can afford them, but important questions surround the sequencing of investments. Various interviewees noted that the current approach is perhaps too narrowly focused on outreach with inadequate attention to long-term investment and sustainability, in particular creating an enabling environment for anticipated increased PSP in the future.

Current legislation allows for various forms of PSP including management support services (e.g. consulting), contracting (e.g. construction), management of operations and financing (e.g. bank loans, bonds, equity). However, full privatisation i.e. permanent sale of fixed assets and/or private ownership of water services infrastructure is not allowed under South African law.

The recent Strategic Framework for Water Services sets out respective institutional roles and responsibilities and distinguishes between local and national regulation (see Figure 8).

Figure 8



Whereas bulk water service providers are regulated by DWAF, retail providers are regulated by contract with water services authorities (see Box 8).

Box 8: Water Services Authorities

Water services authorities (local government) have the constitutional responsibility for planning, ensuring access to, and regulating provision of water services within their area of jurisdiction. They may provide water services themselves and/or contract external water service providers to undertake the provision function on their behalf. Water services authorities are responsible for securing from DWAF licenses to abstract water from, and to discharge water to, the water resource. Water services authorities may regulate the provision of water services within their local area through by-laws and contracts. They may delegate the responsibility for obtaining licenses through contracts.

Source: Strategic Framework for Water Services (2003).

It further emphasises that where a water services authority chooses to appoint a (public or private) external water services provider, then it must comply with all relevant legislation (including the Municipal Systems Act, the Water Services Act and the Municipal Financial Management Act). In particular, a water services authority must:

- follow due process;
- make a sound case for the benefits to be achieved;
- show how the risks and rewards are allocated, and how risks will be managed;
- ensure that consumer interests are protected; and,

- enter into a contract with the water services provider which meets legislated requirements and is subject to national oversight

It is important to note that while DWAF provides guidelines to assist water services authorities in selecting appropriate arrangements for provision of water,[26] it is the Department of Provincial and Local Government (DPLG) which has overall responsibility for the affairs of local government. DPLG regulates municipal service partnerships in terms of the White Paper on Municipal Partnerships and the Municipal Systems Act – a key feature of which is the principle of public preference.[27]

The Treasury is currently finalising a framework for public-private partnerships which will provide the Treasury with an oversight role. Local authorities will have to submit proposals for public-private partnerships for review to provincial and central government. It is expected that the Treasury will assume responsibility for monitoring the type and level of PSP and its correlation with sector performance. A key challenge therefore is streamlining these various processes, not just within local government but also at DPLG and central government level.

Within the current framework water service authorities thus have considerable discretion over the type and level of private sector involvement, and the use of transfers from national or provincial government to subsidise water services tariffs and ensure basic needs are met. However important questions surround the capacity of local authorities to engage with and regulate private sector effectively.

The early experience of PSP in South Africa has been mixed with some general lessons starting to emerge. Despite evidence of improvements in the quality of services provided in concession areas, there have undoubtedly been trade-offs with increases in water prices leading in some cases to reduced consumption among poorer households and exacerbating problems of non-payment and disconnections. Box 9 illustrates some of these issues and challenges in relation to the Queenstown concession.

[26] The MIIU has also developed detailed guidelines for services infrastructure investment planning and assessment of feasibility of external service delivery options.

[27] Section 78 of the Municipal Services Act which is known as the 'public preference clause' requires local government to consider all other options before turning to private sector. PSP is widely referred to in policy documents as an 'alternative' option to the norm of public service delivery.

Box 9: Queenstown concession

Queenstown municipality entered into a concession contract with WSSA[28] (then Aqua Gold) in 1992, outsourcing operations, maintenance and management of it water supply and sanitation system. In 1995 Queenstown was merged with neighbouring townships of Mlungisi and Ezibeleni forming the Queenstown Transitional Council. The quality of services available in the former townships at that stage was far below that of the original Queenstown municipality and so the Transitional Council decided to extend the contract with WSSA to cover these areas. A new contract was negotiated including stipulations regarding rehabilitation of infrastructure and upgrading of service delivery in the townships. The municipality retained responsibility for setting tariffs, billing and collection. It is important to note that payment to WSSA was based on the amount of water consumed and key quality indicators and thus independent of the council's income from water services. An independent DBSA (2000) study confirms that *costs of providing services* were reduced by 18%. Other benefits include improved water quality, reduction in unaccounted for water from 45%-21% and replacement or upgrading of 65% of water pipes (Timms, 2000). On the other hand the introduction of tariff system instead of the former flat rate led to *increased access costs* (MacDonald & Pape, 2002) although the tariff itself did not change following integration of former townships (DBSA, 2000). In addition residents were required to cover costs of repairs within the boundaries of their properties and reconnection fees doubled. Despite rebates for poor households Palmer Development Group report that 50% of households were spending over 14% of their household income on municipal service. Payment levels in the former townships were low 56% and 55% in Ezibeleni and Mlungisi respectively. Credit control measures were introduced to reduce the incidence of disconnections but with variable success. MacDonald and Pape show that high fixed penalties for reconnection plus carry over of debts which resulted in disconnection in the first place presented a major obstacle to achieving universal coverage. Timms (2000) is critical of the municipality's tariff setting policy as being insufficiently pro-poor but notes that generally WSSA has been successful in promoting employment of previously disadvantaged groups and procuring from local suppliers.

Source: Adapted from Van der Berg & Burger (2002).

[28] Water and Sanitation Services South Africa was a wholly owned subsidiary of Lyonnaise Water Southern Africa linked to the French multinational Lyonnaise des Eaux.

9.5 Perceptions of GATS and foreign private sector participation in the water sector

Although South Africa is the only country among the three countries chosen for case study analysis to have made commitments in sewage and sanitation under the GATS, a variety of claims were made during the country interviews which describe the GATS as a threat to public-provided services such as water: that it forces governments to privatise and allow competition in public services, that it obliges them to open up to foreign trade and investment, and that it puts in danger the assurance of basic public services. The following sections highlight these concerns, and the context which has given rise to them, and addresses the legitimacy of each.

9.5.1 Social and political sensitivities: does GATS force privatisation of water services?

The list of countries included in the EU request of 2002 (as per Appendix 3) is long (72 countries) and heterogeneous. There was a risk that the EU be perceived to be pushing forward a policy (or set of policy principles) irrespective of the context and status of water services in each country, or at least in different categories of country (e.g. at different levels of development and capacity) - this issue is discussed further below.

The water sector was recognised by both development and trade specialists interviewed in Mexico, Senegal and South Africa as having an important social element, in that water services are of course a basic requirement of human health. Related to this the water sector in all three countries is surrounded by considerable political sensibilities. In **Senegal**, the privatisation of key state enterprises has been contested by staff and highly disruptive in political terms. As the formal labour force is concentrated in urban areas (mostly Dakar) policies affecting the organised work force involve political risks for any Senegalese government. The plans for water privatisation were no exception to this. Employees of SDE held a two-day strike during the privatisation process, which led to water cuts for Senegalese urban centres and applied considerable political pressure on the ruling party. For **Mexico**, political resistance was witnessed during the economic crisis after 1994 when, due to the pressure of household finances, rising water prices came under close scrutiny. In **South Africa**, the introduction of private sector operators has attracted a great deal of negative publicity (see Box 10) associated with increases in water prices and the introduction of strict credit control measures. Major issues and problems surround enforcing cost recovery among very poor communities. The so-called ‘legacy of non-payment’ lingers on from previous years when people refused to pay utility bills in support of boycotts against the apartheid regime (see Appendix 6).

The political sensitivity of such issues should not be underestimated. South Africa has learned hard lessons from weakly controlled privatisation of the water sector in the 1990s and is now determined to regain control, but the government has a difficult task demonstrating that the private sector can be harnessed towards public objectives (let alone the international private sector where repatriation of profits is highly contentious).

Box 10: Opposition to PSP in South Africa

The global critique of PSP, which emerged following the World Summit on Sustainable Development in Johannesburg in 2002, was largely spearheaded by sophisticated lobby groups in South Africa opposed in principle to both privatisation and 'commodification' of water services.

The South African Municipal Workers Union has consistently opposed the promotion of public-private partnerships in municipal service delivery and involvement of non-state providers in rural water programmes and the lack of public consultation on these issues.

Various NGOs, notably those affiliated to the National Lands Committee and Rural Development Services Network, have complained that millions of rural South Africans remain without water and that many of the new taps fitted between 1994 and 2002 are unsustainable.

Civic groups have actively protested against disconnections, especially in townships e.g. Gauteng (Soweto, Alexandra, Thembisa, Kwa Thema), Durban (Chatsworth and Mpumalanga) and Cape Town (Khayelitsha and Tafelsig) and blamed the installation of prepaid meters (encouraging poor households to use contaminated open sources) for a major outbreak of cholera in KwaZulu Natal in 2000.

The Coalition Against Water Privatisation is currently filing a constitutional court case against the government on two counts:

1. 6,000 litres per household per month is insufficient to fulfil the constitutional right to water
2. Pre-paid meters are unconstitutional because they result in self-disconnection without due process.

More recently, service providers have begun experimenting with pressure reduction, 'tricklers' and regulated yard tanks (providing 6,000 litres) as part of a strategy of 'loss management'. This approach has had only limited success with numerous reported incidents of vandalism and large numbers of illegal connections which further undermine sustainability.

In relation to the GATS, however, such concerns seem exaggerated. GATS rules do not dictate any specific role for the public and private sectors; countries are in principle free to decide what sectors will be reserved for parastatals. In addition they remain free to decide whether or not to open such sectors to foreign competition and to make (or not) binding commitments in such sectors in their GATS schedules. Member countries can choose between the following policy options for their services (WTO, 2001a):

- To maintain the service as a monopoly, public or private;
- To open the service to competing suppliers, but to restrict access to national companies;
- To open the service (autonomously) to national and foreign suppliers, but to make no GATS commitments on it;
- To make GATS commitments covering the right of foreign companies to supply the service in addition to national suppliers.

The previous EU Trade Commissioner - Pascal Lamy – in February 2003, stated:

'The requests do not seek to dismantle public services, nor to privatise state-owned companies. No requests are being made on health services or audiovisual services to any country, and only the US has received a request limited to privately funded higher education. If requests are being made on environmental services, they seek to

capitalise on the experience and skills European environmental services in tackling environmental problems. EU requests do not touch on the issue of access to water resources and in no way undermines governments' ability to regulate pricing, availability and affordability of water supplies as they choose.' (European Commission, 2003a).

The same submission also argued that there is no linkage necessarily between the WTO and privatisation, noting that the 'WTO is not about liberalisation of services, it's about opening up trade in services, which has nothing to do with deregulation, liberalisation or privatisation. WTO negotiations are not linked either directly or indirectly, with some governments' decisions on privatisation.'

But while it is true that there is nothing that strictly compels WTO members to open services to negotiation, there is also clearly an indirect link between competition-enhancing domestic policies that are 'locked-in' by the GATS and the likelihood that foreign investors will invest (but see Section 9.5.6).

A key question therefore surrounds the capacity of developing governments to assess their options in relation to GATS and the potential costs and benefits of 'lock in'. In South Africa, for example, the process of sector reform is very much ongoing and the appropriate role of PSP in relation to broader policy objectives remains undecided. South Africa's social, economic and political transformation demands flexibility at all levels of government to vary the level of public and private involvement in delivery of services as appropriate in the given context. There are real fears that GATS might restrict the policy making autonomy of national government, or disenfranchise local government by locking in a particular set of policy choices.

The participation of foreign companies in the provision of water services has raised an additional controversy - the fear that a national asset was going to be vulnerable under foreign influence and control. Under the national Water Law in Mexico (passed in April 2004), and as established by the Mexican constitution (Article 27), water is the property of the nation, a public resource. If water services were to be liberalised under the GATS, then this would cover most major ways in which water resources are used. According to Article XXVIII 'supply of a service' includes the production, distribution, marketing, sale and delivery of a service and potentially, therefore, the control of the resource. The European Commission maintains, 'requests are being made on environmental services, but do not touch on the issue of access to resources.' While technically ownership of a natural resource is excluded from the scope of the GATS, in practice the issue is complicated by the fact that water is a natural monopoly and water operators, including private companies, cannot provide a service without adequate access to the resource being guaranteed. Collection is certain to include the water source, and could lead to establishment of control (if not 'ownership'). On the ground, the distinction between access to water delivery services and access to the resource itself may not be as easily demarcated as the EU's statement presumes.

9.5.2 Are publicly-provided water services excluded from the GATS?

An important element in the debate over trade in water services is the fact, noted in Section 8.1, that services supplied in the exercise of governmental authority are

excluded from the scope of the GATS (Article I:3). However, the degree of government funding for water services varies across countries, depending on social and political preferences over the role of the state in their provision. Public and private suppliers of water services often coexist. The exception is further refined in that 'a service supplied in the exercise of governmental authority' is defined as 'any service, which is supplied neither on a commercial basis, nor in competition with one or more service suppliers.' There is a need to clarify whether both or just one of these conditions must be met in order for the exclusion to apply.

Since there have been few WTO disputes involving the GATS to date, there is little guidance as to how a panel would address the question of government services. There is reasonable ground for concern, if only because the absence of jurisprudence in the GATS leaves several issues unclear and open to speculation. Of particular importance is the extent to which water services provided by the private sector operating under concessions could question whether that service should be excluded as an essential government service. Recent disputes involving challenges by express delivery services of public postal services could in theory lead to similar actions in privatised water services.

With respect to market access, a related issue is whether the right to participate in the bidding process for concession contracts amounts to granting market access and if this falls within the remit of government procurement. Some of the various forms of PSP would correspond to government procurement and are therefore currently exempt (see Section 8.2.1). However, the distinction between these various forms is not always clear, prompting questions about what types of water contract could or could not be considered government procurement.

This issue is potentially significant since countries are often reluctant to reopen competitive bidding processes when a contract expires. In **Mexico**, for example, contracts were renewed with the existing incumbents without recourse to a competitive bidding process. This decision was, it seems, taken due to a combination of reasons including transaction costs, overall satisfaction with the performance of the existing service providers, reluctance to raise the public and media profile of water issues after the intense periods of attention devoted to them in the 1990s and the short duration of the renewals granted.

In **Senegal**, the initial affermage contract was issued in 1996 for a 10 year period. Government officials have expressed their general satisfaction with SDE's performance, despite a need for small changes. Re-negotiating with a known partner based on 10 years of experience seems to be the generally favoured option, rather than the immediate re-opening of a fully competitive bidding process when the current contract expires in 2006.

But, in its *revised* request, in 2005, the EU clarified that it was seeking only a commitment for foreign service suppliers to be allowed to bid and, if chosen, operate the service on a national treatment basis, in cases where authorities had decided to award exclusive rights through a competitive bidding process. Countries (or their local authorities) would keep the possibility to change from one mode of management to another (for instance at the end of a concession contract, to return to a public or cooperative management mode).

However, given the lack of investors in water service markets these issues could be of second-order importance. The debate over essential government services has been non-existent in Geneva, for the simple reason that governments regard the protection and maintenance of public services with far greater importance than defending the GATS. In addition, GATS provides for flexibility in the interpretation of publicly-provided services. Options available to developing countries in managing the impact of liberalisation on water services include: horizontal exclusion of public services (e.g. Dominican Republic); sector-specific exclusion (e.g. Norway and Switzerland); commitments limited to private sector suppliers (e.g. sewage services in the US); sub-sectoral 'carve-outs', e.g. infrastructure; and, specific limitations to exclude certain regulatory measures, e.g. subsidies.

9.5.3 Can limiting foreign capital participation in the water sector be justified?

Restrictions on foreign commercial presence are significant for services like water for which cross-border supply is not technically feasible, so that consumer prices depend completely on the domestic market structure. In services trade, restrictions on new entry and on the participation of foreign capital are common. A conclusion from the literature on privatisation is that welfare gains accrue from increased competition within a market rather than from a mere shift in ownership from the public to the private sector. In the GATS context, WTO Members have often conceded increased market access by allowing foreign ownership of domestic firms or limited new entry rather than eliminating all barriers to entry. However, even if entry restrictions remain and foreign investment does not lead to significant increases in competition there may still be benefits. Foreign investment may relax a domestic capital constraint and help to improve the productivity and competitiveness of domestic firms.

For water services, however, there may be strong economic reasons to limit the number of suppliers operating in a domestic service sector. If natural monopolies are present, entry restrictions may be justified by the existence of economies of scale stemming from high fixed costs of networks. But entry restrictions are becoming more difficult to justify as techniques such as 'network unbundling' allow scope for competitive entry (see Box 1). In addition, the inefficiencies introduced by duplicating networks may sometimes be outweighed by those arising from lack of competition.

Restrictions on entry may also be justified on policy grounds. First, market access restrictions may be designed so that existing suppliers are only gradually exposed to competition for infant-industry type reasons. Second, monopoly rents are sometimes seen as a means of helping firms secure universal service obligations. Third, rents are often believed to be necessary to finance new investments in infrastructure. Finally, governments may seek to raise revenue by auctioning monopoly rights.

But, it is difficult to find a convincing economic rationale why these limitations should focus on restricting only foreign ownership. Since the incentives for promoting efficiency and increasing finance are often related to an owner's share of the profits, ownership limitations are bound to reduce these incentives and adversely affect the sector's performance. Why are countries willing to discount this? First, if there are monopoly rents, limitations on foreign ownership may be designed to balance profit

appropriation aspects of foreign investment. However, this argument ignores the possibility that profits of foreign firms can be taxed. Second, foreign service providers can be encouraged to form joint ventures with domestic firms so that the latter can benefit from technology transfer and the sharing of management skills. Finally, governments are often reluctant to allow foreign ownership of essential services, like water. These factors can be illustrated by reference to experiences in the case study countries.

For **Mexico**, in the Federal District there is a limit on participation of foreign companies in private water operators, of 49 percent. Only registered Mexican companies are eligible to hold water service contracts and foreign participants are entitled to hold only minority shareholdings in those Mexican companies. It is significant that the limit is 49 percent, as compared with 50 percent which would establish a relationship of equal partners. The statutes of those companies and any accompanying joint venture and partnership agreements define in detail the terms of Mexican control and leadership (e.g. in relation to intellectual property rights). It was recognised by interviewees that the private consortia participating in water services in the Federal District have brought welcome know-how and capacity in relation to the activities which they have been contracted to perform, predominantly customer census and mapping, metering, billing and collection. One interviewee, however, cast doubt on the perennity of the know-how which the private companies from outside Mexico can bring. Since know-how in the water sector is not 'high-high-tech' it is only a matter of time before Mexican companies will have acquired the necessary expertise. If this analysis is correct, it may be that the 49 percent limit is designed to facilitate north-south skill transfer in the short-medium (but not long) term. The water companies would themselves probably contest this notion on the basis that their skills have barely been demonstrated, due to their limited involvement in the Federal District to-date, as compared with the broader scope of responsibilities delegated to the companies under the concession, for example, in Aguascalientes.

The 49 percent limit is restrictive for foreign companies. While it is recognised by Mexican water companies that initially working in a joint venture can help to introduce foreign water company know-how to the local Mexican context, and allow contacts and relationships to be established, the preference of the foreign companies seems to be (at least after an initial period) for an equal or even majority shareholding – i.e. in their view there are good reasons to expand both the scope of the water market for which private companies can bid and the stake they hold in these.

In Mexico, several interviewees expressed the view that issues of public-private ownership were more sensitive than those pertaining to Mexican-foreign control, although there was evidence of public concern over profits from the management of water services going abroad, to benefit foreign shareholders to the detriment of national interests. In practice, however, <u>both</u> issues are played down vis-à-vis the public. As a tangible indication of the extent of political sensitivity in the foreign provision of water services, customer care centres operated by the private contractors (since 1993) are presented under the name of the public authorities and the company logos are not displayed on vehicles deployed to carry out water-related functions.

In the case of **Senegal**, some services sectors (telecommunications is the most successful example), have been opened to foreign investment and in which the

majority of shares are now held by private investors. Full opening of the water sector to PSP was one of the options considered by the Senegalese government in the reform process. This could have resembled the pre-1971 setup of the water sector in the country. However, because of political sensitivities,[29] the chosen solution provided for an opening limited to the delivery component in water services. Ultimately successful in the bidding process for SDE was Saur (a privately owned French company). Fact-finding missions led the Senegalese decision-makers to Ivory Coast, Guinea and The Gambia. Their interests were the legislative framework and the behaviour of contract partners in the national contexts. None of the cases were seen as largely exemplary for Senegal; the latter two were later re-nationalised (The Gambia shortly after a coup d'état in 1995, and Guinea in 1999). The Senegalese opting for an affermage contract was ultimately inspired by French contractual set-ups. An initial proposal, by the World Bank, to use a concession contract met 'substantial opposition'. In the case of Senegal, the affermage was concluded for a 10-year period with the possibility of extension for another 5 years. Saur has the longest experience of international companies in Sub-Saharan Africa with a contract in Ivory Coast since 1960. In 1989, Saur won a water lease in Guinea. It has now six contracts in Sub-Saharan Africa, as opposed to Vivendi with four and Suez with two (South Africa and Uganda) (Hall *et al.*, 2002). Regarding the bidding process for PSP in SDE, Senegalese interview partners mentioned some concern about the possibility of cartel behaviour of large international firms. During the privatisation of SDE, the Senegalese authorities received three bids. One was from a company with relatively little experience in providing water services in Africa. The other bidder – besides the ultimately successful Saur – was another French company with extensive experience of managing water services worldwide. Officials, however, considered the bid from the latter to have been half-hearted. This, interview partners conceded, could have been due to collusion between the two French competitors (developed through contacts made in the process of them undertaking joint ventures in other parts of the world (Hall, 2003)).

The ownership structure of SDE is as follows: 51 percent of the shares are held by Saur; 34 percent by other small share holders; and, 10 percent by SONES, the Senegalese state agency. Under the affermage contract, 5 percent of the shares are reserved for employees of SDE, although since the company's staff have not yet been able to mobilise the required sum to actually make use of these rights (as of December 2004), their shares are currently held by Saur.[30]

The *de facto* share of Saur is 63 percent owing to the additional 5 percent reserved for staff and the re-buying of some of the 34 percent shares to be held by small shareholders. SDE is not listed on the regional stock-exchange, in contrast to the privatised telecommunications company SONATEL.

If limits on foreign ownership are to go unchallenged under the GATS then they must be listed as limitations if countries make liberalisation commitments in the water

[29] Water, a Senegalese official recalled, was a different type of service compared to telecommunications or banking and finance. As a 'bien dual', water is considered to be both an economic good and a basic human right. Water services, therefore, should be paid for to ration the scarce natural resource, but at the same time, there should be no right to withhold the service.

[30] A similar setup was created in the case of the telecommunication company SONATEL. In that case, staff was able to obtain the shares reserved for them.

sector. The federal authorities in **Mexico**, for example, authorised the establishment of a foreign-owned solid waste processing plant. This was subsequently blocked at municipal level, by refusal to grant the necessary licence, as provided for under local regulations. This gave rise to a breach of the country's commitments under the North America Free Trade Agreement (NAFTA) and a compensation claim against the Mexican (federal) government. Although there are major differences between services trade provisions under NAFTA and the GATS,[31] a similar scenario could arise in relation to water services if a future national position under GATS failed to take into account (though specifying limitations) the rules applying for management of water services at the three different levels of government (federal, state and municipal). GATS principles cover all types of domestic measures affecting trade in services from laws to administrative guidelines and apply to all levels of government (central, regional and local).

9.5.4 Does GATS threaten domestic regulatory autonomy in the water sector?

Although domestic regulatory autonomy is required to enable domestic rules to respond to conditions within a country, there may be times when such rules are trade-distorting, either unintentionally or as disguised protectionism. A problem in the GATS concerns those rules dealing with the centrally important issue of domestic regulation and its effect on market access.

On the one hand, these rules rank among the weakest and most undeveloped elements (see Section 8). The specific obligations concerning domestic regulation in the GATS framework aim at requiring Members to regulate those service sectors in which they have made commitments in a 'reasonable', 'objective' and 'impartial' manner. These terms, however, are not clearly defined under Article VI of the GATS and much will depend on future discussions (see Section 8.2.1). The reference to 'necessary' disciplines has prompted concern that WTO panels would interpret this as 'least-trade restrictive'.

On the other hand, regulatory precaution is reflected in the general provisions of the GATS, which uphold the fundamental right of a government to regulate in order to pursue national policy objectives. The preamble to the GATS recognises 'the right of Members to regulate and to introduce new regulations on the supply of services within their territories in order to meet national policy objectives.' In this respect it is noteworthy that while the US has called for greater market access in environmental services it has also explicitly stated that liberalisation must not impair the ability of governments to impose performance and quality controls on environmental services and service providers. Mexico has gone further and indicated that it prefers an alternative classification for environmental services, initially proposed by the Swiss, advocating the adoption of a legal interpretation of WTO rules stating that Multilateral Environmental Agreements (MEAs) and the WTO are equal bodies of

[31] NAFTA provides the right for investors to sue governments directly under the ICSID dispute settlement procedure and agree financial compensation as a result. This is not the case within the GATS which only provides for state-to-state dispute settlement. A Member may bring a complaint alleging that another Member has failed to carry out its obligations or specific commitments under the Agreement but as a mandatory first step in initiating dispute settlement proceedings, a complaining Member is required to consult in good faith with the defending Member.

law. Under this proposal, each set of multilateral rules would respect the competence of the other, and consequently, MEAs, and not the WTO, would have primary competence to determine the legitimacy of the environmental objective pursued by national governments, and the proportionality, and necessity of, MEA-related trade measures.

It is also true that while the GATS can affect regulatory conduct, countries may choose to accept such disciplines because they deem them necessary to reap the full benefits from a multilateral rules-based system.

Threats to a country's sovereign right to regulate water services, or the alleged transfer of regulatory autonomy from national governments to the WTO, is central to the anti-GATS critique. The provision of basic services such as water is the responsibility of national governments and often involves the balancing of economic with social aims beyond issues of efficiency and profitability. The principal concern linked to loss of sovereignty is the consequent loss of a nation's freedom to regulate its water services in a manner it deems appropriate. Many countries' water services are highly regulated in order to protect consumers and to achieve universal service objectives whilst ensuring the quality of these services. Governments are understandably cautious when agreeing to subject themselves to common rules. Civil society groups have raised concerns that submitting the water sector to GATS disciplines could restrict governments' ability to prioritise basic services for the poor (Joy, 2000; Mitlin and Eugui, 2003). This could include, for example, the loss of 'the right to control price increases or demand socially responsible pricing systems to ensure access to drinking water for the poorest' (CEO, 2003). However, the GATS affords countries flexibility in this regard. Only for those sectors, sub-sectors and modes of supply where a WTO Member agrees to schedule liberalisation commitments is the country obliged to refrain from making its regulatory regime more restrictive in the future. In scheduling commitments, WTO members may also opt, at their discretion, to schedule limitations. Each one of these decisions remains the sovereign right of individual countries.

Key issues in the provision of water services for **Mexico**, **Senegal** and **South Africa** concern rates of connection (extension of coverage of piped water networks to poor districts), service (improvement of the quality and regularity of supply of water to poor households) and pricing (social tariffs) – see Appendix 6. Water regulation is often used to pursue these but can also aim at other goals such as efficiency of distribution and technology transfer. Some of these objectives may require instruments which could be incompatible with market access and national treatment and may therefore require scheduling limited commitments or abstaining from commitments altogether. For example, managing scarce resources may require quantitative limitations on services or services output. This could be incompatible with the market access disciplines of the GATS. Requiring foreign companies to establish themselves in the host country could also be incompatible with rules on market access. Transfer of technology obligations could be incompatible with national treatment. Instruments ensuring universal service obligations could also be incompatible with both market access and national treatment obligations. Developing countries planning to employ such instruments must therefore carefully schedule limitations on any commitments they make to take account of such regulations.

Developing countries will also need to assess the ongoing negotiations on disciplines for domestic regulation in light of their domestic regulatory requirements. In accordance with Article VI such disciplines should ensure that certain domestic regulation (relating to licensing, qualification requirements and procedures and technical standards) is no more burdensome than necessary to achieve the quality of the service. Depending on the scope of future disciplines and the specific design of any 'necessity test', certain domestic regulation such as quality standards or universal service obligations could be seen as more burdensome than necessary. This issue will remain a source of speculation. The uncertainty over Article VI provisions remains in large part because the promise to clarify them in the current negotiations has failed to progress. One way to reduce the uncertainty in this area for water services would be to follow the example of GATS Annex on telecommunications. As a sector-specific agreement, this provided a general framework within which precision and specificity could be applied.

Nevertheless, agreements to accept a framework of rules, by definition entail some curtailment of sovereignty. But, the progressive liberalisation, not deregulation, of services trade is the goal of the GATS. Although services liberalisation may necessitate regulation or de-regulation that is not to say that domestic laws, whether for economic or social purposes, cannot be designed, implemented or enforced in more transparent and efficient ways.

9.5.5 Do developing countries have the capacity to regulate and negotiate?

A key challenge lies in identifying appropriate models of regulation which can be adapted to the resource and capacity constraints of developing country contexts. The success of PSP, both foreign and domestic, in increasing efficiency, quality and service in the water sector depends significantly on the adequacy of the local policy environment and the capacity of (often decentralised) authorities to implement new policy guidelines and assume new roles and responsibilities, including partnering with and regulating the private sector. However, as critics have noted, many developing countries do not yet possess the regulatory capacity to fulfil their basic obligations (e.g. universal access provision) let alone to monitor and regulate foreign (and domestic) private providers.

In **Mexico**, a senior trade official who was interviewed made a comparison between the water and other sectors. Compared with the water sector where regulation is currently relatively weak, he noted that sectors such as financial services and telecommunications have much stronger systems of regulation. From a trade perspective, he recognised that, before a sector is opened up to foreign PSP the system for regulation needs to be sufficiently defined and complete. Strengthening of the regulation of PSP in the water sector would free the hand of trade negotiators such as himself and allow the country to enter into GATS commitments in relation to water services.

A key lesson from the experience in Mexico relates to sequencing: that public authorities need to make sure adequate regulation is in place before opening up water services to PSP, including to foreign access. Varying views were expressed on the future prospects for regulation of the water sector in Mexico. One interviewee was

sceptical as to the ability of regulators, and their motivation, to protect small customers. In the financial sector, for example, the interviewee noted that there had been regulatory capture with a 'few big winners, and many small losers'. Fears exist over trade liberalisation and PSP in the water sector similarly favouring already richer and more powerful sections of Mexican society. Were these fears to be realised, the impacts of liberalisation would run contrary to the development objectives of the EU Water Initiative.

Developing countries, especially at the level of local government, are also sometimes ill-equipped to negotiate with private sector firms on level terms. First, there are significant fixed costs associated with preparing and negotiating PSP tenders and contracts. Second, there is often a power imbalance between multinational companies armed with international lawyers and developing country municipalities. Whilst, therefore, the domestic logic of decentralising to municipal level choices over how local water services are provided may be clear, the effect in an international context is asymmetric in terms of capacity. Third, there are serious capacity issues around the interpretation and enforcement of contracts.

In **South Africa**, for example, the capacity to regulate needs to be understood in the context of constitutional decentralisation of responsibility for water service delivery to local government. Water sector reforms in South Africa have coincided with a turbulent period of ongoing local government transition. Since 1994, local authorities have undergone a protracted process of restructuring and democratisation but the human resource capacity to integrate administrative and financial systems of previously separate administrations is currently lacking in many areas.

It is equally important to stress the broader context of ongoing policy and institutional reform. In South Africa, there is currently some uncertainty surrounding proposed reform of institutional responsibilities for management of water resources and delivery of services. A key challenge is the current lack of clear criteria for deciding relevant competencies of municipal government, water boards and central government.

There may also be capacity issues related to the ability of developing countries to negotiate GATS commitments effectively with other WTO Members. In issuing requests and offers, coordination problems between sectoral and trade ministries and between national governments and Trade Missions in Geneva are commonly reported.

In **South Africa**, policy agendas are driven by departments within individual sectoral ministries (DWAF for water). If the relevant department is not actively interested in liberalisation within its sector then the Department of Trade and Industry (responsible for trade) is not in a position to enforce it. There is no lack of effort on the part of DTI to engage different departments in response to external requests but some ministries are more responsive than others. DWAF has 'expressed sensitivity' to DTI over the issue of water services trade liberalisation. The trade liberalisation agenda is still forming in South Africa and the focus to date has been in those sectors whose sector policies were sufficiently advanced in 2000 when the latest round of services trade negotiations began i.e. telecommunications and electricity.

In **Senegal**, the GATS negotiations are perceived to not be relevant for the water sector. Interviewees pointed out that although the Ministry for Trade is supposed to contact sectoral ministries as required, regarding GATS requests, no common position had yet been formulated and most interview partners in the sectoral ministry were not fully aware of the EU request, let alone its probable implications for the water sector.[32]

In **Mexico**, however, a coordinated approach was reported to be taking place between the Ministry of Economy and the Ministry of Environment (SEMARNAT) which jointly hold responsibility for water in relation to the formulation of GATS requests and offers.

It has also been reported that the European Commission has been advising trade Ministries in developing countries on types of foreign PSP and regulatory aspects. For developing countries where the capacity to negotiate GATS commitments is limited, and where the EC is advising trade ministries on types of market access, national treatment and regulation that it would consider acceptable as offers in response to its GATS requests, a risk of a possible conflict of interest arises. The nature of the conflict is that the same body, the EC, is providing technical assistance to assist a given developing country in order for that country to determine its position in the GATS negotiations whilst, at the same time, the EC is looking to further the EU's offensive trade interests in those negotiations.

In this context, the Commission recognises the desirability of making available technical assistance through third parties to support capacity building in relation to GATS where this is required. This is what DG Trade is doing, within the limits of its resources. It is clearly important that such disinterested methods should be used by the European Commission with the impartiality of that support being evident.

9.5.6 Irreversibility

Another issue related to domestic regulatory autonomy are concerns that services commitments are locked in once made. An official modification procedure (Article XXI) exists but, to date, only the EU has used this (to make adjustments following its recent enlargement). Countries can also reverse GATS commitments and close sectors to liberalisation in the future. However, to do so, they have to provide compensation to trading partners.

In the context of concerns over capacity, this issue of "irreversibility" is an important one. The compensation scheme means that, despite a learning-by-doing element to building country capacity in relation to GATS, mistakes made by officials when making, formulating or limiting GATS commitments will nevertheless be subject to financial penalties.

This could pose a problem where a public water authority, in one stage of placing concessions for PSP, delegates functions to the private sector which in a *subsequent*

[32] This may change since the Senegalese government has recently established a commission to elaborate national positions on issues discussed in international organisations, such as the WTO.

stage of placing PSP contracts, chooses to shift some functions back to the sphere of public responsibility. If a GATS commitment were to be made in the water sector with no specific limitations stipulating the freedom to reduce the role of the (foreign) private sector, then demands could be made for compensation. For **South Africa**, in particular, it is important to note that the process of sector reform is very much ongoing and the appropriate role of PSP in relation to social and developmental policy objectives remains undecided. South Africa's economic and political transformation demands flexibility at all levels of government to vary the level of public and private involvement in the delivery of services as appropriate in the given context. There are fears that GATS might restrict the policymaking autonomy of national government, or disenfranchise local government by locking in a particular set of policy choices.

Alternatively, the issue of irreversibility could be viewed not as a problem but actually as a key benefit of the GATS since regulatory certainty could induce greater foreign private investment into water services which is crucial if current deficiencies in the supply of water are to be overcome through improvements in efficiency and management while increasing finance for investment.

The GATS, therefore, can be used to enhance the benefits associated with foreign participation. The provision of many services, including water, requires high sunk costs and it is, therefore, important that liberalisation be credible. If there is significant uncertainty about policy then fewer investments will be made.

Under the GATS, most countries have bound the *status quo* for services sectors in which they have made commitments. This enhances credibility by providing a commitment that current domestic policy regarding market access and national treatment will not be reversed. But the GATS also offers a valuable mechanism for governments to commit themselves credibly to liberalisation in the future. The most striking examples are in basic telecommunications where a number of developing countries have bound themselves to introduce competition at precise dates.

A key issue is if these perceived benefits will be realised or whether the gains risk being overstated. It is perhaps too early to determine because there have been no commitments for water distribution services (they are not included as a GATS sub-sector), but initial evidence from PSP which has happened outside the GATS framework presents a mixed picture.

PSP in **South Africa**, for example, has generally been associated with improvements in the overall level and quality of services delivered, but this partly reflects the extremely poor condition of much of the infrastructure inherited from the apartheid era in the former townships and the weak capacity of municipal authorities to address this during the transitional period since 1994. Despite evidence of *improvements in the quality of services* provided in concession areas, there have undoubtedly been trade-offs with *increases in water prices* leading in some cases to reduced consumption among poorer households and exacerbating problems of *non-payment and cut-offs* (see Appendix 6). Furthermore expectations of revenue growth have generally not materialised leading to disputes and even *renegotiation of contracts*. There is growing recognition that the water sector in South Africa does not present many viable profit-making opportunities. In Dolphin Coast, for example, SIZA Water (a local affiliate of Saur) ran into severe financial difficulties (see Box 11).

Box 11: Contract renegotiation in Dolphin Coast

Between April 1999 and December 2000 the contract presumably ran without any problems. Beginning 2001 SIZA started to default on repayment of loans it had taken out to finance water and sanitation infrastructure and became in breach of its contract. In serious financial trouble it approached the authorities to renegotiate certain aspects of its concession contract. This led to the following steps being taken:

- Extraordinary water and sanitation tariff increases;
- A Memorandum of Understanding setting out the details of these tariff increases.

SIZA's financial problems were due to a combination of reasons of which the cumulative impact threatened the sustainability of its contractual obligations. These included: high bulk water tariffs from Umgeni Water; slackness of development in Ballito contrary to projections; it took over large loan/debt repayments from the authorities; it had to invest heavily in new infrastructure and there was an overall absence of predicted demand growth for its services.

Source: WZC (2003).

As such, PSP in this stage of **South Africa**'s development is unlikely to solve the fundamental problems of water access faced by the previously disadvantaged black majority. Early private sector models of cost recovery in low revenue areas have proven over-optimistic. Finance is arguably not the biggest problem, indeed many municipalities are capable of raising credit themselves in addition to central government subsidies. Building management capacity is the biggest challenge.

There may nevertheless be potential benefits under GATS for South African water companies in terms of gaining access to foreign markets. Companies such as Umgeni water already successfully expanding operations to other parts of Africa.

In **Mexico** PSP in the Federal District has not granted concessions involving responsibility for managing the secondary network with the substantial levels of investment, and risk, which that would entail and private consortia in the Federal District have been required to bring only minor capital investment for renovation and extension of the water supply network. Where the private sector has been invited to make significant capital investments in cities such as Aguascalientes, there are doubts as to the level of capital contribution these firms have actually made. In 1994, following the Mexican financial crisis, the private operator (led by a European water company) was rescued from bankruptcy and the financial burden of paying for infrastructure, particularly 'network expansion' was transferred back to the public sector (Castro, 2004).

The PRINWASS (2004) survey of PSP provides more evidence. This covers 17 cities in nine countries in Africa, Europe and Latin America[33] including 'mature' (10-15 years) cases of PSP, 'intermediate' (5-9 years) cases and one 'incipient' (1 year) case. The survey notes 'a consistent pattern' of very low or zero contributions of 'fresh capital' from private operators, with revenues constituting by far the major source of funding supplemented by loans and state subsidies. These 'tend to disprove the claim that PSP contributes to the financial relief of the public sector. The evidence suggests that … water utilities continue to rely on public funding whether through direct subsidies or other finance' (p. 50). This has meant that 'as a general trend capital

[33] Kenya, Tanzania; England, Greece, Finland; Argentina, Bolivia, Brazil, Mexico.

formation has been far below then expected with a pattern of recurrent non-compliance of investment commitments according to contract…' (p. 45).

It has also been argued that foreign water companies treat their investments in water services as 'project financings' whereby once a local corporate vehicle has been established in the country in question by the foreign parent company (with some initial working capital), the former is expected to make good of its concessions without recourse to the parent. The effect of this is that, although the creation of (or participation in) the local company may be accompanied by an initial injection of capital, thereafter there is no commitment by the foreign parent to invest.

9.5.7 Is the GATS a threat to subsidies in the water sector?

One of the allegations most often raised by critics of GATS concerns the presumption that it forces WTO member governments to grant domestic subsidies to all firms (including foreign) on a non-discriminatory basis. There are also concerns that in key social sectors, such as water, the GATS might constrain policymakers in providing water pricing subsidies. Subsidies and social tariffs are important for the provision of water services to the poor in Mexico, Senegal and South Africa (see Appendix 6).

Under the GATS, however, trade in services is not yet subject to specific subsidy rules. The GATS does not even define the term 'subsidy' but the GATT definition defines one as arising when a government or other public body confers a financial benefit on a specific producer or group of producers.

The types of subsidies used by governments to support economic activities include direct payments or grants, tax concessions, concessional loans and government guarantees. Subsidies can be firm- or industry-specific or they may be economy-wide i.e. non-specific. The issue of subsidy practices in the services field is one where WTO members agreed at the end of the Uruguay Round to pursue negotiations with a view to developing multilateral disciplines. Article XV of the GATS merely provides a commitment to negotiate specific disciplines later.

Comprehensive data on the existence of subsidies in services trade is not available but the Working Party on GATS Rules has found that direct subsidizing of exports of services is not highly prevalent, although subsidised export credits for construction projects do occur and sectors such as transport, audio-visual, tourism and financial services typically benefit from some form of subsidy in both developed and developing countries.

It is unlikely that the development of any rules on subsidies under the GATS would constrain their use in the water sector to target provision at poor. First, within the GATS subsidies are considered as 'measures' for which MFN obligations apply and national treatment is applicable only the extent to which a GATS Member has listed a sector in its specific schedule of commitments. Most WTO Members have included limitations on national treatment that apply to all subsidies while others (Canada, EU, Japan and US) have done so with respect to specific modes of supply and specific services sectors. Second, guidance on the subsidies issue can be taken from the WTO's Agreement on Subsidies and Countervailing Measures (SCM). The WTO

rules only concern *specific* subsidies since economy-wide subsidies (such as subsidises for poor consumers) are assumed not to distort trade. Subsidies are considered to be non-specific if eligibility is determined by objective criteria, not conditional on export performance or the use of domestic inputs, and not limited to a firm or industry within a geographic region. But subsidies that depend on export performance or the use of domestic over imported goods are prohibited, except for some developing countries.

The development of subsidy rules for services trade will be problematic, especially for export subsidies. For mode 1, the situation is comparable to trade in goods so the ban could be applicable. However for mode 2 the concept is confusing: a domestic producer would need to claim that a foreign supplier of services received government support conditional on attracting a consumer from the complaining country to consume the service abroad. Similarly, for mode 3 it is unlikely that a domestic government would provide a subsidy to a firm that is considering establishing a commercial presence in another country but it is possible that an importing country would try to attract investment from abroad (which would have trade and investment distorting effects). Finally, for mode 4 it is hard to imagine an example of export subsidies affecting the movement of natural persons. It is more likely that an importing country would provide subsidised travel or relocation grants to attract workers.

There are also complexities concerning the use of countervailing measures against subsidies in services trade. In order for measures to be taken against a subsidy, the SCM Agreement requires findings of injury to the domestic industry of an importing country. Determining injury caused by subsidies in services trade would be difficult for modes 2 and 4 because the traditional concept of 'imports' does not apply.

9.5.8 Pressure from developed countries to liberalise water services under the GATS

While the WTO states that GATS 'allows governments, to a very great extent, to determine the level of obligations they will assume' (WTO, 2001b), in practice the negotiation process is more complex. The former WTO Director General Mike Moore has admitted 'there is no denying that some members are more equal than others when it comes to influence' (Hilary, 2003). As noted above, much of GATS negotiation takes place at the bilateral level. This has led to some concern among civil society groups that while developing countries formally retain the right to choose which services they offer up to the GATS, they may come under pressure in the negotiations to meet the demands of more powerful WTO members (Hilary, 2003). As well as having greater human and financial resources in the negotiating process, the more powerful nations are able to exert influence on developing countries through their aid programmes (Jawara and Kwa, 2003).

Since water distribution services have yet to be listed as a sector included under the GATS it is difficult to determine whether such concerns are justified, but the available evidence is mixed.

On the one hand, the experience in **Senegal** would suggest that rich countries and their donors do have influence. In 1995, the most important donors in the water sector

– the World Bank, the French AfD, and the German KfW – pressed for reform as a precondition for allocating more (and much needed) funding to the national water infrastructure.[34] *Inter alia*, the donors demanded that SONEES be granted greater autonomy from the state in order to reduce free-riding (particularly of state agencies) and to increase operational efficiency. General urges for privatisation also came from the IMF.[35]

In **South Africa**, civil society groups e.g. South African Civil Society Water Caucus have been very critical of the corporations, international development bureaucracies and state elites which they perceive to be pushing harmful neo-liberal policies of privatisation and commoditisation of public services, especially the role of the World Bank and IMF in the development of GEAR and agenda of NEPAD and AMCOW which has been described as 'home-grown structural adjustment' (see Bond, 2004). However South Africa is arguably strong enough (economically if not politically) to resist external pressures and the water sector is by no means donor dependent as is the case in many smaller, less developed countries.[36]

Interviews with government suggest that there is very little pressure from other countries, and the European union in particular, for liberalisation of water services under the GATS. In fact the DTI in South Africa were unaware of any specific formal correspondence from the EU in relation to the issue (specific requests from Brussels would normally be conveyed through the delegation). Even the EU's request to include water distribution services within the 'environmental services' classification under the GATS is not on the agenda between the European Commission and DTI. One interviewee reported that 'it has never been discussed at this level during the past 2 years … no-one here is working on water'. Other interviewees noted an apparent disconnect between policymakers in Brussels and the European Commission delegation in-country tasked with implementing policy.

[34] The World Bank made the argument for water *concessions* and the privatisation of the water sector.
[35] The IMF was also the main proponent of PSP in the Senegalese electricity sector. Sénélec has seen two failed attempts to privatise, because of a lack of international interest and, in one case, the government ended the contract as the private investor failed to meet the agreed standards.
[36] DWAF estimate that over 90% of investment in WSS is from local government.

10. CONCLUSION

Based on current experience of PSP in the water sector there are doubts as to the benefits (investment in infrastructure, efficiency and quality) that would be achieved by developing countries opening up their water services to foreign private suppliers under the GATS. In the absence of effective domestic regulation, and sufficient capacity to regulate, there could also be negative effects on equity. PSP (both domestic and foreign) can result in higher prices (for cost recovery purposes), forcing the poor and marginalised to buy water at much higher rates or leaving them to be provided for by other means (e.g. state provision or stop-gap supplies by water tanker). These apprehensions are particularly acute in the water sector, for a basic service whose availability is essential to all, where there are recognised market failures, political sensitivities and in which governments are heavily involved as regulators, providers and distributors.

But GATS itself neither requires nor precludes a particular regulatory regime. Countries are in principle free (subject to international pressure) to design water services regulations according to their national priorities and development strategies. WTO Members must, however, observe certain GATS disciplines when adopting and implementing particular regulatory instruments. Those countries that want to rely on domestic services and services suppliers in any sector or who want to maintain a maximum degree of regulatory flexibility should consider remaining unbound in that sector i.e. not making any commitments under the GATS. Other countries that want to commit certain sectors (including water) to the market access and national treatment disciplines of the GATS should carefully assess their regulatory regime and the implications of market access and national treatment on it and should, when scheduling limitations on their commitments, also consider their need for future regulatory flexibility. As noted above, sequencing of liberalisation is vital: public authorities need to ensure that adequate regulation is in place before opening up water services to PSP, including to foreign access (under the GATS).

It follows that developing countries, before deciding upon their negotiating stance under GATS in specific sectors such as water (and other sectors of export interest and/or domestic concern) need to assess their strengths and weaknesses in the relevant services sector, the potential costs and benefits of liberalising these services, the role of domestic regulations (and their capacity to regulate) and conditions in shaping these costs and benefits.

At the same time developed countries, including the European Commission on behalf of the EU, need to be sensitive - and be seen to be sensitive - to the local context of the water sector in those developing countries, including the social and political environment, for which they ask to make commitments under the GATS.

In this connection, the sending out in 2002[37] by the EC and its Member States of requests to the 72 countries was unfortunate. The list was not only long, but also heterogeneous, including countries with very different levels of development and with sectoral concerns. It was perceived by observers outside the Commission as being a "blanket" approach to promoting GATS in relation to water services, indiscriminately ambitious and (worse, where it might be combined with conditionalities and/or other

[37] As noted above, *revised* requests have since been sent out by the EC and its Member States, in January 2005.

donor pressure, as aggressive) as well as not being sensitive to different country contexts.

From the 'internal' perspective of trade officials involved in administering GATS requests, a practical question arises: how do they decide which countries to make requests to, and which not? From the outside, the EU requests in 2002 look to have adopted a "mail-shot" approach (i.e. spreading requests widely), as opposed to another option which would have been to seek a more targeted approach. Whatever the internal reality[38], the fact is, as noted above, that the making of requests to 72 countries attracted substantial external attention including *inter alia* doubts as to whether it had taken into account the status of institutions (if any) for regulating private sector participation[39].

A key lesson is that liberalisation of water services in developing countries needs to be approached with care - more care than in relation to other services sectors which carry less social and political sensitivities. The characteristics of water services make them significantly different from, for example, telecommunications, banking/finance and other business services. Indeed, trade specialists note that the services least frequently included in GATS schedules of commitments to-date are "social" sectors such as education, health and water.

The exchanges during this project between trade and water specialists have revealed the extent of dialogue and learning required at the GATS-water sector interface. Trade officials need to familiarise themselves with the special features of the water sector. Water officials meanwhile need to build up their understanding of the content of the different GATS rules, how they are interpreted internationally under WTO procedures/auspices, and especially how they may apply to water services.

For developing countries, a gradual approach to making market access and national treatment commitments is likely to be advisable for three reasons.

First, regulatory authorities which have little experience of PSP and GATS may not be able to regulate for things they do not foresee[40]. The onus is on countries which

[38] No information was available to this study on the processes internal to the Commission and to the discussions with/amongst Member States.

[39] The EC states that it has, subsequent to the 2002 request, shown its willingness to discuss transition periods where developing countries have expressed the need for time to adapt their regulatory frameworks in light of GATS commitments, allowing for a more gradual opening of markets to foreign suppliers. In making its *revised* requests in 2005, the approach followed by the EC was that it allowed vulnerable countries (including all Least Developed Countries) to choose environmental services as an optional sector to commit out of a group of five sectors. In other words, the EC states that the level of development of countries is taken into account in the requests it makes to WTO member countries.

[40] The EU WI Code of Conduct, recently drawn up by a multi-stakeholder group and soon to be endorsed by the EUWI Steering Group, is clear on the role of the private sector: "The international public and private sector water operators have much to offer in the way of capacity building, knowledge transfer and management support to partner country water operators. However, the involvement of the private sector in the delivery of water and sanitation services is a National or Local Government choice and service provision should be undertaken in the most efficient and effective manner whether public, private or appropriate combination of the two options."

make commitments under the GATS to provide limitations to the application of rules concerning market access and national treatment, in terms which are clear and effective for that purpose, to formulate the partial commitments they desire. A cautious step-by-step approach to making GATS commitments would increase the likelihood of understanding correctly how they take effect and in assessing any positive or negative implications (which can be enhanced or mitigated by specifying limitations).

Second, since disciplines for domestic regulation under the GATS are still being developed, finalising GATS rules in these areas would assist countries in making commitments. While GATS rules remain in certain respects a 'moving target', the making of commitments under the current regime will continue to involve uncertainties.

Third, GATS surely presents a considerable capacity challenge for developing countries. Where negotiating or regulatory capacity is lacking in these countries, it is important that developed countries make available technical assistance to help build that capacity, but, as noted above, where such technical assistance is required, it should be provided through third parties who are acting - and are seen to be acting - as impartial advisors.

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APPENDIX 1: WATER SUPPLY AND SANITATION COVERAGE BY COUNTRY (2000)

	Population (thousands)			Water supply coverage (%)			Sanitation coverage (%)		
	Total	**Urban**	**Rural**	**Total**	**Urban**	**Rural**	**Total**	**Urban**	**Rural**
Afghanistan	21,765	4,762	17,003	13	19	11	12	25	8
Ethiopia	62,908	9,762	53,146	24	81	12	12	33	7
Chad	7,885	1,876	6,010	27	31	26	29	81	13
Cambodia	13,104	2,216	10,889	30	54	26	17	56	10
Laos	5,279	1,018	4,261	37	61	29	30	67	19
Mauritania	2,665	1,539	1,126	37	34	40	33	44	19
Angola	13,134	4,492	8,642	38	34	40	44	70	30
Oman	2,538	1,928	610	39	41	30	92	98	61
Rwanda	7,609	468	7,141	41	60	40	8	12	8
Burkina Faso	11,535	1,905	9,630	42	66	37	29	39	27
Papua New G	4,809	836	3,973	42	88	32	82	92	80
Equat. Guinea	457	220	237	44	45	42	53	60	46
DR of Congo	50,948	15,427	35,521	45	89	26	21	54	6
Eritrea	3,659	685	2,973	46	63	42	13	66	1
Haiti	8,142	2,906	5,236	46	49	45	28	50	16
Fiji	814	402	411	47	43	51	43	75	12
Madagascar	15,970	4,710	11,261	47	85	31	42	70	30
Guinea	8,154	2,242	5,912	48	72	36	58	94	41
Kiribati	83	32	51	48	82	25	48	54	44
Congo	3,018	1,974	1,045	51	71	17		14	
Uganda	23,300	3,299	20,001	52	80	47	79	93	77
Togo	4,527	1,510	3,017	54	85	38	34	69	17
Guinea-Bissau	1,199	378	821	56	79	49	56	95	44
Kenya	30,669	10,234	20,435	57	88	42	87	96	82
Malawi	11,308	1,665	9,643	57	95	44	76	96	70
Mozambique	18,292	5,874	12,419	57	81	41	43	68	26
Sierra Leone	4,405	1,614	2,791	57	75	46	66	88	53
Cameroon	14,876	7,277	7,599	58	78	39	79	92	66
Romania	22,438	12,360	10,078	58	91	16	53	86	10
Niger	10,832	2,228	8,604	59	70	56	20	79	5
Mongolia	2,533	1,434	1,100	60	77	30	30	46	2
Tajikistan	6,087	1,681	4,406	60	93	47	90	97	88
Bhutan	2,085	149	1,936	62	86	60	70	65	70
Gambia	1,303	399	903	62	80	53	37	41	35
Nigeria	113,862	50,175	63,687	62	78	49	54	66	45
Benin	6,272	2,651	3,621	63	74	55	23	46	6
Zambia	10,421	4,128	6,293	64	88	48	78	99	64
Mali	11,351	3,427	7,924	65	74	61	69	93	58
Tanzania	35,119	11,327	23,792	68	90	57	90	99	86
Yemen	18,349	4,534	13,815	69	74	68	38	89	21
Central Af. R.	3,717	1,531	2,186	70	89	57	25	38	16
Solomon Islands	447	88	359	71	94	65	34	98	18
Libya	5,290	4,635	654	72	72	68	97	97	96
Myanmar	47,749	13,220	34,529	72	89	66	64	84	57
Ghana	19,306	6,963	12,342	73	91	62	72	74	70
Cape Verde	427	266	161	74	64	89	71	95	32
China	1,275,133	456,340	818,793	75	94	66	40	68	26
Sudan	31,095	11,231	19,864	75	86	69	62	87	48
El Salvador	6,278	3,786	2,492	77	91	64	82	89	76
Kyrgyzstan	4,921	1,692	3,229	77	98	66	100	100	100
Namibia	1,757	542	1,214	77	100	67	41	96	17
Nicaragua	5,071	2,847	2,225	77	91	59	85	95	72
Sri Lanka	18,924	4,314	14,610	77	98	70	94	97	93
Viet Nam	78,137	18,816	59,321	77	95	72	47	82	38
Azerbaijan	8,041	4,173	3,868	78	93	58	81	90	70
Burundi	6,356	569	5,787	78	91	77	88	68	90
Indonesia	212,092	86,943	125,149	78	90	69	55	69	46
Lesotho	2,035	569	1,466	78	88	74	49	72	40
Paraguay	5,496	3,077	2,420	78	93	59	94	94	93
Senegal	9,421	4,469	4,952	78	92	65	70	94	48
Georgia	5,262	2,962	2,300	79	90	61	100	100	99
Palau	19	13	6	79	100	20	100	100	100
Morocco	29,878	16,571	13,307	80	98	56	68	86	44
Peru	25,662	18,674	6,988	80	87	62	71	79	49

Continued over

	Population (thousands)			Water supply coverage (%)			Sanitation coverage (%)		
	Total	**Urban**	**Rural**	**Total**	**Urban**	**Rural**	**Total**	**Urban**	**Rural**
Syria	16,189	8,324	7,865	80	94	64	90	98	81
Tunisia	9,459	6,198	3,261	80	92	58	84	96	62
Côte d'Ivoire	16,013	6,984	9,029	81	92	72	52	71	35
Suriname	417	309	108	82	93	50	93	99	75
Turkey	66,668	43,844	22,824	82	81	86	90	97	70
Bolivia	8,329	5,193	3,136	83	95	64	70	86	42
Venezuela	24,170	21,010	3,160	83	85	70	68	71	48
Zimbabwe	12,627	4,459	8,168	83	100	73	62	71	57
India	1,008,937	279,045	729,893	84	95	79	28	61	15
Thailand	62,806	12,453	50,352	84	95	81	96	96	96
Ecuador	12,646	7,967	4,679	85	90	75	86	92	74
Iraq	22,946	15,493	7,453	85	96	48	79	93	31
Uzbekistan	24,881	9,140	15,740	85	94	79	89	97	85
Dominican R.	8,373	5,475	2,898	86	90	78	67	70	60
Gabon	1,230	1,002	228	86	95	47	53	55	43
Palestine	3,191	2,132	1,059	86	97	86	100	100	100
Philippines	75,653	44,295	31,358	86	91	79	83	93	69
South Africa	43,309	24,629	18,680	86	99	73	87	93	80
Brazil	170,406	138,287	32,119	87	95	53	76	84	43
Honduras	6,417	3,384	3,033	88	95	81	75	93	55
Mexico	98,872	73,531	25,341	88	95	69	74	88	34
Nepal	23,043	2,730	20,313	88	94	87	28	73	22
Vanuatu	197	43	154	88	63	94	100	100	100
Algeria	30,291	17,311	12,980	89	94	82	92	99	81
Pakistan	141,256	46,757	94,499	90	95	87	62	95	43
Panama	2,856	1,606	1,249	90	99	79	92	99	83
Trinidad/Tobago	1,294	959	335	90			99		
Antigua/Barbuda	65	24	41	91	95	89	95	98	94
Colombia	42,105	31,566	10,538	91	99	70	86	96	56
Cuba	11,199	8,435	2,764	91	95	77	98	99	95
Kazakhstan	16,172	9,031	7,142	91	98	82	99	100	98
Belize	226	109	118	92	100	82	50	71	25
Guatemala	11,385	4,515	6,870	92	98	88	81	83	79
Iran	70,330	45,023	25,307	92	98	83	83	86	79
Jamaica	2,576	1,445	1,131	92	98	85	99	99	99
Rep. Korea	46,740	38,269	8,471	92	97	71	63	76	4
Moldova	4,295	1,786	2,509	92	97	88	99	100	98
Chile	15,211	13,049	2,162	93	99	58	96	96	97
St Vincent	113	62	51	93			96		
Guyana	761	276	485	94	98	91	87	97	81
Botswana	1,541	756	786	95	100	90	66	88	43
Costa Rica	4,024	2,374	1,649	95	99	92	93	89	97
Grenada	94	35	58	95	97	93	97	96	97
Saudi Arabia	20,346	17,531	2,815	95	100	64	100	100	100
Comoros	706	235	471	96	98	95	98	98	98
Jordan	4,913	3,867	1,046	96	100	84	99	100	98
Albania	3,134	1,326	1,808	97	99	95	91	99	85
Bahamas	304	269	35	97	98	86	100	100	100
Bangladesh	137,439	34,354	103,085	97	99	97	48	71	41
Dominica	71	50	20	97	100	90	83	86	75
Egypt	67,884	28,970	38,914	97	99	96	98	100	96
Saint Kitts	38	13	25	98			96		
Saint Lucia	148	56	92	98			89		
Ukraine	49,568	33,657	15,911	98	100	94	99	100	98
Uruguay	3,337	3,067	270	98	98	93	94	95	85
Yugoslavia	10,552	5,443	5,109	98	99	97	100	100	99
Hungary	9,968	6,434	3,534	99	100	98	99	100	98
Russian Fed.	145,491	106,063	39,428	99	100	96			
Samoa	159	35	124	99	95	100	99	95	100
Andorra	86	79	7	100	100	100	100	100	100
Australia	19,138	17,361	1,777	100	100	100	100	100	100
Austria	8,080	5,436	2,643	100	100	100	100	100	100
Barbados	267	134	134	100	100	100	100	100	100
Belarus	10,187	7,073	3,114	100	100	100			
Bulgaria	7,949	5,363	2,587	100	100	100	100	100	100
Canada	30,757	24,206	6,551	100	100	99	100	100	99

Continued over

	Population (thousands)			Water supply coverage (%)			Sanitation coverage (%)		
	Total	**Urban**	**Rural**	**Total**	**Urban**	**Rural**	**Total**	**Urban**	**Rural**
Cook Islands	20	12	8	100	100	100	100	100	100
Cyprus	784	548	236	100	100	100	100	100	100
DPR Korea	22,268	13,415	8,854	100	100	100	99	99	100
Denmark	5,320	4,527	793	100	100	100			
Djibouti	632	531	101	100	100	100	91	99	50
Finland	5,172	3,050	2,122	100	100	100	100	100	100
Lebanon	3,496	3,138	359	100	100	100	99	100	87
Maldives	291	80	211	100	100	100	56	100	41
Malta	390	355	35	100	100	100	100	100	100
Mauritius	1,161	480	682	100	100	100	99	100	99
Monaco	33	33	0	100	100	100	100	100	100
Netherlands	15,864	14,197	1,667	100	100	100	100	100	100
Niue	2	1	1	100	100	100	100	100	100
Norway	4,469	3,339	1,130	100	100	100			
Singapore	4,018	4,018	0	100	100		100	100	
Slovakia	5,399	3,100	2,299	100	100	100	100	100	100
Slovenia	1,988	978	1,010	100	100	100			
Sweden	8,842	7,364	1,478	100	100	100	100	100	100
Switzerland	7,170	4,834	2,337	100	100	100	100	100	100
Tonga	99	32	67	100	100	100			
Tuvalu	10	5	5	100	100	100	100	100	100
United Kingdom	59,415	53,162	6,253	100	100	100	100	100	100
USA	283,230	218,678	64,553	100	100	100	100	100	100

Source: WHO/UNICEF Joint Monitoring Programme, 2004.

APPENDIX 2: GATS MARKET ACCESS AND NATIONAL TREATMENT COMMITMENTS IN THE WATER SECTOR UNDER THE GATS (ENVIRONMENTAL SERVICES)

Sector	Sewage				Sanitation			
Mode	1	2	3	4	1	2	3	4
Developed								
Australia	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
Austria	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
Canada	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
EU	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
Iceland	U*/U*	N/N	L/N	U/N	U*/U*	N/N	N/N	U/N
Israel	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
Japan	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
Liechtenstein	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
Norway	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
South Africa	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
Sweden	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
Switzerland	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
USA	U*/U*	N/N	N/N	U/N	U*/U*	N/N	N/N	U/N
Transition								
Bulgaria	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
Czech Rep	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
Estonia	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
Hungary					U*/U*	N/N	N/N	U/U
Kyrgyz Rep	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
Latvia	U*/U*	N/N	N/N	U/N	U*/U*	N/N	N/N	U/N
Slovak Rep	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
Slovenia	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
Ecuador	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
Developing								
Gambia	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
Guinea	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
Korea RP					U*/U*	N/N	L/N	U/U
Kuwait	U*/U*	U/U	N/N	U/U	U*/U*	U/U	N/N	U/U
Lesotho	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U
Morocco	U*/U*	U/N	N/N	U/N	U*/U*	U/N	N/N	U/N
Qatar	U*/U*	U/U	N/N	U/U	U*/U*	U/U	N/N	U/U
Rwanda					U*/U*	N/N	N/N	N/N
Sierra Leone	U*/U*	U/U	N/N	U/U	U*/U*	U/U	N/N	U/U
Thailand	U*/U*	N/N	N/L	N/N	U*/U*	N/N	N/L	N/N
Turkey	U*/U*	N/N	N/N	N/N	U*/U*	N/N	N/N	N/N
UAE	U*/U*	N/N	N/N	U/U	U*/U*	N/N	N/N	U/U

Market Access / National Treatment Commitments

N – None (no limitations)

L – Bound with limitations

U – Unbound (no commitment)

U* – Mode of supply not technically feasible

APPENDIX 3: EU REQUESTS (2002) MADE TO TRADE PARTNERS COVERING THE INCLUSION OF WATER SERVICES UNDER THE GATS

The EU requested that the following WTO members commit their water sectors under GATS in the current round of services negotiations:

Antigua & Barbuda
Argentina
Australia
Bahrain
Bangladesh
Barbados
Belize
Bolivia
Botswana
Brazil
Brunei Darussalam
Canada
Chile
China
Colombia
Costa Rica
Cuba
Dominican Republic
Ecuador
Egypt
El Salvador
Guatemala
Honduras
Hong Kong, China
India
Indonesia
Israel
Jamaica
Japan
Jordan
Kenya
Korea
Kuwait
Lesotho
Macao, China
Madagascar
Malaysia
Maldives
Mauritius
Mexico
Mongolia
Morocco
Mozambique
Namibia
New Zealand
Nicaragua
Nigeria
Oman
Pakistan
Panama
Paraguay
Peru
Philippines
Qatar
Senegal
Singapore
South Africa
Sri Lanka
St Kitts & Nevis
St Lucia
St Vincent & Grenadines
Switzerland
Taiwan
Tanzania
Thailand
Trinidad & Tobago
Tunisia
United Arab Emirates
United States of America
Uruguay
Venezuela
Zimbabwe

Source: Hilary (2003).

APPENDIX 4: THE GRADUALIST APPROACH TO PRIVATE SECTOR PARTICIPATION IN THE FEDERAL DISTRICT OF THE MEXICO CITY METROPOLITAN AREA

The Federal District (also *Distrito Federal*) is located at the heart of the bigger Mexico City Metropolitan Area (MCMA).

Mexico City is one of the largest cities in the world. The Federal District alone has a population of 8.5 million people and the MCMA, which includes parts of adjoining states (such as the State of Mexico), has a population of c.20 million. The population of the Federal District has nearly doubled in some four decades from 4.8 million in 1959 (Haggarty et al, 2001).

As shown on Figure a, the Federal District comprises sixteen political units called delegations (*delegaciones*) equivalent to municipalities. Each delegation is controlled by a local municipal head or *delegado*. Since 1997, like every other state and municipality in the republic, the Federal District also has a popularly elected mayor.

In 1993 the Federal District was divided into four 'zones' for water services purposes, when private sector contractors were engaged by the public authorities. PSP in water services has now, therefore, existed in the Federal District for more than a decade. Further, it has involved (and continues to involve) private sector consortia in which international water companies are participating, in each of the four zones - see Box a.

Box a. The Federal District: the Zones and Private Water Operators

Zone	Company	Consortium Partners	Delegations (in Federal District)
A North	Servicios de Agua Potable (SAPSA)	- *Veolia Environnement* (formerly part of "Vivendi" group, France) - ICA (Mexico, civil engineering);	Gustavo A. Madero Azcapotzalco Cuauhtémoc
B North-Central	Industrias del Agua de la Ciudad de Mexico (IACMEX)	- *Ondeo* (part of Suez group, France) - Industrias Peñoles (mining, metals and chemicals, Mexico) and Socios Ambientales de México (Mexico)	Venustiano Carranza Iztacalco Benito Juárez Coyoacán
C South-East	Tecnología y Servicios de Agua (TECSA)	- *Ondeo* (part of Suez group, France) - Industrias Peñoles (mining, metals and chemicals group, Mexico)	Iztapalapa Milpa Alta Tlahuac Xochimilco
D West	Agua de México (AMSA)	- Grupo Gutsa (Mexico); - *United Utilities* (UK)	Alvaro Obregón Cuajimalpa Miguel Hidalgo Tlalpan Magdalena Contreras

Source: SACMEX

The Federal District provides a particularly pertinent case study because, in addition to the importance it as the capital city of Mexico, in each of the four zones, the international water companies participating are European-based and registered (see names in italics in Box a).

The challenges of providing water services to a Federal District population which is large and heterogeneous in socio-economic terms are considerable.[41] The rates of piped connection in the Federal District are relatively high by low-middle income country standards – higher than in other parts of the MCMA. Meanwhile, the standard of service is variable, in terms of quality and regularity of water supplied through the piped connections.

PSP has been adopted in the Federal District using a gradualist approach, a phased process of contracting out of a limited set of services to private water companies. This contrasts with the experience in another Mexican city, *Aguascalientes*, where grant of a concession was made in the 1990s involving a much greater delegation of functions to the private sector utility.

In addition to the challenges above, there are well-documented difficulties faced in managing the water resources of the Valley of Mexico, so as to make water available for distribution within the Federal District. According to a recent World Bank study (Haggarty et al, 2001, p.8), 'the availability of raw water resources to supply the Federal District is seriously curtailed by geographic factors. Mexico City is built on the floor of a drained lake – the site of the former Aztec city *Tenochtitlan* – high in a mountain valley. The city has a long and precarious hydrological history, combining severe water shortage with severe flooding. Both have been combated by heroic engineering projects to mine the aquifer underlying the city, to bring water from ever more distant river valleys which are one kilometre, in altitude, below the city, and to provide drainage away from the city for wastewater and floodwaters'.

The same report also notes: 'Over-extraction of the aquifer had been recognized as a problem since at least the 1930s and the city had already committed to two very expensive projects, from the *Lerma* basin 60 kms away and the *Cutzamala* River 127 kms distant and some 1,200 metres in altitude below the city, for importing water from distant sources (page 22).

The responsibility for managing the water resources in the Valley of Mexico and surrounding areas and bringing water to the the city is borne by the public authorities,[42] i.e. water resource management is in public hands.

As regards water services, the set of responsibilities in the Federal District which has been delegated to the four groups of private contractors does not include managing the water distribution system amongst and within the delegations in Federal District. The task of ensuring an available supply of water for households through the secondary network, including the management of that network, is also in public hands.

The comments of persons interviewed during this study reflected the link between water resource management and water services: several interviewees referred to the difficulties of bringing a sustained supply of water to Mexico City and the implications this has for water supply within the city – namely, that *delegations* in the south-east zone – which is located furthest away from the Cutzamala water conveyance system – particularly suffer from intermittent supply, and poor quality.

[41] Whilst Mexico is not of course a Least Developed Country, it has great disparities of wealth.

[42] Because the water resources come from surrounding areas beyond the Federal District, ultimately the responsibility falls on the Federal Government (of the whole republic), including a heavy share of the costs of maintaining and developing the long-distance sources for delivery of water.

The key authority in relation to water in the Federal District is the *Sistema de Aguas de la Cuidad de México* – Water System of Mexico City (SACMEX) which was created in January 2003, and is part of the Government of the Federal District, acting as front-line regulator.

APPENDIX 5: PRIVATE SECTOR PARTICIPATION IN AGUASCALIENTES

The city of Aguascalientes is located in the central northern region of **Mexico**. The population has grown from 450,000 in 1990 to 600,000 in 2000 and it is estimated that by 2010 there will be almost one million residents. At the same time, Aguascalientes has always been characterised by its location in a zone of water scarcity. The aquifer that supports its growth is being over-exploited. The growing demographic pressure on services, together with the growing debt of the municipal government, prompted the government to introduce PSP for the provision of water services.

In 1993 the State Water Law was reformed to allow the transfer of responsibility for water to state governments and also provided for the disconnection of water services for non-payment. This was followed by the new state Law for Potable Water, Drainage and Sanitation Systems, which created the conditions for the introduction of PSP in Aguascalientes. In the same year, Decree 32 was signed, authorising the municipal president of Aguascalientes to grant a concession for the provision of potable water, sewerage and wastewater treatment services. The municipal president granted the concession to a private consortium. The state Law was reformed in 2000 to allow for the establishment of monitoring bodies such as the Institute of Water, the Citizen Movement for Water, and the State Consultative Council on Water. In 2002, the State Water Law was modified, cancelling the policy of disconnection for non-payment established in 1993; the reform also established that the state congress would approve all changes in tariffs for water services. However, after the state congress authorized these reforms, with the agreement of almost all political parties, the governor vetoed them.

The process of decentralisation of water services was carried out in conjunction with a series of administrative, policy, and legal reforms for introducing PSP. However, the overall process and, in particular, the concession of the water utility to a private operator, was punctuated by a number of contradictions and institutional weaknesses. In particular, the concession was granted in the absence of any regulatory mechanisms or legal framework to monitor the performance of the private operator. Also, in political terms the whole process had very weak foundations, given that the country's political reform was still very incipient, which at the state level was reflected in the absence of a meaningful political representation in congress that could offer an effective counterbalance to the single ruling party. After the decentralisation and transfer of the administration of water services, the municipal government was weak politically, administratively (e.g. understaffed, lacking skilled workers, inexperienced in management), and financially (burdened by debt and under-resourced), since it had been historically dependent on the central power. Civil society was not involved in the process either, since their historical relationship with the government had been characterised by political patronage.

The introduction of PSP for water services in Aguascalientes was a candidate for failure from the start. The company faced an adverse public reaction when it increased tariffs. Fees were increased from an average of $.50 pesos (US$.04) in 1989, to $5.96 pesos (US$.52) in 2001. The economic crisis of 1994-95 intensified the financial problems confronted by the company, doubling its debt. Meanwhile, the politicisation around raising tariffs and water suspensions reduced the commercial efficiency of the company when the municipal government intervened in the company during the financial crisis, renegotiating the contract under very different conditions. These modifications improved the position of the company. The federal government took on most of its debt, the contract was extended ten years more than what was initially agreed, and the company no longer had to invest in infrastructure with its own resources. It could now build infrastructure funded with state or mixed resources.

Source: Adapted from PRINWASS (2004).

APPENDIX 6: KEY ISSUES IN THE PROVISION OF WATER SERVICES IN MEXICO, SENEGAL AND SOUTH AFRICA

Pricing

The design and application of 'social tariffs', i.e. tariff structures which include differential pricing and provide for special treatment for poor households (e.g. applying cross-subsidies from wealthier areas) are an important tool for protection of water consumers, as well as for protection of the environment through water conservation. As a recent OECD study notes 'Where governments are unwilling or unable to offer financial relief to low-income households [i.e. through alternative measures of 'income support'], tariff structuring is increasingly seen as a more promising approach to helping those who cannot meet their most basic needs, while also reconciling environmental and affordability objectives' (OECD 2003b, p. 70).

For **Mexico**, interviewees in the Federal District reported that the same tariff is set for all four zones, with no price distinctions made between different socio-economic groups within or between delegations in the Federal District. The stated aim of the public authority is to establish 'equity'.

This means that, in strict terms, the tariff system does not differentiate between different (domestic) users and does not apply a social tariff. An exception is for users whose service is of markedly lower quality who are granted a fixed, not metered, rate. This raises the issue as to whether the pricing of water services in the Federal District (and the outlying areas of the larger MCMA) is targeted to the poor. The aim of applying a standard tariff is expressed to be equity, but more socially sensitive tariff structures are, in principle, capable of distinguishing between different water users to take into account their different financial circumstances. However, the price paid constitutes a substantial under-payment by all domestic users (as compared to the costs of providing the service), so to this extent the tariff could be argued to be a 'social' tariff. For well-off households this represents a very low level of payment. So, whilst prices have risen since the introduction of PSP, these do not, for example, exploit the capacity of many high and middle income households to pay more for their water.

The major tariff distinction made in the Federal District is between domestic and non-domestic customers (the latter term encompassing industrial and commercial users). As regards domestic customers, the public authority in the Federal District (SACMEX) notes that water services embody a strong social element. It takes the view that the choice of what degree of PSP is introduced in the provision of water services (and at what pace) is particularly sensitive in relation to domestic users. Consequently, it treats domestic customers differently, whereas 'commercial and economic policies may be operated more freely in relation to non-domestic customers'. In summary therefore there is a substantial cross-subsidy from non-domestic to domestic users, in the Federal District, but not (currently at least) from rich to poor domestic users.

There has been some initial discussion in Mexico about constructing a more developed social tariff, but it is considered unlikely that there would be changes before the elections in 2006. The generally low level of payment for domestic water has, it seems, been designed to avoid, or at least reduce, social and political opposition to water charges.

A subsequent survey by Soto Montes de Oca (2005, forthcoming) suggests that water officials and policy specialists may be more apprehensive of possible negative response to water tariff reforms including price increases, than the views of their customers, once they are informed, merit. This survey looked at the willingness of households in the Federal District to accept

water tariff reforms which would involve them paying more for their water services[43], and compared the findings with the (then) perceptions of decision-makers in D.F as to the feasibility of introducing such reforms. The survey, first, confirmed the unequal and inequitable distribution of service deficiencies amongst the different areas of the Federal District[44]. Then it indicated that households in areas receiving relatively poor service (eg. in the south-east) expressed readiness to pay more for (genuine) *improvement* to their service, whilst customers in better served areas (eg. in the west) were, it seems, willing to pay increases to the (currently low) rates of charging, in order to be sure that their service would be *maintained* in the future. These responses were seen to reflect customers' recognition of the major challenges of ensuring future water supply to the large population of the Federal District (once they were informed of these challenges, as, in this case, explained to them by the researchers conducting the focus groups and interviews). A recommendation of the survey is for an information campaign to increase awareness among residents in the Federal District of the complexity of the water resource context and the magnitude of the ongoing supply problem for the D.F and wider MCMA.

Social and political sensitivities are also reflected in legal restrictions on disconnections: as the World Bank study in 2001 noted: 'Although article 27 of the Mexican constitution of 1917 allows for the government to concession water rights to private persons, federal health legislation, passed in the 1930s, bans the complete disconnection of residential users for non-payment. In compliance with this law, the Federal District Financial Code apparently states that service can be reduced to minimum 'vital levels', but cannot be completely severed. In practice, however, the World Bank reported that no residential customers had ever (at least in 2002) had their service reduced for non-payment in the Federal District.

In **Senegal**, PSP through the sale of shares in SDE did not generate enough revenue to finance the necessary investment in Senegal's water infrastructure. A crucial decision, therefore, for SONES has been to determine the price of water in Senegal, which was one of the highest in Sub-Saharan Africa even before sector reform. The average water tariff has risen steadily, increasing by 22 percent between 1996 and 2002. The largest increase has been observed for sanitation services. Increases in water prices have been (for social and political reasons) capped at 3 percent annually. However, even at these relatively high levels, the water price fails to finance the necessary investment, nor does it allow for sustainable cross-subsidising of water and sanitation services for socially disadvantaged groups.

In Senegal, water supply up to 20m³ over a two month billing period, for all households, falls under a social tariff of CFA 191.32 francs. Consumption in excess of this and up to 40m³ is charged at the standard tariff (CFA 629.88). Beyond this threshold, an 'industrial' tariff of CFA 788.67 applies. There is no discrimination by income group, so excessive and inefficient use of water has become an issue of social status. Interview partners conceded that this is not an optimal use of subsidies, but the government has been unable to find a more viable solution. In particular, more targeted subsidies based on family income would involve more administrative costs and create more opportunity for nepotism.

The quantity of water for which the social tariff applies (20m³ in two months) was determined on the assumed consumption per poor household: 30 litres a day per person for an average

[43] Soto Montes de Oca, (2005), "Qualitative considerations of consumers' willingness to pay for water tariff reforms in urban areas: the Mexico City case", (forthcoming)

[44] "From the survey we confirmed considerable regional variations where the wealthier west zone showed better standards: 20% of respondents reported shortages, 47% low water pressure and about half poor water quality. In contrast, … more households in the poorer east zone reported to be affected by frequent water shortages (52% of the respondents), low water pressure (72%) and poor water quality (61%)… Consumption of bottled water was reported by 61% of the respondents in the west and reached 91% in the poorer east zone (page 5)."

number of 10 people per household. However, the 10-person threshold seemed to have been a false assumption – poor households in Senegal tend to be larger and it is not unusual for several households to live in the same compound. Poor households benefit from social connections, i.e. free-of-charge connections, and since the costs incurred by households are based on their water consumption a way to reduce bills has been for households to have more than one meter installed – a practice, that is increasingly being investigated by SDE.

A particular problem with the tariff structure lies with communal water taps. As they are used by larger numbers of people, the water consumption from these taps is high. Water consumption from communal taps therefore often falls into the highest tariff group; poor people therefore find themselves in the position of paying the highest water tariff. Even though the pricing structure was intended to create incentives to use water more efficiently, it has adversely affected the poor. Positively, however, privatisation of the communal taps has improved hygiene, as well as reducing widespread water waste (compared to when water was delivered free of charge). But governance of the communal taps – e.g. the accountability of the *gérant* – remains a problem. The person running the communal tap is paid based on the margin between the water tariff and the price of the water sold. Initial difficulties with fraudulent communal managers[45] seem to have been largely addressed by changes in accounting practices. However, interview partners admitted that it has been difficult to control the water price at communal taps and prevent overcharging, particularly in remote and poor areas.

In **South Africa**, the introduction of cost recovery measures to help finance rehabilitation and extension of water services has been particularly controversial with critics arguing that the Constitutional right to water ought not to be subject to affordability. In an attempt to balance equity and sustainability concerns the government is now engaged in trying to build consensus around the idea of Free Basic Water (6,000 litres, per household, per month) and the corollary of payment for higher levels of service. DWAF state that the Free Basic Water policy has now been adopted by over 90 percent of water services authorities, but early experience suggests significant challenges associated with its implementation, especially in low-revenue areas.

All South African citizens have a right to water but they also have a responsibility to pay for this right, over and above the free 6,000 litres, if they can afford to. However, experience to date suggests that private sector operators are often ill-equipped to distinguish between those unwilling to pay and those unable to pay. Cost recovery has, therefore, proved difficult to implement with many public service providers continuing to operate at a loss.

The issue of non-payment is highly political and monitoring 'compliance' is an extremely sensitive issue. The number of disconnections for non-payment has been the source of huge controversy, not least in KwaZulu natal where a major outbreak of cholera occurred in 2000 (see Hemson, 2000). The Water Services Act of 1997 stops short of outlawing disconnections although civic groups have argued this is unconstitutional (see COSATU and SAMWU 1997). More recently service providers have begun experimenting with pressure reduction, 'tricklers' and regulated yard tanks (providing minimum 6kl) as part of a strategy of 'loss management'. This approach has had only limited success with numerous reported incidents of vandalism and large numbers of illegal connections which further undermine sustainability.

[45] One of the early difficulties was the selling of more water than was accounted for, i.e. false reporting to SDE.

Box b: Non-payment in Nelspruit

A large number of households linked non-payment to grievances with the quality of service they received from GNUC. These grievances included: water bills that were perceived as excessively high and non-reflective of what households felt they consumed; complicated water bills that did not indicate what they consumed over and above the 6 kilolitres free; failure to inform households of installation of water meters; and harsh treatment of township residents by BiWater personnel. Grievances alone do not explain this level of non-payment and must also be attributed to economic, political and social reasons. Regarding the economic situation of these two townships, both Matsulu and KaNyamanzane have an indigence rate of 62% with unemployment rates of 36% and 30% respectively. Considering the socio-economic situation of these townships, in many instances people are simply too poor to pay. Even though service users can access the first 6 kilolitres of water free, many household water bills are still very high, at times reaching R 300 to R 500 a month. Numerous pensioners interviewed for this research explained that they took great efforts to use water wisely and did not understand why their bills were so high. They expressed a willingness to pay "if their bills were reasonable". Politically, many residents oppose the presence of BiWater because of the draconian credit control measures being used against their communities for non-payment, such as water cut-offs and the removal of water meters from people's property to prevent illegal reconnections. These respondents claimed they did not want to pay as a form of civil protest

Source: Smith *et al*, (2003).

Several interviewees highlighted the importance of enhancing transparency and accountability in relations between service users and service providers (public or private) if these problems are to be overcome.

Connections

For **Mexico**, the average rate of connection in the Federal District are high (97.88 percent) but the proportion of households with connections is lower in the poorer delegations in the south-east zone (*Iztapalapa, Milpa Alta, Tlahuac, Xochimilco*) where the average connection rate is 93.57 percent. The reported rates of connection drop substantially when the parts of the MCMA outside the Federal District are also taken into account. Castro *et al.* (2003) cite figures from the Comisión Nacional del Agua-CNA of 86 percent of the MCMA having access to piped water and 72 percent to water sewerage services. As regards the extension of piped connections, to the extent that private sector operators have to-date renovated and constructed infrastructure, this has been at the specific request of the public authority.

In **Senegal**, an increase in household connections was one of the key aims of the water sector reform. The service delivery contract required SDE to fit an additional 14,000 meters, 6,000 connections and 17 km of iron pipe per year, financed by SONES. Since the reform of the sector, more than 400 km of pipes, 72,000 social connections and 500 public taps have been fitted. The number of SDE's customers increased by 35 percent between 1996 and 2002, from 242,000 to about 328,000. It is estimated that 90 percent of the urban population is now served with potable water[46] – as opposed to 80 percent before the reform. Most of these works were financed by concessional loans from the World Bank.[47] SONES claims that the achievement of the Millennium Development Goals 'imperatively requires mixed funding' of public and private sources.

PSP in **South Africa** is generally associated with improvements in the overall level and quality of services delivered. This partly reflects the extremely poor condition of much of the infrastructure inherited from the apartheid era in the former homelands and townships, and the weak capacity of many municipal authorities to address this during the transitional period

[46] The figure is based on the assumption of 10 persons per social connection and 300 per communal tap (Brocklehurst and Jenssen, 2004).

[47] Loans are for 20 to 30 years. Payments start after 5 years and attract an interest rate of 1 to 3 percent.

since 1994. Studies suggest that private sector involvement can enable efficiency gains (including reductions in unaccounted for water - UAW) and help reduce the costs of providing services (DBSA, 2000; MIIU, 2004). Even in Nelspruit, despite numerous high profile problems associated with implementation of the concession, there have nevertheless been some notable improvements in the overall quality of services to townships incorporated in the concession area, 'The engineering achievements have been central to the extension and upgrading of services. GNUC has laid 91 kilometres of water mains in the township areas and 8 kilometres in rural areas. It has also laid 18 kilometres of sewer mains and 17 kilometres in rural areas. As a result, most residents in the township areas have gained 24-hour access to water supply and higher levels of infrastructure, namely waterborne sanitation and yard taps' (Smith et al, 2003:19). However, a key problem with long term concession contracts in South Africa, is the lack of flexibility to respond to changing patterns of demand and demographic shifts (especially rapid urban growth). The failure to extend to areas other than those specified in the contract often leads to additional pressure on existing systems and illegal connections.

Service

According to SACMEX in **Mexico**, the most challenging geographical area in the Federal District, in terms of service, due to problems of delivery and water quality, is the delegation of *Iztapalapa*. Iztapalapa is the most densely populated area in the city, comprising some 20% of the population of the Federal District. The standard of service to the parts of the delegation which are furthest from the Cutzamala conveyance (referred to above) is, apparently, low with intermittent supply and problems of quality (the location vis-à-vis the Cutzamala conveyance being the explanation for that poor service which was given by both public authority and private service contractor). A major factor, therefore, in determining the quality of service in the Federal District is seen to be the water resources context - the challenge of bringing bulk water supply to the Federal District and MCMA more widely. The responsibility for managing the primary, bulk supply of water is in public hands and there is no suggestion to transfer this responsibility from the public to the private sector.

For **Senegal**, SDE is contractually bound to certain minimum standards of service delivery, such as not exceeding set levels of non-accounted water. In 1995 an estimated 73 percent of water was accounted for but under its contractual obligations, SDE was required to achieve a level of 85 percent by 2002 – more than the rate achieved in many developed countries. Consequently, SDE finds itself constantly in legal breach of contract and could be forced to pay compensation to the state. However, all interview partners were positive about the improved quality of water services in Senegal since PSP. In particular, responses to complaints are processed more quickly than before (the first free-of-charge telephone service line in Senegal was created by SDE to deal with customer complaints). But, concerns remain over the high price of water in Senegal. The setting of water tariffs remains under the control of the state which qualifies the high levels by acknowledging water scarcity and the country's natural resource constraints.

In **South Africa**, the Water Services Act (1997) includes 'regulations relating to compulsory national standards and measures to conserve water' which defines minimum standards for basic water services. These apply to public and private sector providers alike. Section 10(1) defines 'norms and standards in respect of tariffs for water services' and requires water service institutions, when determining revenue requirements, to *inter alia*:

(a) provide for the replacement, refurbishment and extension of water services works;

(b) ensure that all households have access to basic water supply and basic sanitation.

APPENDIX 7: LIST OF PERSONS CONSULTED

Mexico
José F. Poblano, Director General of Negotiations on Services, Ministry of Economy
Germán Martínez Santoyo Executive Coordinator of Services to Water Users Sistema de Aguas de la Ciudad de México (SACMEX), Government of Federal District
Dr. Cassio Luiselli Fernández, Vice-President of SEMARNAT (Ministry of Environment and Natural Resources of which the Comisión Nacional del Agua is part) until recently now Head of International Studies at the Instituto Tecnológico de Monterrey
Gloria Guerra Guerrero, Sub-Director of Citizen Relations Sistema de Aguas de la Cuidad de México (SACMEX), Government of Federal District
Remi Usquin Director of Water Division, Consorcio Internacional de Medio Ambiente, S.A. de C.V. (CIMA) (Mexican joint venture company, including Veolia, formerly Vivendi)
Ramón Vila Director General, Tecnología del Agua, S.A (TECSA) (Mexican joint venture company, including Ondeo, part of Suez)
Joost Martens and Manuel Perez-Rocha Loyo Regional Manager and Mexico Advocacy Officer , OXFAM
Dr. José Esteban Castro St. Antony's College, Oxford, International Coordinator of PRINWASS Project (funded by EU Research)
Dr. María Luisa Torregrosa Armentia, Latin American Faculty of Social Sciences-FLASCO, Mexico City Co-author of Mexico Country Study for PRINWASS Project (funded by EU Research)
Gloria Soto Montes de Oca School of Environmental Sciences, University of East Anglia, Norwich, UK
Philipp Dupuis, First Secretary, Economic and Commercial Affairs, Delegation of the European Commission
Rafaella Silvetti Commercial Adviser, Delegation of the European Commission
Senegal
Issa Mbaye Ministère de Commerce, Direction de Commerce Extérieur, Chef de Division
Makhtar Lakh Ministère de Commerce, Direction de Commerce Extérieur, Commissaire aux Enquêtes Economiques
Samba Bâ Conseiller en planification Service de gestion et de planification des ressources en eau, Ministère de l'Agriculture et de l'Hydraulique
Abdoul Niang SONES, Chef du Service Planification et Études Générales
Boubacar Aladji Dieng Consultant, former Directeur Général SONES
Mamadou Faye CNTS (Secrétaire du Syndicat, background in ONAS)
Baba Ngom Syndicat Unique des Travailleurs des Eaux au Sénégal (SUTES / CNTS / SDE)
Malal Touré ENDA Tiers-Monde (international NGO, active in water sector in Senegal)
Alfonso Cabrillo Losada Delegation of the European Commission, Chargé de Programme, Infrastructures
Hans-Peter Schadek Delegation of the European Commission, Head of Operations
South Africa
Charles Reeve, EC Delegation Pretoria
Bob Blakelock, DFID Water Advisor
Kobus Duploi & Sudhir Sookal, DTI
David Jones, BPD Cape Town
Jay Bhagwan, Water Resources Commission
Deon Nel Severn Trent Africa
John Connely South African Association of Water Utilities (SAAWU)
Bev Pretorius & Louise Colvin South African Local Government Association (SALGA)
Mike Muller Director General, Department for Water Affairs and Forestry
Barry Jackson Development Bank of South Africa
Dale McKinley Coalition Against Water Privatisation