Water Conservation

The human body is made up of about 60% water. Water is a necessary part of daily lives for consumption and hygiene.

As the human population increases and changing weather patterns influence water availability, freshwater is becoming more of a scarce resource.

Did you know?

- The average person uses between 20 and 50 cubic metres of water per year, depending on whether they live in a rural or urban area and whether they have access to water at home.
- An estimated 70% of the world's freshwater is used for agriculture; the remainder is used for industrial and domestic purposes.
- Only 30% of the water used for agriculture actually ends up watering crops, the rest is often wasted.
- Poor drainage and irrigation practices have led to saline build-up in 30 million of the world's 240 million hectares of irrigated land.
- Currently there is inadequate water for the sanitation and hygiene of about 40% of the world's population.
- Bathing in polluted seas is believed to cause health problems resulting in an estimated annual global cost of US$1.6 billion.

The Issues

Scarce Availability

Although 70% of the Earth's surface is covered by water, only 2.5% of all water is freshwater.

Only 1/3 of this freshwater is accessible in lakes, reservoirs, rivers and groundwater. The remainder is frozen in glaciers, ice sheets, mountainous areas or deep within the earth.

Increasing Demand

During the last century the world population has tripled and water use has increased six-fold.

There is intense competition for water to meet the food demands of the growing world population, industrialisation and hydropower generation.

Projections of Availability

Projections indicate that by 2025 more than 2.8 billion people in 48 countries will face water stress or scarcity conditions and by 2050, at least one in four people is likely to live in countries affected by chronic or recurrent freshwater shortages.

Contamination

Urbanisation and industrialisation brings pollution to the water supply through irresponsible discharges of water.

While the majority of water used for industrial purposes is returned to the water cycle, it is often contaminated by chemicals and heavy metals.

Minerals can also leach into groundwater through the dumping of waste near waterways.

Water Borne Disease

Contaminated water can lead to the spread of disease in nearby populations through ingestion of the water and contact with skin.

More than 3 million people die each year from diseases caused by unsafe water.

Stagnant and polluted water can also encourage an increase in insects, such as malaria carrying mosquitos.

Ways to Save Water

Ways to reduce water consumption and protect waterways vary widely in different regions and countries.

Survey your area to determine ways to improve water use efficiency and to identify issues affecting your local waterways. See below for examples and ideas.

At Home

- Repair leaking taps and pipes
- Install water saving facilities such as taps, shower heads and dual-flush toilets
- Turn the tap off while brushing teeth or shaving
- Take short showers
- Use the washing machine or dishwasher only for full loads

In the Garden

- Water plants in cooler times of the day to minimize evaporation
- Capture rainwater for watering gardens
- Clean paths using a broom rather than a hose
- Use grey water* in the garden (*waste-water from showers, the laundry and kitchen)
- Plant native flora that require less watering

At School

- Incorporate water issues into environmental lessons
- Write essays and hold discussions to raise awareness
- Organise an exhibition about water conservation
- Adopt a waterway to improve the water quality and learn about the native flora and fauna

At Work

- Identify ways to save water in the production of goods
- Ensure water runoff from industry is properly treated and doesn't run into waterways
- Reuse uncontaminated water on grassy areas
- Install water saving taps and automatic timers

In the Community

- Encourage proper waste disposal to stop waste ending up in waterways
- Campaign against littering
- Hold a clean up around a waterway
- Keep waterways free of weeds
- Organise community education programs
- Plant native vegetation near waterways to help stabilise the soil, prevent erosion and to minimise water runoff which can affect water quality.

In Agriculture

- Use drip irrigation instead of flooding or spraying crops, to minimise evaporation
- Irrigate according to calculated plant requirements
- Re-use water runoff and capture rainwater for crop irrigation

Members taking action

- Prithvi Innovations in **India** organise visits to the Central Ground Water Board to show students the source of their water and to discuss water saving techniques.

- In **Kenya** the Lake Victoria Permaculture Network Initiative hold regular campaigns to remove South African water hyacinth, an invasive aquatic weed, which threatens the Lake's biodiversity.

Further Information

Earth Day - Water for Life
http://www.earthday.net/programs/currentcampaigns/waterforlife/default.aspx
Give Water a Hand
www.uwex.edu/erc/gwah
International Water and Sanitation Centre
www.irc.nl
Oz Green
www.ozgreen.org.au
Save Water
www.savewater.com.au
UNEP - Freshwater
www.unep.org/themes/freshwater/
Water Science for Schools
http://ga.water.usgs.gov/edu
World Water Council
www.worldwatercouncil.org

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