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Privatization, trade policy and the question of water

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Privatization, trade policy and the question of water

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Conférence donnée à Paris, le 4 février 2003, dans le cadre du séminaire Economie de l'environnement et du développement durable, coorganisé par l'Iddri et le ministère de l'écologie et du développement durable.

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Avant-propos

Depuis le Sommet mondial du développement durable de septembre 2002, garantir l'accès à l'eau et à l'assainissement pour le plus grand nombre est officiellement reconnu par la communauté internationale comme une priorité. L'objectif est extrêmement ambitieux – réduire de moitié d'ici à 2015 le nombre de personne n'ayant pas accès à l'eau et à l'assainissement –, tellement ambitieux, qu'un an après Johannesburg, les estimations financières pour atteindre cet objectif affichent des chiffres si élevés que sa réalisation apparaît déjà impossible. Comment sortir de cette impasse ?

Pour certains, l'effort financier global consenti par les pays développés doit augmenter et être accompagné d'une plus grande efficacité de l'aide publique au développement. Pour d'autres, il est difficilement concevable de se passer des compétences techniques et des capacités financières dont dispose le secteur privé pour fournir des services liés à l'accès à l'eau et à l'assainissement. Cette seconde hypothèse cristallise une forte opposition liée à la crainte qu'une intervention privée ne compromette la fourniture universelle de services essentiels comme l'accès à l'eau et à l'assainissement.

Ce débat pourrait se poursuivre sur les mêmes bases idéologiques qui l'alimentent aujourd'hui si les négociations internationales ne venaient bousculer le calendrier. L'Accord général sur le commerce des services (AGCS), accord annexé à l'Acte unique qui entérine la création de l'Organisation mondiale du commerce (OMC), est entré dans un nouveau cycle de négociation, avec pour objectif affiché, la libéralisation progressive du commerce des services. De l'issue de ces négociations va dépendre non seulement les possibilités d'intervention des acteurs privés sur les marchés des services, mais également et surtout, la capacité des Etats à contrôler la fourniture des services qu'ils jugent essentiels. Ces incertitudes, tant sur le contenu des négociations que sur la capacité réelle pour le secteur privé d'assurer la fourniture universelle d'un service, entretiennent les controverses.

Scott Vaughan revient sur ces controverses en analysant les arguments et les éléments concrets avancés pour appuyer, ou au contraire fustiger, l'intervention privée dans le secteur des services essentiels. Il rappelle que les expériences d'ouverture à la concurrence des services publics en réseau ne se sont pas toujours avérées concluantes et qu'il est aisé de s'appuyer sur des exemples différents pour défendre des points de vue contraire.

Quelle que soit la position adoptée, certaines conclusions s'imposent : les besoins d'accès à l'eau et à l'assainissement sont immenses et ne cessent de croître ; la capacité financière des pays en développement à assurer seuls l'accès à ces services est extrêmement limitée ; les entreprises privées sont capables de lever les capitaux nécessaires à la réalisation des investissements mais ne le font pas ; les entreprises privées n'ont pas la capacité, ni la vocation d'assurer la fourniture des services essentiels à l'ensemble de la population ; une régulation forte et efficace est nécessaire pour qu'une éventuelle intervention privée réponde aux besoins de l'ensemble des populations.

A partir de ces conclusions et en retournant les arguments avancés par les défenseurs et les détracteurs de l'intervention privée, l'auteur identifie les questions qui demandent aujourd'hui des réponses et évincent les faux débats. Ainsi, au-delà de la controverse sur l'intervention privée, quelle capacité les pays en développement ont-ils à se doter d'une régulation efficace et d'une véritable politique de concurrence? De quelle marge de manœuvre disposent-ils? Au-delà des gains d'efficacité liés à la privatisation des services de l'eau, comment garantir la fourniture universelle d'un service alors que les entreprises privées n'en ont pas la vocation?

L'auteur montre que, au-delà du débat sur l'intervention privée, la capacité des pays en développement à se doter d'une régulation efficace et d'une véritable politique de concurrence demeure un préalable. Préalable loin d'être satisfait pour beaucoup de pays en développement. Dès lors, s'interroger sur la capacité des entreprises privées à garantir la fourniture universelle d'un service alors qu'elles n'en ont ni la vocation, ni l'obligation, modifie fondamentalement les termes du débat, notamment pour les discussions à l'OMC. A ce titre, invoquer des gains d'efficacité liés à la privatisation des services de l'eau est peu crédible, sauf à poser comme préalable la mise en œuvre efficace d'une législation adaptée et d'une régulation opérante.

Ces questions renvoient aux négociations en cours à l'OMC, notamment sur la place que l'AGCS laisse aux services publics, aux services en réseau et aux possibilités de régulation des Etats. En revenant sur le contenu encore imprécis de l'accord, sur le processus controversé de négociations, sur les positions ambiguës des acteurs et sur les craintes que la jurisprudence commerciale laisse transparaître, Scott Vaughan identifie les éléments de l'AGCS qui pourraient affecter les conditions de fourniture des services universels d'accès à l'eau et à l'assainissement. De nombreuses interrogations persistent concernant l'issue des négociations et les conséquences que pourront avoir les engagements pris.

Il explique que le débat privatisation *versus* service public est en définitif un faux débat puisqu'il n'y a rien dans l'AGCS qui oblige *stricto sensu* un pays à ouvrir son marché à la concurrence – même si l'on peut s'interroger sur la capacité des pays en développement à résister aux pressions de libéralisation exercées par les pays développés. Dans le même temps, il met en garde contre toute interprétation erronée de la dynamique qui relie privatisation et libéralisation, intervention privée et AGCS : il est fort possible que certains pays s'appuient sur l'AGCS pour forcer à privatiser les services publics, mais dans quelles conditions?

Si l'analyse de Scott Vaughan ne permet pas de trancher sur les controverses qui animent les débats autour de la libéralisation des services essentiels et des négociations de l'OMC, elle montre combien le statu quo n'est pas tenable, combien le secteur de l'eau, par les investissements qu'il nécessite, est problématique. Aujourd'hui, l'intervention du secteur privé est difficile, les expériences ne sont pas concluantes, les conflits sont réels.

Pourtant, les besoins d'investissements sont considérables et urgents. Comment les satisfaire? Privatisation? Libéralisation? Pour quels avantages? Sous quelles conditions pour que l'universalité des services soit respectée? Si ces questions sont encore aujourd'hui sans réponse, l'issue des négociations de l'AGCS en 2005 délimitera l'espace dans lequel les solutions pourront être recherchées.

Thierry Giordano

Privatization, trade policy and the question of water

Overview

Each day, 6,000 people-mostly children under the age of five-die from dirty water. Another 200 million suffer each year from such water-related diseases as cholera, typhoid and diarrhea. Water problems are most acute in the mushrooming cities of the developing world, where demand is growing three-times faster than population growth.

In March 2003, water experts, civil society activists, regulators, private investors and others converged in Kyoto, Japan, to map out a strategy to tackle the global water crisis. The hope of the Third World Water Forum was to translate the UN target struck at the Johannesburg Summit on Sustainable Development-reduce by half the number of people living in water insecurity by 2015-from a normative statement to plan of action. Unlike the other Kyoto debate, in which energy interests have contested climate science for over a decade, there is virtually no disagreement about the magnitude of problems, or the urgent need to act. Nevertheless, deep divisions persist around which water management models are best suited to meet the UN target. At the Kyoto meeting, a complex debate could be divided into two general camps: (a) blame the water crisis on inept and corrupt public utilities that are under-capitalized, and whose salvation lies with the private sector, or various forms of publicprivate sector partnerships. And (b) oppose privatization and the erosion of public policies generally, on the grounds that water is not only a public good, but basic human right that must be shielded from profit motives of big business.

In March 2003, prior to the Kyoto meeting, the World Bank revised upwards just how much would be needed to tackle the water crisis, from US\$75 billion to \$180 billion per year. Some dispute this figure, arguing that far less-approximately \$10 billion per year—is sufficient to meet the most urgent needs. Disagreements over cost reflect a far deeper divide in opinion as to which water management is best suited for developing countries. The World Bank financing estimates exceed by \$130 billion the combined overseas development assistance from all donor countries to address all issues in poor countries. Therefore, the only way to foot the World Bank bill is increasing the involvement of private sector companies in the financing, operation, management and possible ownership of water services in developing countries.

Controversy around water privatization is hardly new. However, it has become even more passionate in recent years, as developing countries face worsening conditions. The record of countries and utilities that have undergone privatization is mixed, benefits are ambiguous, and the market conditions under which successful privatization can proceed are complex. In general, experience suggests that in many countries, particularly during the transitional period of opening public utilities to private ownership, water tariffs may rise, corporate profits may fatten, and service quality and reliability may remain either constant, or deteriorate marginally before improvements kick in. Assumptions that privatization always boosts efficiency levels through price formation and competition are often irrelevant when dealing with the water sector, since in most instances, water services are a natural monopoly which by definition elude price-based efficiency gains. Privatization to date has therefore been largely based on changing ownership of water utilities from public to private monopolies or oligopolies. That is not to say that private-sector actors lack incentives to increase efficiency. One of the strongest arguments supporting water privatization one that was a key assumption of privatization in England and Wales in the 1980s—is that private companies are able to access global capital markets more effectively than cash-strapped municipal utilities.

While the debate about privatization and conditions of ownership will continue, the more difficult underlying question is whether developing countries are sufficiently equipped to handle the uncertainty of ownership transition with domestic

regulations and competition policies. The record of privatization in many service areas clearly suggests that more, not less, burden is placed on governments to regulate after privatization occurs. Regulations are needed to define competition rules and market structure, to cap or schedule water tariffs-including mechanisms to ensure tariffs are set in a transparent, accountable and equitable manner-as well as to clarify network access, leasing and licensing rules, as well as to implement auditing covenants. Competition and regulatory authorities in industrialized countries have often been over-stretched by these increased regulatory burdens. Developing countries have, on average, significantly less capacity to design and implement strong competition policies. Among the most difficult regulatory challenges in practice is ensuring that private entities guarantee universal access of services, including access to the poorest areas such as slums and shanty-towns of large cities, and poor outlying rural areas.

Assuming for a moment all developing countries possess sufficient regulatory capacities which clarify the pre-conditions for commercial establishment—an assumption that is obviously at odds with reality-then it is unclear how private sector actor will respond. Demand for water-related foreign direct investment far exceeds the current supply. Only a very few, high-growth developing countries—notably China—are receiving private investment in the water sector. By contrast, private investments have plummeted throughout Latin America, in part because of the economic turbulence of Argentina and fear of contagion, as well as the backlash of the water privatization Bolivia experience. Private investment in Africa has never gained a foothold. Given these circumstances, developing countries outside of China are in an especially weak bargaining position: if companies regard pre-conditions of commercial presence as being either onerous or more stringent than in other countries, then investments could well go to the latter rather than the former. While domestic regulations are hardly the decisive factor in guiding investment decisions, competition between countries over scarce investment sources could lead to a kind of race-to-the-bottom if private investors so wished.

The water debate has become even more emotional and muddied than before, because of speculation of the effects of the World Trade Organization (WTO) in general, and the General Agreement on Trade in Services (GATS) in particular, on water-services. Many non-governmental groups have passionately argued that the GATS forces countries to open water services to privatization and international rivalry, and that the agreement could undermine the ability of sub-federal authorities

either to maintain control of water services, or enact regulations. One barometer of just how emotional the water debate has become is found in the disclaimer found on the WTO home page: "The WTO is not after your water".

The GATS agreement differs from other GATT and WTO agreements. For example, the GATS is based on a positive-list approach, whereby only those sub-sectors that countries explicitly include in liberalization commitment are subject to trade disciplines such as most favored nation (MFN), non-discrimination and market access disciplines. Moreover, there is considerable flexibility within commitments to shield different aspects of a sector from competition, while members are also able to take a one-time, ten-year MFN exemption. WTO members also have considerable flexibility in other ways: for example, offers can leave specific segments unbound; offers can include licensing conditions as a precondition of market access; members can proceed at different speeds with regards to the four modes of service supply set out in the GATS.

Therefore, there is nothing in the GATS that strictly obliges members to expose water services to liberalization and privatization. To underline exactly this point, the March 31, 2003 initial GATS commitments of Canada, the United States and Switzerland all excluded drinking water. The European Union—which has been most aggressive in pushing for increased market access of drinking water services—in its conditional commitment of April 29th, 2003, also excludes water for human use, and further excludes "public work functions owned or operated by municipalities, state or federal governments or contracted out by those governments²." At the same time, it is important to note that the 2003 initial or conditional offers can change during the course of negotiations, and the final GATS outcome covering water for human consumption could be very different from what is on the negotiating table to date.

While there is nothing that compels countries to open water services under the GATS, it is nonetheless disingenuous to argue that there is no connection between the GATS and a more endorsement of market-oriented approaches to water services that is being actively embraced by the World Bank and the International Monetary Fund. It is also not unreasonable to assume that some countries, in pushing for internal market reforms towards liberalization, may turn to the WTO to accelerate, codify and lockin reforms for water services in the same way that countries codify economic liberalization generally through WTO accession.

Section one of this paper examines the context of the water debate, and reviews the current debate about privatization. Section two examines some assumptions and experiences around water privatization, and whether lessons from other sectors are useful. Section three examines the relationship between the GATS and water privatization.

General context of the water crisis and debate

Roughly 40 percent of the world's population lives in waterstressed areas: based on current trends, that figure will increase to 50 percent by 2030. In some arid regions—in particular countries of the Middle Easter—water shortage is forecast to affect 90 percent of the population.

In light of these projections, analysts have long warned that future conflicts will be fought over water, not oil. Today, the price of a liter of bottled water is higher than a liter of gasoline in some markets, notably the U.S., where 40 percent of that country experienced a drought in 2002, twice the normal rate. Predictions of the Intergovernmental Panel on Climate Change suggest that the incidence and duration of drought will increase. Meanwhile the U.S. Central Intelligence Agency estimates that regional water conflicts will begin around 2015, the target date to achieve the UN goal of cutting by one-half the total number of people living in water-stressed areas.

The worst affected by water scarcity and dirty water are the poor, living in shanty-towns, slums and poor rural areas of developing countries. There, household delivery of drinking water is often severely deficient or non-existent: potable water is often delivered through intermediary private sellers, including delivery from water trucks, sometimes making drinking water ten times more costly than in industrialized countries.

There is little debate over the severity of the global water crisis. However, fundamental differences persist over how best to address it. At the Third World Water Conference, held in 2003 in Kyoto, Japan, the debate about delivering clean water and sanitation split into two broad camps: those who argued that governments must redouble efforts, supported by overseas development assistance monies, to address the water crisis. And those that argued that the water crisis is too big for governments and public utilities alone, and must involve the private sector.

On one side, there are many groups who argue that water supply and sanitation services are public goods that must be shielded from private sector profit motives, that operate on shortterm business cycles. Unlike other economic services, water is essential to all life, and cannot be measured by the capacity of people to pay. As a universal human right, water management must remain under the authority of government utilities. The 2002 Water Policy of the Government of Quebec repeats the view that water is, and must remain, a public good, to be managed by the public sector in order to ensure the responsible management of water for future generations, claiming that water is an "irreplaceable treasure, that belongs to all of us."

Triumph of ideology: the public debate about privatization

The other side of the Kyoto debate argued that water services are no so grossly mismanaged by the public sector, that dramatically new solutions are needed. There is a long list of familiar arguments explaining why public utilities don't work. These include the charge that public utilities are delinquent in collecting bills; are inefficient at recycling revenues into infrastructure upgrades; are paralyzed by corruption from within and political interference from without; are prone to cost overruns and overcapitalization; run opaque procurement systems; are sluggish in adopting innovations in technologies and management systems; and provide preferential access, including subsidized water to the wealthy and politically connected.

There is no lack of arguments also extolling the benefits of privatization, most of which revolve around efficiency gains that arise from price-formation and market-oriented competition. These are discussed below. However, arguments for privatization are ultimately political, and reflect one's view of the role of government policy in relation to an accelerating agenda of deregulation, liberalization and privatization. Four basic arguments characterize the pro-privatization debate: ideological, populist, pragmatic and support for commercial-interests. The ideological argument is that less government is always preferable, and that any service that can be handed over to the private sector should, since private markets are always more adept than public authorities. Populists contend that public interests are best served through private markets. Pragmatists note that solutions are always better when the innovative, entrepreneurial drive of the private sector is tapped, since markets reward innovation. Commercial interest are the most straightforward: water services should be privatized, since there are profits in water.⁴

Of these general arguments, clearly the most familiar is the view that private sector will boost efficiency, by adopting marketoriented approaches.

Efficiency gains from privatization: does it apply to the water sector?

Measuring efficiency is complicated and controversial, since it is by definition a relative term. However, a widely used indicator to gauge the efficiency gains of privatization of services in general is the expected decrease in relative prices in key sectors, measured as the present value of aggregate net benefits to consumers. That is, privatization is measured to the extent that it lowers consumer prices.

Work by the OECD, World Bank and World Trade Organization clearly show that liberalization of services has led to price decreases, and other economic gains. For instance, in the telecommunications sector, following the introduction of competition in Chile, prices for local phone calls decreased by 36 percent between 1989 and 1994, 38 percent for long-distance calls and 50 percent for international calls. Similarly, liberalization of financial services has been shown to increase income and overall rates of economic growth, by improving the availability of private capital. In the airline sector, following deregulation policies in the U.S., the average cost of airfares declined from \$0.144 to \$0.079 per passenger per mile⁶.

However, the consumer price record of water privatization is mixed. In perhaps the most highly scrutinized privatization exercise—that marshaled through by the Thatcher government in the U.K.—sewage and water prices increased by 42 percent and 36 percent respectively between 1990 and 1998. During the same period, pre-tax profits in the ten largest sewage treatment and potable water service companies grew by 147 percent, while service reliability and water quality was uneven? In the now infamous Bolivia case, unofficial reports noted that water prices rose in some poorer districts by 60 percent. Since Suez-Lyonnaise became a major partner in the privatized water system of Buenos Aires in 1993, prices have reported to have increased by as much as 20 percent. In Manila, water charges rose by almost one-half, while the contractual target of ensuring universal connections 24-hours a day has not been met.

A pre-condition of market-oriented approaches in general is price formation. If water is assigned a price, as opposed to being treated as a free good, then information can be passed along to consumers about its value and scarcity. That is the basis of the seminal Dublin Declaration, which defined water as an economic good. Since then, the European Union has introduced water pricing as the most effective means of improving water services. Among the most dramatic initiatives is the obligation of

the EU Water Framework to introduce water pricing in all jurisdictions by 2015⁸.

There is an immediate contradiction between the goals of price formation to ensure conservation and internalize various environmental externalities into water prices, and the expected effects on consumer prices of privatization. If water prices responded as economic theory say they ought to, then a decrease in prices would lead to higher levels of unsustainable water consumption.

That the water sector rarely follows the predictions of economic theory about assumed price reductions from privatization points both to the fact that privatization often doesn't follow assumptions, and also because the water sector is particularly immune to efficient pricing mechanisms. Water is a natural monopoly, with extremely high up-front capital costs, and low per unit revenues. Almost all countries have built water infrastructure and delivery as monopolies. Monopolistic (or oligopolistic) markets are by definition imperfect and characterized by pricing failures. Moreover, they are associated with static allocative inefficiencies, high market entry costs, lower incentives towards innovation and other failings that are usually associated—that's right—with public sector utilities⁹. Indeed, privatization of water services is almost entirely about changing ownership from public to private monopolies.

Moreover, financial analysts are likely to view monopoly conditions as being more attractive than well-functioning, competitive water markets. For example, a recent financial analysis of the water utilities sector by Standard and Poor's (S&P) assigns the Melbourne Water Corporation of Australia with a double A credit rating, noting that "its strong business position as the monopoly supplier of wholesale and wastewater services" makes it an attractive investment.¹⁰

One of the pioneers in involving private companies in water is of course France: since the 1850s, France has granted concessions to private interests. Three companies—Vivendi, Suez Lyonnaise des Eaux and Bouygues—control roughly 85 percent of the domestic French market for potable water, while the remaining 15 percent is in the hands of government. Under conditions of imperfect competition, prices in France tend to be stable but high, while competition is not based on price but market share. Competition among the companies, to the extent that it exists at all, is focused on rivalry for the management of concessions.

In the U.S., the conditions are almost symmetrically opposite those of France: publicly-owned water services account for about 45 percent of all systems, but cover almost 85 percent of the population served. Roughly 15 percent of U.S. water utilities are investor-owned. What is different is that the proportion of investorowned utilities appears to be increasing rapidly, with French and Spanish interests increasing their presence in the U.S.

Public concerns, private markets

In many industrialized countries that have gone through a public debate about privatization, questions of consumer water prices appear to be less important than concerns about water quality. There is obviously little room from private concessionaires in shirking mandatory water-quality human health and environmental protection standards. In virtually all industrialized counties, water quality drinking standards exist. Nevertheless, citizens in the EU have expressed strong reservations about a possible race-to-thebottom in drinking standards associated with privatization. This remains the basis of public objection in Germany, the Netherlands and other countries that resist privatization. For example, in 1999, the then Dutch minister responsible for water services argued that privatization would lead to a kind of race-to-the-bottom in water quality, and in particular lead to circumstances in which Dutch chlorine levels in potable water would become comparable to those of the French:

"There [foreign countries] the cheaper option of chlorinating drinking water is still preferred. In the Netherlands, this practice was stopped many years ago for public health and environmental reasons¹²."

One way some lucky western consumers respond to water purity concerns is by purchasing filters and household water purification systems. The U.S. market for household water systems is estimated at US\$1 billion per year. In the U.K., sales of water filtration systems increased by 27 percent in the last five years, to a present value of roughly £100 million. Demand increases most sharply after warnings or actual episodes of drinking water contamination. The death of over 100 people, and infection of an addition 400 000 people in Milwaukee in 1993 with chlorine-resistant cryptosporidium parasites contaminating the public water supply is often seen as a turning point in the take-off of sales of home filtration systems. Similarly, outbreaks of e.coli closely coincide with increased sales of water filtration systems: following the death of seven people, and infection of over 2 300 others in Walkerton, Canada in May 2000, sales of water filters in that country skyrocketed.

A second way in which affluent consumers can ensure water purity is by purchasing bottled water. Today, the bottled water industry is the fastest growing segment of the global soft-drinking industry in many countries. Coca-Cola and Pepsi are now firmly in that market, with the *Desani* and *Aquafina* brands respectively. They are also actively studying ways of delivering potable water in several developing countries. France is the world's largest exporter of bottled water, with one billion liters a year: major exporters are the Groupe Danone—with the Evian and Volvic still water brands, Nestle with the Perrier brand. Canada, the largest holder of fresh drinking water in the world, is the second-largest exporter of bottled water: exports to the U.S. increased from 4.8 million liters in 1988 to over 500 million liters in 2000. (For many Canadians, this trend is worrisome and regard "Canada Dry" not so much as a soft-drink brand, but long-term forecast.)

Increased sales is one indicator into shrinking public confidence in public water systems in affluent countries. It is likely that trends will gon on continue, as infrastructure in OECD countries continue to deteriorate with age, under-financing and over-capacity. The U.S. has over one million kilometers of water pipes, many of which are a century old. Each year, an estimated 235 000 water-main breaks occur. Incidence of water-related human health problems have increased in the last decade, and incidences of gastrointestinal disease, arsenci and e-coli infections have increased. Lower bound estimates put the figure at \$270 billion for water waste treatment facilities, and another \$265 billion to maintain and upgrade drinking water systems. However, water industry groups—perhaps for obvious reasonsput the figure closer to \$1 trillion.

Little guidance from Kyoto for developing countries

If the U.S. is hard pressed to finance its water service financing requirements, then what hope do most developing countries have? Clearly, people in the developing world neither have the luxury of buying bottled water, and for tens of millions, don't have a tap on which to affix a filter. Conditions will only worsen at current rates. Demand for water in developing countries is growing as much as three times faster than population growth. In some cities of the developing world, demand for drinking water is growing by as much as 30 percent per year.

Which brings us back to the question of money: the March 2003 Kyoto water meeting had the opportunity to sort out some basic principles, such as identifying under what conditions developing countries ought to transfer water concessions to private interests, in exchange for badly-needed financing. It didn't. Instead, delegates proceeded to endorse general statements that

provided no direction, let alone an attempt at consensus. Obviously, strategies involving the financing of water services must be worked on a country-specific and municipality-specific basis. At the same time, the meeting provided no guidance on basic issues like the merits of privatization, or even the likely bill that would be needed to turn the corner on the water crisis.

In the lead-up to the Kyoto meeting, the World Bank revised its estimate as to how much finance would be needed to meet the UN target, from \$75 billion to \$180 billion per year. Total financing from public sector donors to cover water services were expected to meet less than 5 percent of this total. The World Bank argued that the most important target was to deliver potable water to households, and establish reliable sanitation networks to battle water-borne diseases. To achieve this, countries had only one option, which is to tap private investors. Hence, a major focus of some delegations, notably the U.S. State Department, was on creating new, flexible financial mechanisms to involve the private sector in water projects in developing countries.¹⁴

However, others at the Kyoto meeting argued that by creating an extremely expensive bill, a circular logic prevailed in which greater involvement of private financing was the inevitable outcome of huge bills. Some experts therefore argued that far less money-as little as \$10 billion per year-was enough to do the job. They noted that costly infrastructure projects and supporting engineering services were grossly inefficient and energy-intensive in developed countries. The notion that water had to be delivered to all households was itself a relatively new one: until the turn of the last century, most Europeans did not have water delivery to all households. Supporters of less expensive systems also noted that huge water projects harmed local ecosystems, consumed a large proportion of financing, created pricing uncertainty, and raised fundamental uncertainties about universal coverage to the poorest in shanty-towns, slums and outlying, rural areas. Some suggested that the World Bank itself was helping to market expensive capital goods and engineering services that mirror the export interests of large companies in industrialized countries, and therefore that the water debate was really a supply-led agenda.

Proponents of low-technology pointed to different examples, including inexpensive water treatment systems advocated by the World Health Organization (WHO), including investments in simple filtration systems from ceramic filters, chlorination combined with improved water-storage using barrels or thermal disinfection (pasteurization) systems in opaque bottles.¹⁵

However, these solutions are intended as make-shift or emergency measures, and hardly address the longer-term needs of mushrooming cities.

Competition policy to the rescue?

It is unlikely that this debate will be resolved. It is also unclear that it needs to be, since the public entity-versus-privatization debate is mostly based on a kind of false dichotomy. The question is not whether privatization in itself is good, but rather, under what conditions can the transfer of ownership from public to private entities guarantee the protection of public goods associated with drinking water and sanitation services?

The benchmark of privatization surely must be whether water services actually improve for all citizens—not merely ratepayers. There are different indicators in measuring that improvement, but clearly they must be based on water quality and purity, service reliability, universal access as a bedrock commitment, the expectation that prices will decline, and the assurance that if private companies do access capital markets to pay for expensive infrastructure investments, then public finances are not paralyzed in securing subsidized loans or tax breaks as a precondition of the investment. There is no one model in the industrialized world that adequately meets all of these basic preconditions.

The public policy portion of the water debate should focus on a narrow set of issues associated with these benchmarks: namely, examining the sufficiency of domestic regulations in developing countries in balancing the public good with profit motives and shorter-term time horizons of private interests¹⁶. This may sound straightforward. It is now an article of faith that countries that undergo privatization must introduce agile competition policies setting out conditions of market structures, licensing, rules affecting incumbent service providers *vis-à-vis* new market entrants, possible price caps or differential pricing, governance bodies, etc.

However, in practice the lessons of privatization is that more, not less, regulation is needed to ensure markets function smoothly, transparently and in an accountable manner.

A first challenge is the water pricing. Since water markets are monopolistic, there is no clearing price for water. Hence, public authorities must negotiate water tariffs with private interests. If tariffs are set too low, then profit expectations may dissuade investors, while lower tariffs may also defeat other public policy goals, such as maintaining high levels of externalities, and confusing signals about longer-term supply scarcity. If tariffs are

too high, then distributional and competitiveness issues arise. In the former area, high water rates can spark social unrest, as was the case of Bolivia. In the later, high rates can also lead to competitiveness concerns in water-intensive industrial and agricultural sectors.

The second challenge is universal coverage. For large-scale water projects, the minimum number of units that make investments worthwhile is 100 000. There are real concerns as to whether private companies are willing in all circumstances to invest in those areas most desperately in need of water services: the slums and shanty-towns of large-scale cities in developing countries, and poor, outlying rural areas. While conditions of license concessions can specify universal access as an obligation, private companies are inclined to invest only in stable and predictable markets than have a reasonable assurance of long-term returns on investment. In countries like Morocco, private water investments only went into the three largest cities, and left water services in outlying areas to the public sector.

A third challenge is establishing accountable and transparent governance structures. It is a tautology to repeat the virtues of transparency, accountability and public participation in governance regimes. These are principles upon which everyone agrees, and no one in principle opposes. In practice, structuring transparency and accountability is notoriously difficult. Challenges include ensuring that water boards are widely representative; that water tariffs and possible decisions regarding cross-subsidization are taken without political pressure; and that competition rules are able to tackle complex issues such as non-incumbent access to pre-existing infrastructure.

There appears very little with which to take comfort that domestic regulatory authorities are able to address these and other issues effectively, other than general articles of faith from advocates of privatization. In developed countries, there are many examples in which regulatory and competition bodies were overwhelmed as public sectors underwent restructuring, deregulation and price-based competition. For example, following the introduction of deregulation by the Federal Energy Regulatory Committee (FERC) of the U.S. federal government in the late 1990s, nothing short of market chaos erupted. Electricity prices in many regions increased sharply; reliability declined dramatically, and the rolling-blackouts of December 2000 in California became an emblem of regulatory failure. With lights out, corporate profits jumped, and allegations of collusion between oligopolies in the retail and wholesale sectors produced formal criminal charges. One of the lasting symbols of deregulation is

of course Enron: the accounting debacle and unprecedented criminal activities of Enron began with hedging electricity rates stemming from deregulation.

Not only was the FERC unable to work out the transition to competitive markets in the United States. The Securities Exchange Commission (SEC) was unable to anticipate and prevent massive collusion and accounting fraud that undermined the public interest.¹⁷

Similar, although less dramatic lessons, can be found in the U.K. following water privatization in England and Wales. Laws and procedures of the 1980 *Competition Act* were unable to keep pace with the challenges of privatization, and in particular, in conditioning the power of larger firms in sorting through orderly market arrangements. Utility regulators were granted additional authority in establishing the conditions of licenses. However, the single greatest challenge that dogged regulators in the U.K. around water—as well as those in Europe and the U.S. involving telecommunications—is how to treat incumbent operators. In the case of water, U.K. regulators were overwhelmed by the complexity of establishing rules for the fair entry of non-incumbent actors into previously non-contested markets.¹⁸

The lessons from water privatization in the 1980s, and electricity restructuring in the late 1990s, are clear enough: competition authorities in the world's richest countries were unable to anticipate events, and were overwhelmed when they occurred. Very likely, some lessons—including market entry—can be transferred in some cases. However, what chances do developing countries have in faring any better in ensuring an orderly transition from public to private ownership, given the inherently weaker regulatory monitoring and enforcement powers of most developing countries?¹⁹

Today, private investors and water companies are choosing only a very few developing countries—notably China and some other high-growth Asian countries—in which to invest. They have exited most of Latin America—especially Argentina. Against this background, assuming for a moment that two developing countries have comparable water markets and other conditions attractive to investors (notably, rates of economic growth, rule of law, private property, etc.) If one country were to insist on stringent competition-related policies, and the other did not, then it is a fair assumption that investors would—all things being equal—flock to the first country. While a race-to-the bottom would be the least of worries given the current water crisis, given the gulf between available financing and limitless demand, this issue warrants closer scrutiny by researchers and public authorities.

The WTO wades into the water debate

One way of checking the power that investors could exert upon regulatory authorities is by opening markets to foreign firm rivalry. Regulatory authorities could in theory play one investor against the other, which—assuming collusion between companies is checked by anti-trust laws—could result in better licensing concessions from a public policy perspective. If that route is followed, then an essentially domestic agenda involving ownership transfer from public to private entities, and the need for accompanying competition policies, broaden significantly to include international trade rules of the WTO.

The idea of exposing water to trade disciplines continues to spark controversy, in three main ways. First, concerns regarding whether water—when classified as an economic good—would be subject to WTO obligations covering trade in goods generally include whether the WTO, in prohibiting for instance quantitative restrictions under GATT Article XI, might comprise the sovereignty of water-surplus countries to stop water exports. Canada has been especially active in examining this issue, and introducing federal standards prohibiting any bulk water transfers.²⁰

Second, concerns among many groups that the current negotiations of the Special Session of the Council of the General Agreement on Trade in Services (GATS) will force countries to open their domestic water services to privatization and foreign competition. And third, concerns that trade-related investment rules—including notoriously opaque investor—state provisions introduced in Chapter Eleven of the North American Free Trade Agreement and up for discussion in some way in the WTO and regional trade agreements-could affect water concessions dramatically.

Of these, the relationship between the GATS and water services has attracted considerable passion, even by WTO standards. There are two main points of entry for water in the WTO. First, drinking water and waste-water sanitation services are broadly covered under the "Environmental Services" category of several GATS commitments. For example, the European Union includes in its proposed classification in the GATS, reference to "water for human use and wastewater management," covering water collection, purification and distribution services; potable water treatment, purification and distribution services; and water treatment and sanitation services. Second, the 2001 Doha Ministerial declaration drew attention to "environmental goods and services" by launching negotiations towards reducing or eliminating tariffs and non-tariff barriers affecting them. 22

While the implications of the Doha ministerial agenda remain largely unexplored, the mere reference of water services in any GATS category has invited an array of comments which are usually variations on a single misunderstanding: that the GATS automatically leads to the privatization of drinking water and other services. For example, the Indonesian Forum on Globalization Research, Business Watch Indonesia argues that:

"In the water sector, GATS thus implies that all countries should open their market for water supply services without reserve and transfer water management to the private sector. As liberalization requires the confinement of the role of the state to mere facilitator, the transfer of public ownership of water services to the private sector is a practical consequence. Proponents of GATS are very much convinced that water privatization and the institution of the global water market will benefit rich and poor alike. But also, more and more civil society organizations have become aware and voiced criticism and objections to water services being put under legally binding trade agreements like GATS."²³

Along the same lines, the Polaris Institute argues that since GATS relines on "a complex set of rules. These rules are like power tools that enable global service delivery corporations to pry open public utilities—like water systems—and ratchet down a privatization agenda."²⁴ The Food First Coalition argues that

"GATS is not compatible with the basic human right of access to clean safe drinking water. 'Full cost-recovery' - the principle promoted by the IMF and World Bank that people should pay the full cost of water, or go without - would effectively be enshrined in law by GATS. Sustainable water distribution practices could also be undermined as charges could be introduced, for example for the collection of rainwater.²⁵"

This linking of water privatization with GATS rules has been mostly fuelled by several behind-the-scenes initiatives of the European Commission. For example, in May, 2002, it was widely reported that officials of the Commission met with leading European water companies to identify obstacles to market access faced by European water companies in developing countries. The EC Trade Directorate has made no secret of its aggressive pursuit of GATS liberalization of environmental services generally, and has identified the following as market barriers to that sector: monopolies and exclusive providers issues, restrictions on legal forms of doing business, equity limitations, restrictions on foreign investment, unspecified licensing and approval requirements, unspecified economic needs tests, residency and nationality requirements, restrictions to the movement of key personnel, etc.

Following the meeting, the EC request-offers under the GATS to more than 50 developing countries included reference to potable water and water treatment/sanitation services. It was clear that the EC was going to use the GATS to get at public water monopolies, and therefore help accelerate privatization. The request-offer to other countries at least gave the impression that the EC would pursue roughly the same agenda within the Union. This was an agenda that has been flatly rejected by several member countries of the European Union.

Not surprisingly, the EC position on water has moved from pursuing market openings and liberalization, to a kind of fudging of positions. In a submission by the EC Trade Commissioner—Pascal Lamy—to the European Parliament in February 2003, the following fairly confusing note was issued about the request-offers, and the actual liberalizing scope of the GATS itself:

"The requests do not seek to dismantle public services, nor to privatize state-owned companies. No requests are being made on health services or audiovisual services to any country, and only the U.S. has received a request limited to privately funded higher education. If requests are being made on environmental services, they seek to capitalize on the experience and skills European environmental services in tackling environmental problems. *EU requests do not touch on the issue of access to (water) resources and in no way undermines or reduces governments' ability to regulate pricing, availability and affordability of water supplies as they choose²⁶." (emphasis added)*

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

In its April 29th, 2003 conditional offer under the GATS, the European Commission includes sanitation services, but excludes water for human consumption. In addition, the EC offers excludes "public work functions owned or operated by municipalities, state or federal governments or contracted out by those governments.²⁷" Similarly, Canada, Switzerland and the United States have all excluded drinking water services from their GATS offers. While Canada covers engineering services encompassing "project management services for water supply and sanitation works, turnkey projects," it excludes sewage and sanitation services, and makes no mention whatsoever of potable water services whatsoever. The U.S. offer is more clear in that it "excludes water for human use" in its March 31st, 2003 offer. More point-

edly, in its March 31st, 2003 GATS proposals, the U.S. went out of its way to note that the GATS is not the "appropriate vehicle for pursuing privatization of U.S. public services²⁸."

Despite these exclusions in the initial offers, it is impossible to foresee the composition of final GATS offers. However, given the scrutiny and controversy of water and trade issues, it would be surprising to imagine—at least in this relatively early stage of GATS negotiations—that countries would cover potable water services. The unique structure of the GATS allows countries to maintain these exclusions.

Although the Uruguay Round covered for the first time trade in services, there are basic differences in the structure, negotiating rules and scope of the GATS compared to the GATT 1994 and WTO agreements. The most important differences include the conditional application of most favored nation (MFN) provisions, whereby countries can take a one-time MFN exception for up to 10 years²⁹. (Unconditional MFN was resisted in the Uruguay Round negotiations by financial services providers in most industrialized countries, and the U.S. telecommunications providers, who argued that MFN exemptions would help leverage reciprocity.) National treatment and market access³⁰ rules are set out in Part three of the GATS under "Specific Commitments". That is, they are contingent upon sector-specific and mode-of-supply commitments made by WTO members. These commitments are based on a positive-list approach, whereby only those sectors and modes that WTO country members propose for openings are subject to MFN and national treatment³¹.

This approach—described by Hoekman as à la carte liberalization³²—allows countries considerable discretion in deciding which sectors and modes are subject to liberalization at all,³³ as well as flexibility within sector-specific commitments. For example, limitations within commitments on the quantity and value of schedules, as well as safeguards, exemptions and other provisions which are included in the GATS.³⁴ WTO members therefore have the flexibility to remove entire sectors like water services, from any liberalization disciplines. They also have the flexibility within offers to condition liberalization by keeping some components of services unbound, or by accompanying offers with conditions such as ensuring universal coverage.

The GATS creates four categories covering the international supply of services. (Grouping services into modes of supply is a practical way of approaching a sector that is comprised of over 160 distinct sub-sectors, from marine insurance to film making, from financial securities to legal services and tourism.) The four modes are:

- ▶ Mode 1: Cross border trade in services, comprising roughly 40 percent of total services trade;
- ▶ Mode 2: Consumption of services abroad;
- ▶ Mode 3: Commercial presence, comprising between 40 to 50 percent of services trade. Most commitments to date involve Mode 3. (They are viewed as being one factor in influencing Foreign Direct Investment.);
- ▶ Mode 4: Temporary presence of natural persons, comprising 1,5 percent of total services trade. However, in aggregate terms, this amounts to more than \$30 billion per year.

Thus far, the GATS has achieved little by way of actual liberalization. While breaking new ground in rule making, initial commitments locked in existing commitments instead of actually deepening liberalization. The Doha Ministerial Statement calls for service negotiations to "aim to achieve progressively higher levels of liberalization... with a view to promoting the interests of all participants on a mutually advantageous basis."

The last frontier: foreign direct investment and water services

There is nothing in the GATS that requires countries to open their water services to liberalization. However, uncertainty remains about the status of government service exemptions under the agreement. GATS Annex 1B, Article 1, in describing "a service supplied in the exercise of governmental authority", defines that service thus:

"any service which is supplied neither on a commercial basis nor in competition with one or more service suppliers."

Since there have been few WTO disputes involving the GATS to date—the EU Banana Case included an examination of marketing services, and in 2003 the first GATS-specific case involving Mexico telecommunications was initiated but is pending—there is little guidance as to how panels would address the question of essential government services.

However, there is reasonable ground for concern, if only because the absence of jurisprudence in the GATS leaves several critical issues unclear and open to speculation.

Among the concerns is that the objective of the GATS to progressive liberalization will mean that pressure will be brought to bear over time on countries to open most service sectors to liberalization. Especially sensitive areas in the latest GATS round include health care services, cultural services—notably film production—educational services and water services. Of particular concern is the extent to which services provided by the private

sector operating under concessions could question whether that service should be shielded as an essential government service. Recent disputes involving challenges by express delivery services of public postal services could in theory presage similar actions in privatized water services. However, given the dearth of investors in water service markets, this scenario remains an area of second-order importance. Moreover, it has been noted that the debate over essential government services has been non-existent in Geneva, for the simple reason that governments regard the protection and maintenance of public services with far greater importance than defending the GATS.

Concern has also been raised that services commitments are locked in once made. However, countries can change their minds about GATS commitments, and close sectors to liberalization in the future. However, to do so, they have to provide compensation to trading partners.

Legal scholars continue to examine the implications of Article VI: Domestic Regulation which requires that regulations should be no more burdensome than necessary. Although not examined here, there is some concern that the requirements set out in Article VI(4):

"With a view to ensuring that measures relating to qualification requirements and procedures, technical standards and licensing requirements do not constitute unnecessary barriers to trade in services, the Council for Trade in Services shall, through appropriate bodies it may establish, develop any necessary disciplines."

The reference to "necessary" disciplines has prompted concern that WTO panels would repeat the reasoning of the now infamous GATT panel (Thai cigarettes), in which necessity became synonymous to least-trade restrictive measures. There is an extensive body of literature on necessity and the GATT law, which does not bear rehearsing here. The uncertainty over Article VI provisions remains in large part because the promise to clarify Article VI provisions, following the completion of the GATS, have gone nowhere. Until either this clarification exercise proceeds, speculation as to whether the GATS test for regulations that are no more burdensome than necessary will mirror those applied in the GATT, the Agreement on Technical Barriers to Trade, or a more flexible interpretation for services generally, will continue. So too will other questions, such as:

- ▶ If water is assigned an economic value, does that in itself constitute the provision of a service on a commercial basis?
- If countries pursue privatization, but opt to keep their markets

closed to competition, does the mere presence of a private provider erode the exemption for essential government services?

These and a host of other issues will remain a source of speculation. One way to reduce the uncertainty in the GATS generally is to follow the example of the WTO agreement on telecommunications. As a sector-specific agreement, the GATS provided a general framework within which precision and specificity were applied to the telecommunications sector. In the case of telecommunications, have regulators from the federal and subfederal level at the negotiating table clarified the specific requirements and exemptions to that agreement.

Although there is nothing that strictly compels WTO members to open service areas to negotiation, there is also clearly an indirect link between the domestic constellation of competition-friendly domestic policies, and the likelihood that foreign investors will invest. 35 For example the U.S. proposal to the GATS Council covering telecommunications argues that pro-competitive regulations are "critical to the success of liberalization.36" Commenting on the investment climate for that sector, the U.S. notes that: "Some WTO members have undertaken measures to corporatize and privatize their telecommunications operator, which has helped operators tap global capital markets and has generally improved the overall investment climate.37" And that investment climate is looking increasingly towards water: one European Bank for Reconstruction and Development official was quoted as stating: "Water is the last infrastructure frontier for private investors.38»

The notion that water is the last frontier for investors is a cause of some alarm among developing countries, who know full well that investments come with strings attached. Responding to misgivings that the GATS is an indirect catalyst to pro-business regulations and privatization, a group of 24 WTO developing country members submitted a collective statement to the GATS, in which they note:

"Under conditions of liberalization, privatization of services could very easily happen since foreign corporations which are more competitive are likely to enter the new market and take over from the local [entity]³⁹."

Investor-state rules and water

While the GATS debate continues, an equally divisive issue involves the effects of investor-state rules in water-related disputes.

Chapter Eleven: Investment rules of the North American Free Trade Agreement (NAFTA) remains a source of considerable controversy. Several high profile environment-related cases have proceeded or are pending, in which changes in domestic environmental regulations have been associated with measures that are "tantamount to expropriation." Von Moltke and Mann have argued that the NAFTA model and jurisprudence to date put at risk domestic environmental and other regulations.40 Among the most disturbing features of NAFTA cases is that regulatory changes can be challenged even if they fully comply with national treatment and non-discrimination principles. Moreover, foreign investors appear to be afforded better treatment in dispute panels than state bodies. One of the specific cases that is pending under the NAFTA involves a challenge from a U.S. company to Canada's decision to prohibit all bulk water exports, even though that decision in principle covers all internal bulk water transfers as well as cross-border flows.

The Sun-Belt case is pending at the time of this writing, but has important implications for the rights of companies that operate under Mode 3 provisions to be afforded superior legal recourse than state governments themselves.⁴¹

The case that remains the magnet of public attention around water in general, and international dispute settlement procedure, is the Bechtel-Bolivia case. In the late 1990s, as part of its loan conditionality agreement, the World Bank discouraged Bolivia from using subsidies to offset water prices, and encouraged it to privatize the water system of Cochabamba. In 1999, the Bolivian parliament passes Law 2029 (the Drinking Water and Sanitation Law), which allows for the privatization of state drinking water and sewage disposal services.

That same year, in a process that resembles the contract tendering lined up for the post-Iraq reconstruction, only one bidder—the California-based engineering consortium Bechtel—was awarded a 40-year concession to run the city's drinking water services, through a subsidiary ("Aguas del Tunari"). Within weeks, substantial water rates increases—by as much as 60 percent—were imposed on local water users. It is unclear if the subsidiary broke the conditions of rate stability set by the World Bank. However, the result was that families living on \$60 a month were given bills that equaled as much as one-quarter of their income. The rate hikes sparked massive citywide protests that the Bolivian government sought to end by declaring a state of martial law and the deployment of the army. More than a hundred people were injured and one 17-year-old boy was killed.

In April 2000, as anti-Bechtel protests continued to grow, the company's managers abandoned the project.

In response, Bechtel filed legal action against Bolivia, demanding compensation of \$25 million. The company filed the case in February 2002 with the International Center for Settlement of Investment Disputes (ICSID) of the World Bank. The claim is made under the provisions of a bilateral investment treaty between the Netherlands and Bolivia (Bechtel established a post office box presence in the Netherlands in order to make use of the treaty.) The case is pending⁴². Investor-state lawsuits arbitrated under NAFTA experience are seen by many critics as a fundamental flaw in the drafting of Investor-State provisions: considerable attention remains focused on amending provisions within the NAFTA, as well as ensuring that any new investment provisions in the WTO and bilateral accords avoid extending more favorable legal remedies to foreign investors than to governments. (Under recent U.S. bilateral free trade agreements with Chile and Singapore, investment provisions were amended slightly, in the hope of avoiding rogue panel decisions that emerged from the Pope & Talbot case. Nevertheless, the U.S. Government stands behind the substantive provisions of Chapter Eleven, and will continue advocating their inclusion in the WTO as well as other bilateral accords under negotiation.)

A similar case involving Ondeo (Suez) and the government of Argentina, following the concession of Buenos Aires, under the French-Argentine bilateral investment agreement, is also pending under the ICSID⁴³.

Although details of ICSID Bolivia case are not public, its mere existence is yet another warning sign about the unknown implications of proceeding with privatization.

Conclusion

The intense debate over the privatization and liberalization of water services will inevitably continue. Predictably, the WTO has emerged as one of the focal points of civil society grievance against any changes in water markets that may introduce competition.

Narrowly speaking, the privatization-versus-public goods debate has been the wrong one, just as the blaming the WTO for the current mess that water delivery and water treatment/sanitation systems is wrong-headed. There is nothing in the GATS agreement that compels any country to open their

markets to competition: the GATS allows considerable flexibility in which sectors can be opened, remain entirely closed, or partially opened to competition while allowing the country to retain various restrictions.

However, to make the case that there is no connection between the GATS and the domestic policy agenda around changes in water services is legally correct, but misrepresents the dynamic relationship between privatization and liberalization. While countries can privatize without liberalizing, the opposite does not hold. Once markets are open to foreign competition, then domestic public service suppliers cannot shield themselves under exceptions provided in the exercise of government authority in GATS Article 1 (3) (b).

It is clear that the status quo is not working, and that the water crisis in developing countries will worsen. Yet to argue that privatization of water services is a panacea is simply wrong: there is little evidence to support the notion that efficiency gains will come about with privatization. Instead, given the inherently monopolistic nature of water markets, the debate of privatization is really a debate about transferring ownership from the public to the private sector. There is little evidence that private entities would be any better in setting prices, getting the right technology mix, tapping innovation, and creating accountable governance structures for water utilities as public entities. The only unambiguous gains that would come from privatization is the ability of private companies to tap global capital markets to foot the bill for hugely-expensive water infrastructure projects.

Which brings us full circle to the debate about how much money will be needed to finance water projects in developing countries. The upper-bound, \$180 billion a year budget, inevitably moves water markets to the private sector. Not surprisingly, the strongest advocates of large-scale water projects are large-scale water companies that are looking to invest billions in higher growth markets in some developing countries. For those few countries lucky enough to worry about too much investment coming into their markets, it is important to set in place strong domestic regulations that ensure market power of large companies is not abused either by way of high profits, cherry-picking only lucrative areas, or practicing the kind of accounting practices invented by Enron.

However, this leaves all least developed countries and most other developing countries outside of Asia without no dance partner to underwrite water bills. Investors are unlikely to go into Central African Republic or Peru or scores of other countries for a long while, if ever under the current arrangements.

Which leaves the debate stuck with the false notion that the \$180 billion objective is a realistic policy goal, that should focus current efforts to providing water services to the developing world. It is no more realistic than the Millennium Development Goals themselves, which were set for 2015. Barely a year since they were adopted and reiterated by governments at the Monterrey Development meeting, in early April 2003, finance ministers at the annual World Bank-International Monetary Fund meeting quietly conceded that the targets would not be met. Predictably, as expectations lower after the promises of summits recede with time, financial predictions for water services are descending from the upper-bound forecasts of the World Bank. In May 2003, during the Committee on World Food Security, meeting at UN Food and Agriculture Organization (FAO) headquarters, the former Managing Director of the IMF said that \$100 billion a year would be needed to address the global water crisis. If \$80 billion can be shaved off the estimates in a matter of months, then lower-bound estimates could well initiate badly needed initial funding that could, in turn, prompt a virtuous circle of public-private sector partnerships in water services in developing countries.

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Notes

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- 13. The export markets with the greatest consumption of imported water are the U.S., with over 390 million liters a year, Germany with almost 250 million liters, and the fast-growing Japanese market, with almost 150 million liters a year.
- 14. Examples of financing arrangements demonstrated at Kyoto include private-public sector arrangements, in which governments established revolving funds, pooled funds, loan guarantees, auditing and management support, market trading mechanisms similar to those used in air quality management systems (e.g. the U.S. Environmental Protection Agency system of air sheds/bubbles and credit trading), and many others. Bradford Gentry has identified some of the leading tools used for water project financing in Bradford S. Gentry, ed., (1998), Private capital flows and the environment, Edward Elgar Press, Chetltenham, UK.
- 15. World Health Organization (2002), Managing water in the home: accelerated health benefits from improved water supply, Geneva. www.who.int/
- 16. The time horizon for water projects is approximately 10-15 years from project plan to siting approval to some expectation of payback. Although this is obviously longer than some other market horizons, it is shorter than intergeneration considerations.
- 17. North American Commission for Environmental Cooperation (2002), Environmental challenges and opportunities of the evolving North American electricity market, Montreal.
- 18. M.E. Beesley (1997), Mergers and water regulation, *in* M.E. Beesley, ed. (1997), Privatization, regulation and deregulation, (second edition), Institute of Economic Affairs, London.
- 19. According to the World Bank, one way in which developing countries can improve the behavior of concession agreements is to include clear on-going auditing targets as a precondition of the agreement. World Bank, Private provision of public services (econ.worldbank.org)
- 20. In February 1999, the Canadian Minister of Foreign Affairs announced a prohibition on all bulk water exports from all boundary waters. In announcing the decision, the government also released a report, which addressed whether trade rules in the WTO and NAFTA could override the decision. It noted that while Canada included, in its tariff schedule, reference to "natural waters," this tariff heading in and of itself sheds little light on trade rule coverage, arguing that the "tariff schedule does not define what is a good; it merely provides an organizational structure for the purposes of tariff negotiations and customs administration." The Canadian government then argued that water should be defined as a good only when it is transformed from its natural state - that is, in lakes, rivers, groundwater aquifers, etc. -into a value-added product. "Water in its natural state can be equated with other natural resources, such as trees in the forest, fish in the sea, or minerals in the ground. While all of these things can be transformed into saleable commodities through harvesting or extraction, until that crucial step is taken they remain natural resources and outside the scope of the trade agreements." The report argues that NAFTA supports this interpretation. In December 1993, following intense scrutiny by civil society regarding the potential coverage of water exports in that accord, the NAFTA countries jointly stated that "unless water, in any form, has entered into commerce and becomes a good or product, it is not covered by the provisions of any trade agreement, including the NAFTA...Water in its natural state in lakes, rivers, reservoirs, aquifers and the like is not a good or product...".

- Government of Canada (November 1999), Bulk water removal and international trade considerations, www.dfait-maeci.gc.ca/
- 21. GATS 2000: Environmental Services, Proposal from the EC and their member states, http://europa.eu.int/comm/trade/services/ nspw06.htm
- 22. World Trade Organization (2001), Doha Ministerial Declaration, Paragraph 31: "With a view to enhancing mutually supportiveness of trade and environment, we agree to negotiations, without prejudicing their outcome, on... (iii) the reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services." (www.wto.org)
- 23. Henry Heyneardhi (November 12, 2002), Water a precious tradable commodity, Jakarta Post.
- 24. Polaris Institute, European GATS offers leaked, http://www.oneworld.net/external/?url=http%3A%2F%2Fwww.polarisinstitute.org%2Fgats%2Fmain.html
- 25. Tim Concannon and Hannah Griffiths (November 2001), Stealing our water: implications of GATS for global water resources, http://www.food-first.org/progs/global/trade/wto2001/stealingwater.html
- 26. Commission of the European Communities (February 2003), The EU and services negotiations in the WTO, http://europa.eu.int/comm/trade/services/index en.htm
- 27. European Commission, Trade in services: conditional offer from the EC and its member states, 29 April, 2003, (europa.eu.int)
- 28. Washington Trade Daily, April 1st, 2003.
- 29. Roughly two-thirds of members have listed MFN exemptions, with concentrations mainly in four sectors: transport, in particular maritime, communications, especially audiovisual services, financial and business services. WTO Secretariat (2002), Market access: special study, Geneva.
- 30. Market access in the GATS refers to six general measures that are prohibited: quantitative restrictions on the number of service providers, value of transactions, quantity outputs, number of persons employed, restrictions on the legal entity through which a supplier is allowed to supply the service (e.g. a travel agent branch versus subsidiary), and foreign equity participation.
- 31. The positive list approach also reflects the preference of developing countries. It differs from the NAFTA, which involves a negative or "list-it-or-loose it" approach, in which sectors that are not listed are automatically covered.
- 32. B. Hoekman (2001), Strengthening the global trade architecture for development, mimeo, The World Bank, (17 August), Washington.
- 33. One of the unique negotiating formats of the GATS is the "request-offer" approach, in which members can request market openings of their trading partners.
- 34. The final structure of the GATS was not one envisioned by the U.S. in the early stages of services negotiations. Instead, it initially sought general binding obligations and universal coverage. However, most countries saw the GATS as a "soft" legal framework that would set the foundation for subsequent liberalization without creating any linkages between liberalization covering trade in goods.
- 35. French water companies are the largest exporter of water and wastewater management services in the world. Not surprisingly, French foreign financial guarantees linked to environmental projects include an important component for water-related service provisions. Today, one-quarter of all French foreign financing guarantees are destined for environmental projects. As the world's largest water-services company, Vivendi Water delivers drinking water and manages wastewater collection and treatment facilities worldwide, for over 110 million people and 40,000 industrial customers. A major market is the U.S.,

where Vivendi is a market leader for industrial outsourcing of process and wastewater treatment. The largest new source of FDI for that and other water companies is China and other higher growth developing countries: in 2002, Vivendi announced contracts of almost €1 billion.

- 36. WTO GATS Special Session, United States Proposal on Telecommunications, WTO/S/CSS/W/30
- 37. World Trade Organization (2000), Submission of the United States to the Special Session of the General Agreement on Trade in Services (GATS) Council: Telecommunications, December 2000.
- 38. William Finnegan (2002), Leasing the Rain, The New Yorker, June 2002.
- 39. WTO GATS Special Session, December 2000, (WTO/S/ CSS/W/30)
- 40. See Howard Mann (April 2003), Reclaiming water as a public good in the post-NAFTA era: international trade and investment law considerations, International Institute for Sustainable Development, (www.iisd.org)
- 41. Sun Belt is seeking more than \$200 million (US) from Canada because of British Columbia (BC) legislation banning bulk water exports. The company claims that BC's law violates several NAFTA-based investor rights including, in this case, its right to export BC water by tanker to California. Sun Belt argues that it is entitled to the same access to Canadian water as Canadians enjoy. Anything less is discriminatory and offends the principle of National Treatment, a cornerstone of free trade. Having been denied that access by BC's export ban, it now claims compensation for the profits it would have made, had free trade rules been observed.
- 42. World Bank, List of pending cases: Aguas del Tunari S.A. v. Republic of Bolivia (Case No. ARB/02/3). http://www.worldbank.org/icsid/cases/ pending.htm
- 43. http://www.ondeo.com/press/fr/cp_fr_280602_Argentine.pdf