

# Safe Drinking Water for All



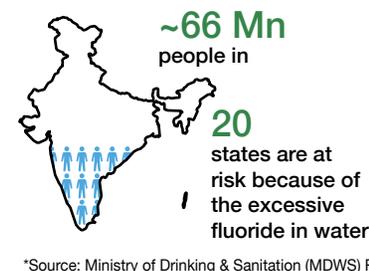
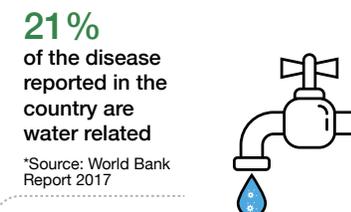
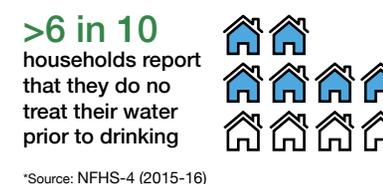
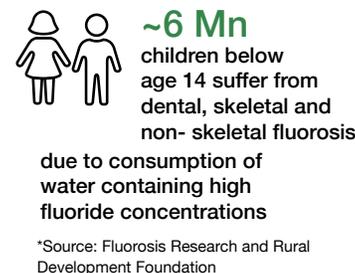
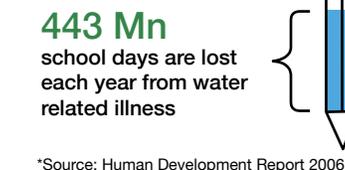
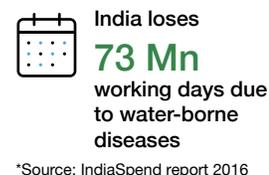
# Actionable Area

Implementing a safe drinking water programme on a very large scale provides access to clean and safe water to all.

## Issue

- A safe water supply is the backbone of a healthy economy. It is estimated that waterborne diseases have an economic burden of approximately US\$ 600 million a year in India as annually about 37.7 million Indians are affected by waterborne diseases, 1.5 million children die of diarrhoea, and 73 million working days are lost. Waterborne diseases have caused 10,738 deaths since 2017. The problem is more serious in drought- and flood-prone areas, which affected a third of the nation's area in the past couple of years.
- Less than 50% of the population in India has access to safely managed drinking water. Government records show that access to safe and usable water in rural areas has increased from 1% population in 1980 To only 30% population by 2013. Chemical contamination of water, mainly through fluoride and arsenic, is present in 1.96 million dwellings. Excess fluoride in India is affecting tens of millions of people across 19 states. Equally worryingly is excess arsenic. Central Ground Water Board (CGWB)'s monitoring data indicates the occurrence of contaminants such as Fluoride, Arsenic, Nitrate, Iron, and Heavy Metals beyond permissible limits for human consumption in isolated pockets.

## 8 Facts on India's drinking water challenge



- Moreover, two-thirds of India's 718 districts are affected by extreme water depletion. The fast rate of groundwater depletion is a major challenge. India is known as the world's highest user of groundwater sources due to the proliferation of drilling over the past few decades. Groundwater from over 30 million access points supplies 85 per cent of drinking water in rural areas and 48 per cent of water requirements in urban areas.
- Rampant pollution, dumping of sewage waste, and abuse of the rivers have led to large sections of important rivers becoming unfit for use. The rivers (surface drinking water sources) are found to be contaminated with heavy metals such as lead, arsenic, copper, cadmium, mercury, and nickel that are toxic and carcinogenic beyond standards. Pit latrines may cause possible contamination of groundwater with pathogens and nitrate. The current lack of planning for water safety and security is a major concern.
- Water being a State subject, initiatives on water management, including taking corrective action related to groundwater quality in the country, are primarily the states' responsibility.
- Unfortunately, millions of Indians are not equipped with facilities to test whether the water they consume and use is safe enough or not.
- Often women and children are burdened with the responsibility of bringing water from the source to the home. This results in a fall in school attendance as children are made to spend hours collecting water. School drop rate is increased by 22% in drought-affected states. Close to 54 per cent of rural women – and some adolescent girls - spend an estimated 35 minutes getting water every day, equivalent to the loss of 27 days' wages over a year.

The scale of need in India is immense, making India the concentrated centre of the global water and sanitation crisis.

- Use of untreated wastewater or poor quality water in agriculture, which is a common practice, can aggravate health risks and deteriorate soil health. The challenge is to identify the reuse options for agriculture and other sectors with proper utilisation of its nutrients. Wastewater is an important resource that requires appropriate treatment for its safe utilisation.

## Status

### Government Initiatives

- In 2019, the Ministry of Drinking Water and Sanitation (MDWS) mandate became one of two pillars under a new ministry named Jal Shakti (meaning "power of water"). The Swajal programme empowers communities to plan, design, implement and monitor single village drinking water supply schemes and organise community ownership for operation and maintenance. Focus areas are conservation and rainwater harvesting, renovation of traditional and other water bodies/tanks, reuse and recharge water structures, watershed development, and intensive afforestation. This programme has helped prioritise integrated water safety planning, behaviour change and community participation in most deprived aspirational districts, and Water Quality Monitoring (WQM). This has contributed to 18.6 million people gaining access to safe drinking water.

- The Ministry of Drinking Water and Sanitation is also working on policy planning, funding, and coordination of the program known as, National Rural Drinking Water Programme (NRDWP), which aims at assisting states in providing adequate and safe drinking water to the rural population in the country. In 2018-19, the scheme was allocated Rs 7,000 crore, accounting for 31% of the Ministry's finances.
- Every rural household must be provided with piped potable water by 2024 under the Jal Jeevan Mission.
- In all, 7.56 Crore rural households across the country have been provided with tap water supply since the start of the mission.
- In habitations adversely affected by Arsenic/ Fluoride contamination, States are advised to plan and install Community Water Purification Plant (CWPP) on priority, as an interim measure to provide 8-10 LPCD (litres per capita per day) potable water for cooking and drinking purposes. To involve and empower the community at the grass-roots level for monitoring the quality of water in their respective habitations, Field Testing Kits (FTKs) are being distributed, and five women from every village are being trained for using these kits. This will facilitate early detection and identification of water-borne risks. So far, 4.7 Lakh women in 1.25 Lakh villages have been trained for water testing.
- Central Pollution Control Board (CPCB), in association with State Pollution Control Boards/Pollution Control Committees (SPCBs/PCCs), is implementing the provisions of The Water (Prevention & Control) Act, 1974 & The Environment

(Protection) Act, 1986 to prevent and control pollution. The Act does not define the level of wholesomeness to be maintained or restored in different water bodies of the country. The Central Pollution Control Board (CPCB) has tried to define the wholesomeness in terms of protection of human uses, and thus, taken human uses of water as base for identification of water quality objectives for different water bodies in the country.

### Private sector initiative

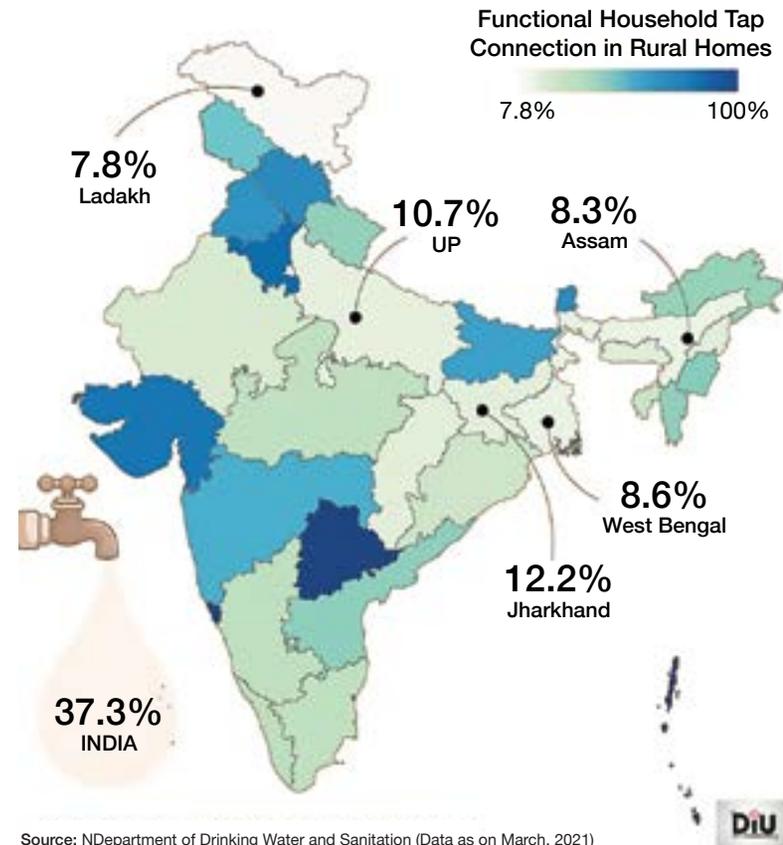
- Understanding the drivers and key risks for the private sector is critical in their engagement in owning, operating, and managing safe water supply through Small Water Enterprises (SWE). The general idea is to attract private sector investment for small water enterprises in the country as complementary safe drinking water solutions to piped water. In addition, public-private partnerships can play a major role in providing safe drinking water to water-stressed or quality-affected communities.
- The Industry has been found to accord high priority on self-regulation through the implementation of voluntary Food Safety Management system standards like ISO 22000 and GFSI benchmark schemes which make it mandatory to use safe potable water in cleaning & sanitation of food items and food contact surfaces and production processes thus requiring industries to set up water treatment facilities towards adequate access to potable water wherever required.

# Vision 2030

-  Aim to achieve equitable access to safe and affordable drinking water for all.
-  Reduce the loss of 73 million working days to below 25 million working days by 2030
-  Reduce the death by diarrhoea of children below five years to below three lakhs by 2030
-  Achieve more than 90% treatment of wastewater and substantially increasing recycling and safe reuse to improve water quality.
-  Reduce pollution, eliminate dumping and arrest release of hazardous chemicals and materials in water bodies.
-  Aim to substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.
-  Reduce extreme water depleted districts from the current 478 to less than 100.

## Tap connections in rural india

Assam & west bengal villages have low rural household tap water access



# Pathways

## POLICY



**Expand public-private partnerships** and co-operation as well as capacity-building support in water- and sanitation-related activities and programmes.

**Support and strengthen the participation** of local communities in data generation, monitoring, and continued surveillance, conservation.

**Improve the efficiency of the urban** and rural water supply system and the development of block and district level water conservation plans.

**Promote mandatory water audits** for drinking water purposes by all states.

**Install more Community Water Purification Plant (CWPP)** in areas that are adversely affected by Arsenic/ Fluoride contamination.

## IMPLEMENTATION



**Substantially increase the number** of accredited water quality testing laboratories in India.

**Renovation and cleanliness of traditional** and other water bodies/tanks are necessary to improve potable water quality.

**Provide guidelines/standards** to farmers prescribing the permissible limits of physical, chemical, biological parameters in water for potable and irrigation use, judicious use of approved pesticides and fertilisers.

**Promote and Setting up desalination plants** along with the coastal areas.

**Empower local people and enable them** to save water for usage and promote locally owned and managed to drinking water security plans which are simple and can be used, monitored, and managed by people and local governments.

# Pathways

## TECHNOLOGY



**Develop suitable technologies** for the treatment of drinking water and non-drinking purposes, considering the nature and extent of contaminations and availability of infrastructure.

**Provide low cost-solutions or technologies** to improve water quality. Provide home water-treatment capability using filters, solar disinfection, or flocculants to make drinking water safe and promotion of Bureau of Indian Standards-compliant products.