

“ The world cannot increase its fresh water supply: all it can do is change the way it uses it ”

“ Water is not running out, there is just simply more of us to share it ”

- Kirby, Alex. BBC News Online Environmental Correspondent

I never run out of water when I take a shower, what's the big deal????

That is exactly the issue; some people in the world can take 20 minute showers, while some people don't have enough water to make it through the day. There is a water access disparity in the world between the rich and poor. In fact, people in richer countries use about ten times more water than those in poorer countries. Although fresh water is a plentiful resource in our world and is always renewing it's self, there is a disparity in the access to this water. To make matters worse, as the world gets more and more populated, the disparity becomes harder to close since there are more people to take a slice of the fresh water pie.

This memo aims to inform activists and policy makers who can influence foreign policy. By influencing and informing local activists and political figures in communities, the issue will snow ball effect and will grow to become an important issue in foreign policy decisions. The hope is that more money could be diverted to building and funding plans to increase fresh water access to underdeveloped countries.

Okay, so there is a disparity, does it really matter if I take a 5 minute shower or a 20 minute one???

Domestic water use or water used in house holds, accounts for about 8 percent of fresh water use.¹ Although every bit of water saved is positive step, the problem really stems from a lack of access. Because of climate and location, some parts of the world acquire less water then others. In many parts of the world, there is a rainy season and a dry season. In the rainy season, water comes all at once and is hard to utilize. In the dry season, there are long droughts leaving people waterless for many days. One might think that it would be logical to just save all of the water that comes heavily in the rainy season, but this is easier said then done. Many underdeveloped countries don't have the money or infrastructure to utilize and preserve such water. For instance, without money and infrastructure, a severe storm might cause flash flooding in a village which will cause a lot of damage before it soaks into the earth or into a water passage. With money, a village would be able to build a sewer system to divert the water into a reservoir where it could be cleaned and kept until needed. Unfortunately, many regions don't have the right tools at hand to utilize the water they are given. It isn't a supply problem, it is an access problem.

What does this mean for people in these regions???

There are two different issues stemming from the lack of access to water. Disease and death is the most immediate threat to people who lack access. A future, but also potentially dangerous issue that might arise over access to water will be warfare over water resources.

Disease and Sanitation:

Diseases stemming from the lack of suitable water, has been plaguing humans for thousands of years. In developing countries, disease from drinking water is rarely on people's minds, but in many parts of the world, people have to choose everyday between quenching a thirst, or risking disease. In fact, water-borne disease account for 80% of the illness in the developing world. These illness all stem from the fact that these regions don't have access to drinkable water. In fact, 40% (2.4 billion people) are without basic sanitation needs. Water illness is a very current and very real issue that kills about 2.1 million people every year, not to mention the ones that are barely living and are suffering day in and day out. ² Only 2.5% of the earth's water is fresh water. Fresh water has low concentrations of salt and other dissolved solids. Salt water has high levels of salt, and absorbs moisture from plants and animals that drink it. ¹

Potential for War:

Oil is a natural resource that has caused a lot of war conflict in this world, but soon, water has the potential to become the next resource of conflict. In the Middle East, oil is the resource of money and water is the resource of life. The Egyptian president claims that his country will never go to war again, except to protect its water resource. This is not an uncommon statement in the Middle East, countries like Jordan and many others have admitted that water is the resource that they will protect with war. Oil wells run dry, but water sources don't. The issue is that people will always require the same amount of water, but there are alternative energies besides oil. People will always need water, water supply can't increase but the human population can. This is a formula that leads to worse water access problems for the future. The Nile River is the world's longest river and feeds water to nine different countries, unfortunately, these countries populations will likely double in the next 20 years creating an ever higher demand for water. ³

What can be done to improve the situation, possible solutions close the chasm?

International law doesn't do a great job defining the rules for shared resources like water. Right now there is a 'take-what-you-can-get' attitude toward water. This just won't do if water becomes a scarce resource. In many poor countries which are in desperate water situations, small amounts of aid are given to filtering and purifying water. There are straw like filters that hang like a necklace around a person's neck, when they need to drink, they simply drink from the contaminated water through the straw. There are purifying chemicals that can be added to water to make it safer to drink. These small steps have been saving many lives but it just isn't enough.

It is the duty of the more fortunate to contribute and provide assistance to those who cannot manage on their own. It is best if the wealthier countries could contribute more financially to poorer countries so that they can build infrastructure and actually utilize the water they have. Small time water purifiers and filters are good in the short term, but won't make a lasting impression. As well, it isn't enough for countries who will face future water problems to simply acknowledge that there is an issue. They must plan, organize and create policy for the future when things become tougher to handle. It is important for governments of developed

countries to realize that it is their duty to provide help to the less fortunate and close the water access chasm.

Each country has a different geographical layout so access solutions can vary for each country. But the need for money and planning is a constant throughout. Aid from the U.S and other wealthy countries should go toward funding for water access programs for underdeveloped countries. Nations need to tailor their approaches toward planning based on their geographical situations. For instance, Libya, a Northern African country has extensive under ground lakes and pockets of fresh water. Libya is embarking on a plan to tap into these pockets of water by creating a pipe line water system called the Great Man-made River. According to the Great Man-Made River Authority, eventually 6 million M³ of fresh water will be pumped from the Sahara Desert to the cities along the northern strip of Africa. There is already 4,000 km of pipe lines set down.⁴ Africa gets plenty of rain each year, but most is lost in flash floods. It is hard to control floods, especially with no money or infrastructure. Sewer systems, even primitive ones could divert flood water away from towns and into large basins where water could be purified. The Nile River has been supplying fresh water to surrounding areas for centuries, but in modern times, the populations of these surrounding countries will grow and double in the next few decades. The Nile River has the same amount of water flow down stream every year, it is the human population that is growing and creating a water shortage . Surrounding countries are going to change the way their stance toward the use of this water because there is going to be less and less for everyone as the population grows. This is a model for the world, we need to rethink about how we use and approach our use of water.

1. Kirby, Alex. Why World's Taps are Running Dry. BBC News Online Environmental Correspondent. BBC News. Last Updated Friday, 20 June, 2003. <http://news.bbc.co.uk/2/hi/science/nature/2943946.stm>
2. World Health Organization. www.who.int/
3. Darwish, Adel. Analysis: Middle East Water Wars. Writer and Commentator on the Middle East. BBC News. Last Updated Friday, 30 May, 2003 http://news.bbc.co.uk/2/hi/middle_east/2949768.stm
4. The Great Man-Made River Authority. GMRA. <http://www.gmmra.org/>

Drinkable water is a plentiful resource in this world, yet it is the source of many problems. Some in this world have access to all of the clean water they could possibly imagine, while others struggle to get enough clean water to make it through the day. There are many reasons for this water access disparity including location, wealth, infrastructure and dozens of other reasons. As time goes on, the water access chasm is harder and harder to close because there are more people who require a share of the water pie. Here are some facts about water access, supply, distribution and water sanitation and disease.

Facts About Fresh Water Access, Supply and Distribution:

- People in richer countries use an average of ten times as much water as those in poorer countries¹
- One 2.5% of the world’s water is freshwater. Of that 2.5%, 68.9% of the fresh water is currently locked in glaciers, 30.8% store under ground and only 0.3% in lakes and rivers¹
- 70% of fresh water is used for agriculture, 22% for industry and 8% for domestic use¹
 - Of the project 26,000 km³ of fresh water taken from supply for agriculture use in 2000, roughly only 19,000 km³ of it was used leaving 7,000 km³ wasted¹
 - Even more surprising is the fact that of the roughly 8,000 km³ of fresh water taken from supply in 2000, only about 1,000 km³ was used¹
- The percentage of people worldwide who have access to an improved water supply has risen from 78% in 1990 to 83% in 2004. Some 1.228 million more people have been served during these 14 years (772 million in urban and 456 million in rural areas²

	1990 - Population (thousands)						2004 - Population (thousands)								
	Total	served	unserved	% served	% house connect.		Total	served	unserved	% served	% house connect.				
Urban	2'278'809	2'171'296	107'513	(97)	95	(95)	80	>	3'113'393	2'943'665	169'728	(99)	95	(98)	78
Rural	3'000'704	1'920'890	1'079'814	(95)	64	(96)	26	>	3'275'873	2'376'812	899'061	(98)	73	(99)	30
Total	5'279'513	4'092'186	1'187'327	(96)	78	(96)	49	>	6'389'266	5'320'477	1'068'789	(99)	83	(99)	54

Facts About Water Disease and Sanitation:

- 40% of the world population (2.4 billion people) are without basic sanitation¹
- Water borne diseases are responsible for 80% of illnesses and deaths in the developing world, killing a child every eight seconds¹
- 2.1 million people die every year from diarrheal diseases (including cholera) associated with inadequate water supply, sanitation and hygiene¹

5. Kirby, Alex. Why World's Taps are Running Dry. BBC News Online Environmental Correspondent. BBC News. Last Updated Friday, 20 June, 2003. <http://news.bbc.co.uk/2/hi/science/nature/2943946.stm>
6. World Health Organization. www.who.int/

