

## **Making Every Drop Count: 4 Small Steps Responsible Citizens Can Take To Conserve Water**

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2018 summer will be remembered for its frequent water crisis in several parts of India. From the plight of residents and tourists in Shimla to Bengaluru being listed among 10 cities in the world that are moving towards 'Day Zero', a situation when its taps run dry. The National Capital Region of Delhi has also not been behind, facing several instances of water shortage in the last few months as 90% of its region is facing alarming levels of dipping groundwater levels. NITI Aayog, in their recent report, gauged the extent of crisis involving 21 major Indian cities, including Delhi, Bangalore and Hyderabad, where the ground water levels are expected to reach zero, likely to impact over 100 million people. The situation is likely to worsen, as urban settlements are expected to house over 50% of the country's population by 2030, further increasing the pressure on supply for fresh water.

Unwarranted demand, mismanaged water resources, unpredictable weather patterns and climate change, water inefficient farming practices are major reasons for the perpetuating crisis. The ongoing battles over the river waters in six Indian states, including the Yamuna in the north, the Narmada in the mid-west and the Cauvery in the south give a glimpse of what the future might hold, if the situation is not urgently addressed. While strategic commitment and actions are required at national and international levels, it would be a grave misstep to undermine individual and organizational efforts to conserve this critical natural resource, which for centuries, has been responsible for thriving and wiping out civilizations.

Over the last decade, I have learnt small but meaningful modifications can play a significant role in enabling a lasting change. As part of a voluntary pledge to be carbon and water neutral by 2020, we, at EY, have taken small steps to conserve water with minimum disruptions to our people's experience. I elaborate below four small measures that organizations can adopt to save water.

1. **Aerators in washrooms and pantries:** A tiny fitting for washbasin taps ensures a jet spray through the faucet reducing water consumption by 50%. It is a cheap and easy to install attachment that is helping save over 10 million liters of water every year.
2. **Waterless urinals/bio blocks:** A bio block-enabled waterless urinal prevents odor from drainage pipes and eliminates the requirement to flush after every use. The dissemination of this technology across commercial complexes can have a significant impact, as EY alone saves nearly 16 million liters of water each year.
3. **Flush:** A dual-flush tank allows flushing of different volumes of water and liquid as well as solid waste disposal. A regulation in the US allows installation of flush tanks with a capacity of not more than six liters while, the absence of such a regulation in India witnesses the installation of flush tanks with a capacity as high as 15 liters. An alternative to high capacity flushes is the dual flush tank, which uses different quantities of water for liquid and solid wastes, thus potentially saving 5 liters of water every time the liquid waste is disposed.
4. **Ultrafiltration:** Reverse Osmosis (RO), a widely-used technique for filtering water in homes, uses about two to three liters of water to generate one liter of drinking water. An average household of four with a daily drinking water consumption of 8 liters wastes 16 liters of water through RO filtration. RO, as a technique, is effective in areas where water (Total Dissolved Solids - TDS) exceed 500 parts per million (ppm) or where water contains toxic elements. However, in areas where water quality is better (i.e. TDS of less than 500 ppm), households can use a simple ultra-filtration technique, which eliminates pathogens without wasting water as in the case of ROs.

In cities like Mumbai and Chennai, where water quality is relatively better, ultra-filtration can lead to significant water savings. If all India SECA households which possibly using an RO, switch to using ultra-filtration, they can contribute and help the city save over 75 million liters of water a day and ~27 million liters in a year!

These are small changes that can be implemented without causing major disruptions for people or increasing the administration costs of management and other overheads of major infrastructure changes. We can broadly estimate that if corporate citizens (both public and private) were to adopt these measures, India can potentially save up to 300 billion liters of water every year. And if each of us, as responsible citizens, make these modifications at our homes, we can well imagine the multiplier effect on the volumes of water that can be conserved.

Tom Ziglar famously said, "Change starts with you, but it doesn't start until you do." The responsibility of addressing the issue lies in the hands of all stakeholders alike – not just the government but corporates, organizations and individuals have an equal part to play. Let's not absolve ourselves from that responsibility.