Making markets work for clean water

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Abstract Part of the solution to close the gap to meet the UN Millennium safe water goal lies in the domestic consumer marketplace. Multinational corporations must design products for low income consumers to deliver clean water at a household level. The future of business is linked to improving the lives of developing country consumers and to the improved economic status of those consumers.

Keywords Domestic private water sector; safe drinking water; UN Millennium safe water goal

Introduction
I plan to discuss how we can make markets work to bring safe drinking water, and sanitation, to the world’s poor. But this is not another paper about privatization. The merits, or lack of merit, of that subject have already been discussed. Instead, I am going to address the potential role for markets at the consumer level to help fill the large gap that exists between our present state, and the UN Millennium Goal for safe drinking water. My company, Procter & Gamble, is in the consumer products business. Two billion times a day, consumers in 160 countries put our products to the test of whether or not we can, in some large or small way, make their lives better, or solve one of the frustrations of their daily lives. Why shouldn’t we be looking to that same consumer marketplace to bring clean and safe water to poor consumers worldwide? I want to be very clear, this is not business as usual. To contribute to the achievement of the UN Millennium Goal on safe drinking water, companies such as mine will need to bring new technologies and new benefits to low income consumers, and to learn how to reach consumers lower on the economic scale than we have ever sought out before.

Institutions, and the politicians within them, are very adept at setting visionary and aspirational goals that describe a future state that all of us would like to leave for our children and their children. Often absent from these visionary goals is the vision on how to meet them. Clean water is certainly an example.

In 1990, the UN Children’s Summit established the goal of universal access to safe drinking water and sanitation. This goal, when expressed graphically as the number of people with access to safe drinking water, equals projected world population trends (Figure 1).

We began the decade with almost 1.3 billion people without access to safe drinking water. In the decade following the Children’s Summit, due to the efforts of thousands of people, substantial progress was made. By the UN’s numbers, over 900 million people have gained access to safe drinking water. However, in that same time, we have added over 800 million people on our planet, still leaving us with well over a billion people without access to safe drinking water.

At the Millennium Summit at the end of 2000, with a better idea of the size of the challenge before us, the UN established a new interim goal of halving, by 2015, the number of people without access to safe drinking water.

If we continue at the same pace of progress as the last decade (no sure or easy assumption), we will fall at least 250 million people short of that goal. Further, our present progress
may well be overstated, and the gap to close even larger. Because of the difficulties of data collection, getting an accurate picture of access to safe water is problematic. Assumptions are made that the use of one technology, or means of access to water, is better or worse than another. Water supplied through a household connection from a municipal supply or through a public standpipe is referred to as “safe”. Yet we know that many municipal systems are in various states of disrepair and subject to contamination even if the water is initially treated to drinking water standards.

The Global Water Supply and Sanitation Report 2000 recognized this error factor and used the term “improved” instead of access to “safe” water or “adequate” sanitation. However, even with these uncertainties, it is clear that just doing what we did from 1990 to 2000 will not achieve the UN Millennium Goal of halving the number of people without access to safe water.

**Water use**

This symposium deals with the subject of water in a broad and multi-faceted way. However, the safe drinking water Millennium Goal, which deals with the social development, as opposed to environmental, aspect of water, brings focus to the challenge facing us, in that it only deals with part of the broad subject of water. Water use by consumers is only a small part, 8%, of total water use in low and middle-income countries (Figure 2). While this

![Figure 1](https://iwaponline.com/wst/article-pdf/47/6/97/422629/97.pdf)

**Figure 1** Access to safe drinking water: development over the past 12 years and future perspective (source: World Bank)

![Figure 2](https://iwaponline.com/wst/article-pdf/47/6/97/422629/97.pdf)

**Figure 2** Use of water for various purposes (source: European Environment Agency)
might seem like just another statistic on a subject that is rich in such numbers, in fact, when thought of in the context of social development, it becomes very significant.

First, if adequacy of water supply is an issue, then a small 5% improvement in the efficiency of agricultural water use can bring a 50% improvement in the amount of water available for consumer use. Similarly, a single large business or facility often dominates industrial water use in small cities or towns in the developing world. A 25% or 50% increase in water use efficiency by that business can make available large amounts of water for consumer and household use, particularly in arid areas. At four facilities in Mexico, Procter and Gamble has achieved “zero discharge”, and at our paper plant in Apizaco, Mexico, we have achieved 35-fold water reuse rates.

Second, while it would be nice to develop an approach that serves all of an area’s water needs (commercial, industrial and household), it is also possible to think of household water access and purification as wholly or partially independent from commercial and industrial use. To go a step further, not all uses of water in a household need the same degree of purification. In fact, today in developing countries, women typically use water straight from the source for laundry and bathing but will often boil, filter or treat the water used for drinking and consumption, which is somewhere in the order of 15–20% of household water use.

Funding
WaterAid estimates that current global spending on water and sanitation is approximately US $30 billion per year, and an additional US $25 billion per year ($8 billion for water supply and $17 billion for sanitation) is needed in order to meet the UN Millennium goal for water and the proposed goal for sanitation.

Of the current investment, 17% comes from external aid, with the proportion of aid spending on water and sanitation currently in decline (Figure 3).

Only 9% of investment in the developing world comes from the international private sector, and this is concentrated in middle-income countries in Latin America and East Asia where the economies can provide some reasonable assurance of the required return on that private capital. It is interesting to note, that for the dominance in fora like this of arguing over the split of donations between public and private capital, that combined we are talking about just over one quarter of annual investment in water and sanitation. It is time for us to give our attention to where new sources of financing are going to come from.

The majority of funding, 69%, comes from the domestic public sector, but this proportion has been almost constant through the 1990s. As WaterAid has pointed out, exposure to large external debt makes large increases in public domestic funding unlikely. So, if we
cannot expect doubling of financing from the sources which make up 92% of today’s funding, where is the almost doubling of spending in the developing world on water and sanitation going to come from? By what new means are we going to bring safe water to the 12,300 people per day we must add service to if we are to meet the UN Millennium Goal?

I believe part of that answer can come from the estimated 5% of spending we have not yet talked about…the domestic private sector. Included here are water vendors, bottled water, private entrepreneurs, individual households, community managed services and public tap managers. Not only is this part of the water supply chain the most ignored, least understood and most overlooked, but service by this sector is actually used as the indicator of lack of access to safe water, in the UN data base. However, it is estimated that this sector services more than 50% of the market in most developing countries.

I am not suggesting that the consumer market is a replacement for increased spending on capital infrastructure, whether it is funded by public or private investment. To meet our global objectives of safe water, we need increased spending across the board. But even if we had enough financial resources to provide access to safe water to everyone, and we do not, how are we going to provide safe water in the years before that infrastructure is ever in place?

I am not saying that no problems exist in the domestic private sector as it exists today, whether local water sellers, bottled water, or tap managers provide the service. We know that too often this water itself is not safe, and too often it is available only at unrealistic costs. But these problems are solvable in the marketplace if other options, that provide greater value, are available as competition.

I am not here to advocate bottled water, although bottled water already is part of the consumer market that serves many of the world’s poor. In fact, my company is not in the bottled water business, but in the household point-of-use treatment of water. Today, our PuR® brand of household water treatment serves developed world consumers in North America. Tomorrow we envision serving consumers at every economic level around the world, providing them with safe water at reasonable prices for their economic situation.

The marketplace will not be a solution for everyone, as those at the bottom of the economic pyramid simply are too poor to participate in market economies. But, as we research and understand the poor, we find market economies, often only at a community level, go much further down the pyramid than we in northern developed countries have long assumed. These consumers often pay high prices for inferior products because we have not given them any other choice.

The domestic consumer market

So, with those disclaimers, why should one believe that part of the solution to close the gap to meet the UN Millennium safe water goal lies in the domestic consumer marketplace? There are numerous reasons, but the biggest is that domestic consumer water markets already exist in most areas unserved by utility infrastructure.

For many consumers in developing countries, water is already a major part of the household budget, sometimes claiming 10–20% of a family’s income.

As pointed out in a 1998 World Bank analysis, over 50% of the population in developing world cities get their water service from private entrepreneurs, not the municipal public utility. Despite claims of monopoly pricing, that same World Bank analysis found that market competition among providers held prices to a maximum of 2.5 times the utility price (and utilities did not serve many of these consumers).

Small-scale providers are often more efficient than large utilities. Their water losses are typically non-existent, with higher employee to client ratios, lower income to expense ratios, and investment costs per new customer 20–60% lower than for state utilities. Private
entrepreneurs operate profitably, and thus have already solved the social versus economic commodity conundrum that plagues public utility systems. Water utilities, whether publicly or privately owned, often do not serve poor neighborhoods because they say they cannot afford to. Small scale providers do serve these neighborhoods, and make a profit in the process.

The telecommunications digital/wireless industry has already demonstrated that decentralized solutions to human needs, in this case communications, can be provided through the marketplace. Developing countries will never copy the hard wire infrastructure of Europe, North America and Japan. In the span of a decade, wireless communications are a reality for most of the world, and we find entrepreneurs in poor developing countries becoming telecom and internet providers through kiosks and even door-to-door information search providers. Telecom prices have fallen so fast because of market competition that the survival of giant companies is in question. So, what is the parallel for safe water? Why not look to household point-of-use purification of water as a viable alternative to massive new infrastructure, particularly in rural areas, and in urban slums who will not see that infrastructure for years, even decades?

Earlier, I said that my proposal was not about business as usual. So, what needs to change if the consumer water market in lower income populations is to essentially become part of the new funding to fulfil our shared objective of halving the number of people without access to safe water by 2015? And, if I am talking about domestic consumer markets, and local entrepreneurs as the vehicle to mobilize this source of funding, then what is the role of multinational corporations like mine? Allow me to begin with that latter question first. Traditionally, large multinationals have concentrated on the one to one-and-a-half billion people at the top of the pyramid. We have designed products to serve the needs and aspirations of those top-of-pyramid consumers, mostly in developed countries, at prices deemed reasonable by them. When these products are exported to developing countries, they are typically affordable by only the wealthy in those economies. It is the bottom, not the top of the pyramid that is growing the fastest. Therefore, a different mindset is needed by multi-nationals if they are to be part of the safe water solution.

Roles for the multinational corporation

Multinational corporations must design products for the middle and bottom of the economic pyramid, products that are designed to meet the needs and aspirations of developing world consumers, and the economic realities of those marketplaces. The developing world is made up of a continuum from rich to poor, all desiring safe water and a disease-free environment for their families. Thus, at Procter & Gamble, we envision a range of products, all high quality and clinically tested for effectiveness, that will deliver clean water at a household level, to serve the realities of daily existence in different demographic groups. Multinational corporations, like Procter & Gamble, have a major role in bringing new consumer technology to these new markets. We will have to design them to deliver maximum benefit at minimum price… prices comparable to foods and products already in the budgets of poor families. We will need new means of reaching consumers we have not paid adequate attention too in the past.

It is in this area of low cost production, and new means of education and distribution to these new consumers that we will need to build new relationships and partnerships with local entrepreneurs, NGOs and governments.

To introduce new technologies, that are affordable for the populations we want to reach, we will need to bring our technologies to market through local manufacturers and entrepreneurs. We will raise the capacity of these local businesses in the areas of eco-efficiency, workplace and product quality standards. They will teach us lessons in low cost production...
and efficiency that will drive down the cost of our new products to locally affordable levels.

NGOs, particularly micro-credit institutions, will play a key role in financing the ability of local water sellers to upgrade the safety of their water, and of small vendors and markets to establish and expand their safe drinking water business.

Intergovernmental organizations, in cooperation with national ministries of health, will need to continue to do social marketing and education to build awareness of disease and health issues associated with unsafe water and lack of sanitation. These same intergovernmental institutions will need to change their existing mindset of using the consumer water market as an indicator of the lack of safe water, to one of the consumer market being one of the few new sources of financing that exists that can reach the number of additional people needed to halve those without access to safe drinking water.

National governments will play another important role, that of creating a framework of strong, equitable and effective national government that is needed to support a market-based economy, and a consumer market-based solution to the need for safe drinking water for 3 billion additional consumers between now and 2025.

Without the enforced rule of law, without the absence of corruption and bribery, without rules-based economic systems, without transparency in establishing new laws and regulations… it is almost impossible for companies like mine to successfully enter business in poor countries, and to bring new technologies to consumers there.

A consumer company has a vested interest in the improved economic status of consumers, because it is the growth in the economic well-being of those consumers that provides the potential for our own business to grow.

As we approach the World Summit on Sustainable Development, a lot of attention is being paid on how to bring prosperity to those that were left out of the last global economic expansion. Each year, the Wall Street Journal and The Heritage Foundation publish an “index of economic freedom” (made up of indicators such as trade policy, fiscal burden of government, property rights, black market activity, monetary policy, and capital flows). When that index is plotted against per capita gross domestic product, there is a remarkable correlation between low income and repressed economic freedom. Strong and effective national governance is a fundamental framework needed for sustainable development.

Conclusion

Halving the number of people without access to safe drinking water by 2015 will not be achieved without doing something new and additional to what has been accomplished over the last decade. It is time for business in general, and the consumer products industry in particular, to take on a new role to meet this objective. The consumer market place for clean water has for too long been an overlooked and ignored source of innovation, entrepreneurship, and progress. Our business future is inextricably linked to improving the lives of developing country consumers, and to the improved economic status of those consumers. Safe water, improved sanitation, and the economic growth of developing countries inextricably links opportunities to improve people’s lives in the most fundamental of ways with opportunities to assure the sustainability of our enterprises over the long term. This is a win-win opportunity that is too good to pass up.