

**Water and the GATS**  
**Mapping the Trade-Development Interface**  
**Mexico Case Study**

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This **Mexico Case Study** is one of three publications of the Water Policy Programme<sup>1</sup> of the Overseas Development Institute (ODI) on the subject of 'Water and the GATS', alongside a **Briefing Paper**<sup>2</sup> and an **Opinion**<sup>3</sup>.

They are products of a collaboration between water specialists and trade economists at ODI, namely Peter Newborne and Tom Slaymaker of the Water Policy Programme, and Sven Grimm, Dirk Willem te Velde and Ian Gillson of the International Economic Development Group (IEDG).

The Briefing Paper which accompanies this case study provides an overview of the trade-development relationship in the water sector, based on analysis of GATS rules and summary observations from three country case studies, including Mexico<sup>4</sup>.

This Mexico Case Study presents a 'live' example of how the trade-development 'interface' manifests itself in practice. It is based on a review of available literature and key informant interviews held in Mexico City. The interviews were held, in November 2004, with a cross-section of stakeholders, including government, private sector, NGO representatives and academics. The author, Peter Newborne ([p.newborne@odi.org.uk](mailto:p.newborne@odi.org.uk)), would like to thank the persons who gave their time to be interviewed, as well as the above ODI colleagues.

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Front cover photograph: Water tanker for domestic water, Mexico (ODI/Peter Newborne)

Back cover photograph: Lorry carrying large bottles of drinking water, Mexico (ODI/Peter Newborne)

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## Acronyms and Abbreviations

CNA	Comisión Nacional del Agua - National Water Commission, Mexico
DF	Distrito Federal – Federal District, Mexico
GATS	General Agreement on Trade in Services
MCMA	Mexico City Metropolitan Area
MDG	Millennium Development Goal
MEAs	Multilateral Environmental Agreements
MFN	Most-favoured nation
NAFTA	North American Free Trade Treaty
NGO	Non-Governmental Organisation
ODI	Overseas Development Institute
PSP	Private sector participation
SACMEX	Sistema de Aguas de la Ciudad de México - Water Systems for Mexico City
SCM	Subsidies and Countervailing Measures (the WTO's agreement on)
SEMARNAT	Secretaría de Medioambiente y Recursos Naturales - Mexican Ministry of Environment and Natural Resources
SMEs	Small and medium enterprises
WRM	Water Resources Management
WSS	Water Supply and Sanitation
WSSD	World Summit on Sustainable Development
WTO	World Trade Organisation

## Executive Summary

Differences persist over how best to improve the provision of water services in developing countries. Debate has tended to be polarised around a pro-trade – pro-development axis. There are those who argue that water supply and sanitation services (WSS) have been mismanaged by the public sector, and that *liberalisation* is needed to allow both domestic and foreign private sector participation and financing. According to this view, countries should make liberalisation commitments on market access and national treatment for the ‘water distribution’ sub-sector in the current negotiating round of the General Agreement on Trade in Services (GATS).

Other commentators contest liberalisation of services trade as a means of achieving the WSS targets under the Millennium Development Goals (MDGs) on the basis that GATS negotiations may put developing countries under pressure to create markets in water services and open them to foreign operators in conditions and at a pace which will have negative impacts on development, particularly in poorer areas. Concern is expressed that profit motives within short-term business cycles may not be appropriate in the provision of WSS which they see as being predominantly public goods, and they suggest that governments redouble their efforts to improve access for the poor, supported by Official *Development Assistance*.

The statement issued by G8 leaders in July 2005 recognised that ‘least developed countries face specific problems in integrating in the international trading system’ and pledged to ‘work to ensure that there is appropriate *flexibility* in the Doha Development Agenda negotiations’ in order to help developing countries ‘decide, plan and sequence their overall economic reforms in line with their country-led development programmes’.

But this begs the question of how far trade-oriented reforms are consistent with development and specifically ‘pro-poor’ development objectives? *If, in relation to water services, pro-trade and pro-development objectives are to be compatible and convergent, it must be possible at a national level to liberalise the market according to GATS principles, or equivalent domestic rules, and to regulate so as to secure (poor) citizens’ access.* But is that actually the case? Also, do GATS procedures and rules really allow for flexibility?

*There has been little detailed empirical study of how the GATS-development relationship operates in practice, and the water sector provides a topical example with which to consider the relationship between the above twin goals.* ODI has recently undertaken studies in Mexico, South Africa and Senegal where existing markets in urban areas offer opportunity for analysis of ‘live’ examples of services liberalisation in the water sector. The studies ‘mapped’ the trade-development interface and showed how the inclusion of water services under GATS might affect the achievement of development goals. The aim is to contribute to discussion on the potential implications of the inclusion of water in the GATS negotiations and the impact on developing countries.

The focus of this Mexico case study is the ‘Federal District’ at the centre of Mexico City. Rapid population growth in the Federal District over recent decades (to c. 8.5 million now), has added to the considerable challenges of maintaining an adequate supply of water to the various zones of this large city, located as it is in the water-scarce Valley of Mexico.

This study highlights that, at present, the interface between GATS/free trade principles and development in relation to water services in Mexico is limited. Water services are subject to the ‘domestic’ regime, i.e. as defined by Mexican law and policy, not international GATS rules. In the Federal District, the regime substantially circumscribes, in a number of respects, the scope of trade and international trade in water services, e.g. through limits on foreign capital participation. The approach to private sector participation (PSP) adopted by the public authorities in the Federal District has been gradualist, with limited delegation of functions to the private sector, including non-Mexican companies, in a first round of contracts (service contracts) and a modest increase to that divestment of responsibilities in a recent second round (with addition of an incentive element). In other words, the freedom of the government of the Federal District to regulate the provision of water services as it chooses is not at present constrained by GATS principles because these do not apply, nor by free trade principles because their application is limited.



*Drinking water in large bottles for households*

Such is the current situation. This study, however, also considers how this situation may evolve, since the purpose of the Doha Round is to encourage liberalisation, including possible future GATS commitments on water services. Could there be, in relation to water services in the Federal District, more pro-trade – pro-development interaction in the future, and, if so, would this be characterised by compatibility and convergence, or conflict? The indications are that the current position is not likely to change, at least in the foreseeable future. The signs (such as are available for analysis) are that the present gradualist approach to PSP will be maintained. Both trade and water officials in Mexico favour strengthening of regulation before further opening the sector to private participation and in particular to ‘free’ foreign participation.

The analysis carried out for this study suggests that, in relation to water services, a gradualist approach will

be sensible in relation also to GATS. GATS presents a considerable capacity challenge for developing countries. Water officials (everywhere) need to build up their understanding of the content of the different GATS rules, how they are interpreted internationally under World Trade Organisation (WTO) procedures/auspices, and especially how they may apply to water services. The exchanges during the project between trade and water specialists have revealed the extent of dialogue and learning required at the GATS-water sector interface. A cautious step-by-step approach to GATS rules will increase the likelihood of understanding correctly how they would take effect if committed to and of assessing positive and negative consequences of commitment – and on that basis deciding what limitations to list to commitments.

Two examples in this report illustrate the detailed analysis required and the care, and prescience, likely to be needed when limitations to commitments are formulated in GATS ‘offers’; first, the implications of the GATS rule on market access in relation to competitive bidding; secondly, the consequences of the rule on ‘irreversibility’ in relation, for example, to return of water service functions to the public sector after a period of delegation to private companies. Where GATS rules have not yet been fixed, they represent a particular challenge, e.g. the rule on subsidies (it seems that this is not likely to prohibit cross-subsidies, a common feature of water pricing, but this should be further reviewed as the rule is evolved).

The aim of this study has *not* been to carry out an in-depth study of whether or not PSP is successful in the water sector; that is an ongoing task of other empirical work.

The key issue in the GATS-Water relationship is *regulation* – of both private and public service providers. Regulation plays a key role in shaping the distribution of costs and benefits of water services. The success of PSP, both domestic and foreign, in improving service depends to a great extent 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. The Briefing Paper which accompanies the report of this Mexico case study argues that the lesson of the period since the early 1990s is that, in order to extend water and sanitation access to poor populations in developing countries, more (i.e. better) rather than less regulation – on pricing, quality of service and network connection – is often required.

In Mexico, it is widely recognised that ‘public good’ aspects of water resources make the sector different from other service sectors, e.g. telecommunications and finance, and that the application of free trade principles and, potentially, GATS rules to the water sector is a sensitive social and political issue. In this and other developing countries, an *increase in capacity* of government, including at municipal level, to make informed choices in relation to GATS is more likely to translate – over time – into regulatory ‘checks and balances’, supported by corresponding limitations to GATS commitments formulated in GATS offers, which will ensure that water services providers, including private sector operators, are supervised so as to achieve desired development objectives, including improved and extended access to water supply for poor households.

# 1. Introduction

## Background

The prospect of developing countries making commitments under GATS regarding trade in water services has given rise to considerable controversy. Similarly heated debates surround the issue of Private Sector Participation (PSP) in provision of water supply and sanitation (WSS) services in developing countries. Debates on GATS and PSP in water services among water specialists tend to be polarised and ideologically driven on both sides.

Meanwhile recent requests by agencies of developed countries that developing countries make liberalisation commitments have raised concerns over potential inconsistencies with wider poverty reduction objectives of development policy.

Despite the heated debates on PSP in the water sector and the debate on how to meet the Millennium Development Goals (MDGs), there has been little systematic consideration of how the inclusion of water services under GATS might affect the achievement of development goals in the water sector.

## Water and Trade Targets

The MDGs reflect growing international consensus on the importance of poverty reduction as a central objective of *development* policy. The water Target 10 forms part of MDG Goal 7 on ensuring environmental sustainability. The MDGs recognise the importance of *trade* in Targets 12 to 13 which form part of MDG 8 relating to a global partnership for development – see **Box 1**.

This project on ‘Water and the GATS’ specifically makes the connection between trade and water aspects of the MDGs, to assess the relationship between the international system of rules governing trade in services, the GATS, and the development of water services for achievement of Target 10.

The intention is to promote better informed and more constructive dialogue on this issue among key stakeholders. Water and trade specialists tend to generate

parallel literatures, and this has been reflected in the fact that debate between water experts on PSP, has been largely disconnected from discussion between trade experts on the ongoing Doha Round of the WTO negotiations.

## Mapping Pro-Trade and Pro-Development

The relationship between promotion of principles of free trade via a rules based system governing trade in services under GATS, and realisation of the water development goal is illustrated in **Figure 1**.

‘Free trade’ under GATS here refers, first, to the GATS equal market access and national treatment principles. The market access principle prohibits limitations in the participation of foreign service providers (and foreign direct investment) unless specifically listed as a limitation in a country’s schedule of commitments, while, under the national treatment principle, governments can elect either to treat foreign services and service suppliers in the same way as domestic services and services suppliers, or include limitations in their commitments to favour the latter.

GATS envisages the development of rules on subsidies to eliminate trade-distorting effects which are under discussion in the current GATS 2000 negotiations. The question of whether subsidies in the water sector might be trade-distorting is considered in section 6. below.

GATS also includes a principle of irreversibility. World Trade Organisation (WTO) Members can modify their schedules of specific commitments or withdraw any commitment, but in such circumstances any Member may ask for compensation which, if agreed upon, must be extended to all Members. The implications of this principle in relation to the water sector are also discussed in section 6.

## Case Studies

This project involved analysis of the potential implications for developing countries of inclusion of water services

### Box 1: Water and Trade-Related Targets Under the MDGs

MDGs	Targets
<b>7. Environmental Sustainability</b>	<b>Target 10</b> Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.
<b>8. Global Partnerships for Development</b>	<b>Target 12</b> Develop further an open, rule-based, predictable, non-discriminatory trading and financial system (includes a commitment to good governance, development, and poverty reduction-both nationally and internationally).
	<b>Target 13</b> Address the special needs of Least Developed Countries (includes tariff- and quota-free access of LDC’s exports, enhanced programme of debt relief for heavily indebted poor countries (HIPC’s) and cancellation of official bilateral debt, and more generous official development assistance for countries committed to poverty reduction.

under GATS based on detailed case studies in Mexico, South Africa and Senegal and involved consultations with a range of different stakeholders in each country. The focus of the case studies has been on the provision of water services in those large/medium conurbations where markets for international water companies may exist<sup>6</sup>.

The 'Regulation' box in Figure 1 refers to 'pricing', 'service' and 'connection' which are proposed, for the purposes of this study, as **key components of the development objective** of 'protecting water users' and consumers' interests', particularly improvement of water services benefitting poor populations in low and middle-income countries:

- **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<sup>7</sup>;
- **service:** improvement of the quality and regularity of supply of water to households, including poor households;
- **connection:** extension of coverage of piped water networks to poor districts and households.

As part of the mapping process, these components have been studied as 'observation points' for the trade – development interface. The question asked was: does the 'impulse' of GATS principles (at present – and could it in the future) take effect to in some way curtail, for example, the setting of prices according to development objectives? i.e. operating on the 'Regulation' circle so as to effect the 'Water Development' box in Figure 1.

The focus of the above is social. However, another important aspect of water governance is of course environmental. Accordingly, water conservation issues are also considered below in relation to the Mexico City case study (in so far as they have a bearing on WSS objectives).

### Limit on Scope of Case Study

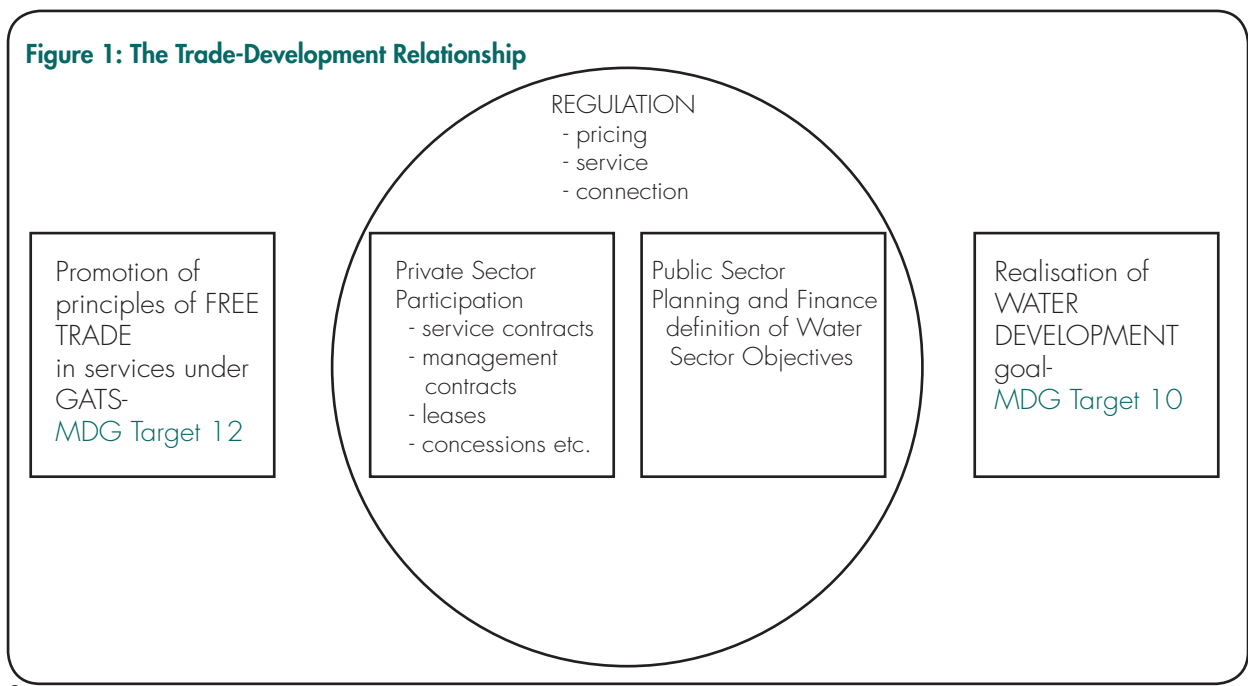
In terms of the governance<sup>8</sup> modalities deployed to ensure that such improvements in connections, service and pricing, are made for the benefit of poorer communities, key issues for the purpose of this research study are the type of (i) PSP; and (ii) regulation, including regulation of PSP.

Introduction of PSP involves modifying the role of public water authorities. The key role change is from provider of water services to overseer and regulator of water provision by private sector operators. However, the extent of PSP varies substantially, from service contracts with limited functions carried out by the private sector entities, to full privatisation where both operation and ownership of water infrastructure is passed from the public authorities to private operators. The aim of this study is *not* to consider in depth the different modes of PSP and carry out an in-depth study of whether or not PSP is successful in the water sector, but how the pro-trade – pro-development relationship appears in practice.

### Key Research Questions

A first key question for this study is to what extent free trade, and specifically GATS principles, are manifested in the manner in which private operators are permitted to participate, and participating, in the water sector: how much are water services open to a (free) market in PSP, and an international market in PSP? A second key question<sup>9</sup> is as follows: whether the **regulatory 'space'** needed for government to secure their citizens' sustainable access to water services is constrained or enhanced by GATS principles.

The study tested the following proposition: *if, in relation to water services, pro-trade and pro-development objectives are compatible and convergent, it must be possible at a national level to liberalise the market according to GATS principles, or equivalent domestic rules, and to regulate according to the three development components above – on pricing, service and connection. But is this actually the case?*





## 2. GATS Framework, Negotiations and Commitments

This section outlines GATS principles and procedures as they relate to the water sector.

At the multilateral level, the GATS governs liberalisation in trade in services. The GATS consists of three core elements – see **Box 2**.

### Box 2: Core Elements of GATS

The first GATS element consists of general rules and principles governing trade in services. Among others, these provide for disciplines on transparency (Article III) and most-favoured-nation (MFN) treatment (Article II). The framework is still incomplete, and modalities on certain issues such as emergency safeguard measures (Article X), subsidies (Article XV), domestic regulation (Article VI) and government procurement (Article XIII) continue to be developed.

Secondly, the GATS includes a series of specific annexes pertaining to regulatory principles agreed in specific service sectors (air transport, financial services, maritime transport and telecommunications) and decisions on specific issues (movement of natural persons).

The third element of the GATS consists of ‘schedules of commitments’ which outline the liberalisation of each Member. Sectoral schedule commitments concern market access (Article XVI) and national treatment (Article XVII) within designated sectors. Such commitments identify the services by mode of supply for which the Member guarantees market access/national treatment and any limitations that may be attached.

As regards the *market access* principle, referred to in Box 2., the GATS Article XVI prohibits limitations in the participation of foreign capital for foreign direct investment. However, governments can continue to impose such conditions on firms – in sectors where they undertake to allow foreign firms to establish a presence – by inscribing them in their schedules of commitments. Measures that restrict or require specific forms of legal entity are also prohibited, as well as limitations on the number of suppliers, the total value of transactions, quantity of output, and total number of foreign workers.

Under the GATS *national treatment* principle, embodied in Article XVII, governments can elect either to treat foreign services and services suppliers in the same way as domestic services and services suppliers, or include limitations in their schedule of commitments in favour of the latter.

At the multilateral level, the GATS governs some measures affecting trade in services and serves as a basis for WTO Members to progressively liberalise their services trade. The GATS regulates all trade in services (except for those which are supplied in the ‘exercise of governmental authority’ and the greater part of the air transport sector),

and applies to all types of domestic regulation at all levels of government and covers all 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 foreign-owned companies;
- 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 does not define ‘services’ but lists their supply aspects, which includes production, distribution, marketing, sales and delivery. 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 WTO Members follow it to schedule their commitments<sup>10</sup>. The GATS covers 161 service activities across 12 classified sectors: business, communications, construction, distribution, education, environmental, financial, health, tourism, recreational, transport and other.

**Water-related services are listed as sub-sectors under ‘environmental services’** which are currently defined as including the following activities: 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 i.e. *water distribution services are – currently – not explicitly included*. Consequently, GATS commitments for water-related activities have only been made for sewage and sanitation services.

In its application, the GATS distinguishes between *general obligations* which are those measures a country agrees to apply to all its services sectors and *sector-specific commitments* which apply only on specified sectors, as offered by each WTO Member.

### General Obligations

For all sectors, the most-favoured-nation (MFN) principle (Article II) obliges non-discrimination between foreign services providers. However, the GATS allows for exceptions to the MFN principle by virtue of two provisions. First, when the GATS first entered into being in 1995, Members were allowed a single opportunity to list exemptions from the MFN principle. Most were intended to be permanent exclusions, but are subject to negotiation

in the current round. Second, Article V authorises services trade liberalisation in the context of regional integration agreements if they have ‘substantial’ coverage in terms of services sectors, volume of services trade and modes of supply and provide for national treatment among services providers in the countries party to the agreement eliminating ‘substantially’ all discrimination.

Article III contains general obligations on transparency. Under the GATS, Members are obliged to publish all domestic regulatory measures affecting services trade and establish enquiry points to provide this information.

Finally, all WTO Members must participate in rounds of GATS negotiations with the aim of achieving higher levels of services trade liberalisation (Article XIX). There are also provisions for holding negotiations to develop GATS rules relating to emergency safeguard measures (Article X), government procurement (Article XIII) and subsidies (Article XV).

### Sector-Specific Commitments

All other GATS commitments apply to the extent that each Member has accepted them on a sector-by-sector basis. A Member can choose to make commitments (by mode of supply) to open its market to foreign service suppliers (market access – Article XVI) and/or guarantee non-discriminatory treatment between foreign and domestic suppliers (national treatment – Article XVII). Sector-specific commitments are listed in ‘*schedules of specific commitments*’.

Under GATS rules, Members have complete flexibility to determine the sector coverage and substantive content of schedules – at least in principle, subject to any pressure by trading partners which may be exerted in practice.

There is no minimum for the number of sectors to be included (although all Members have committed at least one part of a sector) and while some countries have scheduled all major services sectors, others have listed only a limited number.

Members can also make market access and national treatment commitments *across* sectors in what are known as *horizontal* schedules of commitments.

For each sector listed in a Member’s schedule, there are measures inconsistent with market access (listed in Article XVI) which the country cannot maintain or adopt, unless listed as a limitation in its schedule of specific commitments:

- limits on the number of services suppliers;
- limits on the total value of services transactions or assets;
- limits on the total number of services operations or the total quantity of the services output;
- limits on the total number of natural persons that may be employed in a particular sector;
- limits on specific types of legal entity through which services can be supplied;

- limits on foreign equity participation.

Similarly, national treatment under the GATS applies only to those services sectors inscribed in a Member’s schedule of specific commitments. Restrictions can be imposed provided they are, again, listed. Unlike the disciplines for market access, Article XVII provides no exhaustive list of measures inconsistent with national treatment, but it makes clear that all *de jure* and *de facto* measures that favour domestic services suppliers must be listed if they are to be maintained.

For any given service sector in which a WTO Member chooses to make a commitment, it can set limits sector-by-sector and mode-by-mode with regard to market access and national treatment commitments, i.e. above so-called ‘horizontal’ restrictions that may be maintained across the board (i.e. applicable to all sectors, as is often the case with limitations on foreign investment or the temporary entry of service suppliers), countries have eight separate opportunities to indicate how they will treat foreign service suppliers in any given sector.

These commitments are based on a positive-list approach, whereby *only those sectors and modes of supply that WTO country members propose for liberalisation are subject to market access and national treatment disciplines*. This *à la carte* approach to liberalisation allows (at least at the outset) countries considerable discretion in deciding which sectors and modes of supply are subject to liberalisation commitments, as well as flexibility within sector-specific commitments. WTO members have the flexibility in principle<sup>11</sup> not to include entire sectors (including water services) from any liberalisation ‘disciplines’ (to adopt the term used by trade specialists<sup>12</sup>). They also have the flexibility within offers to condition liberalisation by keeping some components of services unbound, or by accompanying offers with conditions or limitations such as ensuring universal access. **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.**

Within a Member’s schedules of specific commitments:

- an entry of ‘none’ indicates that a Member is bound to not having or introducing any measures that restrict market access or national treatment for a sector and mode of supply (but any limitations set out in the horizontal schedule still apply);
- the term ‘unbound’ indicates that no commitment has been made and the Member is free to introduce market access and national treatment limitations;
- ‘unbound’ appears for sectors in which a particular mode of supply is not technically feasible, e.g. cross-border supply of construction services;
- all other entries which include commitments with limitations are known as ‘partial commitments’. A Member is bound to not introduce any additional measures that restrict market access or national treatment.

For sectors where WTO Members have made specific commitments, Articles VI and VII of the GATS deal with

domestic regulation and recognition, respectively. Since negotiated commitments on market access and national treatment could be offset by restrictive domestic regulations, these rules aim to ensure a predictable regulatory environment. Although disciplines on domestic regulation are still being developed in the GATS, measures affecting services trade must be administered ‘reasonably’, ‘objectively’ and ‘impartially’ and should not constitute ‘unnecessary’ barriers to trade.

### The Current Pattern of Sector-Specific Commitments

In terms of the number of sectors each Member has included in its specific schedule of commitments, about one-third of Members have scheduled fewer 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 developing and Least Developed Countries (Gambia, Lesotho and Sierra Leone).

The services most frequently included in schedules of commitments are those sectors traditionally considered to carry low levels of restrictions (tourism), but also core ‘productive infrastructure’ services such as business, financial and telecommunications services which benefit the wider economy.

As shown in **Figure 2 the fewest commitments have been made in social sectors such as education, health, and water services (sewage and sanitation).**

Only 34 out of 147 WTO Members have made commitments for their sewage and sanitation services under

the GATS. This reflects the wishes of many governments to retain policy discretion in areas which are often considered to be core public sector responsibilities.

The Mexico case study serves to throw light on why (see sections 3–6 below).

### Negotiations and Procedures under GATS 2000 and the Doha Round

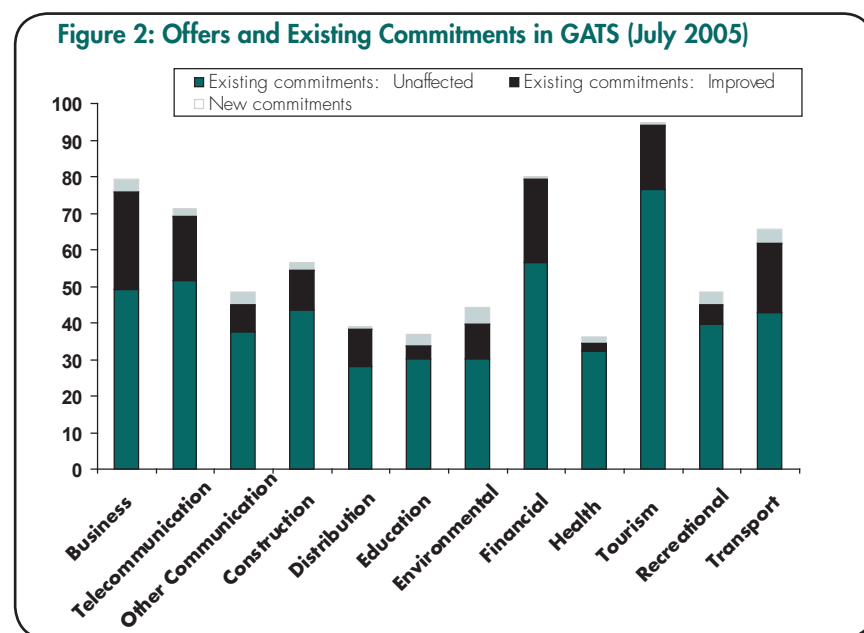
Article XIX of the GATS sets out objectives for future negotiations on services trade. As a result of the Uruguay Round, WTO Members agreed to resume negotiations on all services by 1 January 2000. On the basis of this, and reiterated by the Doha Declaration, all WTO Members were committed to start a new round of negotiations – the GATS 2000 negotiations – with a view to ‘achieving a progressively higher level of liberalisation’.

Although the basic rules for the liberalisation of services trade were agreed in the GATS during the Uruguay Round, a number of issues remained unresolved and were left for the GATS 2000 negotiations.

First, while GATS in principle covers all sectors, the number of commitments remains limited both in terms of the number and depth across sectors and modes of supply. Second, GATS disciplines for domestic regulation, safeguards, subsidies and government procurement have yet to be developed.

Under the GATS negotiating process, individual countries make requests to other countries for them to make market access and national treatment commitments in specified sectors. Countries then make offers for liberalisation based on the requests that they have received. The request process is bilateral and Members normally submit requests in the form of a letter asking a country to make commitments for a sector or to remove certain market access or national treatment limitations from a sector which has already been scheduled.

Offers can be used to respond to requests or are made in sectors where a country would like to volunteer autonomous liberalisation. Offers take the form of a draft schedule of specific commitments. Unlike requests, offers are distributed to all Members, via the WTO Secretariat, and are 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.

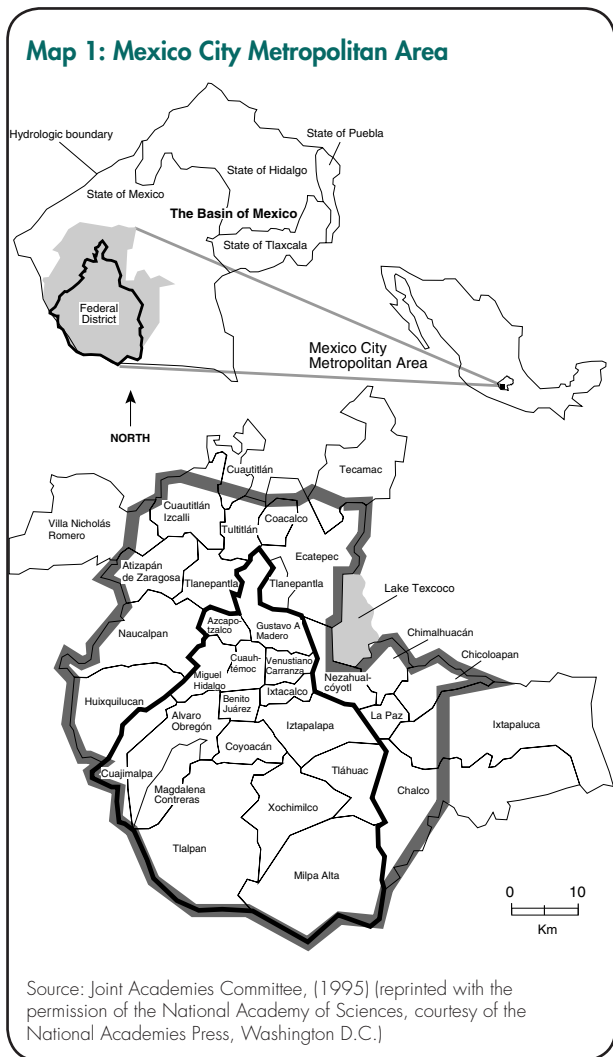


Source: Adlung (2005)

### 3. Background to Mexico City Case Study

#### Mexico City: Federal District

The focus of the Mexico case study is the ‘Federal District’ (also referred to below by its acronym in Spanish, ‘D.F.’ for ‘*Distrito Federal*’). **Map 1.** below shows its location in Mexico and its position 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 some 8.5 million people and the MCMA, which includes parts of adjoining states (such as the Estado de México – State of Mexico), has a population of c. 20 million. The population of D.F. has nearly doubled in some four decades from 4.8 million in 1959 (Haggarty et al, 2001).

As shown on Map 1, 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 D.F. also has a popularly elected mayor.

#### Water Service Provision in the Federal District

In 1993 the Federal District was divided into four ‘zones’ for water purposes, when private sector contractors were engaged by the public authorities. PSP in water services has now, therefore, existed in the D.F. 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 3.**

The Federal District provides a particularly pertinent case study because, in addition to the importance of D.F. as the capital city of the country, in each of the four zones, the international water companies participating are European-based and registered (see names in *italics* in Box 3).

The challenges of providing water services to a Federal District population which is large and heterogeneous in socio-economic terms are considerable<sup>13</sup>. The rates of piped connection in the Federal District are relatively high by low-middle income country standards (see below) – higher than in other parts of the MCMA, while the standard of service in D.F. is very variable, in terms of quality and regularity of water supplied through the piped connections. As set out below, however, it is the *pricing* regime in the Federal District which is the focus of this Mexico City case study, because of the nature of the information which has been available to ODI.

PSP has been introduced in the Federal District applying 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, *Aguaascalientes*, where grant of a concession was made in the 1990s involving a much greater delegation of functions to the private sector utility – see comparisons below with this other example in Mexico.

#### Water Delivery to the Federal District

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), ‘the availability of raw water resources to supply the D.F. 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 kilometer, in altitude, below the city, and to provide drainage away from the city for wastewater and floodwaters’ (page 8).

The same report also noted: ‘Over-extraction of the aquifer had been recognized as a problem since at least

**Box 3: 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 México (ICAMEX)	- 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

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 Joint Academies Committee<sup>14</sup> has studied the relation of the neighbouring basins to the Valley of Mexico and, as a summary of the water resources context of Mexico City, extracts from their authoritative report are cited below, alongside their map of the region reproduced below as **Map 2** (reprinted with the permission of the National Academy of Sciences, courtesy of the National Academies Press, Washington D.C.). The responsibility for managing the water resources in the Valley of Mexico and surrounding areas and bringing water to the 'gates' of the city is borne by the public authorities<sup>15</sup>, i.e. water resources management (WRM) is in public hands.

As regards WSS, 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 D.F. 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.

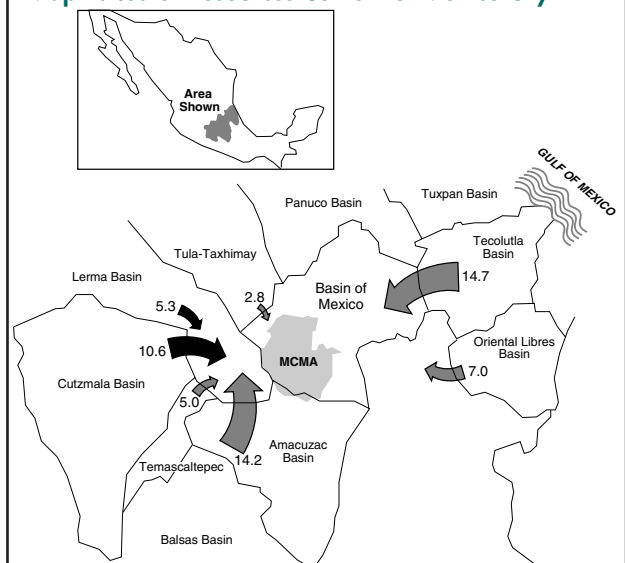
The comments of persons interviewed during this study reflected the link between WRM and WSS: several interviewees referred to the difficulties of bringing a sustained supply of water to Mexico City and the implications this has for water supply within the city – particularly, that *delegations* in the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

The key authority in relation to water in the Federal District is the *Sistema de Aguas de la Ciudad de México* – Water System of Mexico City ('SACMEX') which was created in

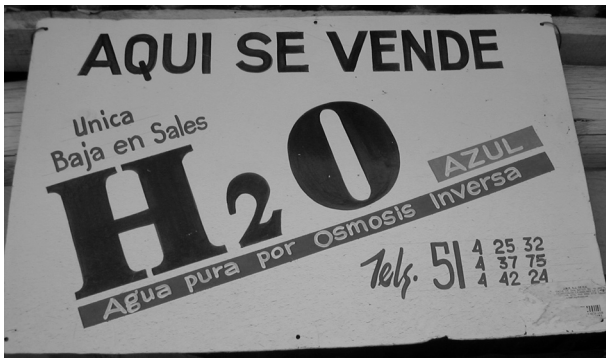
January 2003, and is part of the Government of the Federal District, acting as 'front-line' regulator.

The report of the Joint Academies Committee on Mexico City's water supply (1995) stated: 'By the 1930s, continued subsidence and the realization that ground water supplies within the Basin of Mexico were being depleted had already prompted authorities to explore sources of water outside the basin. In 1941, construction began on a 15 kilometers long aqueduct to transfer water from wells in the *Lerma* Basin over the *Sierra de las Cruces* divide to Mexico City and the Basin of Mexico. In 1982, a more ambitious project was initiated that delivered surface water from the *Cutzamala* River Basin, a distance of 127 kilometers and a net rise in elevation of 1,200 meters. Currently, the Cutzamala-

**Map 2: Water Resources Context of Mexico City**



Source: Joint Academies Committee, (1995) (reprinted with the permission of the National Academy of Sciences, courtesy of the National Academies Press, Washington D.C.)



Purchase of water for drinking in Mexico

Lerma project is a combined system that delivers water from both the Cutzamala River and the Lerma Basin and contributes approximately 26 percent of the water supplied to the MCMA.

As shown in this map, 2 and according to the Joint Academies Committee report, the federal government had identified other sources of water from neighbouring basins for their potential contribution to the water supply of the

MCMA. According to the National Water Commission, the quantities of water potentially available from other neighboring basins add up to 43.7 cms, equal to the total extraction rate of the Mexico City Aquifer. The costs to import water from these areas are not known to the committee. The Federal District service area includes nearly 11,000 kilometers of distribution lines and 243 storage tanks with a capacity of 1.5 million cubic meters. Water from all the separate sources is added to the common distribution system'.

Joint Academies Committee further notes that: proposed plan 'to import 5 cms of water from the *Temascaltepec* Basin and 14.2 cms from the *Amacuzac* Basin (as recorded on map 2), have however not been pursued – it seems they are not considered viable. [Similarly, the project to construct] a water transmission line (the *Acueducto Periférico*) [to transport] water from the Cutzamala System—entering the distribution system from the west—to the southern and eastern part of the district' [has not be carried out]. (The words in square brackets reflect decisions subsequent to 1995.)

## 4. 'History' of PSP in Water Services in Mexico City

Liberalisation of the water sector in Mexico began during the term of President Salinas with reform of federal water policy in the late 1980s and a new water law in 1992 which promoted the notion of water as an economic good and endorsed the use of market mechanisms to manage water resources.

An overview of the reforms to the water sector to allow for the introduction of PSP, drawn from the EU-sponsored PRINWASS project (the Strategic Country Report Mexico<sup>16</sup>), is presented in **Box 4**.

Under Mexican law, responsibility for 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* or 'CNA').

As to the reasons for introduction of PSP, the authors of the PRINWASS Mexico Report comment that 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 WSS 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.

It was also thought that by introducing PSP, WSS 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.

### First Round of PSP in the Federal District

The process of introduction of PSP in the Federal District, as planned in 1993, was to be carried out in three stages, as set out in **Box 5**.

Payment to the private contractors during Stages 1 and 2 above was to be on a fee-for-service basis, with, therefore,

#### Box 4: 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 centralized 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 private sector participation 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 private sector participation 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: Strategic Country Report Mexico, August 2004

### Box 5 : Planned Stages of 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)

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 democratically elected D.F government), 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. In other words, the intention of the original Stage 3 was not put into action. 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 only exception seems to be the incentive element which has been added).

The choice of the Federal District authorities has been to engage the private sector in the carrying out of 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 WSS

provision 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 WRM.

In the report of its 2001 study, the World Bank expresses the view (page 52) that the reforms were, furthermore, *not* specifically intended to improve the lot of 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 could offer 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 design of regulatory arrangements – thereby also avoiding the extent of social and political opposition often faced by more rapid and radical forms of PSP. Several of the interviewees comment 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 by the city and a major confrontation and conflict with the private operator ensued.

### Second Round of PSP in the Federal District

As reported in the interviews with representatives of the public authority, SACMEX, and two of the private sector consortia (for the northern and south-eastern zones), a second round of PSP contracts has been signed in the Federal District. The first round contracts expired at the end



of 2003/beginning of 2004 and since then new contracts have been placed with the same private sector operators (although, according to SACMEX, the configuration of the companies making up the groups which hold parts in the Mexican companies 'fronting' as operators has, it seems, evolved).

SACMEX states that the new contracts<sup>17</sup> are *sui generis*, in that they mix provisions found in service contracts with those more reminiscent of concessions, with incentives/risks combined. The companies acknowledge the addition of an incentive arrangement: where companies can increase rates of bill collection increase (e.g. by pro-active calling of customers at their own cost), 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 local 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 market is considered below from a GATS perspective).

Decisions on price levels to be paid by water users in the Federal District are made by the public sector. Suggestions may be invited from the private operators, but the prices are not 'theirs' to set; the proposing of the tariff structure is the responsibility of the regulatory authorities, as approved by the assembly of the Federal District.

In summary, under the PSP in 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 making 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/when they are made).

## 5. Water Services in Mexico City: Trade - Development

### Water: Social and Political Sensitivities

The water sector was recognised by both development and trade specialists interviewed in Mexico City as having an important social element, in that water services are of course a basic requirement of life for all human populations. Related to this, it was agreed that the water sector in Mexico is surrounded by considerable political sensitivities.

This was seen starkly during the economic crisis after 1994 when, due to the pressure of household finances, rising water prices came under close scrutiny. The 1990s also witnessed, in Mexico City, opposition to introduction of PSP on the basis that this would lead to privatisation of a *public* resource. Several of the persons interviewed in Mexico began their interviews with (for them at least) the starting point, namely that water is the property of the nation<sup>18</sup>, a 'national good', as established by the Mexican constitution (Article 27).

If water services come under the GATS, this will 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. One concern is the control of the resource. Some commentators maintain that while GATS requests are being made on environmental services, they do not touch on the issue of access to (water) resources. While technically this is true, other commentators believe it is impossible that, once the market access is granted, the companies will not insist on access and even control on water resources. Collection is certain to include the water source, and could lead to establishment of control (if not 'ownership') of the water resources themselves. On that ground, the distinction between access to water delivery services and access to the resource itself may not be as easily demarcated as the first statement above presumes.

The survey carried out by Soto Montes de Oca (2003), to assess the willingness to pay for water supplies in Mexico, included asking water users whether they would agree to pay private companies for managing the water supply service. The results of this survey 'show that more than half of the respondents (56%) would not agree with the possibility of paying to private companies, almost a third (32%) would agree, and 11% do not know. Agreement to accept private participation is highly associated with income and education. As income and education level increases, respondents tend to agree more with the privatisation scheme. Overall, it can be observed that public confidence in the private sector is rather limited. Taken together this information shows that the public distrust both the government and private sector. However, still the majority would prefer to see the government undertaking a programme of this nature' (Soto Montes de Oca, 2003).

As to how the social and political sensitivity of water

services manifests itself in attitudes to pricing of water services, this issue is discussed further below.

The participation in the first (and, as seen above, subsequent second) round of water service contracts of companies from outside Mexico added to the public-private debate a *foreign* element, which raised additional controversy – the fear that a national asset was going to be vulnerable under foreign influence and control.

### Limits on Foreign Capital Participation

The view was expressed by one interviewee that some sectors will remain entirely 'Mexican', i.e. with no foreign participation<sup>19</sup>. Under the *federal* 'Foreign Investment Law', water is *not* one of the sectors:

- whose activities are 'reserved to the State' under Article 5 (e.g. petroleum, hydrocarbons, petrochemicals, electricity, nuclear, postal service, coins and bank notes);
- whose activities are 'reserved to Mexican companies' under Article 6 (e.g. domestic land transportation, radio, television other than cable);
- in which, under federal law at least (see further below), foreign investment is limited to a minority holding, under Article 7, whether 49%, 25% or 10% (e.g. insurance, domestic air transportation);
- in which foreign investment is allowed above 49% upon special permission being granted under Article 8, by the 'investment commission' (e.g. legal services, drilling of petroleum and gas wells, international shipping etc.).

Under the Federal District regime, i.e. within the jurisdiction of the D.F. *below* federal level, there is a limit on participation of foreign companies in private water operators, of 49%.

This is clearly a PSP and trade restriction operating through the rules which apply to the water sector in the Federal District. Only registered Mexican companies are eligible to hold water service contracts in the D.F., and foreign/European participants are entitled to hold only minority shareholdings in those Mexican companies (the constitutions/statutes of those companies and the terms of any accompanying joint venture/partnership agreements were not seen by ODI).

The persons interviewed are aware of this 49% limit. Certainly, the Mexican trade negotiators, having consulted with their colleagues in the Ministry of the Environment (SEMARNAT) and the National Water Commission – *Comision Nacional del Agua* prior to the submission of the Mexican GATS offer, were aware of the limits on foreign investment in environmental services established at state or municipal levels, e.g. the 49% limit. *The Mexican offer was,*

accordingly, written specifically subject to such limits.

An example was cited which had occurred under the North American Free Trade Treaty (NAFTA) whereby the 'go-ahead' was given by federal authorities for siting by a foreign company of a solid waste processing plant which was subsequently blocked at municipal level, by refusal of the municipality, to grant the necessary licence, as provided for under local laws/regulations. This gave rise apparently to a breach of the country's commitments under NAFTA and a compensation claim against the Mexican (federal) government. Although, there are major differences between services trade provisions under NAFTA and the GATS<sup>20</sup>, a similar scenario, it was noted, could arise in relation to water services if a future national position under GATS failed to take into account the rules applying for management of water services at the three different levels of government (federal, state and municipal). The GATS covers all types of domestic measures affecting trade in services from laws to administrative guidelines and actions. The obligations of the GATS apply – like those of the GATT – to *all levels* of government (central, regional and local) of each WTO Member

It is also recognised by water companies that initially working in a joint venture has helped to introduce foreign water company executives to the local Mexican context, and allowed contacts and relationships to be established. But the preference, at least of the foreign companies, seems to be 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 in D.F. for which private companies can bid/apply and the foreign stake in those. It is considered below whether this current formal 49% restriction is likely to be maintained or lifted in future.

Several interviewees expressed the view that the public-private issue was more sensitive than the Mexican-foreign one, although public fears were, it seems, expressed of profits from management of water services going abroad, to benefit foreign shareholders to the detriment of local/national interests. In practice, however, *both* issues are played down vis-à-vis the water user. As a tangible indication of the extent of sensitivity of water services, the customer care centres established since 1993 by the private contractors are presented to the public under the name of the public authorities and the companies' logos do not apparently appear on the vehicles which they deploy to carry out service functions.

### Limited Delegation of Water-related Functions

As seen above, only a small part of the water functions in the Federal District has<sup>21</sup> been delegated to private (Mexican-led) service providers, principally the 'commercial' functions of mapping, metering and billing, with a limited role in terms of rehabilitation and construction of infrastructure – only upon order of the client and on a fee-paid basis. In other words, the private companies are in Mexico City acting almost entirely as agents (*a nombre de*) of the public authority. Much remains under public sector management and control and the extent of the regulatory space for government to secure their citizens' sustainable access

to water services has been determined by the Mexican 'domestic' regime (domestic in the sense of determined within Mexico, not by the GATS).

PSP has, nevertheless, represented a substantial change of roles for public authorities. SACMEX noted that the decade since the beginning of the first round of contracts with private sector operators has involved a learning process on both sides, for both public and private sector. The gradualist approach has, it seems, helped to make this learning process successful<sup>22</sup>.

### Connection

One of the key components noted in section 1 above, for protection of water users/consumers' interests, is rates of connection (extension of coverage of piped water networks to poor districts).

According to the 2002 census, the total number of individual houses in the Federal District is c. 2.1 million as compared with 1.82 million registered water users (as per the CADEF, cited by SACMEX). The average rate of connection to the above houses is high, 97.88%, but the degree of connection is lower in the poorer delegations, such as the four delegations in the south-east zone (*Iztapalapa, Milpa Alta, Tlahuac, Xochimilco*) where the average connection rate is 93.57%. 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 c.86% of the MCMA having access to piped water and 72% to water sewerage services.

In other words, the rates of connection to the network in the Federal District are already relatively high, as compared with, for example, the significantly lower rates in the neighbouring State of Mexico into whose territory the more recent Mexico City sprawl has expanded. As regards extension of piped connections in the Federal District, to the extent the private operators have to-date renovated or constructed infrastructure (other than meters and other equipment for carrying out their commercial functions), this has been at the specific request/requirement of the public authority. This study did *not* yield information on action or plans to fill gaps in piped connection in the D.F.

### Service

Another key component noted in section 1 above is service – improvement of the quality and regularity of supply of water to (poor) households. According to SACMEX, the most challenging geographical area in the Federal District, in terms of service, due to the problems of delivery of bulk supply of consistency and of the right 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 to the Federal District/MCMA is in public hands and there is no suggestion (at least of which ODI is aware) to transfer this responsibility from the public to the private sector.

### Social - Environmental Trade-Offs

It is important to note, that, not captured in the above figures are the settlements and people outside the formal system, dwellings which are not included in the official census and/or people not registered as users. As regards these informal settlements (of which there are many in the Mexico City Metropolitan Area-MCMA, less now in the D.F.<sup>23</sup>), the Ministry of Environment is adamant (Haggarty et al, 2001) that new ‘irregular’ settlements should not be allowed to form on areas in the D.F. which are important for catchment of water resources, e.g. some of the hilly/mountain areas in the south of the Federal District (south-east). The key consideration here is considered here to be management of the resource and preservation of critical hydrological functions in the Valley of Mexico where, as noted above, the water resource is scarce.

Under the water law for the Federal District, the ‘*Ley de Aguas del Distrito Federal*’ of May 2003, it is declared that ‘every person in the Federal District has the right to sufficient, secure and hygienic access to water for his/her personal and domestic use’ (Article 5) and the ‘authorities will guarantee that right’ (Art 5 again), but the scope of that article is made subject to ‘limits and restrictions’. Article 6 specifically qualifies the principle that ‘water infrastructure and services should be accessible to all persons without discrimination, including vulnerable and marginal populations’ with the proviso that this applies ‘always and when those populations comply with the legal rules on the use of the land where they are living or carrying out their economic activities’. This is underlined by a later clause, Article 50 which states that ‘The water services for which the authorities are responsible cannot be provided to those persons who live in irregular human settlements’ (*asentamientos humanos irregulares*) especially it seems where this is ‘land for [water collection and] conservation’. In the context of the Valley of Mexico, it seems, the environmental consideration is placed in priority above the development challenge of bringing water services to the unserved.

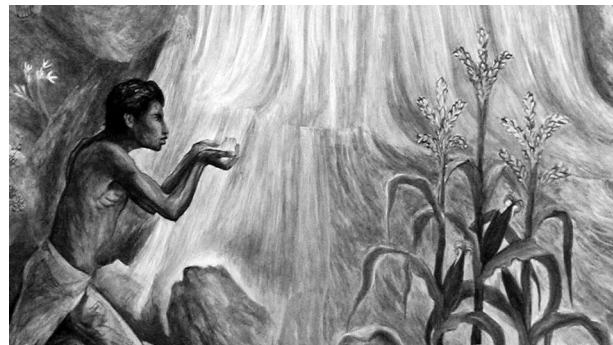
### Pricing

The third key component of protection of water users’ interests, as referred to above, is pricing. Again, the question is whether, in the Mexico City case, the regulatory space for defining pricing and tariffs is constrained (or enhanced) by GATS principles.

The design 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) is one important tool for protection of water users/consumers’ interests, as well as for protection of the environment through water conservation. As a recent OECD study notes (OECD 2003, page 70): ‘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. What is more, a growing number of examples of low-use and social tariffs are found in other utilities, notably telecommunications and energy.’ The above OECD study looked at the methods by which OECD countries have sought to reconcile affordability and environmental objectives using *inter alia* tariff structures – an issue pertinent to the Mexico City context where, as noted above, both social equity and environmental scarcity are relevant factors<sup>24</sup>.

Interviewees in the Federal District reported that the *same* tariff is set for all four zones, with no price distinctions made as between different socio-economic levels of (domestic) customers receiving water supply, within or between delegations in the Federal District. The stated aim of the public authority is to establish ‘equity’.



Wall painting of water as a feature of indigenous culture

This means that, in the sense the tariff system does not differentiate between different (domestic) users of D.F., it does not apply a social tariff. The exception is that users whose service is of markedly lower quality are apparently granted a fixed rate, not a metered rate. These represent a minority and 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 the above 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. Article 6 of the Water Law for the Federal District (*Ley de Aguas del Distrito Federal*) does stipulate, in paragraph X, that ‘the authorities should adopt measures which include ... a policy of pricing which is appropriate for marginal areas or low-grade housing (*vivienda popular*)’. In practice, this does not seem to be happening – or at least not yet.

However, as Soto Montes de Oca has pointed out, the price paid constitutes a substantial under-payment by *all* domestic users (as compared to the costs of providing the service<sup>25</sup>), so to that extent the tariff is a ‘social’ tariff. Even

poor households in D.F., she suggests, may reasonably pay the low rate of c. 100 pesos i.e. 10 dollars per month for their water<sup>26</sup>. For well-off households this represents a *very* low level of payment. So, whilst the rate of payment has risen since the introduction of PSP, the price does not exploit the capacity of many high and middle income households to pay more for their water.

In fact, the major tariff distinction made in the Federal District is between domestic and non-domestic customers (the latter term encompassing industrial and commercial users, including the services sector). Haggarty at al. (page 36) compare the steadily rising prices paid for water by non-domestic users during the period 1996–98, as contrasted with the relatively lower rates charged to domestic customers. 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 private participation is introduced in water services (and at what pace) is particularly sensitive in relation to domestic users. Consequently, it treats its domestic customers differently, whereas ‘commercial and economic policies may be operated more freely in relation to non-domestic customers’. So, in summary, therefore, in the Federal District there is a substantial cross-subsidy from non-domestic to domestic users, but not (currently at least) from rich to poor domestic users.

There was apparently some discussion in 1994, e.g., within elected members of the DF assembly who have a particular interest in water issues, about construction of a more developed social tariff, but it is considered unlikely that there would be changes before the elections in Summer 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 (2006, 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 merit, once they are informed. 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<sup>27</sup>, 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<sup>28</sup>. 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.

Water’s social and political sensibilities 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’ (Haggarty at al, page 23). 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 summary, key factors affecting the regulatory ‘space’ in relation to water pricing are social and political sensitivities, including issues of equity between different areas of D.F., and the extent of awareness and recognition of the challenges (hydrological/environmental, and financial) of bringing water supply to all areas of the city.** Judgements made by the public authorities in relation to the pace and direction of water pricing will presumably be based on a combination of these factors.

## Water Conservation

There does operate in D.F. an increasing block tariff (IBT). IBTs set progressive bands for different levels of consumption, and can be used to encourage water conservation (including some advantages and disadvantages). Soto Montes de Oca (2003) expresses the view that the current design of the blocks/bands in D.F. is not such as to actively promote water savings by the households which are consuming at the highest levels.



*Dry watercourse, rubbish strewn*

## Finance

In the Federal District, PSP has not to-date involved the grant of concessions involving responsibility for managing the secondary network with the substantial levels of investment, and risk, which that would entail. The private consortia in D.F. have been required to bring, and brought, little capital investment for renovation and extension of the water supply service network.

Where the private sector has been invited to make such capital investment, e.g. in cities such as Aguascalientes in Mexico, the EU-sponsored PRINWASS project sheds doubt on the level of capital contribution actually brought by the private companies. The PRINWASS survey of PSP covers 17 cities in nine countries in Africa, Europe and Latin America<sup>29</sup> including both ‘mature’ cases of 10–15 years of PSP, ‘intermediate’ cases of 5–9 years of PSP and one ‘incipient’ case of 1 year of PSP only. The research team noted ‘a consistent pattern’ of very low or zero contributions of ‘fresh capital’ from the private operator’s own capital, with revenues constituting by far the major source of funding supplemented by loans – and state subsidies (page 47 & 48). Page 50: ‘The examples investigated by the PRINWASS team ‘tend to disprove the claim that PSP contributes to the financial relief of the public sector. The evidence suggests that ... WSS utilities continue to rely on public funding whether through direct subsidies or other finance’. This has meant that, page 45: ‘as a general trend capital formation has been far below then expected with a pattern of recurrent non-compliance of investment commitments according to contract....’

In Aguascalientes, PRINWASS reports (page 49) that after the revised concession contract was signed, due to the financial crisis, the financial burden of paying for infrastructure, particularly (page 49) ‘network expansion’ was transferred back to the public sector. As the PRINWASS multi-country report (<http://users.ox.ac.uk/~prinwass/>) states: ‘In Aguascalientes, Mexico, the private operator led by [a European water company] had to be rescued from bankruptcy by the public sector after the 1994 financial crisis [in Mexico as a whole], which involved an undisclosed amount in concept of state subsidy and the significant reduction of the private operator’s financial responsibilities for investment in infrastructure.’

This observation seems to be corroborated in Mexico by the indication that a response to the political and economic risk faced by water companies may be to treat their investments in Mexico (and perhaps other countries) as ‘project financings’. The term ‘non-recourse’ is also used to describe this project financing approach, whereby, once a local corporate vehicle has been established in the country in question by the foreign ‘parent’ company (with such working capital as it necessary), the former is expected to make good of the contracts/concessions it is granted *without* recourse to the parent. An effect of this may be 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. Just as the 49% as opposed to 50% limit, this is an important detail when the implications of working with foreign companies are being considered. In the absence of a parent company guarantee, the weight of the international company may only partially be brought into play. There is some evidence that experience during the first round of contracts in the 1990s, during the period of financial crisis in Mexico, where the value of the Mexican peso plunged as against ‘hard’ currencies, is not forgotten and that economic risk is in the minds of the international companies. This point is considered again in section 6 in relation to the rule on irreversibility.

## Non-Competitive Bidding Process

It is noteworthy that the above 5 year renewed contracts were placed with the existing contractual incumbents without recourse to a competitive bidding process, i.e. the market was not re-opened so that other potential contractors might bid. It is not clear why a decision was taken not to put out the second round contracts to competitive tender (unlike the first). Perhaps this was due to a combination of reasons including the transaction cost, 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 – possibly an expedient whereby the 2004 grants are in effect a holding position until after the holding of the major local and national elections in 2006.

What do the GATS principles say about this? Would they, if introduced, to the water sector, oblige regulatory authorities to use competitive bidding? The answer is that **a country’s commitment to the open market access principle under GATS would oblige the regulatory authority to use competitive bidding if a commitment for the sector had been made.** To provide the concession to the incumbent could violate national treatment (if the firm is owned nationally, then foreign firms are being discriminated against) or the most-favoured nation principle (if the firm is foreign, firms from other countries are being discriminated against).

## North-South Know-How Transfer

A further issue arose during the interviews which is of interest. It is recognised that the private consortia participating in water services in the Federal District have brought welcome know-how and capacity in relation to the services which they have been contracted to perform to-date, as referred to above predominantly ‘commercial’ services of customer census and mapping, metering, and billing and collection (and notably, high volume services).

One interviewee, however, cast doubt on the perennity of the know-how which the private companies from outside Mexico can bring. Since in the water sector that know-how is not ‘high-high-tech’ (e.g. Airbus) it is only a matter of time, he suggested, before Mexican companies will have acquired the necessary expertise. If this analysis is correct, it may be that the 49% limit is designed to facilitate north-to-south know-how transfer in the short-medium (but not long) term.

The water companies themselves would very probably contest this notion, for example, on the basis that their skills had 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.

## 6. Other GATS Rules

### Subsidies<sup>30</sup>

The question arises: how might GATS rules on ‘subsidies’ enhance or constrain the regulatory space of public water authorities? how might water pricing subsidies – cross-subsidies built into water tariffs whereby one category of water user cross-subsidises another (e.g. poorer) water user – be ‘trade-distorting’?

A subsidy arises when a government or other public body confers a financial benefit on a specific producer or group of producers. Under the GATS, trade in services does not (at least currently) benefit from specific subsidy rules. Article XV of the GATS merely provides the right to consult in certain situations and a commitment to negotiate specific rules later. The Working Party on GATS Rules has found that direct subsidising of *exports* of services is not prevalent, though subsidised export credits for construction projects do occur. *Domestic* subsidies are, however, common (whether subsidy of capital cost, or cross-subsidy between users).

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. We have seen above that subsidies and social tariffs are important for the provision of water services to the poor in Mexico and other countries.

Under the GATS, however, trade in services is not yet subject to specific subsidy rules. The GATS has a number of Articles with only *indicative* content where further ‘disciplines’ have yet to be developed. Although negotiations have in principle been started, on some areas only limited progress has so far been made in the context of the Doha Round. Subsidies is one such area.

Whilst the GATS does not yet define the term ‘subsidy’, 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 subsidising 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 most-favoured-nation 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.

In summary, the kind of domestic subsidy, referred to above in the discussion on Federal District, and commonly

applied in the water sector in social tariffs, is unlikely to be considered as ‘trade-distorting’<sup>31</sup>.

## Reversibility

Another GATS issue is how the rule on ‘irreversibility’ may constrain (or enhance) the regulatory space of public water authorities?

Investors commonly plead for a climate of greater ‘certainty’ to protect their interests. Under GATS, once governments have entered into commitments under GATS to open their markets in services (including water services), the rule under GATS is that they cannot withdraw from those commitments and if they do so, they are liable to pay *compensation* to a party who suffers loss as a consequence. A key question arises: once a government allows for private market access, and particularly to foreign companies, is it permissible, under WTO rules, to reduce the degree of space accorded to PSP, *without* paying compensation?

For example, where a public water authority had, in one stage of placing contracts/concessions for PSP, delegated functions to the private sector which, in a *subsequent* stage of placing PSP contracts, that authority chooses to return within the sphere of public responsibility, what would GATS principles ‘say’? Would this constitute a breach of the rule on irreversibility (or ‘lock-in’ as it is also called)?

This is a fact situation which could arise in practice: if, for example, at the end of a 25 year concession, involving a *substantial* delegation of functions to the private sector, the public authority decided – for whatever reason – it wanted to go back to a contract with a *lesser* delegation of functions? In this situation, would a public authority be entitled to reduce, to return, functions delegated to PSP without paying compensation? Or, to put it the other way, under GATS rules, could the foreign company go to its government and ask for a complaint to the WTO. In answer to this question, purist advocates of a free trade approach might well wish to argue ‘Yes.

In practice, this question will presumably come down to whether ‘lock-in’ will apply only for the *duration* of the term set in the contract/concession in question, and that, after expiry of the pre-determined number of years of the contract, the public authority would *not* (despite a GATS commitment) be locked-in, so that that public

authority could change the extent of PSP, without paying compensation (as to the mid-term position, contracts will normally provide for where compensation or penalty payments are, or are not, payable).

The answer seems to be that, if a GATS commitment had been made in the water sector with *no* specific limitations stipulating that freedom to reduce/return was being retained, then compensation would need to be paid (if challenged). The rationale is that GATS is designed to provide some degree of certainty to private investors. However, if a limitation has been added to this effect, then the country would be free to reduce/return in that GATS only applies to sectors included in a country’s schedule of commitments and even then limitations can be added. So, specifying limitation of this kind on GATS commitments, to allow for end of contract adjustment of the PSP status, will be an important issue for developing countries when deciding whether, and how, they should commit a sector to the market access and national treatment disciplines of the GATS.

**That said, it is important to bear in mind that, in order to address (as they consider appropriate) this, and other, GATS issues, water officials and their colleagues in other government departments need of course to be aware of them:** see the issue of *capacity* referred to in section 6.

For a relationship of confidence to exist, ‘certainty’ should exist in equal, or at least reasonable, measure in *both* directions. If international water companies are to benefit (via their governments) from protection through the rule on reversibility, the protection afforded by this rule should presumably be reciprocal. Yet, such reciprocity is in doubt: it has been noted above that a response to the political and economic risk faced by water companies may be to treat their international investments as ‘project financings’ whereby in the absence of a parent company guarantee, the weight of the international company is only partially brought into play. The international investor signals that there is no certainty of future investment and from the outset avoids its own lock-in. In the context of the low levels of capital contributed by private companies, as observed by the EU PRINWASS project, this is a further consideration which may be taken into account by governments contemplating how to introduce and develop PSP.



## 7. Summary of Mexico Case Study Conclusions

So, in the case of Mexico City (and specifically the Federal District at its core), are the 'pro-trade' and 'pro-development' objectives in relation to the water sector consistent and coherent, or incompatible?

### Current Trade - Development Interface

As seen above, currently, in the Federal District, the scope of trade, and specifically international trade, in water services, is substantially circumscribed:

- Mexico has *not* to-date offered GATS commitments in relation to water services;
- non-Mexican companies are participating in the WSS regime in the Federal District, but that participation is formally limited to a minority holding of 49% maximum in Mexican companies;
- under Mexico's 'domestic' (as distinguished from international) regime, PSP in the Federal District is (for all companies) confined to a limited list of 'commercial' functions; in carrying out those activities, the private companies act (largely) as agents of the public authorities;
- most functions in relation to delivery of water supply and sanitation remain the responsibility of the public authorities, including key decisions as to connection to the water supply network, service quality/regularity and pricing;
- the challenge of achieving sustainable management of water resources (bulk supply) for the Federal District (and the larger Mexico City Metropolitan Area) is also in public hands, and relies on substantial financial support at the national level;
- primary factors determining the setting of the Federal District regulatory framework are seen to be social and political (as well as issues of information and awareness), in the case of WSS, and hydrological/environmental in the case of WRM, i.e. GATS principles are not the operative factors in this respect.

Other factors have influenced the shape of PSP in Mexico, e.g. a key driver is domestic policy which was pro-liberalisation; in the water sector this manifested itself in the early 1990s by the major 1992 Water Law. At present, therefore, the regulatory space needed for the government of the Federal District to secure their citizens' access to water services is not constrained by GATS principles (because these do not apply) nor by trade principles (because their application is limited).

The diagram which follows, in **Figure 3**, adds to the earlier Figure 1 by showing these **factors which are operative in the case of Federal District to circumscribe the operation of trade** (specifically GATS) principles. These are features of the Mexico domestic water regime, established and operated in accordance with the gradual approach to introduction of PSP in the capital city. So, due to exercise of choices made by the Mexican authorities, trade and development barely meet; as one interviewee expressed it in Spanish, at present the pro-trade and the pro-development domains '*no tocan*': do not touch; they are (largely) separate worlds, so that there is, in present circumstances, little or no interaction (whether compatibility or conflict) – at least under the current regime.

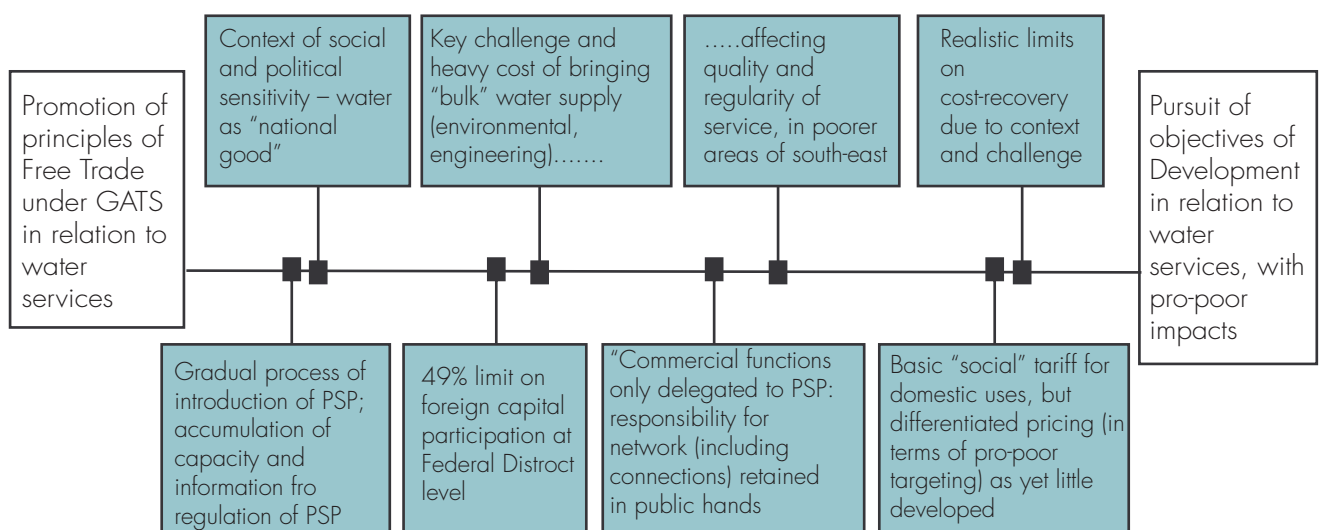
Figure 3. illustrates the above point, that the regulatory space is not at present constrained by GATS principles – because these do not apply – nor by trade principles – because their application is limited.

### Possible Future Trade - Development Interface

The discussion above describes the current situation. We should, however, also look to see how the situation may evolve (since the purpose of the Doha Round of GATS is to encourage opening of domestic water regimes).

**Could there be, in relation to water services, more of pro-trade - pro-development interaction in the**

**Figure 3: Factors in Operation in Mexico City Case**



**future, and, if so, would this be characterised by compatibility and convergence, or conflict?** Will Mexico go towards more free trade in the water sector?

The indication from this study is that the current position in the Federal District is not likely to change, at least in the foreseeable future.

The mode of grant, in 2004, of the second round of contracts in the Federal District suggests maintenance of the status quo. As noted above, the formal rule limiting foreign companies' participation in the capital of the private water utilities operating in the capital has not changed in the second round: it remains at 49% and the companies continue to carry out predominantly commercial functions. It is true that the duration of these new contracts is short, 5 years only, so it would be open to a new government of the Federal District from 2006 to review this policy of control of access by foreign partners, but the public authorities in the Federal District have shown again themselves inclined towards this gradualist approach to PSP, and the Mexico offer (nationally) to GATS reflects this.



New housing development: water demand

As to whether the private companies operating in the Federal District would be keen or not to assume more extensive service roles if they were offered them at some time in the future:

- the new contracts contain for the first time an incentive arrangement whereby the operators will receive a percentage of increased revenues from water users, if they achieve increases (e.g. through, at their own cost, pro-actively contacting non-paying customers);
- future delegation to the companies (e.g. after the expiry of the current 5 year terms) of more responsibilities, e.g. in the form of concessions as opposed to service contracts, would present higher risks - higher rewards (potentially);
- the view was expressed that in general terms it was preferable to be in control of all aspects of supply, so that, for example, in the event of complaints from customers relating to problems of intermittent or otherwise sub-standard water supply (e.g. in the south-east zone of the city), the companies could themselves act to deal with the problems, as opposed to being the recipients of the complaints where these arose;
- in the context of the water resources challenges in the Valley of Mexico, however, the above statement needs to be qualified: the problem-solving capacity of the manager of the secondary water supply network will surely remain

subject to the ability of the public authorities to sustain 'bulk' water supply (at least until any new water delivery systems are built);

- the companies' principal reservations seem to lie in relation to political/administrative risk; there is awareness of the risks inherent due to the relatively short mandates of elected leaders at municipal level, as well as the possible conflicts where elected representatives at the three levels of government are from different political parties; this is an issue which does not seem fundamentally to change despite the introduction of PSP.

Varying views were expressed on the future prospects for regulation generally in Mexico. One interviewee was sceptical as to likelihood of future, strong regulation in Mexico (and elsewhere in Latin America) and as to the regulators' ability, or motivation, to protect the smaller customer. For example, in the financial sector, the interviewee observed that there have been a 'few big winners, and many small losers', with little in the way of credit facilities provided for SMEs. Fears exist of free trade policies 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 water targets under the MDGs. As noted above, it is not the purpose of this study to judge the success or otherwise of PSP and the regulation which oversees and facilitates it. The test of that will come over time: subsequent study may assess how much the public water authorities and private water contractors have together been able to put into practice policies and practices for water supply connection, service-pricing which provide benefits for households including in poorer areas and circumstances.

It emerged from the interviews that Mexico has indicated that it prefers the classification of environmental services proposed by the Swiss. The Swiss have advocated the adoption of a legal interpretation of WTO rules stating that Multilateral Environmental Agreements (MEAs) and the WTO are equal bodies of law, that each should respect the competence of the other, and consequently, that MEAs, and not the WTO, should 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.

The 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 (as an illustration, in a scale from 1 to 10, a value of 8 was attributed to the latter two). From the trade perspective, he recognised that, **before a sector is opened up to private participation, including in particular 'free' foreign participation, the system for regulation needs to be sufficiently defined and complete** (*definido y completo*). Strengthening of the regulation of PSP in the water sector would then free the hand of trade negotiators such as himself and allow the country to enter into GATS commitments in relation to water services<sup>32</sup>.

So, a first key lesson from the experience in Mexico is a **sequencing** one: that public authorities need to make sure adequate regulation is in place before opening up water services to PSP, including to foreign access. According to the study carried out by the EU-sponsored PRINWASS project, this lesson is borne out by a comparison of the experience of PSP in the Federal District with that in the Mexican city of Aguascalientes.

In other words, if, in the water sector, the middle circle in Figure 1., of ‘Regulation, were not adequately established in a particular country context, the effect would be for trade principles to impact directly on development, to, as-it-were, by-pass the middle circle without ‘**checks and balances**’ built into the system.

What exactly those checks and balances should be will surely be best determined over time. 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 the development aims it is seeking to achieve, to formulate the ‘partial commitments’ it desires. Assessing the question of what regulatory issues and problems might arise in the future if Mexico decides in principle to commit to GATS in relation to water services, is difficult, because, as has been seen, GATS is made up of a set of rules which are detailed and the context in which water services are provided in a given city/municipality is also dynamic. Further, the GATS rules are subject to uncertainties of interpretation, and in some cases their meanings are still being discussed and developed.

**Venturing into the ‘what if’ scenario of future GATS application,** it has been seen above that in two particular types of fact situation, namely (i) competitive bidding and (ii) adjustment of PSP status (return of water service functions to the public sector, after a period of delegation to private companies), a decision to ‘open water services to GATS could take effect to limit the decision-making scope of the regulatory authority – depending on how GATS rules are invoked and interpreted. These are two examples of areas where the Mexican and other authorities will presumably wish to satisfy themselves that regulatory space is not constrained, or not constrained beyond that which they consider acceptable. There may be others, but it is not here attempted to try to cover the possible range of ‘what if’ scenarios.

The second key lesson relates to *capacity*. This study has served to confirm the complexity of the GATS-water relationship and the extent of dialogue and coordination between trade and water specialists required to ‘map’ and analyse it.

Water officials need to build up their understanding of the content of the different GATS rules, how they are interpreted internationally under World Trade Organisation (WTO) procedures/auspices, and especially how they may

apply to water services. Trade officials meanwhile need to familiarise themselves with the special features of the water sector.

In Mexico, it is widely recognised that ‘public good’ aspects of water resources make the sector different from other service sectors, e.g. telecommunications and finance, and that the application of free trade principles and, potentially, GATS rules to the water sector is a sensitive social and political issue. *The fact that in Mexico (and other countries) choices over how local water services are provided has been passed to individual municipalities increases this capacity challenge:* whilst the domestic (i.e. in-country) logic of decentralising to municipal level may be clear, the effect in an international context is asymmetric in terms of capacity (the knowledge of GATS and understanding of regulation).

**Water sector policy in Mexico is still evolving in line with processes of social and economic transformation. In this context it is surely preferable that the government retains flexibility to construct – gradually, over time – the checks and balances for regulation of private sector involvement which it considers appropriate, and to accumulate, also over time, the understanding of how to formulate its GATS offers with limitations listed to match those regulatory measures.**

As noted above, under the GATS system, the onus is on the committing country to define clearly the extent and scope of application of GATS in terms which are effective for its own development objectives, including formulating any desired limitations to GATS rules in its schedule of commitments. Before deciding upon their negotiating position regarding GATS, each country needs to assess its strengths and weaknesses in the relevant services sector, including regulation, as well as the potential costs and benefits of liberalising those services – in local conditions. Regulatory authorities which have little experience of PSP and GATS will not be able to regulate for things they do not (or cannot) foresee.

Further, in some significant respects GATS rules currently represent a ‘moving target’ so that making of future GATS commitments in relation to water services involves an element of uncertainty as to how rules governing trade in water services might be applied.

A cautious step-by-step approach to making GATS commitments will increase the likelihood of anticipating correctly how they will take effect. In this manner, the public authorities in Mexico and other countries will be better equipped to achieve PSP which is effectively harnessed *towards* (as opposed to *against*) public objectives, including the aim of achieving improved and extended access to water supply for domestic needs in poorer areas as set out in the water targets under the MDGs.

## Endnotes

- <sup>1</sup> [www.odi.org.uk/wpp](http://www.odi.org.uk/wpp)
- <sup>2</sup> 'Water and the GATS: mapping the trade-development interface', October 2005: [www.odi.org.uk/wpp/publications](http://www.odi.org.uk/wpp/publications)
- <sup>3</sup> 'Water and GATS: Lots of smoke, but where exactly is the fire?', December 2005 [www.odi.org.uk/wpp/publications](http://www.odi.org.uk/wpp/publications)
- <sup>4</sup> Mexico, South Africa and Senegal.
- <sup>5</sup> An additional target relating to water resources was added by WSSD, to develop integrated water resources management and water-efficiency plans by 2005.
- <sup>6</sup> 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.
- <sup>7</sup> As a recent OECD study (OECD, 2003) shows, such social tariffs are operated in high/middle income countries of the OECD and there is a case for their design and development - over time - in low-income countries (the other option mode of providing support being social security type measures targeted at the user, instead of pricing of the resource). Tariffs may also be designed in pursuance of environmental goals (e.g. for reduction of levels of water consumption).
- <sup>8</sup> 'Governance' here used in a commonly accepted sense, to include both governmental and non-governmental entities and the interaction between the two.
- <sup>9</sup> As expounded in Mehta, 2004.
- <sup>10</sup> It is recognised that there are a number of sectors in which the GATS W/120 classification is problematic, so there has been discussion on how to improve the classification in those sectors.
- <sup>11</sup> Subject, as noted above, to any influence or pressure which may be applied or exerted, e.g. by other WTO members.
- <sup>12</sup> The use of terms like 'disciplines' which carry value judgements tends to indicate that GATS is a normative framework, rather than other international frameworks relating to the water sector, such as human rights.
- <sup>13</sup> Whilst Mexico is not of course a low-income country, the country has great disparities of wealth.
- <sup>14</sup> Joint Academies Committee (1995), 'Mexico City's Water Supply - Improving the Outlook for Sustainability', National Academy Press, Washington D.C. 1995.
- <sup>15</sup> 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.
- <sup>16</sup> Torregrosa, M.L., Kloster K, (2004), Strategic Country Report Mexico for PRINWASS project, Latin American Faculty for Social Sciences (FLACSO), Mexico, August 2004 accessible on the PRINWASS website (<http://users.ox.ac.uk/~prinwass/>)
- <sup>17</sup> NB: The above information on the second round contracts has been gathered in exclusively oral form from the interviews; the contracts themselves are, it seems, treated as confidential and were not seen by ODI.
- <sup>18</sup> Also, as reflected in Article 1 of the new national Water Law, passed in April 2004.
- <sup>19</sup> The example was given of intra-urban transport services where the importance of knowledge of local conditions and circumstances and the availability of local capacity is thought, by one senior person consulted, to mean that outside help will not be required.
- <sup>20</sup> 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.
- <sup>21</sup> At least, at the time of carrying out this study.
- <sup>22</sup> The mapping of the water distribution network and the client base, as well as installation of meters, is seen by a number of interviewees as having been successful, as well as the regularity of billing and creation of the customer care centres.
- <sup>23</sup> A recent study (Castro et al. 2002) points to 'confusion in the regulatory framework, ie; different regulators for Mexico City [i.e. the Federal District] and the rest of Mexico [i.e. in the State of Mexico]. The study compared the status of WSS in two communities, one called Piru in the Gustavo A. Madero delegation, in the northern zone of the Federal District, occupied in the early 1980s and having very poor conditions in the beginning, but with paved roads and basic housing now emerging, the other called Huicholes, a poor, informal settlement in a municipality called Ojo de Agua located in the adjoining State of Mexico (i.e. whilst the latter is part of the sprawling Mexico City, it is not in the Federal District) with no water or legal electricity connections. It found that Piru, the wealthier community, is paying less than half for its household water than Huicholes. The lack of federal level, i.e. country-wide, standards is, the reports says, a 'contributing factor to this injustice'.
- <sup>24</sup> Mexico is an OECD member, albeit one of a group of countries amongst the 30 members with most significant gaps in water services (OECD, 2003).
- <sup>25</sup> This does not seem to be a new situation. As Haggarty et al, 2001 note, on page 22: 'The price charged to the D.F. for bulk water delivered to the city did not (prior to the introduction of PSP) reflect the investment costs, and the D.F. had a long history of not charging the opportunity cost for water extracted from the aquifer'.
- <sup>26</sup> Haggarty et al note (in 2001) that 'at current tariffs, piped water is affordable but not always obtainable for the poor in D.F., leaving many customers to rely on more expensive sources'.
- <sup>27</sup> Soto Montes de Oca, (2005), 'Qualitative considerations of consumers' willingness to pay for water tariff reforms in urban areas: the Mexico City case', forthcoming.
- <sup>28</sup> '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).'
- <sup>29</sup> Kenya, Tanzania; England, Greece, Finland; Argentina, Bolivia, Brazil, Mexico.
- <sup>30</sup> This information and guidance on subsidies in this section

has been supplied by Ian Gillson of ODI.

<sup>31</sup> Also among the currently most undeveloped elements of GATS is the obligation concerning domestic regulation in the GATS framework which aims at requiring Members to regulate those service sectors in which they have made commitments in a 'reasonable', 'objective' and 'impartial' manner. These terms are not clearly defined under Article VI of the GATS and much will depend on future discussions as to their meaning, and application. The reference also to

'necessary' disciplines has prompted considerable concern that WTO panels would interpret this as 'least-trade restrictive' (see separate ODI synthesis report, as well as Mehta 2005).

<sup>32</sup> There was inter-action between the Ministry of Economy and the Ministry of Environment (SEMARNAT) which is responsible for water in relation to the formulation of the GATS offer, i.e. in Mexico there was coordination between government departments in this regard.

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## Annex 1: List of Persons Consulted

<p>José F. Poblano          Director General of Negotiations on Services,          Ministry of Economy</p>
<p>Germán Martínez Santoyo          Executive Coordinator of Services to Water Users          Sistema de Aguas de la Ciudad de México (SACMEX),          Government of Federal District</p>
<p>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</p>
<p>Gloria Guerra Guerrero,          Sub-Director of Citizen Relations          Sistema de Aguas de la Ciudad de México (SACMEX), Government of Federal District</p>
<p>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)</p>
<p>Ramón Vila          Director General          Tecnología del Agua, S.A (TECSA)          (Mexican joint venture company, including Ondeo, part of Suez</p>
<p>Joost Martens and Manuel Perez-Rocha Loyo          Regional Manager and Mexico Advocacy Officer          OXFAM</p>
<p>Dr. José Esteban Castro          St. Antony's College, Oxford          International Coordinator of PRINWASS Project (funded by EU Research)</p>
<p>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)</p>
<p>Gloria Soto Montes de Oca          School of Environmental Sciences, University of East Anglia,          Norwich, UK</p>

## **Annex 2: Extracts From PRINWASS Study on AGUASCALIENTES**

Source: PRINWASS: Strategic Country Report Mexico, August 2004

The city of Aguascalientes is located in the central northern region of Mexico and has experienced important economic and population growth in the last decade. One example of this is that its population grew from 450,000 in 1990 to 600,000 in 2000 and the trend indicates that by 2010 there will be almost one million residents. At the same time, Aguascalientes has always been characterized by its location in a zone of water scarcity. The aquifer that supports its growth is being over-exploited ... This situation, added to the growing demographic pressure on services, as well as the growing debt of the municipal government, prompted the government to consider introducing PSP.

In 1993 the State Water Law was reformed to allow the transfer of responsibility for water and sanitation services 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, authorizing the municipal president of Aguascalientes to grant a concession of the public services of potable water, sewerage, wastewater treatment and reuse. The municipal president granted the concession to a private consortium the following day. The above state Law for was reformed in 2000 to allow for the establishment of monitoring bodies such as the Institute of Water (INAGUA), the Citizen Movement for Water, and the State Consultative Council on Water, among others. Finally, 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 decentralization of WSS was carried out in conjunction with a series of administrative, policy, and legal reforms ... for introducing PSP. However, the overall process

and, especially, the concession of the water utility to a private operator, was punctuated by all sorts 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 decentralization 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 characterized by traditional clientelism and political patronage.

In perspective ... the introduction of PSP in WSS in Aguascalientes was a candidate for failure from the start. The company faced a complicated situation with the citizen reaction to raising tariffs. Fees were raised from an average cost 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 debt acquired in dollars. Meanwhile, the politicization around raising tariffs and water suspensions reduced the commercial efficiency of the company. The lowest commercial efficiency occurred when the municipal government intervened in the company during the economic crisis, later renegotiating the contract under very different conditions. These modifications improved the position of the company, since the federal government took on most of the 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.