Water for sale: how business and the market can resolve the world's water crisis

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Milagros Quirino and Fely Griarte live in a poor part of the Philippine capital, Manila. For most of their lives, lack of clean and safe water was a major problem. They had to do with only a few liters of water a day. Usually they bought it from a neighbor family that owns a deep-water well. About 3,000 families in the neighborhood used to share three such wells. "We often had to get up at 3 A.M. to make sure we would get water," said Fely. "And if there was a power cut and the water pump did not work, we would have to wait another day." The quality of the water was poor, and it had to be boiled before use. And if there was a power cut, they would not get any water. For decades, as a consequence of the dire water situation, Manila has suffered from various outbreaks of water-related diseases, such as Cholera.

In 1997, water distribution in Manila was privatized and in 2000, in a special project targeting poor neighborhoods, the private firm Manila Water came to Milagro's and Fely's neighborhood. Now they have water in their home, 24 hours a day, and the water costs 15 pesos per cubic liter, compared to 100 pesos earlier. They are the poor winners of water privatization.

Another example of poor winners is the people of Guayaquil, Ecuador's largest city. Privatization of water distribution there has lead to 100,000 of the city's poorest citizens being connected to the network since 2001. They now pay only one tenth of what they used to pay for water from informal vendors, and this for water that is piped into their homes and that is available 24 hours a day.

The stories about Milagros and Fely and of Guayaquil are two anecdotes, two snapshots of a much larger picture, of a crisis of global dimensions. It is an issue that does not receive the attention it deserves in the rich world, at least not compared to the debate on globalization. The difference is that the water discussion does not affect us in the rich world to the same extent as issues of job relocation and international competition. And poor people in poor countries do not have access to global media and international decision-making bodies to the same extent as rich countries.

But the fact is that more than a billion people lack access to clean and safe water. They are usually the poorest people in poor countries: families who live in informal settlements of some kind, usually in slums and shantytowns in and around the urban centres of the global south.

As a consequence, 12 million people die annually. 3 million children die each year of a water-related disease that could have been prevented. Hundreds of millions others are trapped in poverty, since they have to stand in line at a stand-post or a well, or walk several miles to fetch water, and therefore cannot work or study.

The lion's share of water distribution in poor countries is in the hands of the government. Between 95 and 98 percent is public. Therefore, in a few instances, a greater scope for the private sector and the market has been allowed. Status quo has been deemed unacceptable.

There is a reason why anecdotal evidence is called anecdotal. It is not evidence. The stories about Fely and Milagros and even about Guayaquil are mere anecdotes. We cannot draw any conclusions whatsoever about the positive or negative effects of water privatization from two persons in Asia and one city in Latin America. No matter how good they are as pedagogical or demagogic tools.

But that is exactly how the anti-privatization campaigners work. There is a global movement of protestors against "water privatization". (This is a very misleading term, since there are no cases of outright privatization, but different forms of contract between a government and a private company). NGOs, trade unions and some local groups, in particular in Latin America, have been campaigning to keep water 100 % in the hands of governments. But very rarely has there been any balanced and objective analysis. Instead, what we have seen is ideological warfare. Here are some examples of their catchphrases, slogans and simplifications, presented by different groups. "People drink water, not money." "No profits from water". Soaking the poor". "Selling the rain". "Water is basic human right, not a commodity to be bought, sold and traded."

True, those are witty headlines, some even brilliant slogans. But do they tell us anything about whether poor people are better off after firms and the market have been given a role in water distribution? No, of course not. Let us therefore look at both theory and facts.

Water and health

Without water we die, quite quickly. And if we consume unhealthy water, we also die. Water is key to a good and healthy life. Therefore, it is a scandal with disastrous health effects that so many, more than a billion people, are deprived of a reliable, accessible and affordable water source. In 2003, more people died from water-related diseases than from armed conflicts. Each year, more than a billion people contract a water-related disease (WRD). At any given time, close to half the urban population in Africa, Asia, and Latin America are suffering from one or more of the main diseases associated with inadequate water and sanitation provision.

No lack of water as such

Cherrapunji, India is officially the wettest place on earth, with most rainfall per year. And yet, the city suffers from recurrent shortages of potable water. Why is that? Well, it is because water needs to be collected, treated and distributed. Populations not having access to clean and safe water therefore has very little to do with the amount of water available. Instead, what matters is the capacity to collect, treat and distribute water.

There are those who believe that there is lack of water as such, that population growth is unsustainable from a fresh-water perspective. They are wrong. Mankind uses less than ten percent of water available for human use. Physical water shortage is limited to a few places around the world. Instead, we are suffering from economic water shortage.

A country's level of development is a much more important factor explaining people's access to water. In OECD countries, 99 percent of the population on average has access to clean and safe water. The corresponding figure in developing countries is 79 percent, and in the least developed countries 61 percent.

We cannot wait for all countries to reach OECD countries' level of development. Better policies are a better solution.

Policy problems

Much of the shortage of safe water and sanitation in the Third World can be attributed to underinvestment and lack of maintenance. Quite simply, the infrastructure needed for supplying people with water has not been built and maintained. This involves everything from the collection of water to its purification and distribution.

But the quantity of investments is not the only problem. Their quality is a problem of at least the same magnitude. Third World public water investments are often characterized by huge dam projects, financed as a rule with a combination of development aid and national government revenue. Usually these projects are poorly designed, shoddily built, and badly managed, so the outcome is far worse than anticipated.

On top of this, waster distributors suffer from the weaknesses of public bureaucracies in general. Water policy is excessively centralized, both politically and administratively speaking. Centralization paves the way for political control, lends added weight to bureaucracy, and removes investment decision-making a long way away from the on-the-ground reality. Furthermore, too many public bureaucracies are often involved in water.

Public water distributors, moreover, most often has limited access to, or knowledge of, the latest technology, and its in-house water management expertise is often minimal. Then there is a lack of innovation and renewal that is inherent in government bodies. Public distributors also tend to be over-politicized and corrupt.

But perhaps the most important flaw of a public water distributor is that laying down new pipes to reach new households is a cost, and not a potential profit. In contrast to a private firm, a public authority therefore lacks incentives for reaching as many users as possible. The private distributor sees the possibility of making money, whereas a public one fears that it will have problems keeping budgetary limits.

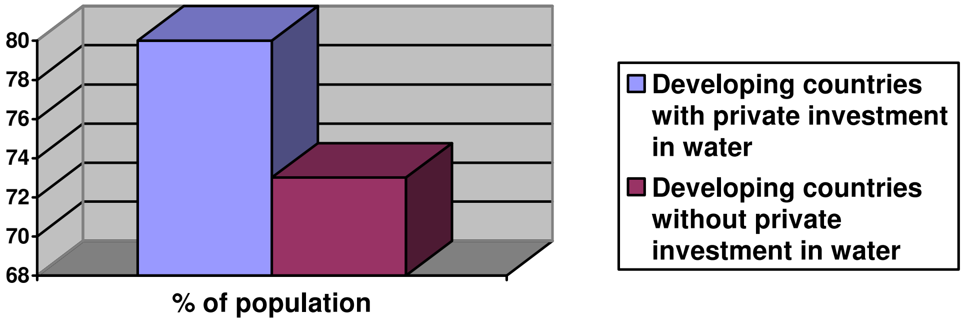
A private water company, often a large firm with decades of experience from the business in different continents, has superior competence. Private operators usually have better trained staff and newer technology. They apply newer management methods and are more efficient. The firms have been competing with other companies for decades, and have been forced to constantly improve the way they run their business and keep costs low.

Also, as alluded to above, a private firm has better incentives to expand the water mains, since it means that it gets more customers. Furthermore, it is easier for a multinational enterprise to attract the capital needed. It is very expensive to build new water infrastructure.

The track record of privatization

In the discussion about the role of markets and enterprise in water distribution, both sides use case studies, as mentioned earlier. And there are both successes and failures, private ones as well as public ones. However, macro-level data suggests that more people on average have access to water in poor countries with private investment in water than in poor countries without such investment.

Access to safe water in developing countries respectively with and without private investment in water



Source: WDI Online

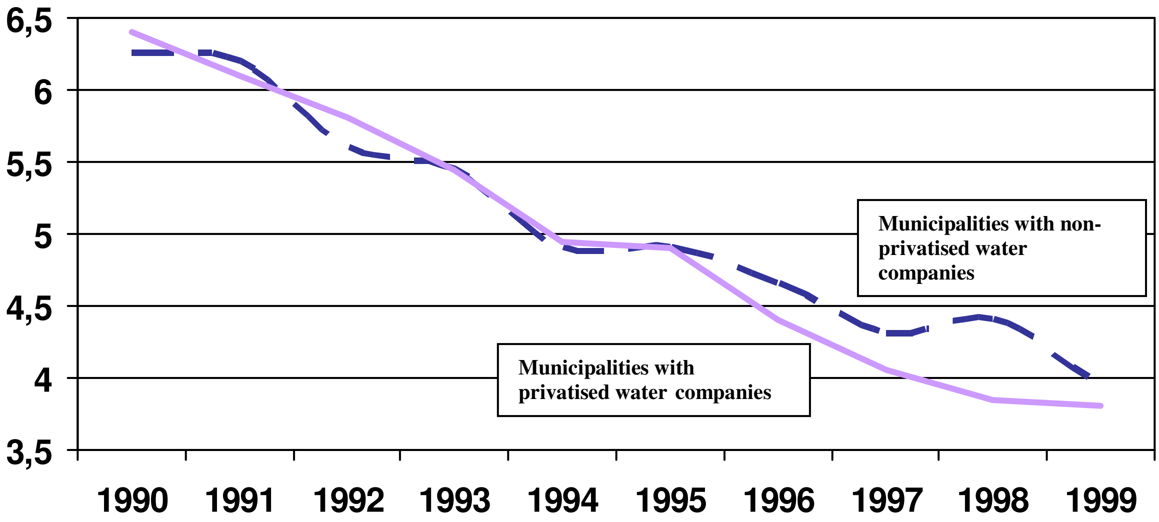
In developing countries with private investment in water distribution, 80 percent of the population, on average, has access to an improved water source. In developing countries without such investments, the corresponding figure is 73 percent. True, the difference is only seven percentage points, but considering the amount of people involved, these percentage points refer to millions of people.

In Cambodia and the Philippines in Asia, in Guinea, Gabon and Morocco in Africa, in Argentina, Chile and Ecuador in Latin America, privatization has lead to millions of poor people gaining access to clean and safe water, and this at a lower price than before.

In the 1990s, thirty of the Argentina's municipalities, comprising 60 percent of the national population, privatized their water distribution. Far more residents in municipalities with privatized water are now served by water mains than in municipalities that have not privatized. Not only have these privatizations led to people gaining better access to cheaper water of higher quality, they have also had important secondary effects, most important among them being a reduction in child mortality.

A large proportion of child deaths in Argentina, as in so many other developing countries, are from water-related causes, either water-borne diseases or lack of water for hygienic purposes. Diarrhea, septicemia, and gastrointestinal infections are closely connected with water. These three diseases are also included among the 10 common causes of death among children under five in Argentina. In municipalities that have privatized their water, between 5 and 7 percent fewer children are now dying from water-related causes, compared with municipalities where water is still supplied by public utilities. The effects were greater still in the poorest municipalities. Child mortality there dropped by a massive 24 percent. Water privatization in Argentina, in other words, has saved the lives of thousands of children, most of them poor.

Argentine child mortality rates*



* Deaths per 1,000 children aged under 5 years
Source: S. Galiani, P. Gertler, E. Schargrodsky

Drawing on the research carried out on Argentina, a report covering 27 developing countries confirms the positive relation between privatization and decreased infant mortality rates. In countries that privatized water, infant mortality decreased by 34 percent, compared to 28 percent in countries that did not privatize. Percentage wise the difference can seem small, but considering the number of people concerned, an important number of infants' lives has been saved. The report also estimates that if all countries were to copy the 1990s Argentine reforms, infant mortality would decrease by 12.7 percent. In nine countries in the Middle East, the estimate is as high as 31.9 percent.

The price of water

This is the hottest issue in the whole discussion concerning water privatization in poor countries. Opponents of private involvement claim that poor people will be unable to afford sufficient water if prices are set by the market instead of by politicians. Privatization, they maintain, leads automatically to higher prices.

When the market is allowed to put a price on a good, it is supply and demand that decide it. Equilibrium occurs when supply and demand meet at a certain price level. Supply and demand are both disrupted when the price of a good is politically regulated. If the price set is lower than the equilibrium price, supply will diminish and demand increase. Conversely, if the price exceeds the equilibrium level, supply will increase and demand diminish.

The big problem regarding the price of water in poor parts of the world is that it is too low for supply and demand to converge. Instead of water being made to bear its own costs, the production and distribution of it are subsidized out of taxation revenue.

The consequence is under-supply, and those who are not supplied are those without a strong political voice, i.e. the poor and the powerless.

If the price of water is so low that extending the supply network to new users costs more than the distributor can expect to recoup by means of charges, there is very little reason indeed why the distributor should want to enlarge the network at all, still less make the extra effort required in making such connections. Why invest in a guaranteed loss-maker?

The most common way for poor city-dwellers in developing countries to obtain water is by purchasing it from small-time vendors in kiosks, or those who either have a local well (with often polluted water) or deliver water by motor vehicle or by some other means. Contractors often drive tankers to poor districts, selling water by the jerry-can, in which case the very poorest of the world's inhabitants are already exposed to market forces but on very unfair terms, because water obtained like this is on average twelve times more expensive than water from regular water mains, and often still more expensive than that. This is a very important point that tends to be completely ignored by anti-privatization activists.

The poorest, then, are mainly unaffected by any increases in the price of mains water. Instead, more than a billion of the world's poor are suffering from the very high prices charged for the water they are forced to rely on for lack of water pipes. But they are indirectly affected, in a very positive way. In fact, they would gain a great deal from market pricing of water, because the supplier would then have both the capital and the incentive to extend the water supply network to include those who are not connected at present, that is, the very poorest inhabitants of the poor countries. They would then get better water at lower prices than before.

It has to be made clear, though, that a distinction ought to be made between discussing political versus market-driven pricing and, on the other hand, discussing private versus public water. These are two different issues. In fact, prices are always determined politically, even after commercial interests have become involved. It is inscribed in the contract drawn up between the public authority and the private player when the latter is admitted to the business of water distribution.

There is no straight answer to the question of whether commercialization of water means higher or lower prices. Will the capital and competence of the private sector offset the loss of subsidies? Sometimes, perhaps even mostly, they do. Heavy investments are planned and subsidies are taken away. In some, perhaps even most cases, prices have gone up. But the poorest people who previously lacked access have gained a lot, both as regards access and when it comes to costs.

Water rights

"The tragedy of the commons," a popular theoretical concept in conservationist and environmentalist circles, was minted in 1968 by the American biologist Garreth Hardin in a classic article published by the journal Science and has come to stand for the environmental destruction that occurs when there are many individuals jointly using a scarce resource. Hardin showed that no one assumes responsibility for the common, for that which has no owner. Nobody owns the air we breathe, which is why it gets polluted. Somewhat less theoretically, the common can be seen as a park in a city. City parks are most often dirtier than private gardens. Many people visit the park and, quite simply, are a little more careless there, because the park does not belong to them. A property owner would presumably see to it that his garden was not littered with empty bottles and ice-cream wrappers. But the park is someone else's responsibility.

This reasoning goes also for water. Lack of property rights to water causes over-exploitation. The solution to this problem is private water ownership.

Chile introduced private ownership of water, with very good results. At the beginning of the 1980s the Chilean government granted farmers, companies, and local authorities the right to own local water. This enabled them to sell it in a free market, and the effects have been outstanding. Water supply has grown faster than in any other country. Thirty years ago only 27 percent of Chileans in rural areas and 63 percent in urban communities had steady access to safe water. Today's figures are 94 and 99 percent respectively—the highest for all the world's medium-income nations.

Trade in water increased people's access to water in two ways:

- The amount of water available increased, because the owners (farmers) now had a strong incentive to avoid spillage and produce and deliver as much as possible. The more they sold, the more money they made.

- The price of water fell, because the introduction of water rights led to a far-reaching decentralization of water management, thereby improving efficiency and reducing waste. In addition, the growth of supply put downward pressure on prices.

Water and conflicts

Mark Twain is supposed to have once said, "Whisky is for drinking; water is for fighting over," meaning that when an asset is scarce and its ownership unclear, conflicts often develop over it that can lead to violence. Water, necessary for survival even in the short term, is probably more likely to be fought over than any other resource. Furthermore, water is often a tool in conflicts, not least when people are short of it.

Indeed, water is often a source of conflict. And it is more likely to be so in the future. "The wars of the 21st century will be fought over water," Ishmael Serageldin, a former vice president of the World Bank and chairman of the World Commission on Water, has famously stated. And he is not the only one to make such predictions. In fact, there is plenty of talk about future "water wars."

Water corporations are more likely than government bureaucracies to handle water with care. Profit motives give them strong incentives to conserve water and to see to it that their customers are served rather than water being spilled. Furthermore, trading will guarantee maximum output of water. Also, clearly defined and recognized property rights to water can lower the risk of conflicts. Another advantage is that markets and private providers are more likely to reach more people with water pipes, lowering the risk of conflicts caused by water stress. Last but not least, monetizing a good can make it less political.

Hillel Shuval, professor of environmental sciences at the Hebrew University of Jerusalem, maintains that water-related tensions between Israel and the Palestinians abated only after Israel agreed to sell water to the Palestinians. Trade in water, he says:

> … ensures rationalization of water use [and] if you monetize the conflict, it makes it less emotional. If water is seen as a commodity, not as mother's milk, it shows that there is not enough there to go to war.

The point Professor Shuval makes is that when countries trade water with each other, the liquid is less likely to cause conflicts. When water can be acquired by means other than force, these means are likely to be used. Trading could therefore help avert tensions and ensure that all parties involved to can acquire the share they need instead of taking and controlling water by force.

Conclusion

I don't argue that all water distribution has to be private. Rather, the main argument is that an increased role for private enterprise and market reforms, if carried out properly and wisely, can save millions of lives, and give water connections to hundreds of millions of people who today are deprived of it. It has been argued that there are well-functioning public distribution systems in the developing world, as in Porto Allegre, Brazil. But that does not mean that the privatization option must be rejected where the public sector has failed, as it has in most poor countries.

People who today are without water do not need dogmas and street demonstrations, they simply need water. Solutions are manifestly available, and it is thoroughly reprehensible that they should be disregarded for ideological reasons.

There are pragmatic players to the left who have realized that it is perfectly possible to believe in and promote both a social and an economic value for water. This has been admirably summarized by former South African Water Affairs and Forestry Minister Ronald Kasrils:

"In South Africa we treat water as both a social and an economic good. Once the social needs have been met, we manage water as an economic good, as is appropriate for a scarce natural resource. Some non-governmental organizations and international organized labor oppose what they call the "commodification" of water and thus oppose cost recovery. We are concerned about this because absence of cost recovery leads to inadequate funding for infrastructure development and the resulting overuse leads to local shortages and service breakdowns which impact most heavily on the poor."

I wish more people in the discussion on the role of markets and enterprise would take a similarly sensible approach to this global issue of dramatic proportions.