

A Global Water Crisis

Christian Triebel

Term Definitions

- **Access to drinking water** means that the source is less than 1 kilometer away from its place of use and that it is possible to reliably obtain at least 20 litres per member of a household per day.
- ***Drinking water*** is water used for domestic purposes, drinking, cooking and personal hygiene

Drinking Water

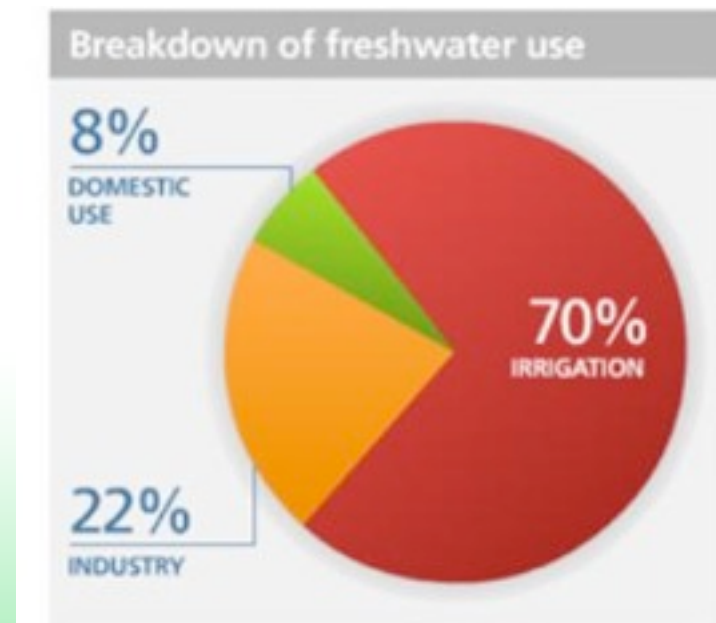
- Each person needs 20-50 liters of safe freshwater a day for drinking, cooking and cleaning.
 - More than **one in six** people worldwide - **894 million** - don't have access to this amount of safe freshwater.



Water use

By 2025, **800 million people** will experience absolute water scarcity, and **two-thirds** of the world population could be under stress conditions.

1.1 billion people have no access to any type of improved drinking source of water.



In comparison...

- On average, people in Europe use more than **200 liters**—in the United States more than **400 liters**.
- The 1.1 billion people who don't have access to drinking water only use up to **5 liters**- one-tenth of the average daily amount used in rich countries to flush toilets.

Consequences



- At the start of the 21st century un-clean water world's **second biggest killer** of children.
- **1.6 million** people die every year from diarrhoeal diseases, the leading cause of disease worldwide
 - 90% of these are children under 5
- **133 million** suffer from high intensity intestinal helminths (parasitic worms) infections
 - 1.5 million cases of clinical hepatitis A every year

Importance of Clean Water

- Essential for the prevention of disease, especially in developing nations
 - Reduce the number of insect-related disease, such as malaria, as well as air-borne diseases
 - Improve Sanitation
- Basic needs
 - Bathing
 - Drinking
 - Cooking

Water and World Poverty

- Access to clean water allows for **better absorption** and retention of vital nutrients from food
- One dollar spent on delivering clean water can generate **\$8 to \$14** in increased productivity
- Clean water = healthy livestock and crops



Students Without Water

- UNICEF estimates over **50%** of world's schools have **no access** to drinking water/sanitation
- Clean water leads to fewer water-borne diseases, which means **fewer missed classes**
- Children (esp. girls) often miss class to fetch water



Reducing Child Mortality

- **5,000 children** die each day from water/sanitation related causes
- Unclean water is the **#1 cause** of diarrheal diseases such as cholera
 - Children are most vulnerable to these diseases



Improving Maternal Health

- Carrying water can cause **spinal malformations** that make birth difficult
 - Many pregnant women collect water **until the day they give birth**
- Lack of water can aggravate **anemia** and cause fetal complications
- Safe deliveries, pre- and post-natal care are impossible without access to clean water



Combating HIV & Other Diseases

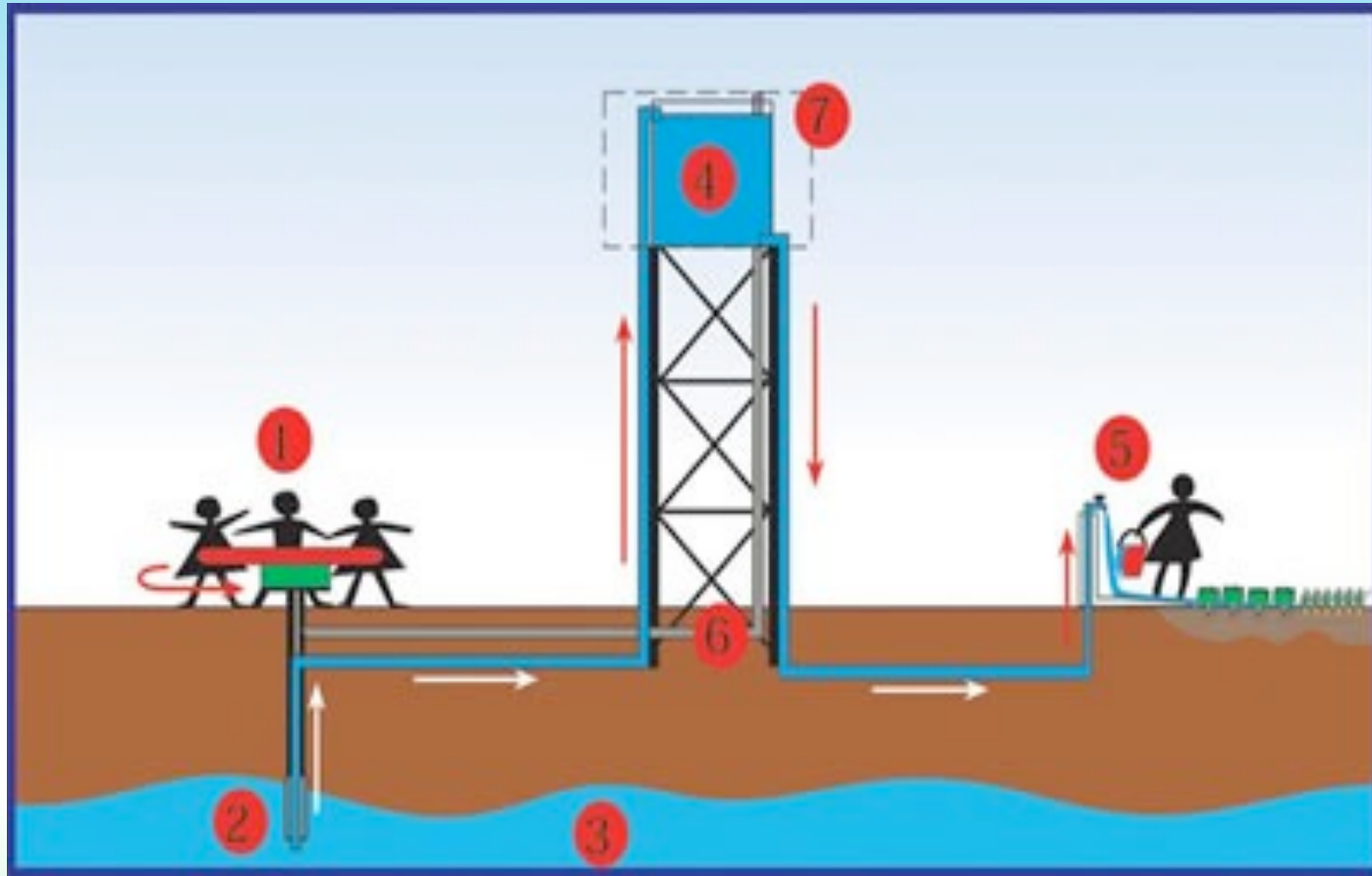
- HIV patients are vulnerable to **opportunistic infection**
 - Easily transmitted through unclean water
- Easy access to clean water
 - Prevents disease
 - Leads to faster recovery
 - Allows sick individuals more time to rest



Play Pumps International



- Innovative Product, the Play Pump.
- Works in Africa
- Incorporates access to water, promotion of education, and HIV education.



Why is water so important?

- Our economy depends on it.
- We cannot physically survive without it.

Climate Change

- Warming temperatures = less snow pack
- Snow pack serves as a natural reservoir for clean water and is essential to California's water supply
- This in turn increases the amount of rain floods , which weakens infrastructure lowers water supp.

Drought

- 2006-2007 winter was the driest in the history of California
- Sierra snowpack was the lowest in nearly 20 years
- The Colorado River Basin, a key source of water for Southern CA experienced below average run off for last 6 of 7 years.

Drought (cont)

- Governor Schwarzenegger declared drought emergencies in both Kings and Riverside counties in the summer of 2007
- The same has been declared for Fresno

Water Conservation Tips for Indoors

- Let your parents know about leaks in your house
 - Leaks are easily fixable and save you water and money
- Tell your parents about high-efficiency washers, faucets, and toilets
- Run your dishwasher or washing machine only with full loads
- Turn off the faucet when brushing or shaving
- Take shorter showers



Water Conservation Tips for Outside

- Water your lawn only when it needs it
- Water your plants earlier in the day when less can evaporate
- Plant plants and shrubs that use less water, like sunflowers, lavender, and marigolds
- Don't water the gutter
- Don't run the hose while washing your car



Water Conservation Tips for School

- Bring or use a reusable water bottle like a Nalgene instead of the drinking fountain
- Turn off the tap while washing your hands
- Pay attention to water conservation signs in bathrooms and drinking fountains
- Inform administration if there are any leaking pipes, hoses, or hydrants

