

Topic: Water Scarcity – India's Silent Crisis

As the world celebrated Water Day, on **March 22**, to create awareness towards tackling the water crisis, India's capital city still grapples with terrible shortage of drinking water. The issue of water scarcity was first raised in the **United Nations Conference on Environment and Development held at Rio de Janeiro in 1992**. In 1993, for the first time, the United Nations General Assembly designated. Each year, the day is observed across the world with a focus on a different water-related issue. This year, **the theme for World Water Day is: "Why Waste Water?"** The member nations and UN agencies shall focus on the issue of water wastage in sharp contrast with scarcity of drinking water in many parts of the world.

Water Shortage:

India's huge population makes it very vulnerable when it comes to water shortage and scarcity. About **330 million people** in the country now suffer from **regular water shortage issues**. A dry spell causes the number of people suffering to rise sharply. Last year some 300 districts spread across 13 states including Uttar Pradesh, Maharashtra, Odisha, Bihar, Jharkhand, Andhra Pradesh, Telangana, and Madhya Pradesh suffered from an acute shortage in the supply of potable water. Trains carrying drinking water had to be sent to Latur in Maharashtra. India's economy is largely dependent on its agriculture. Water shortage and drought not only affect the rural districts but also have a **disastrous effect on inflation and economic progress**. With alarming issues like **farmer suicides surfacing**, it is time we Indians introspect and take a harder look at water wastage in the county.

Water Wastage in India:

A recent study suggests that **by 2040 there will be no drinking water** in almost all of India. By far the greatest waste occurs in electricity producing power plants, which require great amounts of water to cool them down. Between 2030 and 2040, many parts of the world will face fresh water scarcity and India is likely to be one of the worst affected countries. Contamination of fresh water sources by elimination of untreated water from factories and industries will further worsen the scenario. Wastage by urban population is already a great challenge we have set out to combat. Despite having over **18 percent of the world's population, India has only 4 percent of the total available water resources**. This is something that we need to come to terms with as we approach World Water Day this year.

Alarming Statistics:

- Per capita availability of water in India has gone down from **6,042 cubic metres in 1947 to about 1,545 cubic metres in 2011**.
- By 2050, India's burgeoning population and water scarcity will reach alarming proportions.
- Over **90 percent of the waste water discharged into rivers, lakes, and ponds** is untreated and leads to further contamination of fresh water sources.
- The greatest waste of fresh water comes from lack of adequate storage and utilisation facilities of river waters.
- India has **no desalination facilities** to use the abundant seawater resources.

Topic
Introduction

Water scarcity and drought is becoming a real world problem for many Indian cities and is going to shape the future pushing experts to revisit environmental and development policies. Drought is a climatic feature which causes serious concerns for ordinary citizens and makes daily living complicated. It is a temporary problem due to natural variability and requires disaster management experts to address this crisis that continues to build up and push civilians to the brink. While **deficient rainfall remains the chief cause** of water scarcity, the crux of the problem is also attributed to **increased water consumption due to over-population**, industrialization and casual attitude towards planning future ready cities.

Many cities like Mangaluru in Karnataka have dams which were built decades ago to address a reasonably small population which lived back then. In 2017, as urbanization has changed the outlook of the city, the city requires **newer dams, rain water harvesting** units in every ward, and a sustainable consciousness that needs to be developed on an urgent priority. Bureaucrats need to prioritize sustainable solutions, not just provide compensation to people who lose their livelihood because of a disaster like drought. **Water rationing** cannot be a long term demand-management solution which most cities perform on ad-hoc basis. Reactionary governance must immediately seize to continue as a trend. Some of the things city corporations and urban municipalities should do to address drought and also create sustainable solutions for the future are outlined below. Visionary leadership is also necessary to channel the energies rightly, leaving aside egos for the greater glory of humanity.

- 1) Every municipality should set up a **10 member domain experts group** to come out with a **road-map for addressing water scarcity** for the respective city. This should not be based on political affiliation, but merited upon the work done. Members must be from civil society organisations, academic experts, field engineers and agriculture professionals, public health experts including bureaucrats and journalists.
- 2) Maintain **standardized supply during water rationing** wherein water is provided for one and half hour in the morning between 6.00 am to 7.30 am and then for one and half hour in the evening between 7.30 pm to 9 pm daily. Skewed supply of alternate days and once in two days is inappropriate and absurd as stored water in households which go unused will again be discarded to accommodate new supply, leading to severe water wasting.
- 3) **Ground water conservation in selected catchment areas must be identified** wherever applicable and sub-catchment areas need to be built as well water scare regions.
- 4) Pass legislation where Municipalities can offer to **dig under-ground wells** for independent residences at a subsidized cost, monitored by the local corporators.
- 5) Adopt **ground water re-charge practice** and manage evaporation losses.
- 6) Water availability can be sourced by improving waste water treatment so that **water re-cycled** can be used for gardening, washing vehicles and for sewage requirement as well.
- 7) Optimize **irrigation operations** with sustainable techniques.
- 8) **Leakage reduction** in all public and private sector institutions.
- 9) Facilitate behaviour change in water consumption methods.
- 10) Use **sea-water in coastal areas** for flushing toilets through a dual reticulated municipal supply strategy.

- 11) Reduce water use in fish and sea-food processing units.
- 12) Emphasize on **drought management policy** formulation in local governing bodies.
- 13) Promote proactive disaster management through risk reduction programmes.
- 14) Safeguard public health by ensuring **optimum clean drinking water and hygienic sanitation** measures in place at every municipality territories.
- 15) Water recycling policy must be implemented in the food sector, power sector and steel production units wherever applicable.

Commemoration Not Celebration:

World Water Day is a commemoration. We may celebrate the existence of fresh water sources and a chance to conserve and protect them for our future generations, but this is a day of **commemoration and conscious action**. Our generation, our country is poised at the ledge of a catastrophic fall from which mankind may not survive. It is our action today that shall determine the course of the future.

Read further:

<http://www.hindustantimes.com/india-news/not-just-scarcity-groundwater-contamination-is-india-s-hidden-crisis/story-bBiwL1eyJJeMgFQcX4Cn7K.html>

<http://www.mapsofindia.com/my-india/india/world-water-day-2017-indias-wake-up-call>

<http://www.indiawaterportal.org/news/acute-water-crisis-urban-india>

<http://www.indiaenvironmentportal.org.in/category/1215/thesaurus/drinking-water-scarcity/>