Conserve Water, Reduce your Waste

Water and water stress

Water is one of the most important basis of life.

The Municipal water supply system of Darjeeling town consists of tapping 26 springs in Senchal Wildlife Sanctuary to the twin Senchal lakes and distributed through a network of tanks and pipelines.

Issues and Problems:

- **Old System:** Almost 95% of the water distribution system were laid in 1910-1915 for a population of about 15000 (fifteen thousand). Because the pipes are old, a lot of water is lost along the way through leaks.

There must be a better way than this?

- **Increased Population:**

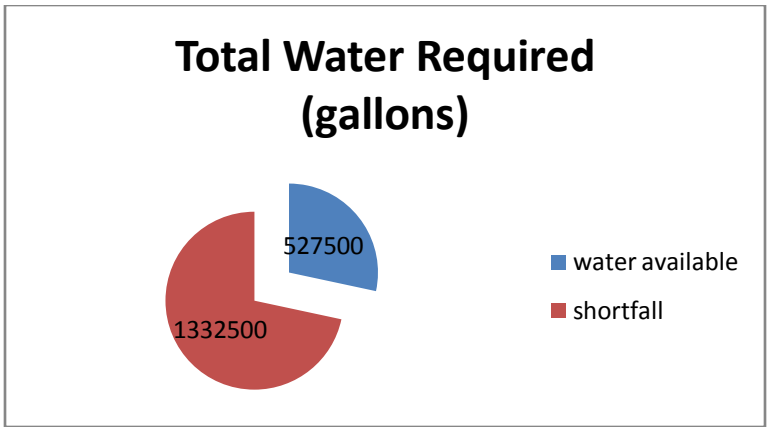
  Population today 120, 414, Darjeeling Municipality,
  132,016 Darjeeling Agglomeration
  (2011 Census http://www.census2011.co.in/census/district/1-darjiling.html).

This does not include floating populations like students, migrant workers and tourists.

The resource and space we compete or collaborate within

Time spent on water by people of Darjeeling has never been properly accounted

- **Increased Demand:**
    - Total demand for water in Darjeeling town is **1,860,000 gallons/day**
    - Water available being **527,500 gallons/day**
    - Water deficit of 1,332,500 gallons/day.



The water crisis is a result of the drastic fall in the volume of water at natural springs of catchment area due to monoculture plantations, massive felling of trees, dramatic increase in population and loss in transmission. (Darjeeling Municipality, Waterworks Department 2012).

Water stress is a potential source of conflict

The pipeline distribution does not include a large population of Darjeeling who depend on natural springs, streams and rainwater harvesting. These are under threat of contamination, effects of climate change, population rise and capture of resources.

Pollution

"***Roll down the hill*** "waste management system of Darjeeling is contaminating the landscape.

- Darjeeling produces 30 metric tonnes of waste per day which increases to 45 metric tonnes in the peak tourist season.
- ONE truck carries 2 to 2 ½ metric tonnes: That means, EVERY MONTH, 500 trucks of waste are dumped into waterways, *Jhoras,* without any segregation.

On the brink of disaster - life-giving and life-taking use of water

Traditional "***rolling down***"," ***burning***" or "***burying***" of waste does not take into account the increase in quantity and type of waste.

This is how our jhoras, waterways flow

Do we really need bottled water? its fallout.

- There is a large increase in waste with increased consumption of packaged material and increased population.
- There is an increasing amount of non-biodegradable waste like plastics, complex packaging combination like tetra-packs and even toxic waste like batteries being generated at homes.

Our waste flowing down the hill and its toxic fumes coming at us

- Toxic chemicals are being released into the atmosphere through burning and leached into the soil and waterways through dumping.
- There has been a build-up of non-degradable waste due to dumping on the land, soil and waterways. ***This build up also contributes to landslides***.

Community management and livelihoods

There are more than 32 natural springs in the Darjeeling Municipal area. (Liekel Boer, ATREE 2011).

These springs are vital to the town, especially in areas that are not serviced with municipal water supply.

***Samajs*, Community based organisations have evolved around springs**

Women and children bear the bulk of the burden of water stress

Many of these springs are managed by the Community or Samaj but in the recent years some springs have been "captured" or are restricted or owned by individuals. Community managed systems that have evolved vary. They can involve monetary subscriptions, distribution systems that vary on the time

of year and distribution based on use for drinking and washing. Systems that are further away from the Municipality supply are increasingly complex and intricate.

Management is most effective when it is community based

Religion plays an important role in its cleanliness, management and distribution.

Darjeeling has a thriving water business with trucks, hand carts, privately owned springs and retailers selling water either at points or through a web of pipes.

Trucks: The fleet of 105 trucks plies 3 to 4 trips a day with 5500 to 6500 litres of water in each trip in the months of April to June. Each truck load of water is sold at an average of Rs. 1000 per truck. During the rest of the year 60 to 65 trucks ply everyday. The water is collected from springs or rivers in the outskirts of Darjeeling at Rs. 70 per truck by the truckers. The water is sometimes sold to retailers in town too.

Pipes: Supply of water directly to homes in pipes from springs cost between Rs.700 to Rs. 1500 per month.

Water delivered on carts is an important sypply system and a source of livelihood

Carts: Water sellers collect water from spring and transport in hand held carts selling water. Each cart holds 16 or 18 *20 litre containers sold at 25 to 30 paise per litre.

Be the Change

Water is sacred and precious - Conserve

There is an urgent need to recognise the diversity of water resources in Darjeeling: Senchel Lakes, Springs, Streams and Rain-water. These precious resources are being threatened by increasing demand, over-exploitation, climate change, deforestation and population growth. All of these resources need to be conserved.

The writing on the wall is clear

The lack of proper waste management system is resulting in these precious resources getting contaminated.

You are responsible to make this a thing of the past

Water, a precious basis of life has become a threat to people living downstream and us. Raw sewage (untreated waste water) and all types of solid waste flow down our water ways which are potential health hazards with water borne diseases like typhoid, cholera, jaundice, diarrhoea and the recently reported leptospirosis. The water also contains hazardous and toxic wastes which have long term ill effect on human health.

It is time for us to take responsibility of our water resources and:

- **Conserve water resources**
- **Do not waste water - Use water sparingly**
- **Reduce, reuse and recycle your waste**
- **Segregate and compost your waste**
- **Pass on the message to others as a conscious citizen**
- **Educate your Peers**