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REGULATION AND THE PRIVATISATION OF WATER SERVICES IN DEVELOPING COUNTRIES: ASSESSING THE IMPACT OF THE GENERAL AGREEMENT ON TRADE IN SERVICES (GATS)

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REGULATION AND THE PRIVATISATION OF WATER SERVICES IN DEVELOPING COUNTRIES: ASSESSING THE IMPACT OF THE GENERAL AGREEMENT ON TRADE IN SERVICES (GATS)

Abstract

Trade liberalisation of environmental services under the current WTO General Agreement on Trade in Services (GATS) has been widely advocated as a means of increasing private sector participation in the water sector in developing countries. The liberalisation of water services in lower income countries is expected to promote more efficient operation, increase investment and improve service coverage. At the same time, these proposals have been widely criticised, and there has been growing resistance to the liberalisation of water services. This study reviews the evidence on the impact of private sector involvement in the provision of water services in developing countries. A number of reasons why water privatisation may prove problematic in lower-income countries are identified, including transaction costs and possible regulatory weaknesses. Recognising that effective regulation is needed to ensure that the potential gains from private involvement are fully realised, the paper then considers the relationship between national regulatory autonomy and GATS liberalisation. The study concludes that developing countries with limited regulatory resources should adopt a cautious approach to public services liberalisation, by sequencing market liberalisation measures to match the development of their regulatory institutional capacity. The paper also argues for improved clarity in the interpretation of the GATS provisions on the right of members to exercise national regulatory policy.

Key words: water services, GATS, developing countries, privatisation.

INTRODUCTION

Securing safe, reliable and reasonably priced water services for all is one of the leading challenges of sustainable development. At the beginning of the 21st century, it is estimated that 1.1 billion people do not have access to safe water supplies, and 2.4 billion lack access to basic sanitation (OECD, 2003). The improved provision of water supplies figures prominently in the Millenium Development Goals, and the Johannesburg Earth Summit in August 2002 agreed to halve the number of people without safe access to clean water and

basic sanitation by 2015. Lack of access to reliable and safe water is directly linked to significant health problems and it is estimated that two million children die each year from water related diseases and many more suffer serious health problems related to poor water quality. The lack of adequate and affordable water also has serious consequences for the livelihoods of the poor, in terms of increased costs, time and physical effort to obtain water, reduced consumption and lower productivity.

Meeting these needs and achieving the Millenium Development Goal for water will require a major increase in investment in water infrastructure. In addition, it will require improved methods of water management, including the use of charging policies that recognise the dual requirements of cost-recovery and affordable supply to the poor.

For water services (and for sanitation), which exhibit significant network economies of scale, it will typically be more efficient to have a single supplier of piped services to any particular area. Historically, local natural monopolies have been in public ownership, and at present over 90 per cent of the world's piped water is delivered by publicly-owned bodies, at both national and municipal levels (OECD, 2000) An additional consideration in placing water services under public ownership has been the basic need aspect of water, where the provision of safe and affordable water is a fundamental public policy objective.

Recent years have seen a movement away from state ownership towards more reliance on private markets to supply goods and services traditionally provided by the state, such as telecommunications, electricity and water. This has resulted in an increase in private sector participation in water services provision in both developed and developing countries, particularly during the 1990s. At the same time, the growing involvement of the private sector in utility markets has required some form of continued state regulation to ensure that public policy objectives are met and to protect consumers from monopoly abuse. As a result, regulatory regimes in both developed and developing countries have experienced significant change since the mid-1980s with a shift from state ownership and state responsibility for the provision of services, to private ownership and private provision with enhanced state regulation of markets (Majone, 1997; Cook et al 2004).

Over the period 1990 to 2001, more than 2000 water and sewerage projects with private participation were undertaken in developing countries. Private participation in the water and

sanitation sector in developing countries has been predominantly by foreign companies. The global water services market is dominated by a small number of multinational corporations, with the four biggest private companies (Suez, Veolia (formerly Vivendi Environment), RWE, and Saur) engaged in integrated operations across water, waste and environmental services. There are also interlinking relationships between the major international companies through joint venture arrangements. These companies increased their involvement in developing countries during the 1990s, but more recently have been less willing to engage in what they perceive to be high risk water projects in the developing world (Hall, 2003; Alexander, 2003). While the forms of private participation in the water sector vary in the allocation of risk, duration of the arrangement and assigning of asset ownership, all involve some form of contract with, or regulation by, the public sector.

Trade liberalisation has been widely advocated as a means of enhancing developing countries' access to international private capital, technology and management expertise in the services sector (Hockman et al, 2002). As part of the Uruguay Round, the General Agreement on Trade in Services (GATS) entered into force on 1 January 1995 with a set of binding rules and disciplines to promote liberalisation of services trade and investment flows. It was also agreed that a new round of negotiations on services trade liberalisation would commence in 2000. Trade liberalisation in the area of environmental services has been proposed as a means of increasing private sector participation in the water sector in developing countries and thereby progressing the MDG of reducing the number of people without access to clean water by one half by 2015 (WTO, 1998).[1]

The WTO Ministerial Declaration at Doha in November 2001 agreed to negotiations on the reduction or elimination of tariff and non-tariff barriers to environmental goods and services as part of the negotiations on trade in services within the GATS framework (WTO, 2001). The Doha Ministerial Council also agreed on a timetable for market access discussions and for the presentation of initial offers, with a deadline of 31 March 2003. The deadline for completion of negotiations is 1 January 2005, when new GATS commitments will form part of the single new Round agreement.[2]

Proposals for the liberalisation of water services under the GATS framework have stimulated considerable public debate and various concerns have been raised by developing countries, major international NGOs and civil society (IIED-ICTSD, 2003; Hilary, 2002). Critics have

argued that GATS will remove the right of national governments to regulate or restrict the delivery of services in the pursuit of public policy objectives, such as universal service obligations, equity, poverty reduction and consumer protection (Chandra, 2003). In the case of water services, it is argued that liberalisation under GATS would result, inter alia, in higher prices for consumers, a concentration of services on higher-income consumers, urban areas, and a reduction in employment, each of which would disadvantage the poor.

Unfortunately, there is a dearth of relevant, empirically-based policy research on the interface between domestic regulation and trade liberalisation, which could assist developing countries in designing domestic regulatory frameworks that fulfil national policy objectives, while at the same time ensuring that the economic benefits of opening services markets to trade and investment are fully realised (Mattoo and Sauve, 2003). The objective of this paper is to contribute to a more informed consideration of these issues, by providing an assessment of the potential impact of GATS liberalisation of water services in developing countries.[3]

The paper consists of six sections. Following this introduction, the second section provides an overview of the GATS and its interface with domestic regulation policy. Section 3 assesses the evidence on the impact of increased foreign private participation in water services delivery in developing countries. Section 4 discusses the implications for domestic regulatory policy and highlights the need for an effective regulatory framework if the potential benefits of liberalisation of water services under GATS are to be fully realised. Section 5 identifies a number of areas where the existing GATS provisions on regulation might be amended to provide greater clarity and certainty as to the relationship between domestic regulatory autonomy and services liberalisation. Section 6 provides a brief summary and conclusions.

GATS, SERVICES LIBERALISATION AND DOMESTIC REGULATION

International trade in services comprises almost one-fifth of global cross-border trade, and most sectors are subject to various forms of trade barriers. The GATS is intended to promote trade liberalisation in services and applies to measures taken by WTO members that affect trade in services. All services are covered, except those supplied in "the exercise of governmental authority", i.e. services which are neither supplied on a commercial basis nor in competition with other service suppliers.[4]

The GATS distinguishes between four possible modes for supplying services, depending on the origin of the service supplier and consumer, and the degree of territorial preserve that they have as the service is delivered. The four modes are:

Mode 1: Cross-border supply - which corresponds with trade in goods, with a geographical separation between seller and buyer and only the service itself crosses national boundaries;
Mode 2: Consumption abroad – which is where a service is supplied in one country to a consumer of another country. Typically, this involves the consumer travelling to the supplying country.
Mode 3: Commercial presence – this occurs where the foreign supplier has a commercial base in the country being supplied e.g. the establishment of branch offices or subsidiaries in overseas markets, analogous to foreign direct investment.
Mode 4: Movement of natural persons – this is defined as the temporary cross-border movement of service providers in an individual capacity or as part of an establishment, to provide the service in another country.

The GATS has two main components (a) national schedules listing specific agreements made by individual countries on access to their domestic market by foreign suppliers, and (b) a framework agreement covering general provisions, rules and principles.

WTO members' commitments are specified in the country schedules, which cover 161 service activities across 12 classified sectors. The commitments made by a member country relate to market access and national treatment. Market access is a commitment to guarantee a certain level of access in specified sectors. A national treatment commitment implies that the member state will not operate discriminatory measures that benefit domestic services and service suppliers. Members may choose not to make any commitment (with the relevant entry in the schedule being 'unbound') or they may commit to guaranteed market access and/or national treatment without limitations ('none'). The intermediate case of 'limited bindings' refers to entries that are conditioned in some way by a limitation. Since market access and national treatment each apply to the four modes of supply, commitments are defined in the form of eight entries per sector.

This voluntary approach means that there is no compulsion on member countries to open up a particular sector or mode of supply if there are regulatory and public policy concerns about

the potential impact. The general principles and rules of GATS are applicable across the board to measures affecting trade in services. Since, however, most of the provisions are conditional upon the commitments made by member countries, individual countries have considerable flexibility to pursue national policy goals.

Article XVII disciplines discriminatory treatment between foreign service providers and domestic providers, subject to exceptions listed by a member country in its schedule. Article XVI details quantitative restrictions affecting services trade that are prohibited unless they are listed in a country's schedule of commitments.[5] There are additional general provisions on subsidies (Article XV) and on government procurement (Article XIII).

Regulation is an important part of the GATS provisions. The Preamble to the GATS recognises 'the right of members to regulate, and to introduce new regulation, on the supply of services within their territories in order to meet national policy objectives', and Article VI on domestic regulation requires only that in sectors where commitments are undertaken, each member shall ensure that all measures of general application are administered, 'in a reasonable, objective and impartial manner'.[6] It would seem, therefore, that commitments under the GATS to grant market access in sectors where domestic regulation plays an important role, do not entail any weakening of national autonomy in regulatory policy. Indeed, governments may also choose to impose additional requirements on foreign suppliers.

There may be legitimate concerns however, about services liberalisation in developing countries if regulatory capacity is weak and unable to effectively control any adverse impacts of market opening. There may also be well-founded concerns about the interpretation of the current GATS principles of regulation, and the way in which these may be defined in the ongoing negotiations on Article VI. We return to these two related areas of concern later in the paper. First we look at how weaknesses in regulatory capacity have already affected the results of water privatisation in developing countries.

PRIVATE PARTICIPATION IN THE WATER SECTOR

Private water suppliers exist in all developing countries in the form of water vendors at the street level, but there was little privatisation of piped water services in developing countries before 1990. Between 1985 and 1990, only eight contracts for water and sewerage projects

were awarded to the private sector world-wide and the cumulative new capital expenditure in private water services totalled less than US$1bn.

However, during the 1990s there was increased interest in water privatisation stimulated by donor agency pressures and in 1997 the total figure for private investment had risen to US$25bn. By the end of 2000, at least 93 countries had privatised some of their piped water services, including Argentina, Chile, China, Colombia, the Philippines, South Africa and the transition economies of Central Europe, as well as Australia and the UK (Brubaker, 2001). In terms of the amounts invested, Latin America and the Caribbean and East Asia and the Pacific regions accounted together for 81% of the total investment over the period from 1990 to 1997 (Silva et al., 1998: figures from World Bank PPI Project Database). A small number of countries accounted for most of the privatisation of water services within these regions and the figures are dominated by a few large contracts. Indeed, one project, Aguas Argentinas, accounted for 54% of the investment in the whole of Latin America; while three Philippines contracts accounted for a half of the total private investment in water services in East Asia.

Since the Asian economic crisis of 1997-98, these has been a marked slow down in infrastructure privatisation in lower-income economies, including the water sector (Harris, 2003), reflecting, in part, a decline in interest among investors to pursue infrastructure projects in the developing world in the face of regulatory weaknesses and associated contract failures (Alexander, 2003; Talbot, 2002). The decline in investors' interest and level of investment in the water sector in developing countries has been matched by a growing discontent with, and in some cases active resistance to, water sector projects involving private investment. In part, this reflects opposition from those groups that may lose from the reforms, such as politicians who have used appointments in the public sector water utility to buy votes. But also, it reflects a perception that the economic benefits of privatisation have been limited and that the social impact, particularly on the poor, has been adverse.

Privatising water services is normally associated with contracts that take the following forms, namely: leases and management contracts for existing facilities (without new private sector investment), concessions (requiring the private sector to invest in facilities), divestitures (sale by the state of some or all of the equity in state owned enterprises), and greenfield investments (including build-operate-transfer [BOT] schemes) (Johnstone and Wood,2001, pp10-11). In practice, contracts under which private firms provide the services but

government remains the ultimate owner of the water system and may remain responsible for some new investment are commonplace (OECD, 2003). Of 233 water and sewerage contracts with the private sector arranged between 1990 and 2002 on the World Bank's PPI Project Database, 40% involved concession contracts and these accounted for 64% of the total amount invested. .

Looking briefly at the evidence on the effects of water privatisation in developing economies, the results suggest some successes but confirm regulatory weaknesses. Starting with Latin America, about 30% of Argentina's municipalities privatised their water services in the 1990s. Where privatisation occurred, child mortality rates seem to fall faster than elsewhere in the country, with the main benefits centred in the poorest areas. Also, the number of household connections grew (Galiani et al., 2002). The most celebrated Latin American water privatisation occurred in Buenos Aires, when the city in May 1993 entered into a 30 year concession agreement with a company called Aguas Argentinas[7]. After privatisation water supplies expanded and water pipes and drains were improved, reversing years of neglect under state ownership (Crampes and Estache, 1996; Alcazar et al., 2000; Loftus and McDonald, 2001). Collection efficiency also rose, and operating costs to revenues fell sharply. There was a 28% reduction in employment (ILO, 1998, p.9), but workers who kept their jobs gained through higher wages, reflecting higher labour productivity (Shirley, 2002).

Like Argentina, Chile passed legislation opening up its water sector to private investment (Pargal, 2003, p.41-2) and notched up some successes. Five of the 13 regional companies were privatised, and they included companies serving the three largest urban centres, including the country's capital, Santiago. Subsequently, the new private sector operators achieved much higher returns on assets, and reported lower water losses, lower administration costs to sales and higher labour productivity (Bitran and Valenzuela, 2003).

Successful private-sector concessions for water services have also been reported elsewhere in Latin America, for example, in the cities of La Paz and El Alto in Bolivia. Here the result was improved services and a 66% rise in the number of new connections (Estache et al, 2001). Barja and Urquiola (2001) argue that in Bolivia the price increases by non-privatised water companies were greater than in those that were privatised during the 1990s, suggesting the water privatisation does not necessarily lead to higher charges to consumers if productivity can be increased sufficiently (Harris, 2003, p. 18). Large productivity gains are

reported for a number of privatisations. For instance, in Cartagena in Colombia, the ratio of employees per thousand connections fell from 14 to 4.5 in the first six months of the private lease agreement, reflecting much more efficient operation of the enterprise (Rivera, 1996).

Turning to sub-Saharan Africa, privatisation also appears to have produced benefits in Guinea, where in 1989 the government entered into a lease arrangement for private operation of water services in the capital city and 16 other towns (Clarke et al.,2000) Two organisations were involved until 2001, the partially state-owned national water authority, Societe Nationale des Eaux de Guinee (SONEG) and a water management company, Societe d'Expolitation des Eaux de Guinee (SEEG). SONEG owned the facilities and SEEG operated them under a lease. During the first five years of private operation, the proportion of the population with access to mains water rose from around 15% to 52% and metering rose from about 5% to 95% of all connections. The number of connections almost tripled. At the same time, SEEG's revenues rose nearly tenfold.

The Cote D'Ivoire has also experienced the successful private provision of water and over a much longer period, reflecting its earlier French colonial status (Plane, 1999); but the concession has been far from problem free. For example, the charging of a uniform water tariff, so that the private company could cross-subsidise consumers in high-cost small towns from the profits earned in the capital, Abidjan, made higher cost areas less attractive to serve (Medard and Clarke, 2000; Clarke and Wallsten, 2002, pp. 15-16). Difficulties have also been experienced elsewhere. For example, a concession in Tucuman province in Argentina quickly ran into serious difficulty. Tariff rises to fund a planned investment programme and customer dissatisfaction with services led 80% of residents to stop paying their water bills. The concession had to be cancelled and provision reverted to the provincial government (Nickson, 2001, p.11). In Buenos Aires privatisation has been controversial. Although the concession was awarded after the company Aguas Argentinas promised to reduce tariffs by 26.9%, within eight months the company demanded an upward price adjustment, citing the poor condition of the pipe network, unexpected operating costs and inadequate consumer records (Loftus and_McDonald, 2001). The tariff was raised by 13%, although charges still remained 14% lower than before privatisation (Shirley, 2002). Also, there have been several reported instances since the mid-1990s of investment cancellations and regulatory problems. The recent economic crisis in Argentina and the peso devaluation in 2001/2 have meant the Aguas Argentinas has had difficulty servicing its dollar denominated debts (Slattery, 2003).

A very obvious case of concession failure occurred in Manila, in the Philippines. In 1997 a major privatisation of water services occurred in the capital, with the state-owned supplier divided into two companies, Maynilad and Manila Water, each supplying different parts of the city (David, 2001). A 25 year concession agreement was signed between the Metropolitan Waterworks and Sewerage System (MWSS) and Maynilad Water Services (MWS) for services to around 6 million consumers in the western area of Manila. In February 2003, the company terminated the agreement claiming serious breaches of contract by MWSS. During its first five years of operation, MWS had recorded losses of around US$75-95m and the company had faced frequent public protests about water connections, rate adjustments and poor service. The termination of the concession occurred when MWSS refused to agree a rate adjustment to enable MWS to recover its major foreign exchange losses, following devaluation of the country's currency (*Public Citizen*, 2003, p.4; Slattery, 2003).

There have also been some privatisation failures in Chile, including service failures and public opposition to rising charges (Bitran et al 1999,p.383). In Guinea the relationship between water management company, SEEG, and the authorities, SONEG, was associated with regulatory failures and the water supply system did not improve and expand as fast as expected (Campbell-White and Bhatia, 1998, p92; Cook, 1999; Clarke et al., 2000; Bayliss, 2002, p.11, p.12). In 2001 the concession ended after a World Bank audit revealed over-charging, with the private firm earning more than twice the agreed amount (cited Bayliss, 2002). In Ho Chi Minh City, in Vietnam, three BOT concessions were signed between 1995 and 1999 involving take or pay deals for bulk water supplies. However, demand was overestimated and the water distributor was left having to pay for water that could not be sold (McIntosh, 2003, p. 90). Other private concessions have been cancelled following violent public demonstrations, such as in Cochabamba in Bolivia (Nickson and Vargas, 2002). The fear of large price rises following privatisation is a real one, especially since under state ownership water charges are usually set well below the true costs of provision. For example, in Queenstown, South Africa, provision of water supplies was taken over by a private company, with billing remaining the responsibility of the municipality. Prices subsequently increased, with low-income households paying 100% to 200% more than before (cited in Mitlin, 2002, p.36). In Zimbabwe the UK private sector company, Biwater, withdrew from negotiations for a water concession in 1999 because it became clear that the local population could not afford the charges for water services that the company would need to apply to make

a commercial return on its investment (Bayliss, 2000, p.13). In Jakarta in Indonesia public distrust has dogged water privatisation because a World Bank sponsored municipal concession involved companies linked to the Suharto family (Public Citizen, 2003, pp. 6-7; McIntosh, 2003, p.90).

It seems evident from such experiences that the record of water privatisation in developing countries is mixed. Water privatisation has been associated with both benefits and costs, with the costs related to regulatory failures and consequent public discontent. That water privatisation has produced costs as well as benefits is supported by the few published papers that have attempted a statistical or econometric analysis of the effects of water privatisation in lower-income economies (Estache and Rossi, 1999; Estache and Rossi, 2002; Estache and Kouassi, 2002; Kirkpatrick, Parker and Zhang, 2004.

The reasons for failure relate to the technology of water provision, and the costs of organising long term concession agreements, which compound regulatory weaknesses. Unlike in the case of telecommunications and parts of energy supply, such as generation, where competition is feasible, competition in the market for water services is normally ruled out by the scale of the investment in network assets that are needed to deliver the product. Moreover, the cost of moving water down pipes is far higher than the costs of transmitting telephone calls or distributing electricity. In other words, the technology of water supply and the nature of the product, together, severely restrict the prospects for competition in the market and therefore the efficiency gains that can result from encouraging competition following privatisation. This leaves rivalry under privatisation mainly in the form of ‘competition for the market’ or competition to win the contract or concession agreement. However, here serious problems can arise. These problems relate to the existence of pervasive transaction costs.

As already explained, water privatisations involve various types of contracts. Transaction costs arise for water services provision, in terms of the costs of arranging the agreements, including organising the bidding process, monitoring contract performance, and enforcing the contract terms where failures are suspected (Williamson, 1985). These transaction costs are likely to be high when contracts have to be negotiated to cover service provision over long periods of time because many future events that could affect the economic viability of the contract and the acceptability of the service offering are unforeseen, and may be

unforeseeable. Concession agreements in water are typically negotiated for 10 or 20 years or more. Inevitably, therefore, the contracts will need to permit periodic adjustment of variables such as price, volume and quality during the contract life. The contract will be incomplete in terms of specifying all of the contingencies that may trigger such adjustments and the form the renegotiation might take. This places a large emphasis on the skills of both government regulators and companies when operating water concessions, to ensure as far as possible that the outcome is mutually beneficial.

Pre-qualification criteria and risk restrict the bidding for water concessions mainly to a small number of international players (McIntosh, 2003, p2). However, the smaller the number of bidders, the greater the scope for either actual or tacit collusion when bidding and the less effective will be the competitiveness of the bidding process. The result can be both adverse selection and moral hazard. Adverse selection takes the form of sub-optimal contracts at the outset, resulting from one of the contracting parties acting opportunistically to arrange especially favourable terms; while moral hazard occurs when one of the contracting parties renegotiates the terms of the contract in their favour during its lifetime. During contract renegotiation either the company or the government could be the loser, depending upon the results of the renegotiation. Guasch (1999) concludes that 55% of water concession contracts in Latin America were renegotiated significantly within a few years of being signed – in Buenos Aires prices were raised within months of the start of the water concession (Alcazar et al., 2000). Studying cancelled concession contracts in developing countries, Harris et al (2003) find that water and sewerage concessions have the second highest incidence of cancellation after toll roads.

Transaction costs in water concessions reinforce weaknesses in government regulation in developing countries (Spiller and Savedoff, 1999,pp1-2). The decline in private sector infrastructure investments in developing countries since 1997 is consistent with growing concerns amongst investors about regulatory capacity (Harris, 2003).

THE NEED FOR EFFECTIVE REGULATION

While the evidence suggests that the introduction of private capital into water services in lower-income economies can lead to improvements in productive efficiency, an expansion of service delivery, and an improvement in the quality of service, the relationship between private sector participation and economic performance improvement is not straightforward,

with a number of cases recorded of problems and failures. In particular, assessing the impact of private participation in water services on the poor is especially complex, but in development terms very important. For example, the evidence suggests that the price charged by private utilities for water services has often increased, but higher prices have been accompanied by an extension of the network delivery to the poor. Total water charges to the poor may therefore have declined because, when not adequately supplied by the local water utility, the poor resort to relatively expensive water supplied by tankers and in bottled form. Alternatively, they face high opportunity costs in terms of the time and effort invested in seeking water supplies from local rivers, streams and lakes. Privatisation may therefore raise the welfare of the poor despite higher charges.[8]

Ensuring that the poor are not disadvantaged by private sector involvement does require, however, an institutional capacity to effectively regulate private sector activities. This suggests that regulation of the water sector in developing countries may face a greater dichotomy than in developed countries between promoting economic and social goals (Smith, 2000). What is deemed regulatory ineffectiveness in one context, for instance, a failure to remove cross-subsidies that favour the poor, may not be in another context where poverty reduction is a primary goal of public policy. Expanding water services to communities and households that are currently inadequately supplied will often be an important regulatory goal in lower-income countries.[9]

The industry regulator will also need to pay detailed attention to tariffs so as to balance the need to supply poor households with affordable water with ensuring companies earn sufficient profits to satisfy their investors. This may involve the use of subsidies to suppress water tariffs and a number of recent water concessions have used the output-based aid (OBA) approach where the payment of a subsidy to the operator is made conditional on the private operator having delivered the specified output or performance measure (Brook and Smith, 2003).

The evidence from developing countries reviewed earlier confirmed that in expanding the role of the private sector in the provision of water services, the capacity of governments to regulate effectively is likely to be critical. But many developing countries lack the administrative and institutional capacity to adopt the regulatory model and measures that have been developed in the context of the advanced economies, such as the UK. Utility

regulators will typically be concerned with the setting of prices and/or profits in the regulated business and with the quality of service. Although various differences exist in the precise instruments used (Parker and Kirkpatrick, 2004b), all methods of price, profit and service regulation are demanding in terms of their information needs. In developing countries regulating industries effectively is likely to be compromised by a lack of regulatory capacity, including limited access to skilled regulatory staff.

Shortage of regulatory skills will constrain the regulatory authorities' ability to formulate and design appropriate regulatory measures.[10] Regulatory impact assessment (RIA) is the term used to describe the process of systematically assessing the benefits and costs of a new regulatory proposal or an existing regulation, with the aim of improving the quality of regulatory policy and governance. By assessing the positive and negative impacts of potential and existing regulations, RIA can be used as a tool in the design and implementation of regulatory measures. And by adopting the principles of transparency and accountability, RIA can also help in establishing the legitimacy of state regulation (Kirkpatrick and Parker, 2004a). While there is a growing awareness of RIA as a method for improving the quality of regulation, its use in developing countries has so far been very limited (Kirkpatrick and Parker, 2004b).

Constraints on regulatory capacity are likely also to increase the degree of regulatory risk and transaction costs (Levy and Spiller, 1996). Regulatory risk is the outcome of uncertainty and inconsistency in the regulatory regime, which leaves private agents fearful of current and future regulatory decisions. Where regulatory risk is appreciable, investors will seek compensation in the form of a larger expected return leading to a higher cost of capital. The higher the cost of capital, the lower will be the rate of investment (Guasch and Hahn, 1999; Hahn, 1998). Transaction costs in water contracting rise the more uncertain is the regulatory environment.

An important policy implication that follows from the regulatory capacity constraints existing in many developing countries is that the optimal regulatory measures to be adopted need to be developed in the specific context of these institutional constraints. Recent research relating to utilities privatisation in developing countries has shown that the sequencing of privatisation and regulation reforms has a significant impact on the economic outcomes. In particular, the establishment of an effective, independent regulator before embarking on

privatisation is associated with more favourable outcomes in terms of capacity expansion, service penetration and productivity (Zhang, Parker and Kirkpatrick, 2003; Wallsten, 2002). More generally, the experience of privatisation in the former communist countries of Central and Eastern Europe, and in Latin American economies with 'Washington Consensus' market liberalisation reforms, have highlighted the importance of first establishing an institutional infrastructure including appropriate regulatory systems (Roland, 1994; Kuczynski and Williamson, 2003). As Stiglitz (2002, p 18) comments in relation to economic development, "successful economic programs require extreme care in *sequencing* – the order in which reforms occur" (emphasis in the original).

WILL DEVELOPING COUNTRIES BENEFIT FROM GATS LIBERALISATION OF WATER SERVICES?

Despite the GATS' explicit recognition of 'the right of Members to regulate', the interface between GATS trade liberalisation and domestic regulation in the water services sector has generated much public debate. The preceding discussion has argued that developing countries are likely to benefit from opening the water services market to greater foreign private participation, provided that there is an effective national institutional capacity to regulate private water services.

While much of the criticism of market liberalisation of water services in developing countries may be misplaced, there are two related areas for continued concern with the GATS, as applied to environmental services. The first relates to the limited regulatory capacity in many WTO member countries, as discussed in the preceding sections. Multilateral trade rules are primarily designed to ensure market access, and not to promote economic efficiency or social welfare. GATS liberalisation of water services will mainly affect Mode 3, commercial presence, and will grant international companies improved access to the domestic market for providing water services in the developing economies. The entry of a single or small number of large multinationals will not significantly affect the level of market competition, but will increase the need for regulatory measures. Furthermore, since water meets a basic human need, the public sector retains a responsibility for ensuring that public interests are met, in terms of universal service provision and charge levels. With increased private-sector involvement, responsibility for ensuring that public obligations are met is transferred to the regulatory authorities. Experience in both developed and developing countries demonstrates the risk of regulatory failure, whether from regulatory capture or lack of regulatory capacity.

If regulation of the water sector is absent or ineffective, the potential economic, social and environmental gains from water services liberalisation will be significantly reduced, or even reversed. The development of regulatory capacity in developing countries, therefore, becomes an important precondition for securing a favourable outcome from liberalisation of water services. A hasty or premature commitment to trade liberalisation under the GATS negotiations, in advance of establishing an effective regulatory institutional structure, may very well damage the long-term development of the sector (Mattoo and Sauve, 2002).

The second area of concern relates to the ambiguities in the (provisional) GATS text, and uncertainties as to how these will be defined in the ongoing negotiations.[11] There is ambiguity as to the range of services covered by the GATS, in particular the boundary between 'services provided in the exercise of government authority', which are excluded from the agreement, and other services that are supplied on a 'commercial basis' or 'in competition with one or more service suppliers'. As we have seen, the private sector's involvement in the water sector in developing countries has been predominantly through concessions and other forms of public-private partnerships, rather than privatisation involving a transfer of ownership. There are no clear criteria in the GATS for defining the public and private domains in the provision of water services.

At present, this ambiguity may be in member countries' interests, in that governments are free to define and treat government services as they decide, and do not need to notify or explain their definition. However, if the current negotiations move towards establishing a tighter definition, the autonomy of national governments over public service sectors, such as water, could be undermined if such a sector is scheduled.

The GATS Article VI on domestic regulation also creates problems in interpretation. Article VI requires that "in sectors where specific commitments are undertaken, each Member shall ensure that all measures of general application are administered in a reasonable, objective and impartial manner." Article VI.4 calls for further work on disciplines that would help ensure that regulatory measures affecting services are reasonable, objective and impartial, and spells out the objectives of possible new disciplines for domestic regulation measures. Those would include: based on objective criteria, such as competence and the ability to supply a service; no more burdensome than necessary to ensure the quality of the service; in the case of

licensing procedures, not in themselves a restriction on the supply of the service (Mattoo and Sauve, 2003 p.3).

In an effort to strengthen the application of the provision on domestic regulation, a necessity test has been proposed, which would leave governments free to deal with domestic economic and social regulation, provided that any measures taken are no more burdensome than necessary to achieve the relevant objective. The measure would also have to be non-discriminatory, unless a national treatment limitation had been entered for that measure in the commitment schedules. Important unanswered questions remain about the feasibility and desirability of incorporating a necessity test for services trade in the GATS provisions for domestic regulation (Chandra, 2003 pp2005-06). How might 'necessity' be defined, while allowing governments to retain their autonomy in choosing regulatory objectives? Would a necessity test restrict the choice of regulatory instruments available to government and thereby weaken regulatory capacity?

Given the ambiguity in the interpretation of key terms and conditions under Article VI, and also given the fact that the criteria for a necessity test are not yet agreed, concerns with regard to the GATS provisions for balancing national regulatory authority and trade liberalisation would seem to be warranted. It is important that governments understand the potential costs and benefits and associated uncertainty of liberalising services, before they schedule sectors and submit commitments under the GATS. [12]

SUMMARY AND CONCLUSIONS

Proposals for the liberalisation of the water services sector in developing countries, under the GATS framework, have provoked considerable public debate and opposition. The purpose of this article has been to assess the potential benefits and costs of water services liberalisation in the context of the current negotiations on the WTO GATS agreement.

Water is a basic necessity, and the provision of water services in all countries is affected by public policy objectives. Where the private sector is involved in the delivery of water services, a regulatory institutional structure is needed to ensure compliance with economic, social and environmental objectives. Economic regulation will also be required where the market is dominated by a single or small number of private providers.

Critics of water services liberalisation under GATS have raised a number of related concerns, each of which has been critically evaluated in the preceding sections of the paper. An examination of the empirical evidence has shown that an argument that private foreign participation in water services in developing countries will necessarily result in a better economic and social performance seems to be unfounded. We have shown that an effective regulatory structure seems to be a necessary condition for ensuring that the potential gains from private participation in the water sector are fully realised. For example, rising prices following privatisation without an obvious improvement in service quality have undermined public confidence in reform of water services provision in a number of countries. . We have also identified the technology of water provision, along with the costs of moving water, as a serious constraint on the development of 'competition in the market' and high transaction costs as a limitation on 'contracting for the market'.

Regulatory autonomy has not been compromised by the GATS, *so far*. The provisional GATS agreement acknowledges the right of members to regulate; countries are free to decide on what commitments, if any, they make on market access and national treatment; and members have the discretion to impose limitations on national treatment and market access. Concerns as to the interpretation of the existing provisions in the current GATS discussion, however, are better founded, particularly relating to the proposed necessity test for domestic regulation measures.

In conclusion, it is possible to draw a number of lessons which can inform the design and implementation of developing countries' trade liberalisation in environmental services and in the water sector, in particular. First, regulatory capacity needs to be strengthened and effective regulatory institutions established. Market liberalisation in the context of non-competitive markets and institutional and regulatory deficiencies is unlikely to yield the standard benefits of trade liberalisation and may worsen inequalities in the distribution of services and in the access of the poor. This suggests that developing countries with limited regulatory resources should adopt a cautious approach to liberalisation of utilities markets, by sequencing the liberalisation programme to match the development of the regulatory institutional capacity.

Second, developing countries need to understand both the potential costs and benefits of making GATS liberalisation commitments. Here, the greater use of policy appraisal

methods, such as regulatory impact assessment (RIA), can make an important contribution in informing policymakers of the likely impact of liberalisation on their national development goals (Kirkpatrick and Parker, 2004b; George and Kirkpatrick, 2004). Better understanding of the likely consequences will enable developing countries to negotiate more effectively under the GATS, and to undertake appropriate domestic regulatory measures to mitigate the potential adverse consequences of liberalisation.

Opening up the water services sector in developing countries to private participation within the GATS multilateral trade and investment framework offers significant potential benefits in terms of investment, technology and management expertise. But to realise these potential benefits requires an effective regulatory framework, which can control anti-competitive behaviour, safeguard the public interest and contribute to social objectives, in terms of poverty alleviation and equity. Where these regulatory frameworks are absent or ineffective, the gains will be less, the outcome for sustainable development more uncertain, and public opposition more intense. The current GATS negotiations need to allow, therefore, for the effective exercise of national autonomy in regulation policy, by supporting regulatory capacity building efforts in developing countries and by clarifying and confirming the current provisions for domestic regulation of services.

Notes

[1] The definition of environmental services varies, but water for human use and waste water management are the single most important component. The OECD and Eurostat have developed a common classification of the environment industry, which combines environment industry business activities with related environmental goods and services (OECD, 1999). The OECD-Eurostat classification of environmental goods and services differs from the GATS classification (W/120) which is derived from the UN CPC statistical classification and focuses mainly on waste management and pollution control. Proposals by the European Commission for revisions to the W/120 classification of environmental services would reclassify environmental services into seven categories, with water for human use and waste water management forming one category (WTO, 2000).
[2]The European Union has been a strong advocate of liberalisation in environmental services, and in July 2002, the EU submitted its initial requests for improved market access in services sectors to 109 WTO members. Linked to proposed revisions to the W/120 classification, which would create a new sub-sector for water, the EU requested 72 of the 109 countries to make commitments in the water sector (WDM, 2003).
[3] For an assessment of the potential economic, social and environmental impacts (positive and negative) of GATS liberalisation of services, including environmental services, see George and Kirkpatrick (2003) and Bisset et al (2003).
[4] Ambiguity in the wording of this 'carve-out' clause has resulted in disagreement on its application to publicly provided water services. This issue is discussed more fully in section 5.
[5] These measures include: number of service suppliers permitted; value of transactions or assets; total value of service output; number of natural persons to be employed; measures that restrict or require specific types of legal entity or joint venture through which a service supplier may supply a service; and limitations on the participation of foreign capital.
[6] Article VI (Domestic Regulation), however, is provisional in nature: negotiations were not completed at the conclusion of the Uruguay Round and it was agreed to pursue negotiations on principles affecting regulation as part of the GATS negotiations that began in 2000. The key issue in these discussions is to develop principles which protect national autonomy in regulation policy for public policy purposes, while ensuring that these regulatory measures do not act as barriers to trade and market access.
[7] The company was 37% Argentine owned, 46% owned by Ondeo and with the Spanish firm Aqua Barcelona and Anglian Water from the UK holding minority stakes.
[8] Urban households in developing countries without network access typically pay a much higher per unit price to buy water from informal vendors.
[9] Recently there has been growing interest in the potential for non-conventional supplies of water, which may not always involve connection to a formal network, as a means of serving low-income households (World Bank, 1999). In Manila, for example, many poor consumers are supplied with water by local firms who purchase water in bulk from the two main concession companies. These alternative suppliers use small pipes and plastic hoses to supply consumers (Rosenthal, 2002), quoted in Harris, 2003). For water services in rural communities, introducing competition from small local operators with targeted subsidies may help promote expansion of private sector water supplies in rural areas (World Bank, 2002).
[10] Harris (2003) suggests that weaknesses in regulatory contract design have contributed to the high level of renegotiation of private infrastructure contracts.
[11] Here we draw on the discussion in Chandra (2003); see also, IIED-ICTSD (2003).
[12] A further reason for a cautious approach to making GATS commitments is linked to the compensation principle which is applied if a commitment is modified or withdrawn. In addition, the GATS states that any new regulations must not be more restrictive in sectors which they are already scheduled and where commitments have been undertaken. Together, these conditions make it difficult (and costly in terms of compensation to be paid) to strengthen regulatory measures, retrospectively.

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