

## Connecticut Debate Association

November 13, 2010. Amity High School and Westhill High School

### Resolved: Developing nations should privatize their water systems.

#### Is Water a Human Right?

Kendra Okonski, The New Atlantis, a journal of technology and society, Spring 2009

Hundreds of millions of people around the world lack regular access to clean water and sewerage. In many parts of the globe, obtaining water for everyday use requires an enormous diversion of time and effort. And beyond thirst and reduced productivity, the lack of clean water has very serious health consequences: Dirty water can transmit parasites, bacteria, and viruses and can inhibit sanitation, resulting in millions of cases of water-borne diseases each year, many deadly. The “global crisis in water,” as a 2006 United Nations report put it, “claims more lives through disease than any war claims through guns.” In short, the unavailability of clean water easily ranks among the most serious problems facing humanity....

Two recent documentaries, *Thirst* and *Flow*, make the case for the water-rights movement. Both documentaries offer an illuminating window into the central assumptions held by this growing movement: Because water is a natural resource necessary for human survival, access to clean water is a human right. Water belongs to all; it is not a commodity that can be legitimately privately owned. Water should be provided by governments; it is immoral to profit from its sale.

These propositions raise important questions. If access to water is a human right, does every human have a right to consume as much water as he wishes, regardless of time and place? If not, to what quantity of water does each individual have a right? Does it vary by circumstance? Whose responsibility is it to provide that water to users? At whose expense? How are disputes between different users of water to be settled? How do we encourage more efficient use of water?

Unfortunately, neither *Thirst* nor *Flow* adequately addresses these practical questions arising from their core convictions. Instead, both documentaries tell us that water is part of an inviolate “global commons” that must not be owned, traded in markets, or otherwise sullied by private enterprise.

Notable by its absence in *Thirst* and *Flow* is any discussion of the mounting academic research showing that it is precisely because water is un-owned, un-traded, and hence under-priced, that water delivery systems, aquifers, and watersheds are in serious peril. For the same reason, there is a substantial underinvestment in the development and deployment of new technologies for water management. And although they argue that water should be provided by the public sector, neither *Thirst* nor *Flow* remarks on the fact that the governments of poor countries have failed abjectly to provide water to hundreds of millions of thirsty people. Likewise, we never hear how overbearing government bureaucracy and regulation perpetuates water scarcity and prevents private-sector solutions to water and sewerage issues.

The producers of *Thirst* and *Flow* do not deny that making water usable requires these value-added services. But to them, since water resources are part of a “global commons,” only government can be their legitimate manager. However, a growing body of empirical research shows the shortcomings of government management. With expanding human populations around the world, all of whom want access to clean water and sewerage, there is an urgent need to identify and implement practical solutions to the problems of managing and delivering water—a task so vast and complex that only the private sector is likely to succeed in it.

The activists’ alternative, which would bar the owning and trading of water, would result in the further spread of the sort of inept and corrupt water management seen in many poor countries today. These countries often have government-owned pipes, but they are leaky, water is stolen or “unaccounted for,” and sewerage is non-existent. Many of these countries’ governments are semi-socialistic, so they view extra people as a burden; these governments often excuse their failure to extend state-owned services such as water, telephones, and electricity into peripheral urban areas with bureaucratic sleight-of-hand: denying

the legal existence of people who live in these areas (e.g., “slum dwellers”) and refusing to recognize them as formal citizens.

The demand, repeated throughout *Thirst* and *Flow*, that profit from the sale of water be abolished, would have the immediate effect of eliminating these private providers. Given that these markets were formed precisely because of government incompetence and corruption, it seems highly unlikely that governments would replace these markets with a better system. In fact, many governments have already declared the operations of the water entrepreneurs illegal. That’s why they operate in the informal sector—the black market for clean water. Abolishing water-selling profit may benefit these countries’ governments, but for citizens it could mean an immediate reduction of access to water and sewerage.

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## **Supplying Water — For a Price**

Published by the United Nations Department of Public Information, February 2003

*Supplying water and sanitation for the world’s people is a huge task — and an expensive one. Whether these essential services are best carried out by governments or the private sector is a much-debated question among policy makers, experts and citizen groups. Some background to this debate and key positions are outlined below.*

Providing safe drinking water and sanitation to those lacking them requires massive investment — estimated at \$14-30 billion per year in addition to current annual spending levels of \$30 billion worldwide. As with other infrastructure services such as electricity, telecommunications and transport, most developing countries rely on public sector utilities to finance and operate water and sanitation services. But because of financial and human resource constraints, the results are often low productivity and inefficient service and coverage. According to the World Bank, technical inefficiencies in power, water, roads and railways alone were estimated to have caused losses of \$55 billion a year in the early 1990s —equivalent to one per cent of the GDP of all developing countries, a quarter of their annual infrastructure investment, and twice the annual development finance for infrastructure.

In the late 1980s, urged by international lenders, countries around the world began turning to the private sector, both to take over the operation of existing infrastructure enterprises and to finance new infrastructure assets. It was argued that private sector financing and management expertise could improve the quality and quantity of infrastructure services. Private financial resources could be tapped and services expanded, while reducing the burden on scarce public resources.

In developing countries, water and sanitation services are often subsidized, traditionally through direct payments to utilities, and are paid for by general taxation. The current investment in water and sanitation in developing countries is about \$15 billion annually. According to the World Bank, governments are responsible for close to 75 per cent of financing and the private sector for about 11 per cent, with the remaining 14 per cent of financing coming from external support agencies.

Popular belief generally holds that water is a common good and basic need that can best be provided by the public sector at very low cost. As a result, the full cost of supplying water is seldom charged to consumers. Even where tariffs<sup>1</sup> are charged to industrial users, they are usually based upon average costs and ignore the real costs of externalities such as wastewater disposal, as well as the “opportunity costs” such as the benefits lost by not pursuing alternative uses of water.

One result is that much water is undervalued and wasted, even as the world faces greater and greater water shortages.

Without compensation for the costs incurred, developing country governments usually cannot afford to expand their services to all in need, and the poor who are not serviced are often forced to take arduous treks to fetch water and risk becoming sick from unsafe supplies.

Some proponents argue that privatization of water and sanitation services can address some of these problems. Currently the private sector manages the water system for only 7 per cent of the world

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<sup>1</sup> “tariff” is the rate or price charged to customers for the water they use.

population. That figure is expected to more than double by 2015. Private water management is estimated to be a \$200 billion per year business at present, which World Bank projections show could reach \$1 trillion a year by 2021.

### **Growing Criticism**

However, the growing involvement of the private sector comes with growing criticisms. Just as when water and sanitation services were managed by the public sector, there are reports of privately-run services wrought with unsafe contaminants, leaky pipes that go un-repaired for weeks, and, notably, price hikes that put poor people in a position of having to choose between food and water. In Cochabamba, the third largest city in Bolivia, prices increased by 35 per cent after a private consortium took over the city's water system in 1999, resulting in protracted street protests. The contract with the private water supplier was rescinded less than a year later.

Even attempts by some developing country governments to adopt private sector approaches have served as painful lessons. When the South African government tried to end water subsidies in 2000, the result was that millions of poor people were forced to use water from polluted rivers and lakes, causing one of the country's biggest cholera outbreaks ever.

These cases reinforce two common perceptions — that private sector participation enriches a few at the expense of many, and that water flows to those who can pay. Critics say that private companies, in their attempt to make attractive bids for long-term contracts, often underestimate the cost of maintaining a water system. Once the contract has been won and operations begun, they resort to cutting staff and maintenance costs, raising prices, or both, to turn a profit.

Other detractors of privatization argue that water is a human right and everyone should be ensured equal and adequate access on a non-profit basis. It should not be managed by for-profit enterprises.

### **Finding Solutions**

However, no matter who manages this key resource, water supply and sanitation will inevitably have to be paid for by someone, whether consumers or taxpayers. Some experts argue that private enterprises, which in many cases are in a better position to identify gaps and provide needed services, have an important role to play. But working with the private sector does not mean that a government would, could or should simply hand over the management of its water resources to the private sector, and let the profit motive run its course. Rather, it implies a dialogue among government, the private sector and all users, to come up with equitable and environmentally sound solutions.

A spectrum of relationships could evolve, with many different options for the role of the private sector. Governments could transform their role from the exclusive financiers and providers of infrastructure services to facilitators and regulators of services provided by private firms. Contracts would have to be well designed, with the right balance of minimum standards and penalties, as well as incentives. In all cases, the government must be engaged in both oversight and overall regulation.

Better pricing of water by governments is another proposal considered to be a potential solution. Developing pricing schemes that meet social, technical, economic and environmental concerns is a major challenge. One option being tested in some countries is for governments to pay part of the water bill for poor households that meet certain criteria under a direct subsidy approach. Beyond the basic minimum, consumers would have to pay increasing tariffs per unit used. This would be an alternative to allowing the price of water to fall below economic costs indiscriminately.

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## **Water privatization: Types of Privatization**

From Wikipedia, the free encyclopedia

There are different types of private sector participation (loosely all labelled "privatization") in water supply and sanitation

The four most common models in the order of increasing transfer of responsibilities to the private operator are:

- management contract, under which the private operator is responsible only for running the system, in exchange for a fee (usually performance-related). Investment is typically financed and carried out by the public sector, but implementation may be delegated. Assets remain publicly owned.
- lease contract, under which assets are leased to the private operator, who recoups the cost from end users. Investment is typically financed and carried out by the public sector, but implementation may be delegated. Assets remain publicly owned.
- concession, under which the private operator is responsible for running the entire system, including planning and financing investment. Concession contracts usually run for 20–30 years. Assets remain publicly owned.
- Asset sale (full privatization), under which the operator owns the assets for an undetermined period. This model has been used in England and Chile.

An additional structure, a BOT (Build-Operate-Transfer), exists for the carrying out of specific new investments, usually the construction of new water or wastewater treatment plants. The BOT contract involves the private partner constructing the plant and then running it for a number of years (during which payment is received for the treatment capacity provided) before handing it over to the public water company. The risk for the private company for these is often relatively low, especially when contracts relate to capacity provided (rather than services provided) and the water company takes the demand risk.

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## **Water Supply & Consumption Out of Sync**

World Savvy Monitor, November 2009 (World Savvy is an education non-profit organization)

The OECD estimates that 2.8 billion (or 44%) of the world's people currently live in areas experiencing water stress. Projections based on overall population growth and the continuation of current consumption patterns indicate this figure could rise to 3.9 billion by 2030.

In sum, there is not enough water of the form and quality we need, and this deficiency is not likely to be remedied soon. What are the implications of this water shortage?

### **Short-Term Implications**

- Most urgently, it means that 1.1 billion people in the world lack access to safe water and 2.6 billion lack adequate sanitation. There are 3.6 million deaths each year from water-related illnesses, of which nearly 2 million are children.
- This is not only tragic; it is an enormous waste of human potential and talent. It is estimated that water-related diseases, deaths, and loss of productivity shaves between 2% and 5% off the Gross Domestic Product of many LDCs, which may be more than they receive in aid.

### **Long-Term Implications**

- Population growth is expected to continue at least until mid-century, with its attendant and increasing contributions to water stress described above.
- In addition, much that is done to address water stress in the short-term creates new problems in the long-term. Dams and other man-made attempts to manage water flows can damage the environment and impact the water cycle.
- The natural environment itself needs to be counted as a water consumer for the health of ecosystems, but the environment is at a disadvantage when competing with human requirements.
- There is a climate change overlay to water stress that cannot be ignored. Water conditions are changing in ways that we cannot fully predict.
- Economic development results in more water-intensive lifestyles. The average American uses 150 gallons of water per day, 50 times what the average Ethiopian uses. As economic development spreads, water conservation and development efforts are expected to parallel energy conservation and development as a technological and intellectual priority worldwide.

## Privatization of Water

There are some who argue that one way to increase the efficiency of water use is to put it under private (for-profit) control, so that markets determine where it goes, in what amounts, and what it will cost.

Right now, *the water industry is a hybrid mixture of public and private control.*

- If you look across the spectrum of activity required to extract, treat, and deliver freshwater, you will find that usually some parts of the process are owned and/or managed by the public sector, some parts are contracted out to private companies and vendors, and some parts are an indistinguishable mix of subsidies, public-private investments, and market forces.
- In some places the public sector (government) may have a monopoly because it controls treatment systems and pipes.
- In other places, private industry may have a monopoly, as in areas where water vendors sell to households that are not reached by public utilities.
- Usually, it is a mix. Incentives to invest in water are great for both the public and private sectors – for the public in terms of the large yield in human development from small improvements (see the Water, Health, and Nutrition section for more information), for the private in terms of money that can be made from distributing a valuable universally-used resource.

### History of Privatization

- Widespread privatization efforts grew in the late 20th Century when international financial institutions such as the World Bank and International Monetary Fund required countries seeking assistance to deregulate, abolish subsidies, and even sell much of their water systems and infrastructure to private investors.
- The rationale was that privatization would result in more efficiency and less corruption. Private investors would have the wherewithal and the incentive to build, maintain, and upgrade expensive water facilities in order to turn a profit, whereas governments in many of these countries had been doing a poor job of stewarding their publicly-financed (and often starved) water industries.
- These privatization programs continue today in many heavily indebted countries which continue to seek loans and aid from international institutions.
- It is estimated that around 15% of the almost 4 billion people in the world who do have access to clean water and sanitation get it from a private industry.

### The Debate Over Privatization of Water

On one hand, many would *say privatization has produced the intended benefits.*

- Many water systems in poor countries *would not exist but for the private funding* mandated by international lending institutions. Cash-strapped governments simply had no choice but to outsource expensive up-front costs of providing water to their citizens. Governments overwhelmed by development needs are often unable to efficiently manage the complexity of water extraction, treatment, delivery, and finance.
- When people must purchase their water through the private market, cost serves an important *conservation function*. People are less likely to waste a resource for which they are paying a market rate, as opposed to a rate heavily subsidized by the government.

On the other hand, *privatization is often seen as having failed much of the world's poor.*

- In their efforts to recoup often significant investments, *private water companies usually increase prices on the water they provide*. In some cases, these price increases have been so hefty as to knock poor consumers out of the market entirely, leaving them, again, with no access to water because they cannot afford it even when it is physically accessible.
- The UN Development Program notes that privatization has hurt many in the developing world, where poor people pay some of the highest prices for water. For example, the poorest 20% of households in El Salvador, Jamaica, and Nicaragua spend up to 10% of their income on water.

- Privatization schemes often appear undemocratic in that they *exclude the citizenry from the decision-making processes* in what was formerly a public utility.
- Privatization often results in *local job losses* as multinational corporations and conglomerates both reduce work forces through improved efficiencies and transfer jobs to workers in other countries.
- When profit is a motive in water provision, less lucrative services often suffer. Efficiency dictates that resources go where they produce the highest return – this means *poor rural areas and other hard-to-serve customer bases get lower priority*.
- In some cases, private companies have retreated from particularly poor areas where returns on investment have been low or from areas where local resistance and protests against privatization have made for bad public relations – see below. In these cases, the cost of picking up the pieces is often higher for local governments than it might have been had the private companies not been there in the first place.
- Cases in which privatization has worked well usually include special *voucher programs* whereby purchases for those unable to afford water are subsidized by the government or aid organizations.

Many argue that water is a human right and as such, it should not be treated like a commodity. However, a number of sophisticated investors believe that water could become the “new oil,” and this view is spurring considerable investment in the industry.

Going forward, it is unlikely that entire water systems will reflect a pure form of either private or public ownership. Governments at all levels will likely still maintain a role in water regulation and management, no matter how the industry itself is funded. The challenge is integrating all of the stakeholders so that water quality and access are maximized.

### **Case Study: Privatization of Water in Bolivia**

Bolivia is South America’s poorest country and the site of one of the world’s most notorious and controversial water privatization programs.

In the 1990s, under World Bank guidance, the water systems of some of Bolivia’s poorest regions were put up for sale to private investors. In the area of Cochabamba, the winner of an uncontested bidding process was a subsidiary of the US company Bechtel. The immediate effect of Bechtel’s water investment and management was, as promised, expanded access to water by many previously unserved communities. However, when the company took over local wells and informal pumps as well as the public system infrastructure, many consumers were priced out of the market, unable to pay the increased water rates, which in some cases had doubled.

In 2000, riots broke out in Cochabamba as protestors filled the streets. Violence shook the confidence of the local government and international investors. Bechtel was forced out, resulting not only in chaos in water delivery in the area, but dealing a serious blow to foreign investment in the country.

Undeterred, the French water giant Suez Company picked up a lucrative concession to provide water to the El Alto area of the Bolivian capital La Paz. In 2005, however, residents of El Alto also took to the streets to protest high water rates, forcing the government to cancel the Suez contract. In the wake of the ouster, tens of thousands of households were left with no water while the local government attempted to regroup on water delivery.

*The Nation* magazine featured the El Alto Water Revolt as a quintessential “consumer rebellion” – against the principle of water privatization, against the results of water privatization (high prices), and against the anti-democratic nature of water privatization.

Bolivia’s example illustrates the complex problems inherent in applying private market solutions to what are essentially public sector problems. The most successful solutions as water stress spreads globally will probably be those to which the public and private sectors both contribute.

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## **Private Water Saves Lives**

by Fredrik Segerfeldt (Cato Institute). *Financial Times*, August 25, 2005.

Worldwide, 1.1 billion people, mainly in poor countries, do not have access to clean, safe water. The shortage of water helps to perpetuate poverty, disease and early death. However, there is no shortage of water, at least not globally. We use a mere 8 per cent of the water available for human consumption. Instead, bad policies are the main problem. Even Cherrapunji, India, the wettest place on earth, suffers from recurrent water shortages.

Ninety-seven per cent of all water distribution in poor countries is managed by the public sector, which is largely responsible for more than a billion people being without water. Some governments of impoverished nations have turned to business for help, usually with good results. In poor countries with private investments in the water sector, more people have access to water than in those without such investments. Moreover, there are many examples of local businesses improving water distribution. Superior competence, better incentives and better access to capital for investment have allowed private distributors to enhance both the quality of the water and the scope of its distribution. Millions of people who lacked water mains within reach are now getting clean and safe water delivered within a convenient distance.

The privatization of water distribution has stirred up strong feelings and met with resistance. There have been violent protests and demonstrations against water privatization all over the world. Western anti-business non-governmental organizations and public employee unions, sometimes together with local protesters, have formed anti-privatization coalitions. However, the movement's criticisms are off base. The main argument of the anti-privatization movement is that privatization increases prices, making water unaffordable for millions of poor people. In some cases, it is true that prices have gone up after privatization; in others not. But the price of water for those already connected to a mains network should not be the immediate concern. Instead, we should focus on those who lack access to mains water, usually the poorest in poor countries. It is primarily those people who die, suffer from disease and are trapped in poverty.

They usually purchase their lower-quality water from small-time vendors, paying on average 12 times more than for water from regular mains, and often more than that. When the price of water for those already connected goes up, the distributor gets both the resources to enlarge the network and the incentives to reach as many new customers as possible. When prices are too low to cover the costs of laying new pipes, each new customer entails a loss rather than a profit, which makes the distributor unwilling to extend the network. Therefore, even a doubling of the price of mains water could actually give poor people access to cheaper water than before.

There is another, less serious, argument put forward by the anti-privatization movement. Since water is considered a human right and since we die if we do not drink, its distribution must be handled democratically; that is, remain in the hands of the government and not be handed over to private, profit-seeking interests. Here we must allow for a degree of pragmatism. Access to food is also a human right. People also die if they do not eat. And in countries where food is produced and distributed "democratically", there tends to be neither food nor democracy. No one can seriously argue that all food should be produced and distributed by governments.

The resistance to giving enterprise and the market a larger scope in water distribution in poor countries has had the effect desired by the protesters. The pace of privatization has slowed. It is therefore vital that we have a serious discussion based on facts and analysis, rather than on anecdotes and dogmas.

True, many privatizations have been troublesome. Proper supervision has been missing. Regulatory bodies charged with enforcing contracts have been non-existent, incompetent or too weak. Contracts have been badly designed and bidding processes sloppy. But these mistakes do not make strong arguments against privatizations as such, but against bad privatizations. Let us, therefore, have a discussion on how to make them work better, instead of rejecting the idea altogether. Greater scope for businesses and the market has already saved many lives in Chile and Argentina, in Cambodia and the Philippines, in Guinea and Gabon. There are millions more to be saved.

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## **BBC NEWS** Analysis: The cost of water

By Michael Klein, World Bank, Vice President, Private Sector Development, June 3, 2003

In developing countries, over a billion people lack access to safe water. Over two billion people lack adequate sanitation. Those who are not connected tend to pay 10 times or more for the same amount of water than richer people. The ones who are connected pay on average less than a third of the costs of water. Many do not pay their bills, particularly public sector customers, and have no incentive to conserve scarce water.

Governments often do not have the resources to invest in water systems or maintain and operate them adequately. Hence poor people remain unconnected and pay a lot. Better-off people receive variable qualities of service and tend to waste water.

### **The case for privatisation**

What to do? The biggest gains for most poor people come from providing access to water, not from lower user fees. That means more investment, better maintenance, good operations.

To make this happen someone has to pay for the costs of water pipes, treatment plants, maintenance, operations and so on. That means adequate user fees that customers actually pay.

Where governments have the ability to subsidize water they may do so to make it more affordable for poor people, but today most subsidy systems actually benefit those who are better off. Better targeting of subsidies is critical.

### **Water pricing**

Recent experience all over the world shows that private water providers have typically performed well in technical matters. They invest and enhance access. They maintain and operate well.

Controversy is typically not about this, but about price increases and alleged excessive profits. Yet, price increases are often unavoidable regardless of ownership, because otherwise there would be no resources to invest or run water systems.

As for excessive profits, in most cases, private companies have not made much money in the water sector. Today they are withdrawing from it, precisely because they are losing.

In the past, all over developing countries both public and private enterprises have been starved of funds due to the complicated politics of water pricing. The result is: poor people remain disconnected and pay a lot.

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## **BBC NEWS** Water privatisation: The case against

By Trevor Ngwane, Anti Privatisation Forum in Johannesburg, June 3, 2003

**Water is life. Everyone should have access to water. South Africa's Bill of Rights states that every citizen has a right to water.**

Privatisation poses a threat to that commitment because once privatised, water will no longer be provided on the basis of need but on the ability to pay. Many poor people in South Africa simply cannot afford to pay for water.

In 2000, the government of South Africa compelled the rural people of Ngwelezane in the Kwa Zulu-Natal province to pay for water that they have been receiving for free under apartheid. And as they could not afford to pay, many resorted to using water from streams with the result that there was a cholera outbreak that claimed 200 lives.

### **A threat to democracy**

Privatised water means less democratic control. Privatisation removes water from public control thus robbing citizens of their democratic say over how this important resource is used.

**South Africa's experience with private water companies is not a rosy one.**



This policy also clashes with African cultural values. The idea of "Water for sale" is unheard of in Africa, at least before Western civilization interfered.

South Africa's experience with private water companies is not a rosy one. When water companies Vivendi and Suez took over some water and sanitation systems in Bhofolo and Queenstown in the Eastern Cape they did so with a promise to "inject capital and upgrade the service". Five years later the people of Bhofolo are still stuck with the bucket toilet system.

Job losses and attacks on worker rights also accompany privatization.

Private companies will not take over water systems serving poorer communities living far from city centers and water pipes. They always choose the most profitable and thus pick the juiciest cherry leaving the local public authorities to carry the burden of the poor while they laugh all the way to the bank.

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## **Public-Private Partnerships for Urban Water Utilities: A Review of Experiences in Developing Countries**

By Philippe Marin, World Bank, Trends and Policy Options No. 8, © 2009

### **Performance of Water PPP<sup>2</sup> Projects**

This study analyzes four dimensions of performance: access (coverage expansion), quality of service, operational efficiency, and tariff levels.

#### **Access**

The overall performance of concessions for expanding access to service has been mixed. The 30 large concessions under review provided access to piped water for about 17 million people, but many of those concessions failed to invest the amount of private funding they had originally committed, and did not always meet their original contractual targets for coverage. Many of the good performers were concessions in which private financing was actually complemented by public funding (Colombia, Guayaquil in Ecuador, and Cordoba in Argentina).

The performances of leases-affermages<sup>3</sup> was usually more satisfactory. In Sub-Saharan Africa, the affermage approach, with investment carried out by a public asset-holding company, has been very successful for expanding access in Senegal. The case of Cote d'Ivoire deserves special note: almost 3 million people there have gained access to piped water through household connections since 1990—entirely financed through cash-flow generation from tariff revenues without any government money.

#### **Quality of Service**

Often water PPPs have substantially improved service quality, especially by reducing water rationing. Rationing is possibly the number one quality challenge for many water utilities in the developing world. Without service continuity, meeting drinking water standards cannot be guaranteed because of the risk of infiltration in pipes. The poor, who often live at the low-pressure ends of distribution networks and cannot afford coping equipment (such as private wells, roof tanks, and filters), are disproportionately affected. Once water rationing becomes the standard practice in a utility, it is very hard to reverse. Frequent surges in pressure speed up the deterioration of the network, and any attempt to increase the average service pressure causes more burst pipes and lost water. In this context, it is remarkable that many of the PPPs that started from a situation of water rationing succeeded in improving service continuity and that some even managed to reestablish continuous service.

A good illustration is provided by the case in Colombia, where private operators have consistently succeeded in improving service continuity in many cities and towns, often starting from highly deteriorated systems. Private operators also have a good track record of reducing water rationing in

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<sup>2</sup> PPP is "public-private partnership" where the government brings in private corporations to provide or run services.

<sup>3</sup> These are generally arrangements under which the private operator is responsible for operating and maintaining the utility but not for financing the investment.

Western Africa (Guinea, Gabon, Niger, and Senegal). Several management contracts also achieved notable progress despite their short duration. However, not all PPPs have succeeded in improving service continuity. For instance, in Manila (the Philippines) the concessionaire in the Western zone failed while that in the Eastern zone succeeded.

### **Operational Efficiency**

A key objective for incorporating private operators is to improve operating efficiency. Although utility operation has multiple facets, in practice, the overall efficiency of an operator can be broadly captured by three main indicators: water losses, bill collection, and labor productivity.

**Water Losses.** Controlling water losses is a priority for any well-run utility. Recent multicountry studies by Andres, Guasch, Haven and Foster (2008) and Gassner, Popov, and Pushak (2008b) found that private operators were effective in reducing water losses. Confirming their findings, this study found that many private operators succeeded in reducing water losses, notably in Western Africa, Brazil, Colombia, Morocco, and Eastern Manila in the Philippines. In some cases, private operators even reduced non-revenue water (NRW) to less than 15 percent, a rate similar to that in some of the best-performing utilities in developed countries.

However, not all the PPP projects reviewed achieved a significant reduction in water losses. For instance, in Guayaquil (Ecuador), Maputo (Mozambique), and Western Manila (the Philippines), no notable progress was achieved, and NRW remained at very high levels (more than 50 percent). In several countries, including Argentina, tracking the actual evolution of water losses is difficult because a large proportion of residential customers are billed on estimated, not actual, consumption. Less than half of the management contracts under review showed sizable progress.

**Bill Collection.** It is common for poorly performing public utilities to have low bill-collection rates because of lax enforcement and the fact that people often resent paying for poor services. Bill collection is an area in which it is widely assumed that private operators are efficient, because of direct financial incentives. Indeed, this study found that, in most cases, the introduction of a private operator markedly improved collection rates. This is the dimension in which the positive contribution of management contracts was most consistent, with all the projects in the sample achieving significant improvements.

**Labor Productivity.** There is strong evidence that the introduction of private operators resulted in improvements in labor productivity (measured as the number of staff per thousand customers), achieved through both staffing reductions and increases in the customer base. Many of the utilities concerned were overstaffed, and PPP projects were often accompanied by significant layoffs, ranging from 20 percent to 65 percent of the initial labor force. The layoffs were often motivated not just by overstaffing but also by the need to change the overall profile of employees and to hire more skilled staff....

### **Tariff Levels**

Most poorly performing public utilities in developing countries have water tariffs that are well below cost-recovery levels, and raising them is often a necessary component of reform toward financial sustainability. In practice, the potential impact of a PPP on the tariff depends on how far the initial tariff level is from the cost-recovery level and on the extent of efficiency gains that can be made by the private operator—two factors that move in opposite directions and can be of very large magnitude in developing countries.

The evolution of tariff levels in a number of PPP projects was analyzed as part of the present study. In most cases, tariffs rose over time, but the underlying reasons, as well as whether those increases were justified, could not be assessed. Analyzing the impact of PPPs on tariffs can be easily misleading, because it is heavily dependent on prevailing tariff policies. Tariff increases are not necessarily a bad thing for customers when they also translate into wider access to better services, as happened under many PPPs. In many developing countries, low water tariffs mostly benefit the connected middle class and work against the interests of the unconnected urban poor who need to access water from often unsafe and/or more expensive sources. It is likely that many of the poor households that gained access to piped water under PPP projects ended up paying a lower price for water than when they were not connected to

the network. It must also be noted that in a few recorded cases, private operators made large enough efficiency gains to allow for significant tariff reductions in real terms after a few years.

### **Water PPPs Are a Viable Option in Developing Countries**

...It is noteworthy that out of 65 developing countries that embarked on water PPPs during the past two decades, at least 41 still had private water operators, and 84 percent of all awarded contracts were still active, by the end of 2007. Twenty-four countries had reverted to public management, and several contracts had been terminated early following conflicts between the parties. These numbers are not unreasonable considering what has in practice been a market test of a wide variety of contractual designs in many different (and often challenging) environments. Details do matter; the choice of contractual designs, as well as the willingness of the public and private partners to make it work during implementation, have proved to be major determinants in the final outcome.

...A total of 205 million people in developing and emerging countries have been served by water PPP projects at some point during the past 15 years. Of these, 160 million people were still being served at the end of 2007, while about 45 million people had been served by PPPs that were either terminated early or not renewed at expiration.

Among the 160 million people served by private operators in 2007, about 50 million are served by PPP projects that can be classified as broadly successful. These are projects that have brought significant benefits to the population and where a working relationship has developed over time between the public and private partners. Successful PPP projects exist in all regions of the developing world, including Latin America (Colombia, Chile, Guayaquil in Ecuador, and several concessions in Brazil and Argentina), Sub-Saharan Africa (Cote d'Ivoire, Gabon, and Senegal), Asia (Eastern Manila in the Philippines), Eastern Europe and Central Asia (Yerevan in Armenia), and the Middle East and North Africa (Morocco). Active PPP projects whose performance was mixed or disappointing are estimated to represent a population of about 20 million. The remainder (90 million people) receive service under PPP projects that were not reviewed in this study, most of these projects being recent (awarded since 2003).

### **The Most Consistent Contribution of Private Operators Has Been Improved Efficiency**

In the 1990s the main attraction of PPPs in the sector was their supposed ability to supply private finance. Experience has shown that this was largely the wrong focus. The review of the cases that worked shows that the biggest contribution that private operators can make is improving operational efficiency and service quality. These improvements have a major impact on access to financing, but indirectly. Customers become more willing to pay their bills when service improves and more efficient operation creates more cash flow from operations to invest in expansion, which in turn increases the customer base and revenues. As creditworthiness improves, a utility can more easily access funding and invest in service expansion. An efficient operator will make good use of the funding that is available for investment, regardless of whether the funding comes from public or private sources.

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## **Water privatization in Indonesia**

From Wikipedia, the free encyclopedia

**Water privatization in Indonesia** began in February 1998 with the award of two 25-year water concessions to serve the city of Jakarta. ...

**Impact.** Average annual customer growth in Jakarta before privatization (in the years 1988 to 1997) was 11.7 percent, or 31,246 customers. After privatization, growth in the years leading up to 2005 dropped to about 5.6 percent.<sup>[3]</sup>

**Tariffs.** The cumulative real tariff increase for the period between 1998 and 2005 was 155 percent. The rate-of-return regulation fixed a 22 percent annual rate of return.<sup>[3]</sup> Since early 1998 the water rate has increased by 15% in February 1998, 35% in April 2001, 40% in April 2003 and 30% in January 2004 in nominal value prices.<sup>[4]</sup> The inflation rate in Indonesia was 12% in 2003, 6.6% in 2004, 6.1% in 2005 and 10.5% in 2006.<sup>[5]</sup> In early 2004 a regular increase of tariffs every six months between January 2004 and 2007 was agreed. However, Jakarta Governor Sutiyoso and the City Council had refused to raise water rates according to schedule, thus forcing the two concessionaires to cut down on investments.<sup>[6]</sup>

**Financing.** Local financial markets provide some of the financing for water supply in Jakarta. For example, PALYJA successfully raised a Rupees 650 billion bond in 2005.<sup>[1]</sup>

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## **Water privatization in Tanzania**

From Wikipedia, the free encyclopedia

**Water privatization in Tanzania** was limited to a 10-year lease contract for its largest city and former capital, Dar es Salaam, which was signed in 2003 between the government and City Water, a consortium consisting of the British firm Biwater, Gauff Engineers from Germany and a Tanzanian company called Superdoll. The government terminated the lease contract in May 2005 amid mutual allegations of breach of contract, and deported the three top executives of City Water.<sup>[1]</sup>

### **The situation before privatization**

According to a report of ActionAid, before privatisation "the water system in Dar es Salaam was hardly a model of public sector efficiency." Until 1991, water was provide for free, except for some high income areas. The system was characterized by "disrepair, a lack of investment, high levels of wastage, and very poor levels of service coverage". In 1997 the semi-autonomous DAWASA was created and water tariffs were introduced for all users. According to the report, "DAWASA proved to be no better than its predecessor, and the wastage and disrepair reached crisis levels." By 2003 "only 98,000 households in a city of 2.5 million people had house connections. Only 26% of water was being billed, 60% was lost through leaks, and a further 13% through unauthorised use, illegal taps and non-payers. Even those with connections only received water irregularly, and the water quality was poor. In low-income areas, the vast majority of households had no water connection at all, relying instead on buying water from kiosks, water vendors or their neighbours, at more than three times the price."<sup>[2]</sup>

### **Impact of Privitytization**

ActionAid UK claimed that water users in Dar es Salaam faced soaring bills and mass disconnections since 2003. It also said that City Water disconnected whole areas in an attempt to get people with illegal connections to pay up. They found that poor families turned to unsafe water supplies rather than pay the increased bills. "Donors have been pushing through a project in which 98% of the investment will go to the areas where the richest 20% of the population live," said Billy Abimbilla, director of ActionAid Tanzania.<sup>[7]</sup> "Unprofitable areas" – where the poor reside – were given to non-governmental organizations and were not part of the area of the private responsibility. WaterAid, CARE and Plan International were to be subcontracted under World Bank funding to carry out water projects in low income areas which were unlikely to be served by the piped network for some time. This component of the World Bank project only accounts for \$3-\$4m, or roughly 2%, of the total project costs.<sup>[8]</sup>

Tanzania's water minister, Edward Lowassa, said that no new pipes have been installed, the company has not spent the money it had promised, water quality has declined, and that revenue has decreased.<sup>[6]</sup> According to Mussa Billegeya of the Tanzania Association of NGOs (TANGO) Biwater was doing almost none of what they were supposed to do. They didn't pay the lease fee to the government. They owed around US\$ 3.5 million to the government in 2005. They did not contribute to a collection fund that was meant for the poorest people. Biwater was supposed to inject \$8.5 million of capital but they fell far short of that.<sup>[9]</sup>

According to Cliff Stone, the British chief executive of City Water, the government breached the lease contract. He said that water quality and quantity had improved. He also claimed the Tanzanian government had given the company wrong data about water supplies and the delays were not of City Water's making. He also said the Tanzanian government owed the company \$3m. He accepted, however, that the project was well behind schedule and that no pipes had been installed.<sup>[6]</sup> Biwater said it invested £7m in City Water.<sup>[1]</sup>