

Global Health Issues: Lack of Water and Hypoxia

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Abstract

“Of course I wish I were in school. I want to learn to read and write.... But how can I? My mother needs me to get water.” -- Yeni Bazan, age 10, El Alto, Bolivia

One of the significant issues in global health issues is the lack of water. People are lacking basic drinking water due to several reasons. The major reason is the population growth. As the world's population increases, the water supply becomes scarcer and poverty increase too. There is also the greed of water due to the commoditization of water. Commoditization is water being controlled by the rich corporate world which makes poorer countries less likely to claim on the water, which should be their essential right. Thus, the environmental scientist claims that it is not the lack of water but the management of water. Another issue that impacts the world health problem is the lack of sufficient oxygen, which is called hypoxia. Hypoxia has been linked to downstream effect of chemical fertilizers used in agriculture and air pollution. Most issues in the world are related to poor countries, where are found in lots of deficiency areas are forward.

“The water is not good in this pond. We collect it because we have no alternative. All the animals drink from the pond as well as the community. Because of the water we are also getting different diseases.” -- Zenebech Jemel, Chobare Meno, Ethiopia

According to the dictionary.com, health refers to the general condition of body or mind in reference to soundness and vigor. Despite incredible improvements in health since 1950, there are still a number of challenges. According to Anup Shah of globalissues.org, these are a few various factors that should be considered when talking about global health:

- One billion people lack proper health care system.
- Around 11 million children under the age of 5 die from malnutrition and mostly preventable diseases, each year.
- In 2002, almost 11 million people died of infectious diseases alone (Anup, 2012).

Even though there are many factors that influence the health of individual, water shortages can be one of the most significant issues. According to author Sharon Palmer, for world's 6.6 inhabitants – a number that continues to swell- the faucet is beginning to run dry (Sharon Palmer, water of life in Peril). As the population starts to increase, the problems tend to increase. Billions of people in the world lack basic water services, and millions of people die every year from water- related diseases. According to United Nations Human Development Report, the following water problems affect half of humanity was noted:

- Some 1.1 billion people in developing countries have inadequate access to water, and 2.6 billion lack basic sanitation.
- Almost two in three people lacking access to clean water survive on less than \$2 a day, with one in three living on less than \$1 a day.
- More than 660 million people without sanitation live on less than \$2 a day, and more than 385 million on less than \$1 a day.

- Access to piped water into the household averages about 85% for the wealthiest 20% of the population, compared with 25% for the poorest 20%.
- 1.8 billion People who have access to a water source within 1 kilometer, but not in their house or yard, consume around 20 liters per day. In the United Kingdom the average person uses more than 50 liters of water a day flushing toilets (where average daily water usage is about 150 liters a day. The highest average water use in the world is in the US, at 600 liters day).
- Some 1.8 million child deaths each year as a result of diarrhea.
- The loss of 443 million school days each year from water-related illness.
- Close to half of all people in developing countries suffering at any given time from a health problem caused by water and sanitation deficits.
- Millions of women spending several hours a day collecting water.
- To these human costs can be added the massive economic waste associated with the water and sanitation deficit... The costs associated with health spending, productivity losses and labor diversions ... are greatest in some of the poorest countries. Sub-Saharan Africa loses about 5% of Growth Domestic Product, or some \$28.4 billion annually, a figure that exceeds total aid flows and debt relief to the region in 2003 (Anup, 2012).

Thus, looking at the above data, we can relate that are water shortage is a major problem with people in poorer countries and which directly related to poverty. According to dictionary.com, poverty is defined as an extent to which an individual does without resources. These resources could be financial, emotional, spiritual, natural and physical. There are various facets of poverty. Generational Poverty is being in poverty for at least two generations. However, the characteristics begin to surface much sooner. Situational poverty is a lack of resources due to a particular event i.e. death, illness, divorce etc. The author Anup Shah states following facts in

his articles “Poverty Facts and Stats” that 1.9 billion children from the developing world, there are: 640 million without adequate shelter, which are 1 in 3; 400 million with no access to safe water, which are 1 in 5; and 270 million with no access to health services, which are 1 in 7 (Anup, 2012).

The biggest factor contributing to people’s poverty seem to be the problem of managing money. A person at the poverty level seems to use money as an expression of their personality, entertainment and relationship. Contrary to that, people in the middle class or in the wealthy classes usually use their money for security. Oppression tends to be one of the major characteristics of poverty. Some blame the capitalist society for oppression whereas others blame the poor themselves. Whatever may be the cause, it seems to be a lot of research done on whether it is a personal choice or not.

Poverty due to the lack of financial resources, involves the lack of money. Emotional poverty is the disability to choose and control emotional response without engaging in self-destructive behavior. Spiritual resource is the lack of belief in a higher power. Physical Poverty is not having good physical health and mobility. Some other resources can be mental, support systems, relationships/role models and knowledge of hidden rules.

To fully understand poverty, one should be able to identify the types of poverty that people are in. We can identify the types of poverty by prevailing attitudes in a person. People in generational poverty tend to have a sense of entitlement. For example, they are participating in welfare and other free services provided by the government for longer periods of time. On the other hand, people in situational poverty seem to have pride and a refusal of charity. People in poverty only see the world in their immediate location. On the other hand, middle class people see the world in the national realm, and wealthy people think that the entire world is their

playground. For the middle class everything is about necessities, always purchasing what is needed. For people in poverty, simple tools like lack of rulers or scissors affect how children achieve in school. Other hidden rules that separate the poor from the wealthy would be their ways of social interactions. Wealthy people tend to be introduced to someone that is already accepted into a social group. But on the other hand, people in the middle/lower class tend to not introduce themselves. As far as language barriers are concerned, people in poverty use casual register, which is all about survival. People in the middle class tend to use formal register, for them, it is all about negotiations. For wealthy people, it is also a formal register; however, they use their communications for networking and negotiating. Thus, these hidden rules govern much of our immediate assessment of a person and their capabilities.

There is so much poverty going on around the world and it is causing the water supply to become scarcer every day. Usually, they are the innocent children and desperate families living in overcrowded urban slums, in refugee camps, and in poverty-stricken towns and villages too numerous to count in rural areas of developing countries around the world. Here, less than 50% of the population has access to safe drinking water and only 25% have access to sanitary systems. These rural villagers have no political power, have no visibility and have no voice in the discussion of the human right to water (overcoming, hunger, and disease with water, 2010). Even though bodies of water cover roughly two thirds of the Earth's surface, most of it is not suitable for human usage. Only 0.08% of the world's total water supply is available for consumption because a mere 2.5% of it is not salty, and two thirds of that amount is tucked away in icecaps and glaciers (Palmer). Also as the population increases, more cities are becoming urbanized and industrialized, which creating a lot of pollution. In the meanwhile, there is the greed of water in poverty thresholds. According to author Sharon Palmer, more than 260 river basins are shared by two or more countries, and without strong agreements, Trans boundary tensions arises over water

use. Indian Scientist and activist, Vandana Shiva noted in a documentary that the water crisis is a human-created crisis only in the last two or three decades. In other words, it is not that much of a water shortage crisis, but water management crisis. The main reason of the crisis is the commoditization of water. More and more corporations are controlling water as a result of pushing water as a commodity. The Vandana Shiva documentary traced the struggles of:

- A family in Bolivia living just behind a water plant, unable to afford the 9-month salary equivalent connection charge (highlighting the issue of access inequality and water access privatization).
- Poor Indian farmers in Rajasthan facing water shortages and worse because the Coca Cola company had taken so much water from nearby wells and aquifers (highlighting the issue of need versus luxury).
- Tanzanian people's struggles with water privatization and even the struggles of the poor in the world's richest country, the United States (highlighting water resource commoditization and privatization versus water as a human right with universal access) (Anup, 2012)

Nothing changes a community like providing a source of clean water for the first time. It creates a complete transformation. It has the power to actually stop the cycle of poverty. The entire community becomes healthier. For the first time, children become eager to learn while young men and women are able to work harder to produce an income and more food. Everyone can envision better futures and begin working towards them. Giving clean water to a poverty stricken community is like giving a blood transfusion to a dying man. Clean water and latrines gives people the opportunity and the dignity to lead healthy lives, pursue education, and fulfill their lives to the fullest. This leads to new potential, new hope for a better tomorrow and a new life (overcoming, hunger, and disease with water, 2010).

However, another issue in world health is the lack of sufficient oxygen to support life. According to dictionary.com, Hypoxia is the deficiency of oxygen reaching body tissue. Many blame the hypoxia on air pollution and downward effect of chemical fertilizer used in agriculture. There are five different types of Hypoxia: Hypoxic, Anemic, Hypemic, Histotoxic and Stagnant. The term hypoxia actually means deficient in oxygen.

Well according to Randolph Schmid author of hypoxia is a significant measure of the downstream effect of chemical fertilizers which is used in agriculture. Another factor that contributes to the lack of oxygen is air pollution. Schmid explains that the nitrogen from the fertilizer or pollution feeds the growth of algae in coastal waters, particularly during summer. The alga eventually dies and drains to the bottom where the organic matter decays in a process that robs the bottom waters of oxygen. These areas are detected throughout the globe. New low-oxygen areas have been reported as close as Washington's Samish Bay I Puget Sound, Oregon's Yaquina Bay in Oregon, as far as Taiwan and to China. According to buzzle.com, the major side effects to hypoxia include heart attacks, asthma, pulmonary embolism, severe head trauma, suffocation and choking. It also states that any circumstances due to which the body is deprived of oxygen can result in hypoxia. When the body does not receive the required amount of oxygen supply, it results in a low partial pressure of oxygen in the arterial blood. This leads to Hypoxic Hypoxia. The major causes for Hypoxic hypoxia are high altitude climbing, inadequate ventilation, or heart mechanism failure. It may also occur due to shunts in pulmonary circulation of the heart. The symptoms include air hunger, dizziness, severe headache, mental and muscle fatigue, nausea, hot and cold flashes, tingling, visual impairment, cyanosis, priapism, shortness of breath, seizures, coma and death in some cases. Another example of Hypoxia is called Anoxia, which result when there is no oxygen available. Also, Hypemic hypoxia is an obstruction to the ability of blood to deliver oxygen. This is caused by carbon monoxide poisoning. When the

required amount of oxygen reaching the cells is not utilized effectively due to some disorder in the cells, it causes Histotoxic Hypoxia. Histotoxic Hypoxia occurs when something obstructs the flow of the blood carrying an adequate amount of oxygen (Hypoxia: Symptoms, Causes and Treatment, 2012). It also states that Hypoxia can be a fatal condition. If someone is suffering from Hypoxia, it is important to establish the airway by assisted breathing. The individual should immediately be taken to a hospital, where the patient should be placed on a ventilator to assist in breathing. Their blood pressure and heart rate should be monitored. The patient should be kept in control with the help of fluids and medicine. Sometimes cold blankets are used to slow down the activity of brain cells and decrease the need of oxygen. This should be the first steps to treating Hypoxia, before the underlying cause is treated.

Looking at the above facts and results, we can say that although the health conditions are improving with the introduction of new technologies and inventions of new medicines, new conditions are rising more than ever to deprive the world from becoming healthy. One of the significant issues is a lack of water. People are lacking basic drinking water due to several reasons. One major reason is the population growth, which is creating poverty worldwide. Poverty is a lack of resources. Some believe that poverty is inflicted by capitalists who exploit people for profit. Others believe that it is a personal choice we make and decisions that we take that make us poor. In my view, it is about choices that we make and decisions to adhere to that make many fall into the realm of poverty or come out from it victoriously. From small things like how to use money, to significant things such as deciding on whether to get an education, can divert the directions for good or worse. As the world's population increases, the water supply becomes scarcer. There is also the greed of water due to the commoditization of water. This makes water being controlled by the rich corporate world which makes poorer countries less likely to claim on the water, which should be their basic right. Thus, the environmental scientist

claims that it is not the lack of water but it is the management of water which should be resolved. Another issue that is impacting the world's health is the lack of sufficient oxygen, named Hypoxia. Hypoxia has been linked to downstream effect of chemical fertilizers which is used in agriculture and air pollution. Hypoxia is a fatal condition. Thus, it is significant to increase our vigilance on issues that is impacting not only our corner but the globally. Climate changes have been a major issue of our time, issues like water shortages and hypoxia should be considered to be as important.

There are many issues going in the world, but as I mentioned water, oxygen and poverty are important issues that we should focus on. We as a human being could do little things in order to save our environment and protect the planet earth from these issues. We could make this planet earth as a perfect place for our kids and their future, so they could live and enjoyed their lives. We could save water by not wasting it or using only what we need. For Example, construction people should use waste water for their construction. The little things will help the scarcity of water in world. We could have fresh air by growing plants and trees, pollution and stopping those architecture industries. We also could help poverty by donating food, clothes, shelter and giving them their human rights. These are all little solutions that we could be doing to save global health issues and our planet environment.

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