

Theory and Evidence..

The Price of Life:

A study of the abuse of water privatization in
South Africa

by

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1: Introduction

Nothing on this planet had so forcefully hammered into here the ultimate value of water... Here there was a substance more precious than all others - it was life itself and entwined all around with symbolism and ritual.

~Frank Herbert's *Dune*

One of my favorite books is a science fiction novel named *Dune* by Frank Herbert. In the novel, Herbert created a desert world in which water is scarce. Water was life, and the protagonists of the book would hoard this resource and use it to change the face of the desert forever. The scarcity of water was a direct analogue to the scarcity of oil. His book was published in 1965. Forty years later, the fictional dimension of a story centered on the scarcity of water can hardly be considered fictional at all. In fact, the reference today can be taken quite literally.

“There will be World Wars fought over water in the future. It's a limited precious resource.”

~Peter Spillett, senior executive of Thames Water

This planet is covered 70% by water. Of that 70%, only 1% is drinkable.¹ As water demands rise, this resource's scarcity only becomes amplified. As it stands, 1 billion people still do not have access to clean drinking water and sanitation. A growing trend in the last 20 years is the entrance of private water firms taking control of this precious resource in hopes that a private sector firm can succeed where governments of developing nations have failed: provide universal access to water.

This paper explores the world of water privatization and its effects on the developing world. I take a look at South Africa's experience with privatization to answer several pressing questions.

¹ <<http://www.bslwater.com>>

How should water be treated in an economic framework? Is water privatization a viable solution to the developing world's water problems? And beyond the economic analysis, is putting a price on a vital human need like water ethical? Finding answers to these questions are of paramount importance to preparing for the future of this world's water supply, and the common pursuit of universal access to this limited and valuable resource.

2: Water Utility Industry Background

“This is the bond of water. We know the rites. A man's flesh is his own; the water belongs to the tribe.”

~Frank Herbert's *Dune*

2.1: A History of Water Utility Privatization

During the boom of industrialization at the dawn of the 20th century, water sanitation and waste services became a growing issue of concern in urban centers around the globe. Governments saw a need to promote water sanitation services as a means to promote further economic development. While the first providers of water sanitation were private, they only catered to the wealthy classes usually in urban areas. Governments increasingly assumed the responsibility for installing piped water and sewage systems with the goal of providing water for all under their jurisdiction. This statist philosophy became the predominant practice on water sanitation services. While public water service expansion was booming in North America and Europe, provision of such services lagged considerably in Asia, Latin America, and Africa.²

By the 1980s, the lag of development in those areas became an important problem on international agendas. Thus, the 1980s became known as the “International Drinking Water and

² Budds, Jessica et al. “Are the debates on water privatization missing the point? Experiences from Africa, Asia, and Latin America.” *Environment and Urbanization Vol 15 No 2*. October 2003.

Sanitation Decade”, in which there was an incredible push to expand water and sanitation networks in the developing world. This was done primarily by utilizing the public sector. However, by the end of the decade, the goal of universal provision was far from being met. Despite the developed world’s success with publicly owned and operated utilities, it soon lost popularity as a viable solution for developing nations.³

The growing unpopularity of a public sector solution can largely be attributed to the policies and philosophies of prominent world leaders of that decade, namely Prime Minister Margaret Thatcher of the United Kingdom and President Ronald Reagan of the United States. Both leaders shared very progressive free market beliefs that promoted the transfer of government owned operations to the free-market. They felt there are efficiencies to be achieved through competition in the open market that a government can not emulate.⁴

By the early 1990s, organizations like the World Bank and the International Monetary Fund adopted Thatcher and Reagan’s neo-liberalist theory on government owned enterprise and made it a matter of policy to promote privatization of public utilities in the developing world. They believe that allowing the free market to take over public utilities is an ideal way for developing nations to cut government spending and improve upon the services they used to provide. These savings and added efficiencies would promote development.⁵ While privatization as an economic policy has enjoyed an incredible boom over the last 20 years, today only 9% of the

³ Budds, Jessica et al. “Are the debates on water privatization missing the point? Experiences from Africa, Asia, and Latin America.” *Environment and Urbanization Vol 15 No 2*. October 2003.

⁴ “Thatcherism.” *BBC History*. <<http://www.bbc.co.uk/history>>

⁵ Cowen, Penelope Brook et al. “Selecting an Option for Private Sector Participation.” *The World Bank*. 1997.

world's population buys their water services from the formal private sector.⁶ However, this figure is changing very rapidly.

2.2: The Private Water Industry Today

While the majority of the world's water utilities are still municipally owned, there are many publicly owned and traded water utility companies around the world. Today, 545 million people get their water from the private sector. There has been massive consolidation in the industry towards the end of the 1990s. For example, in the United States, before the consolidations of the '90s there were 23 publicly traded water firms. Today there are only eleven operating in the US.⁷ Several of these firms were bought by what is considered the Big 3 firms of the industry:

1. Suez- Suez is a large multinational company specializing in water, electricity, and natural gas services and production. Worldwide, Suez serves over 117 million people with water and enjoys annual revenues of 41 billion Euros. Suez is headquartered in France.⁸ They currently have privatization contracts in South Africa, including one for serving the city of Johannesburg.⁹

2. Veolia Environment- Also a French company, Veolia specializes in water, waste management, energy, and transport services. In 2003, Veolia Environment was spun off from Vivendi Universal, a massive French conglomerate known for their holdings in the media industry including Universal Studios. Veolia serves 108 million people with water and brought in revenues of 25 billion Euros in 2005.¹⁰ They also have water contracts in South Africa.¹¹

⁶ Mason's

⁷ Winter, Tim et al. "Water Utility Industry Update." *A.G. Edwards & Sons*. 25 January 2006.

⁸ "Suez 2005 Annual Report." Suez. <<http://www.suez.com>>

⁹ CBC

¹⁰ "2004 Annual Report." Veolia Environment. <<http://www.veoliaenvironment.com>>

¹¹ CBC

3. RWE- RWE is a German public utility and electric power firm. Using its major water subsidiary, Thames Water of the UK, RWE serves 69 million people worldwide with water. RWE is the world's 78th largest corporation with revenues of \$50.9 billion.¹² Thames water currently has no presence in South Africa.¹³

There is a huge incentive for these private multinationals to expand and acquire municipal water utilities. The global water industry is valued as a \$500 billion a year market, and is expected to grow to \$3 trillion in the near future. This prompts these firms to seek contracts in both the developed and developing world, and for good reason. In the water industry, once a locale has chosen its supplier, the barrier to entry in that market becomes impenetrable. Evidence of this expansion is easily seen. In 1990, the private water industry was isolated to 12 nations worldwide. Today, these firms have operations in over 60 countries.¹⁴

3: The Privatization Debate

Heaven must be the sound of running water.

~Frank Herbert's *Dune*

3.1: Economic Theory Applied to Water: Economic vs. Public Good?

At the very root of the debate on water privatization is how to categorize water in an economic framework. Water as an economic good justifies the for-profit industry of private water services. However, water defined as a public good discourages private sector provision of such goods due to its necessity to life.

¹² "Annual Report 2005." RWE. <<http://www.rwe.com>>

¹³ *Thames Water*. <<http://www.rwe.com>>

¹⁴ Marsden, Bill. "Cholera and the Age of the Water Barons." *The Center for Public Integrity*. 2003.

3.1.1: Water as a Public Good

The *Penguin Dictionary of Economics* defines a “public good” to be:

- **non-rivalrous** – one person’s use does not deprive others from using it
- **non-excludable** – if one person consumes, it is impossible to restrict others from consuming
- **non-rejectable** – individuals cannot abstain from consumption even if they wish to¹⁵

It is easy to understand how water complies with these three maxims. Water is naturally available to everyone and consumption is not naturally restricted. The strongest argument for water as a public good lies within the third maxim: water is absolutely vital to life. No one can abstain from consuming water because it is life sustaining.

Private companies fail at providing public goods because, once the good is produced, the good benefits the public at large and can not be sold to or used by individuals. It becomes an unprofitable enterprise.¹⁶ This again supports the argument for nationalization of water as a public good, to be subsidized by the government to assure access to all.

Furthering the case for water as a public good is the clear public benefits of water sanitation. Not only does water sustain life, but access to clean water and sanitary water waste services prevents the spread of infectious diseases. If a household is paying for clean water services, but their neighbor is unable to pay and contracts water borne disease, the first neighbor who pays for the benefit of clean water is still at risk and therefore deprived of that benefit. It is this argument

¹⁵ Baxter, RE et al. *The Penguin Dictionary of Economics*. 1987.

¹⁶ Budds, Jessica et al. “Are the debates on water privatization missing the point? Experiences from Africa, Asia, and Latin America.” *Environment and Urbanization Vol 15 No 2*. October 2003.

that drives Gordon Mcgranahan of the International Institute for Environment and Development to call the exclusion of people from access to a sanitation system already in place due to inability to pay “uneconomic”.¹⁷

3.1.2: Water as an Economic Good

The Microsoft Encarta dictionary defines an “economic good” as:

- a sellable commodity or service for which there is market demand and for which a monetary value can be determined.¹⁸

Supporters of water as an economic good point to the fact that water is ambiguous as a public good: the benefits are public, but the infrastructure is not. Clean water services are exactly that: a service. There is a cost to providing that service. Water as it occurs naturally is often not sanitary, and the process by which water is converted into safe clean drinking water is where the justification for water as a public good falls flat.¹⁹

Supporters of the economic good argument also claim that the public good philosophy is prone to promoting a culture of water waste. When the public sector provides a good for free or at a subsidized price, users tend to overuse.²⁰ Fresh water itself is very scarce, and there is enormous pressure on the earth’s fresh water supply.²¹ Fidel Peña of the International Federation of Red Cross and Red Crescent Societies (IFRC) claims that less than 3% of the earth’s water is

¹⁷ Budds, Jessica et al. “Are the debates on water privatization missing the point? Experiences from Africa, Asia, and Latin America.” *Environment and Urbanization Vol 15 No 2*. October 2003.

¹⁸ *Microsoft Encarta Dictionary*. <<http://www.microsoft.com>>

¹⁹ Martino, Renato. *A Contribution of the Delegation of the Holy See on the Occasion of the Third World Water Forum*. 2003.

²⁰ Budds, Jessica et al. “Are the debates on water privatization missing the point? Experiences from Africa, Asia, and Latin America.” *Environment and Urbanization Vol 15 No 2*. October 2003.

²¹ Postel, Sandra et al. “Dehydrating Conflict.” *Foreign Policy*. October 2001.

drinkable.²² In 1998, 28 countries were experiencing water scarcity and stress. By 2025, that number will double to 56. A country is considered to be water scarce if their supply is less than 1000 cubic meters per person per year.²³ The need for water efficiency is there, and supporters for the economic good argument claim that water sold on a free market would promote water efficiency and highest value use.²⁴

In 1992, 500 representatives from 100 countries from both governmental and nongovernmental organizations attended the International Conference on Water and the Environment in Dublin, Ireland. At this conference, they drafted a water philosophy outlined in the Dublin Water Principles. The Principles clearly agree with the scarcity argument:

“Water has an economic value in all its competing uses and should be recognized as an economic good. Within this principle, it is vital to recognize first the basic right of all human beings to have access to clean water and sanitation at an affordable price. Past failure to recognize the economic value of water has led to wasteful and environmentally damaging uses of the resource. Managing water as an economic good is an important way of achieving efficient and equitable use, and of encouraging conservation and protection of water resources.”²⁵

This raises a number of questions. How do you value water services? And what is an affordable price? Under the economic good argument, the price of water is directly affected by the cost of providing the service. The cost borne by the supplier is the cost of the benefit enjoyed by the consumer. The cost of water services however is not an inexpensive one. The installation of a water infrastructure (piping and facilities) can be a very costly venture which can force the price

²² “IFRC: keeping water issues in the public eye.” *Reuters*. April 2003.

²³ Shiva, Vandana. *Water Wars*. 2002.

²⁴ Bakker, Karen. “From archipelago to network: urbanization and water privatization in the South.” *Geographical Journal*. 2003.

²⁵ *The Dublin Statement on Water and Sustainable Development*.

of water to be unaffordable to many. Proponents of the public good argument claim that value can not be placed on water because it is a vital need.

3.2: Privatization vs. Nationalization: What are the tradeoffs?

Clarissa Brocklehurst of the Public Private Infrastructure Advisory Facility and Water and Sanitation Programme in Washington DC feels privatization is the ideal way to manage water services because “publicly run utilities in developing countries have been singularly unsuccessful in providing reliable water supply and sanitation.”²⁶ This is the common justification for privatization shared by the private sector and global financing organizations like the World Bank. There are three primary reasons why developing States fail in providing water services: funding, cyclicalities of government and corruption, and lack of specialized knowledge.²⁷

The first reason, funding, is self explanatory. It is quite often the case that the reason why a water infrastructure is underdeveloped is lack of funds held by the government or too much external debt. There is not sufficient capital in the developing world to support water service expansion. International private firms have the knowledge to use available capital more efficiently which is a start to better servicing the water needs of a nation.²⁸

Cyclicalities of government and corruption is lumped together since they often work hand in hand when it comes to public water utility management. When governments change because of a new election or other related event, leaders in developing nations have a tendency to hire their friends

²⁶ Brocklehurst, Clarissa. *New designs for Water and Sanitation Transactions: Making Private Sector Participation Work for the Poor*. 2002.

²⁷ Budds, Jessica et al. “Are the debates on water privatization missing the point? Experiences from Africa, Asia, and Latin America.” *Environment and Urbanization Vol 15 No 2*. October 2003.

²⁸ Ibid.

and supporters to important government positions, including that held within the public utility sector. They often lack background in the water utility area and are often not in office long enough to manage the enterprise efficiently before their term ends.²⁹

Even in developing nations that do not have a cyclical government, lack of specialized knowledge can plague the public water utility. Water services are not the primary business of a government, and this lack of specialization gives rise to inefficiencies borne by lack of specialized knowledge. All of these reasons for failure result in lacking funds for an unnecessarily expensive and inefficient enterprise.³⁰

A private company that can provide specialized industry know-how does not suffer from the same level of cyclicity as some governments, and they have the ability to invest their capital efficiently. However, the free market model to privatization comes with its fair share of problems.

One of the major economic problems with the private water and sanitation industry is that it creates natural monopolies in their markets. Investopedia.com defines a “natural monopoly” to exist when maximum efficiency of production and distribution in an industry is maximized with one supplier.³¹ This is easy to understand in a water framework. For example, it is not economically efficient to have two water systems including purification plants and piping serving the same city when it can be done just as well and much less costly with one supplier.

²⁹ Budds, Jessica et al. “Are the debates on water privatization missing the point? Experiences from Africa, Asia, and Latin America.” *Environment and Urbanization Vol 15 No 2*. October 2003.

³⁰ Ibid.

³¹ *Investopedia*. <<http://www.investopedia.com>>

So there is a solid barrier to entry. Once a water company has been contracted to serve a specific area, it has a natural monopoly on that area. What this means for the consumer is that they have no feasible alternative for where they get their water. Since there is no competition for the supplier, this causes the monopolist to overcharge and provide an inferior service.³² Does this contradict the argument that private enterprise would bring cost efficiency and therefore price efficiency to the market? Absolutely it does.

In fact, it is not unusual to see the cost of water rise as much as 300% in a developing economy after privatization has taken place. In Subic Bay, Philippines, Biwater, a British multinational water firm, increased prices by 400%. In France, customer fees increased 150% but water quality deteriorated. In England, water rates increased by 450% and company profits increased 692%. CEO salaries increased by a staggering 708%.³³

The hikes in price were also coupled with a decrease in the quality of service. A French report stated that 5.2 million French citizens received “bacterially unacceptable water.” In England, the number of dysentery cases increased six fold. The British Medical Association condemned water privatization blaming decreasing quality of service as the cause of the dysentery outbreak. In 1998, after Suez, the French firm profiled in Section 2.2 of this paper, took over Sydney, Australia’s water system, it was contaminated with dangerous levels of giardia and cryptosporidium, intestinal parasites that can cause death in small children and people with weak immune systems. In Walkerton, Ontario, seven people died after contracting E. coli from the

³² Hall, David et al. “Public Sector Alternatives to Water Supply and Sewerage Privatization: Case Studies.” *Water Resources Development*, Vol. 16, No. 1. 2000

³³ Shiva, Vandana. *Water Wars*. 2002.

water supply shortly after Ontario's water testing facilities went private. Naturally, in developing nations, the effects of these trends tend to be worse due to inferior infrastructure and service.³⁴

Another common problem with water as a private enterprise is the private sector has the freedom to choose their markets. They often target the wealthiest population in a developing country since they are the highest users of water and can afford to pay monopolist prices. In fact there is very little incentive for a private water enterprise to service the poor.³⁵ Representatives from private water firms have implied that the poor sectors are too risky and not viable investments from a private sector viewpoint. Representatives of Veolia Water, one of the large French multinational private water firms profiled in Section 2.2, have stated that profits depend on "sufficient and assured revenues from the users of the service" which are unlikely to include poor groups.³⁶ A general manager at Biwater referring to serving the poor community has claimed that "from a social point of view these kinds of projects are viable but, unfortunately, from a private sector point of view they are not."³⁷ While governments concerned with the overall health and development of their country have a stronger incentive to provide water services to everyone in their nation, the incentive of private enterprise is maximization of profit for their shareholders. And what a profit it is. A *Fortune* magazine issued after the bubble burst on the dot.com business has claimed water to be the most profitable industry in the world.³⁸

³⁴ Shiva, Vandana. *Water Wars*. 2002.

³⁵ Budds, Jessica et al. "Are the debates on water privatization missing the point? Experiences from Africa, Asia, and Latin America." *Environment and Urbanization Vol 15 No 2*. October 2003.

³⁶ Bourbigot, Marie-Maguerite et al. "Public-private Partnership for municipal water services." *Regional Conference on the Reform of the Water Supply and Sanitation Sector in Africa, Kampala, Uganda*. 2001.

³⁷ Whiting, Richard. Quoted in *Zimbabwe Independent*. 1999.

³⁸ Shiva, Vandana. *Water Wars*. 2002.

Another problem is the use of “full cost recovery” as a method of revenue generation. Full cost recovery is the practice of transplanting the cost of water provision directly to the end consumer without any subsidies. Under most full cost recovery schemes, the price of water is uniform across all income classes. The user is charged a set rate based upon their water usage.³⁹ This naturally causes inequity to the amount of water people have access to. The philosophy of full cost recovery is not an unethical one from the viewpoint of private enterprise: they have the right as a business to recoup their costs, or otherwise, their business would falter. However, when applied to the developing world and their water, it causes obvious complications.

If the populace can not afford the burden of the water firm’s costs, they do not get their water. This causes an awful domino effect. The less people can pay for their water, the higher the price of water must be per customer in order to recoup costs. The higher prices rise, the fewer the number of customers that can afford to pay. In the water business, the majority of costs are fixed in building and expanding facilities and coverage area. The marginal cost of serving one more customer is small in comparison. This is what causes the rising prices as customer level tapers off.

Water service does not have to be an all or nothing game where there is only one level of service. It can be structured so that some levels of service are inferior and therefore less expensive than others, although this practice is rare due to its very sensitive nature. It is a clear symbol created by the water firm that the people with wealth have more right to clean water than the poor. This is socially unacceptable. Private firms realize this, so they steer clear of creating levels of

³⁹ Saleth, Maria. “Water Pricing: Potential and Problems.” *International Food Policy Research Institute*. October 2001.

service. In Johannesburg, South Africa, for example, the history of segregation between the wealthy White population and the majority poor Black population make varying levels of service inappropriate. Therefore, immense opposition grew against the installation of stand pipes, communal water apparatuses (generally one per small town), and a sanitation plan based on using pit latrines in low-income areas of Johannesburg. For this reason, the water plans were completely restructured and proved to be far more costly to the low-income customer.⁴⁰

3.3: How privatization spreads

The life sustaining qualities of water is the leading philosophy of international bodies promoting the delivery of water to every human being. However, most of those organizations are ambiguous in defining whether or not they believe water is a public good that should not be sold on the market, or whether water is an economic commodity. In 2002, the United Nations Committee on Economic, Cultural and Social Rights issued a general comment stating: “The human right to water entitles everyone to sufficient, affordable, physically accessible, safe and acceptable water for personal and domestic use.”⁴¹ The ambiguity comes with the use of the word “affordable” in their statement. They call access to water a human right, in line with public good philosophies, but they still imply there is an economic price to water.

The ambiguities continue in the United Nations International Covenant on Economic, Social, and Cultural Rights. Countries that have signed and ratified the covenant are required to “...take the necessary steps towards the progressive achievement of the right of everyone to an adequate

⁴⁰ Bond, Patrick. “Privatization, participation and protest in the restructuring of municipal services: grounds for opposing World Bank promotion of ‘public-private partnerships’.” *The Water Page*. 1997.

⁴¹ United Nations Economic and Social Council. “Substantive issues arising in the implementation of the international covenant on economic, social, and cultural rights.” *General Comment No 15*. 2002.

standard of living, including access to water and sanitation.” The covenant makes no recommendations on how to go about achieving that goal.⁴²

In fact there are few international organizations actively promoting the nationalization of water utilities. However, there is enormous international pressure by the World Bank to privatize. Since the World Bank made it their fundamental policy to promote privatization, they have engaged in a tactic known as conditionality. For example, if the World Bank is preparing a \$200 million dollar loan to the government of a developing country, they would attach a condition to the agreement. The condition would most likely take the form of a requirement to privatize some or all of that country’s public utilities within a specified time. Over 60% of the World Bank’s structural adjustment loans come with some conditionally clause involving privatization. It is an incredible incentive for a government to privatize. Imagine someone holding a \$200 million dollar check in front of your eyes, and all you have to do to take it is privatize your public utility which also reduces governmental costs. The World Bank justifies conditionality as an appropriate method to bring water to the poor.⁴³

Private firms are keener to admit that conditionality makes their expansion across the world easier. Yves Picaud of Veolia Africa, a former subsidiary of Vivendi Universal, admits that the World Bank’s use of conditionality is vital to their ease of entrance into the developing world.⁴⁴

⁴² United Nations Economic and Social Council. *United Nations International Covenant on Economic, Social, and Cultural Rights*. 2002.

⁴³ CBC

⁴⁴ Ibid.

The World Bank is not the only international aid agency to use conditionality in their loan agreements. The International Monetary Fund (IMF) in 2000 had privatization conditions in 12 of their 40 loans disbursed through the International Finance Corporation that year. They also came with conditions mandating the institution of “full cost recovery” policies and the elimination of subsidies. In Ghana, for example, to qualify for an IMF loan, the Ghanaian government had to succumb to water privatization pressure. As a result of the consequent private contracts and full cost recovery policies, forcing water to be sold at market rates, many households had to spend up to 50% of their income to purchase their water.⁴⁵

3.4: How the Water Privatization Process Works

There are two predominant ways privatization occurs in a country: by their own free will or by international pressure. In the developing world, an international lending organization like the World Bank and the IMF is the leading cause of water privatization. Using the aforementioned conditionality clauses, a country is often pressured into privatizing their water utility and removing subsidies as a policy. Portions of the loan are also used to further develop that nation’s water infrastructure, as it is a development loan.

Once the ball starts rolling, the country often holds an auction for the rights to their water supply. They outline the terms of the bidding process and wait for the multinational private water firms to bite. The contract often goes to the lowest bidder: the firm promising to charge the least amount for water services provided to the public. Once a company has won the contract, they perform an in depth assessment of the public water infrastructure. Based upon their findings, the

⁴⁵ Shiva, Vandana. *Water Wars*. 2002.

contract may be renegotiated. This is the point where the multinational will engage in a well known auctioning tactic known as “dive bidding.” Dive bidding is the practice of underbidding, often to an unrealistic extent, only to renegotiate the bid higher after the bid has been won. An example of this tactic in practice is with the Philippine’s auction of their water utility. Manila Water won the bid with a low bid half that of the next highest bidder, an absolutely unrealistic bid. Once the contract was theirs, they renegotiated the bid amount to a higher level, causing prices to increase in the Philippines for water service. The end result: added costs of the higher bid become the burden of the end consumer.⁴⁶

The primary causes of dive bidding are associated with how the host government outline’s their bidding process. Often times the privatization process is rushed for a number of reasons: great need for the improvement of the water infrastructure, international pressure, or some other crisis. This causes the process to be unnecessarily disorganized. The government may also be unfamiliar with the kinds of contracts being negotiated. The current public utility may be poorly run. Information on the state of the water utility may be unknown to the bidding company. All these reasons are causes for auction inefficiencies and backhanded practices like “dive bidding.” Unfortunately, these conditions exist in the nations that often need the most improvement of their public utility. Often times, the bid process is structured so poorly, that little is done to ensure the provision of water services to the poor.⁴⁷

⁴⁶ Budds, Jessica et al. “Are the debates on water privatization missing the point? Experiences from Africa, Asia, and Latin America.” *Environment and Urbanization Vol 15 No 2*. October 2003.

⁴⁷ Ibid.

4: South Africa: An Event Study of Water Privatization

"Drink all your water," Paul said. "Axiom: the best place to conserve water is in your body. It keeps your energy up. You're stronger."

~Frank Herbert's *Dune*

South Africa, the largest economy in Africa, has gone through incredible change over the last twenty years. From 1948 until 1994, the country was governed under a system of segregation known as apartheid (an Afrikaans word meaning "segregation") created by the white minority which accounted for less than 25% of the country's population.⁴⁸ There was a stark difference in the quality of life between the white minority and the black majority. Very few countries had a larger divide of wealth between two racial groups than in South Africa. The white minority enjoyed high incomes, sanitation, and any other luxury one would be accustomed to in a first world nation. The black majority often lived on very meager incomes in settlements known as 'townships' which resemble third world slums.

There were harshly enforced segregation laws separating the country into four racial groups: Whites, Indian, Coloured, and Black. Towards the end of the 1980s, resistance grew to a breaking point. Largely due to international pressure from the United Nations and the United States, the apartheid system came to an end, and for the first time the country's black majority had the right to vote for their own leader. The African National Congress (ANC), the forefront opposition group to the apartheid system, won the first free election in South Africa in 1994, electing Nelson Mandela as the country's new President.⁴⁹

⁴⁸ *Primary Tables South Africa*. Statistics South Africa. 2001.

⁴⁹ "South Africa." *Encyclopedia Britannica*. <<http://www.britannica.com>>

The ANC's background lies heavily in Marxist and Socialist philosophies. Many of the sweeping changes the ANC proposed were socialist in nature, especially when it came to government offered services. The ANC drafted a new constitution for the nation which clearly expresses its beliefs on the water issue:

Chapter 2 – Bill of Rights

Article 27

- (1) Everyone has the right to have access to:
- a. health care services, including reproductive health care;
 - b. sufficient food and water**
 - c. social security, including, if they are unable to support themselves and their dependants, appropriate social assistance.
- (2) The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realization of each of these rights.⁵⁰

Many expected sweeping socialist changes and solutions to provide many of the basic needs the very impoverished of the nation require.⁵¹

Under apartheid, water was free in most areas including the poor. Approximately 33% of the nation did not have access to clean drinking water. Under the new South African Constitution, the government is obligated to promote full water coverage, and they were committed to that goal.⁵²

However, the ANC's philosophies began to change as early as 6 months after the ANC gained power. The ANC government suddenly seemed to shift away from their socialist solutions to providing basic needs to full frontal free market solutions. Professor Patrick Bond of the University of the Witwatersrand in Johannesburg has written extensively on the World Bank and

⁵⁰ *Bill of Rights*. Constitution of the Republic of South Africa. 1996.

⁵¹ Carty, Bob. "Whose hand on the tap?" *CBC News*. February 2003.

⁵² *Ibid*.

water privatization issue in South Africa. He claims the shift in philosophy is largely due to influence and advice provided by the World Bank.⁵³

4.1: The World Bank and their history with South Africa

The World Bank has played an important role in South Africa's development for the last sixty years. South Africa officially joined the World Bank in 1945. Between 1953 and 1966, the Bank made eleven loans to the apartheid government for development projects. Four loans were for electricity utilities and the remaining seven were for improving South Africa's transportation infrastructure.⁵⁴ According to Professor Bond, the Bank sent what he called "reconnaissance missions" in the early 90s to discuss privatization and cost recovery options with the ANC.⁵⁵

By the time the ANC took over, the Bank's policies were clearly biased towards privatization. In November of 1994, six months after Nelson Mandela and the ANC took power, Junaid Ahmed, the deputy resident representative for the World Bank in South Africa, led a team of experts to draft the "Urban Infrastructure Investment Framework." The Reconstruction and Development Ministry in the office of President Mandela accepted and issued a final draft of the framework four months later. The framework called for the installation of communal stand pipes and pit latrines in impoverished areas where monthly household income was less than \$80.⁵⁶

⁵³ Pauw, Jacques. "Metered to Death: How a Water Experiment Caused Riots and a Cholera Epidemic." *The Center for Public Integrity*. February 2003.

⁵⁴ "Overview: World Bank Group South Africa." *The World Bank*. 2006.

⁵⁵ Pauw, Jacques. "Metered to Death: How a Water Experiment Caused Riots and a Cholera Epidemic." *The Center for Public Integrity*. February 2003.

⁵⁶ *Ibid.*

It was during this time of policy cooperation between the ANC and the World Bank that “full cost recovery” was introduced to the water systems of South Africa, which under apartheid were free of charge. In October of 1995, John Roome, the World Bank’s primary water expert on South Africa and Lesotho, advised Kader Asmal, the Minister of Water Affairs, to change certain policies on water. Among the changes included making a “credible threat of cutting service” to non-paying customers.⁵⁷

In 1996, the ANC’s shift from socialism to neo-liberalism was put down in writing. Total cost recovery became the official policy of the government when it adopted its Growth, Employment and Redistribution macro-economic policy, known as GEAR.⁵⁸ The policy is very fiscally conservative, cutting back on the role of the state in public affairs, fiscal restraint, and the promotion of privatization. “There was quite a dramatic change in thinking, and it started at the top,” says David McDonald, Director of Development Studies at Queens University. “People like Nelson Mandela were saying ‘privatization is the fundamental policy of our government. Call me a Thatcherite if you will.’ and his successor, Thabo Mbeki, famously said ‘I am a Thatcherite.’”⁵⁹

Michael Muller, a former Marxist, was put in charge of the free market policy and is the current director-general of the Department of Water Affairs and Forestry. He acknowledged the World Bank’s influence over the ANC’s new neo-liberalist policies. However, he also states, “The policy for cost recovery has been in place long before the World Bank was allowed to come here.

⁵⁷ Pauw, Jacques. “Metered to Death: How a Water Experiment Caused Riots and a Cholera Epidemic.” *The Center for Public Integrity*. February 2003.

⁵⁸ Ibid.

⁵⁹ Carty, Bob. “Whose hand on the tap?” *CBC News*. February 2003.

And it's an absolutely sensible way of running a water system and the way most water systems are run in the world." He goes on to justify his belief of water as an economic good and the inequity caused by subsidies, "It costs money to provide it and why should one half of the public pay for the other half to have vast quantities of water to use. If people don't pay for it, eventually the municipalities will go bankrupt. And if that is the case it means if you provide free full services to some you are actually taking away basic services from others."⁶⁰ Professor Bond feels differently about the cost recovery issue. He says, "Much of the cost recovery to date in South Africa has been driven by a blind faith in neo-liberalism. There has been no effort to explore alternatives."⁶¹

The numeric evidence seems to back Professor Bond's suspicions. To date, the World Bank's portfolio of investment in South Africa has grown to \$229 million dollars. South Africa is the Bank's second largest portfolio in Africa after Nigeria. As of February 2005, there were 8 World Bank funded projects underway in the country.⁶² Professor Bond strongly suspects that South Africa too has fallen to the pressures created by the World Bank's pocket book and their use of conditionality. Michael Muller contends that the World Bank has had a very positive influence on South Africa's new free-market policies, and the evidence it is working is there. "We've supplied water to over 7 million people – that's putting infrastructure in the ground and making sure it works. That's quite good progress," states Mr. Muller. Under apartheid, 33% of the population did not have access to drinking water. Today, it is half that figure. Unfortunately for

⁶⁰ Carty, Bob. "Whose hand on the tap?" *CBC News*. February 2003.

⁶¹ Pauw, Jacques. "Metered to Death: How a Water Experiment Caused Riots and a Cholera Epidemic." *The Center for Public Integrity*. February 2003.

⁶² "Overview: World Bank Group South Africa." *The World Bank*. 2006.

South Africa, the apparent advances with the water issue came with many drawbacks. The issue is much more complicated than it seems.⁶³

4.2: The Battle between the Private Sector and the Poor

The natural evolution after the implementation of GEAR was the entrance of large water multinationals to take control of South Africa's water. The two largest investors into South Africa's water supply is Vivendi Universal (now Veolia Environment)⁶⁴ and Suez⁶⁵, two of the largest water firms in the world based in France. While these firms have made their mark in the urban centers of South Africa, many of the municipal water utilities have been restructured to run like businesses and adopt the full cost recovery strategy.⁶⁶

This has had profound and often shocking effects on the quality of life for many poor South Africans. Once cost recovery kicked in, many poor South Africans discovered very quickly that they could not afford to pay for their water. In Ngwelezane, a South African town of approximately 30,000 working class people, 80% of the population gets their water from communal standpipes. Water there was free until 1997. After their supply was privatized, many could not make bill payments. Once the utility realized people were not paying their water bills, they instituted a pre-paid meter system which became a common practice across the privatized regions of South Africa. How the meter system works seems simple enough: people will buy prepaid water cards. They slip their card into the standpipe meter and water would flow. Once the card ran out of credit or the card was removed, the water would stop. Often, these meters

⁶³ Carty, Bob. "Whose hand on the tap?" *CBC News*. February 2003.

⁶⁴ Ibid.

⁶⁵ Jeter, John. "South Africa's Driest Season." *Mother Jones*. 2002.

⁶⁶ Carty, Bob. "Whose hand on the tap?" *CBC News*. February 2003.

would break down and when a card was inserted, water would not come out, and the user would lose their credit on the card in the process.⁶⁷

David Hemson, a field researcher with the government's Human Science Research Council, calls the water meter "the most insidious device." He says it creates a self imposed cut off. People started to ration out how much water they could afford that month, but that would in no way translate into enough water they need to lead a healthy lifestyle. No money means no access to water. This kind of system benefited the municipalities and the private sector because it eliminated the hassles and costs of collecting debts. It also deflected bad publicity on the utility because the prepaid system meant they did not have to cut anyone off from water personally. It came down to the simple issue of 'if you can pay, you can buy water.'⁶⁸

Homes in the region that were lucky enough to have running pipes leading to their homes did not escape the prepaid system either. Homes that did not or could not pay for their water usage had locks put on their meters by the water utility. In a town on the outskirts of Cape Town, a two van convoy is a common sight since privatization took place in their community. The first truck of the convoy is for the workers from the local utility. The second van in the convoy is there for their protection, complete with armed guards. This convoy is tasked with turning off the water supply to people who can not pay their water bills.⁶⁹ The guards are a testament to the growing animosity towards the South African government and the private firms who they blame for charging too much for such an essential resource.

⁶⁷ Carty, Bob. "Whose hand on the tap?" *CBC News*. February 2003.

⁶⁸ Ibid.

⁶⁹ Ibid.

It is astounding how often water access has been shut off to the people of South Africa. A 2001 estimate made by a team led by David McDonald, Director of Development Studies at Queens University, estimated that as many as 10,000,000 people have at some point had their water shut off. That is approximately 25% of the population of South Africa.⁷⁰ Some of the shut offs were short term, but for many, the water was turned off for months on end.

Cecilia Davis is a resident of another town outside Cape Town. After her local utility was privatized, the cost of her water increased 300%. She could not pay the bill, so the utility shut off her water. She had gone without running water for 12 months when Bob Carty, a reporter with the CBC, interviewed her in late 2002. She now relies on the generosity of neighbors for her meager access to water. She takes one pot for breakfast, one to flush the toilet, and ten more for washing, bathing her two children, and lunch. She has absolutely no income to pay for water. Her story is similar to the stories of 60% unemployed workers in towns like these. Despite the fact that she had two sick children in her house, the city still cut off her access to water. “Before the new government, they weren’t doing these things,” says Davis. “Ever since the new government took over, all the things went wrong. And I’m very, very disappointed in the government of South Africa really. I don’t think Mr. Thabo Mbeki is a fair person. I don’t think so.”⁷¹

Another tactic employed by the private sector to regulate the water of people who can not afford to pay is the use of a device called a “trickler.” The trickler is a small device with two very tiny holes installed into the pipes of homes. Water that is run through the trickler comes out in drips.

⁷⁰ *Primary Tables South Africa*. Statistics South Africa. 2001.

⁷¹ Carty, Bob. “Whose hand on the tap?” *CBC News*. February 2003.

It takes approximately 15 minutes to fill a glass of water and up to two hours to retrieve enough water for a bath. The thought behind this tactic for the water utility is a tradeoff between the public and economic good views of water. Those who can not pay for water should not be cut off completely, but they should be restricted to minimal use. The tradeoff however does not lend itself to ensuring that each person gets enough water to sustain healthy lives.⁷²

4.3: The Culture of Non-Payment

Somewhere along the line of communication between the private water operations and the end user, there is miscommunication. Many of the people who have had their water shut off claim they do not have the money to afford expensive water bills. Representatives from the major privatization operations in South Africa do not see it that way. They claim a very strong “culture of non-payment” exists in South Africa, where users refuse to pay for their utility service because they are accustomed to not paying.

Yves Picaud, a managing director of Veolia South Africa, states that Veolia wants to expand operations in South Africa, but only after the government changes popular opinions of not paying for water. He puts the responsibility on the government for the high rates of nonpayment. “There is a culture of non-payment because during the apartheid time the ANC told the people in the townships, ‘Don’t pay anything for electricity, for water, because this comes from the white people.’ Still, this culture is there. When you don’t pay for something, you don’t care. People have to pay something, maybe very little, but something. There is also a huge responsibility

⁷² Pauw, Jacques. “Metered to Death: How a Water Experiment Caused Riots and a Cholera Epidemic.” *The Center for Public Integrity*. February 2003.

from the present government to explain that you should pay for water, you should pay for electricity. This is not the work of the private sector, this is political.”⁷³

Jacob Maroga, a managing director at Eskom, one of South Africa’s electric utilities, agrees with Picaud completely. “You will find in South Africa there exists a culture of nonpayment. There are people who have very legitimate reasons for not paying their bills, but there are many more who grew accustomed through our liberation movement to simply not paying a bill. That’s not the kind of attitude that’s constructive to building a modern, productive economy.”⁷⁴

David McDonald, Director of Development Studies at Queens University, feels there is strong quantitative evidence that discredits any claim that a culture of nonpayment exists. A countrywide study done by South Africa’s Department of Local Government showed that many utilities are charging unaffordable and unreasonably high rates for water consumption and people can not afford to pay them. A study done by the Human Sciences Research Council shows South African households earning less than 1000 Rand or \$100 (50% of the country) a month pay nearly a quarter of their income for utility bills.⁷⁵ A world bank study shows that the poor tend to stop being able to pay for utility services once bills exceed 5% of their income.⁷⁶ On average, South Africa’s poor pay 20%.⁷⁷ Inability to pay seems to be the real culture. You can not squeeze blood from a stone as David McDonald puts it.

⁷³ Carty, Bob. “Whose hand on the tap?” *CBC News*. February 2003.

⁷⁴ Jeter, John. “South Africa’s Driest Season.” *Mother Jones*. 2002.

⁷⁵ Pauw, Jacques. “Metered to Death: How a Water Experiment Caused Riots and a Cholera Epidemic.” *The Center for Public Integrity*. February 2003.

⁷⁶ “Incentive Based Subsidies.” *Public Policy for the Private Sector*. World Bank Group. 2001.

⁷⁷ Carty, Bob. “Whose hand on the tap?” *CBC News*. February 2003.

4.4: Nelspruit: A deeper look into the “culture of nonpayment”

Nelspruit is a city 3 hours east of Johannesburg. Nelspruit looks like most cities in the country; with the affluent white population living in one area and the poor black townships dotting the remainder of the region. The wealth distribution in this area is also typical of South Africa, with average annual white household income of \$13,000 and average annual black household income of \$1,200.⁷⁸

In 1999, British water company Biwater engaged in a joint venture with local Sivulkile Holdings to privatize the water system of Nelspruit for its 240,000 local residents. The cause of the privatization was a need to expand the city’s water and sewage system from the affluent white part of town to the poor townships: a project projected at \$38million in costs that the municipality could not afford. Biwater and Sivulkile Holding’s joint venture in Nelspruit was named the Greater Nelspruit Utility Company (GNUC).⁷⁹

As soon as the GNUC’s capital expenditure program started to expand the water system, water rates began to rise. The people in the townships of Nelspruit were used to paying around \$7.50 for all utility services. Soon, they were receiving bills of \$20 for their water utility service alone. This was equal to 20% of most people’s income in the townships. Very soon only 1 in 5 residents of the townships were paying their water bills. Like in other parts of the country, the GNUC began shutting off service to residents. Both parties soon became very angry.⁸⁰

⁷⁸ Pauw, Jacques. “Metered to Death: How a Water Experiment Caused Riots and a Cholera Epidemic.” *The Center for Public Integrity*. February 2003.

⁷⁹ Ibid.

⁸⁰ Ibid.

Brian Sims is the head of Biwater's operations in South Africa and a Managing Director at the GNUC. He is a very experienced water businessman. He has worked in the Philippines, Australia, and New Zealand before coming to South Africa. He claims never in his life has he witnessed such a culture of nonpayment as in the city of Nelspruit. "People simply don't pay. We are suffering massive losses." After unpaid water bills began piling up, the GNUC instructed their lawyers to pursue legal action against 796 households in the townships that owe the GNUC over \$300 in back water payments. Harold Moeng, commercial manager of the GNUC, claimed that such action was necessary to break the culture of non-payment in Nelspruit.⁸¹

It costs the GNUC \$111,000 to provide water services to Kanyamanzane, a township in Nelspruit. However, they only receive \$5,584 in revenue. They are currently owed over \$1.8 million dollars in back water bills. Sims is convinced that a "culture of nonpayment" exists in Nelspruit since their water bills are well within their income capabilities.⁸² By the numbers, he is correct. However, as previously stated in a study done by the World Bank, once the poor of the world have to spend more than 5% of their income on clean water services, they no longer become willing to pay.⁸³ Beyond 5%, the poor are forced to make tradeoffs with other essentials like food and clothing to be able to afford the cost of water. In Nelspruit, where water bills are often 20% of household income, this tradeoff effect becomes severe.

⁸¹ Pauw, Jacques. "Metered to Death: How a Water Experiment Caused Riots and a Cholera Epidemic." *The Center for Public Integrity*. February 2003.

⁸² Ibid.

⁸³ "Incentive Based Subsidies." *Public Policy for the Private Sector*. World Bank Group. 2001.

The situation reached such tension that local activists against the GNUC began threatening violence. The most prominent local leader in this dispute is Henry Nkuna, a former armed combatant for the Pan Africanist Congress. The PAC is a leftist political group promoting black empowerment and land redistribution in Africa. They masterminded many of the more violent anti-apartheid attacks on white churches, bars, and farms. They are now threatening similar attacks against the privatization program instituted by the government they helped rise to power. In a 2002 interview, Nkuna used harsh language to threaten the GNUC. “If you dare to do cost recovery in the townships, it will spark a fire. It will be something you will regret forever.” Nkuna goes on to describe that if the GNUC comes into the townships to turn off their water supply, Nkuna and his colleagues will vandalize their vehicles and beat the GNUC’s workers.⁸⁴

In 2001, the Pan Africanist Congress initiated a campaign in Nelspruit called “Operation Vulamanzi” which translates to Operation Open Water. The goal was to illegally reconnect the water supply to homes that have been shut off. To counter this, the GNUC implemented the trickler system to the debtor homes, so even if their water was illegally reconnected, their access to water would be extremely limited. In response, Nkuna proclaimed, “If they continue along this path, we will start with meetings and rallies and rolling mass action. Things can turn ugly. We will meet violence with violence.” He calls the GNUC’s tactics of cost recovery an act of war on the poor and he seems ready to provide it.⁸⁵

When it comes to the debate on the culture of non-payment, it seems more and more evident that the private firms governing the water systems in South Africa use the culture of non-payment

⁸⁴ Pauw, Jacques. “Metered to Death: How a Water Experiment Caused Riots and a Cholera Epidemic.” *The Center for Public Integrity*. February 2003.

⁸⁵ Ibid.

argument to justify their actions in trying to achieve full cost recovery. It is no secret that many firms providing water to the townships are losing money and they are working hard to come back into the black. The fact of the matter is the water rates are simply beyond the ability of the poor to pay, debunking the idea that a culture of nonpayment still exists. Nelspruit is an excellent example proving the culture of nonpayment is not the real obstacle facing the privatization campaign.

4.5: The Human Rights Effects of Privatization in South Africa

In 2000, shortly after the government began shutting off water to the homes of non-payers, South Africa experienced the largest Cholera outbreak in the nation's history. It began in the Empangeni region in the eastern part of the country and spread to seven of South Africa's nine provinces. Kwazulu-Natal, Gauteng, and Mpumalanga were among those provinces affected. Those provinces contain major urban centers and impoverished townships like Johannesburg, Pretoria, Durban, and Nelspruit. The epidemic lasted over two years.⁸⁶ By the end, more than 350,000 people were infected and 300 people had died.⁸⁷ The number of reported cases totaled more than the number of reported cases for the previous 20 years combined.⁸⁸

Was the timing of the cholera outbreak and the beginning of wide spread water shut-offs coincidence? Highly unlikely. Like 80% of diseases found in developing nations, Cholera is water borne, so the connection is quite literal.⁸⁹ Cholera is most commonly spread through the ingestion of water contaminated with the bacteria. It can not be spread from human to human. It is a very swift acting disease. The major symptom is severe dehydration resulting from severe

⁸⁶ Jeter, John. "South Africa's Driest Season." *Mother Jones*. 2002.

⁸⁷ Carty, Bob. "Whose hand on the tap?" *CBC News*. February 2003.

⁸⁸ Jeter, John. "South Africa's Driest Season." *Mother Jones*. 2002.

⁸⁹ Carty, Bob. "Whose hand on the tap?" *CBC News*. February 2003.

diarrhea. Death is caused by circulatory volume shock: a condition caused when the body loses massive amounts of fluid and electrolytes in a short period of time. Death from cholera can occur within hours after dehydration occurs.⁹⁰ In the hot South African climate, many victims lost their lives after a day or two following contraction of the disease.

The connection between the shut off of water supplies and the cholera outbreak is rather simple. What happens is that once a community is cut off from their water supply, many poor turn to rivers, streams, and even open pits for water to use for bathing, drinking, cooking, and cleaning. Many of these water sources are polluted havens for bacteria. Even clean water sources became polluted once poor South Africans started using these water sources for their own personal waste. Because of the vast volumes of South Africans unable to pay for water, the epidemic spread very quickly – much too quickly for South Africa’s infrastructure to be able to handle.⁹¹

In the Empangeni region where the epidemic began, local hospitals had to set up 14 large makeshift hydration centers in tents to accommodate all of the cholera cases. Local medics worked in these tents on 24 hour shifts in a futile attempt to keep pace with the spread of the disease. Once the municipalities ran short of ambulances, the South African government had to call on the military for help transporting patients. The military supplied their services for 6 months before transportation needs diminished to tolerable levels.⁹²

The outbreak was very costly to the South African government. In fact, controlling the epidemic cost more than it would have cost to provide the 350,000 people infected with free clean water.

⁹⁰ “Cholera.” *World Health Organization*. <<http://www.who.int/topics/cholera/en/>>

⁹¹ Carty, Bob. “Whose hand on the tap?” *CBC News*. February 2003.

⁹² Jeter, John. “South Africa’s Driest Season.” *Mother Jones*. 2002.

Mike Muller, head of the Department of Water Affairs in South Africa at the time, denies there is a connection between the country's cost recovery policy and the cholera outbreak. Had the government spent the money it used to control the epidemic on free water, the epidemic would have still occurred. He claims cholera travels down the east African coast every 20 years or so, and this outbreak was consistent with that pattern. While this pattern is generally true, it seems unusual that this outbreak infected 10 times as many people as the previous major outbreak in 1982.⁹³

Despite the government's denial, after the outbreak occurred the government instituted new policies on water. The government has enacted a law that entitles every South African to 25 liters per day of free clean water.⁹⁴ Obviously, private firms did not react too positively to this policy as it cuts deeper into their revenues adding strain to their fledgling profitability.

According to the field research of Bob Carty of the CBC, most South Africans have yet to see a drop of this promised free water due to bureaucratic opposition from private water providers.

Regardless of the government's good intentions, the damage done to their image as a result of the cholera outbreak is currently irreparable. The South African people associate cholera with the days of colonialism and not the new free South Africa. Today, a more accurate association is made with cost recovery, a system now considered by many South Africans to be as backwards as colonialism and apartheid.

⁹³ Carty, Bob. "Whose hand on the tap?" *CBC News*. February 2003.

⁹⁴ Jeter, John. "South Africa's Driest Season." *Mother Jones*. 2002.

Since the end of 2002, cholera has been under control thanks largely to South Africans being more careful about their consumption of water. People of the Empangeni region who can not afford water services still retrieve their water from the same polluted rivers and lakes.⁹⁵

4.6: South Africa's Grassroots Solution: The Play Pump

In the many parts of South Africa that have yet to be privatized and do not have any water infrastructure to speak of, the only source of water is often old wells and standpipes. These sources pose the same risk of disease as the lakes and streams responsible for starting the Cholera outbreak in 2000. The standpipes in rural areas are often few and far between, and many break down. Many poor South Africans must walk 5 miles on average to the nearest pump, and laboriously crank the pump to get the water they need.⁹⁶

One man named Trevor Field, an ex-advertising executive and native South African, teamed up with an engineer to develop a revolutionary idea about water delivery to the rural poor. They designed a contraption called the play pump. The design is simple. They install a pump deep into underground wells of fresh clean water. The pump is operated by a child's merry-go-round that can pump 400 gallons an hour. Kids can play on the merry go round and at the same time pump fresh drinking water into a nearby water tower with a capacity of roughly 700 gallons. The water can then be accessed from a tap that easily delivers fresh clean water. Mr. Field's expertise in advertising also went a long way in ensuring the future success of these pumps. On the water towers, he sells advertising space to pay for the pump's maintenance. Often times the advertisements focus on AIDS awareness. The best part of this grassroots solution is that it only

⁹⁵ Jeter, John. "South Africa's Driest Season." *Mother Jones*. 2002.

⁹⁶ "Frontline: The Play Pump." *PBS Frontline-World*.

costs \$7,000 per pump to install and a team of seven people can get a pump installed in less than a day.⁹⁷

To date, Mr. Field has installed over 650 pumps across rural South Africa. Each pump can service a population of 2,500. That's 1,625,000 more people that have free access to clean drinking water across the country.⁹⁸ In the scheme of the water needs of the country, it's a small solution, but a very important one. It stands as proof that there exists a system that can provide free access to clean water.

5: The Water War: A Worst Case Scenario, a “Third Way”

Blood is thicker than water, but politics are thicker than blood.

~Frank Herbert's *Dune*

Despite the millions of water shut-offs and the massive Cholera epidemic, protests in South Africa have largely been nonviolent and rarely had to involve South African authorities. How much more can the populace take of this now nine year brewing cauldron? An incident in Cochabamba, Bolivia in 2000 provides a chilling forecast of what can potentially occur in provinces across South Africa, especially regions on the brink of violence like Nelspruit.

I take a look at Bolivia's experience with privatization largely due to the commonalities between how privatization was implemented and the subsequent consequences of that action. However, the experience in Cochabamba soon became far more appalling than what has been seen in South Africa to date and stands as a powerful foreshadow of what may be to come.

⁹⁷ “Frontline: The Play Pump.” *PBS Frontline-World*.

⁹⁸ “Our Progress, Our Future.” *The Play Pumps Solution*. <<http://www.playpumps.org>>

Like South Africa, the pressure for Bolivia to privatize came from international monetary lenders, in this case the International Monetary Fund. The IMF approved a \$138 million dollar loan to the country to help control inflation and foster economic growth. Similar to the World Bank's conditionality clauses, the IMF included certain mandatory "structural reforms" for Bolivia to implement in order to fully qualify for the loan. In the press release released by the IMF on September 18th 1998, they stated that "The government [of Bolivia] plans to privatize all remaining public enterprises..." which includes the Cochabamba local government owned water agency SEMAPA.⁹⁹

The World Bank also did its part to shape Bolivia's national policies. In a report prepared by the World Bank entitled the *Bolivia Public Expenditure Review*, the water utility in Cochabamba is referred to directly. It states that "no subsidies should be given to ameliorate the increase in water tariffs in Cochabamba."¹⁰⁰ This reflects the same position the Bank took on South Africa's subsidy policies. The document itself does not explain the reasons for the Bank's recommendation, but based on past communiqués from the World Bank, their position on subsidies is that it promotes wastefulness: something a water scarce or impoverished community can not afford. They also support the idea that government subsidies endanger inflation control, debt reduction, and foreign investment.

Like South Africa and many other nations around the globe that have accepted conditional loans from the IMF and the World Bank, the Bolivian government sold SEMAPA, Cochabamba's

⁹⁹ "IMF Approves Three-Year Arrangement Under ESAF for Bolivia." Press Release No. 98/41 International Monetary Fund. September 1998.

¹⁰⁰ *Bolivia Public Expenditure Review*. The World Bank. 1999.

water utility, at auction to the lowest bidder. The lowest bidder in this auction was an American engineering company that had recently found its way into the water business. This company was Bechtel based in San Francisco. Not only were they the lowest bidder; they were the only bidder. They took control of the water utility under the name Aguas del Tunari in October 1999. The government signed a 60 year contract worth \$2.5 billion dollars with Aguas del Tunari and subsequently legalizes water privatization.¹⁰¹ The new law known as Law 2029 institutes the full cost recovery structure into the private water enterprise, exactly the same policy private water companies in South Africa operate under.¹⁰²

By January 2000, prices for water in Cochabamba had risen considerably. Aguas del Tunari had estimated water prices would increase by 35% to fund the capital investment needed to expand the network. However, for many poor in Cochabamba, water bills often rose as much as 200%. Families that were making \$80 per month suddenly had to pay \$20 to acquire the necessarily water to live healthy lives. That is 25% of income, and similar to the payment burdens felt by the poor of South Africa.¹⁰³

The people of Cochabamba soon organized and began staging peaceful protests urging the Bolivian government to oust Aguas del Tunari. Protestors marched in such vast numbers that they created roadblocks around the city effectively shutting the city down for four consecutive

¹⁰¹ Finnegan, William. "Leasing the Rain." *The New Yorker*. 2002.

¹⁰² Slattery, Kathleen. "What Went Wrong? Lessons from Cochabamba, Manila, Beunos Aires, and Atlanta." *Water and Wastewater Annual Privatization Report*. 2003.

¹⁰³ Finnegan, William. "Leasing the Rain." *The New Yorker*. 2002.

days. By the following month, protestors had organized under the name “The Coalition for the Defense of Water and Life” (La Coordinadora) led by local activist Oscar Olivera.¹⁰⁴

On February 4th 2000, the similarities shared between South Africa’s and Bolivia’s experience with privatization ends and our worst case scenario begins. Disappointed with the government’s inaction against Aguas del Tunari, the protestors led by Olivera marched on the city’s main plaza in a peaceful demonstration. Unfortunately, violence broke out and for two days protestors battled with Cochabamba’s riot police using tear gas to try to control the crowd. By the end of the violence, 175 people were injured and 2 men were permanently blinded.¹⁰⁵

In March, with no progress made, La Coordinadora held an unofficial referendum polling 50,000 Cochabamba citizens. An overwhelming 96% stated that they wanted Aguas del Tunari out. The government ignored the referendum. Over the next month, protests gained intensity and branched out beyond the city’s borders. In April 2000, Olivera and other activist leaders were invited to meet with government officials over the protests. Police descended upon the meeting arresting the activist leaders in what Olivera called a “trap.” This was the straw that broke the camel’s back. An all out war broke out, and the President of Bolivia, Hugo Banzer, was forced to issue a “State of Siege” in Cochabamba. A “State of Siege” is similar to martial law, allowing military and police forces to arrest without warrants, set curfews, and restrict travel.¹⁰⁶

Within days, six protestors were killed by Bolivian authorities including a 17 year old boy, dozens of people were injured, and Police forces mutiny in several municipalities across the

¹⁰⁴ Finnegan, William. “Leasing the Rain.” *The New Yorker*. 2002.

¹⁰⁵ “Cochabamba Water Revolt.” *Frontline World*. PBS. 2002.

¹⁰⁶ *Ibid.*

country; the government was losing control of the situation very fast. Seemingly left with no other option, the Bolivian government signed an agreement with Olivera promising the withdrawal of Aguas del Tunari and the repeal of water privatization legislation.

Bechtel was not very keen on leaving, but did so anyway. Soon after, Bechtel pursued a \$25 million dollar lawsuit against the government of Bolivia for lost investments and possible future profits due to the breach of their bilateral investment treaty.¹⁰⁷

While Bolivia was locked up in the contract dispute with Bechtel, there was no organization providing Cochabamba with water. Control of SEMAPA was given to La Coordinadora and the workers of the public utility with the help of La Coordinadora began supplying water themselves. This was the spawn of a third way to operate the water utility. La Coordinadora held public meetings to determine need and develop a supply strategy. Prices were lowered, new tanks were built, and the service area began expanding. The group also formed new funding proposals to attract investment.¹⁰⁸

The new venture is not without its problems, as heavy investment is still needed. However, this public/government partnership with the full support and inclusion of the community is proving to be the most promising option for the people of Cochabamba. As for the dispute between Bolivia and Bechtel, the water dispute was finally settled on January 19th, 2006. Bolivia was cleared of any obligation to compensate Bechtel for its losses in Cochabamba.¹⁰⁹

¹⁰⁷ Finnegan, William. "Leasing the Rain." *The New Yorker*. 2002.

¹⁰⁸ Juhasz, Antonia. "Bolivian Water War Presents Alternative to the Globalization of Water." *International Forum on Globalization*.

¹⁰⁹ "Cochabamba Water Dispute Settled." Bechtel. January 2006. <<http://www.bechtel.com>>

6: Conclusion

"We change it... slowly but with certainty... to make it fit for human life. Our generation will not see it, nor our children nor our children's children nor the grandchildren of their children... but it will come... Open water and tall green plants and people walking freely..."

~Frank Herbert's *Dune*

In summary, the host of problems afflicting South Africa's privatization program are as follows:

1. **Country boasts poor wealth distribution-** full cost recovery can not be easily achieved where there exists a substantial population in poverty
2. **Inexperienced Government-** At the time of privatization, the South African government was not fully prepared to negotiate a contract or conduct an auction for rights to their public water systems. Nor were they adequately prepared for the host of negative effects privatization would have as proved by the Cholera epidemic of 2000.
3. **Miscommunication and misunderstanding between the private sector and the poor-** The debate on the "culture of nonpayment" is proof of poor dialogue between the poor and the private water firms. The first step for the private firms to better serve the poor is to realize the "culture of nonpayment" most likely does not exist.
4. **Lack of incentives for the private sector to focus on equity and social justice-** The very nature of a private firm is to work towards increasing returns for shareholders. When a private firm is operating in an industry vital to human need, a greater emphasis needs to be made on meeting the needs of the consumer even if it is at the cost of profit. This can only come from pressure by the government of South Africa and global rights institutions like the United Nations and ideally the World Bank and the IMF mostly responsible for promoting privatization.

Going into this research, I promised myself to keep an open mind to the debate on the privatization of water. Because of the ambiguous nature of water as a public or economic good, any standpoint is convincingly justifiable. What I have recognized is that the right solution depends on a host of conditions specific to each case. There is no panacea philosophy for what will work in every developing nation to provide fresh water to all who need it. Taking a position that privatization is the best method is mistake number one. Bearing this in mind, in the specific case of South Africa, privatization as it has been implemented will not solve the nation's water problems. Unfortunately, neither can the government, as it is still too immature to efficiently operate a water utility. What is needed is a system of delivery that conforms to the reality of what water is: a converted public good.

A converted public good as I use it is a hybrid of the economic and public views on water, recognizing that water is a public good essential to life but needs processing to be consumed safely. Therefore, water should be provided to everyone; however, a price can not be avoided. The primary element of South Africa's privatization venture that needs to be altered to allow this compromise to exist is the policy of "full cost recovery." In an environment with massively poor wealth distribution with a large population in poverty, full cost can never be effectively recovered using strict cost recovery. Subsidies in some form must be used. It is true that subsidies promote water waste, and on a planet where only 1% of its water is drinkable, water waste is unacceptable.

However, from a moral standpoint, which is more unacceptable: denying the poor access to clean water, or subsidizing their water to give them access at the risk of waste? Frankly, looking at

data on water use, the United States consumes 1677 cubic meters of water per capita per year. South Africa consumes 391 cubic meters of water per capita per year.¹¹⁰ If financing organizations and private water firms are so concerned with water waste, the waste of water in South Africa is the least of their problems.

The positive effects of privatization are clearly seen in the unprecedented expansion of the water network, but it is of no use to the people without the means to pay for it. The country needs foreign investment to continue to promote water network expansion, but it falls on the shoulders of the government to make sure the people can use it and maintain access. Organizations like the World Bank and the IMF would have to immediately cease mandating “full cost recovery” as a condition in their loan packages to allow this to happen. It was the policy of the ANC and it was the policy under apartheid to work toward water provision for all. The ANC must be allowed to revert back to that policy.

All 191 members of the United Nations have committed to the Millennium Development Goals which aims to reduce the number of people living without water and sanitation by 50% by 2015. That means in the next 10 years, the governments of the world must bring water to 500,000,000 people.¹¹¹ Not an easy goal to achieve. This is why understanding how to best bring water to the developing world is so important now, and it is obvious that the methods employed to do so is currently flawed. Stories like those told about South Africa in this paper have and are occurring all over the world. Some ventures in privatization have succeeded while others have endured colossal failure. Using examples like South Africa to further the debate on water privatization

¹¹⁰ Postel, Sandra et al. “Dehydrating Conflict.” *Foreign Policy*. October 2001.

¹¹¹ Budds, Jessica et al. “Are the debates on water privatization missing the point? Experiences from Africa, Asia, and Latin America.” *Environment and Urbanization Vol 15 No 2*. October 2003.

towards a more ideal “best practices” philosophy is a start to ensure future success. In the words of Bricks Makolo and Metolina Mthembu, two South African citizens, “Privatization is a new kind of apartheid – apartheid separated whites from blacks; privatization separates the rich from the poor.” “If only we could get our water, then we would be truly free.”