

## **Indian Teenagers Perception on Water – A Study**

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### **Abstract**

With the critical need to address water scarcity in most parts of our country, the need to conserve water and the impact of rain water storage on a sustainable environment are undeniable. While many technological advances are being developed to minimize water wastage, the impact will be greater only when every citizen of the country contributes to rain water conservation for the country to be water sufficient and to prosper.

Research has shown that people's behaviour can be unknowingly influenced by knowledge activated in memory during the forming of perception. Perception and action are interwoven and interdependent. Water conservation is no longer the responsibility of only the Government. Two – thirds of India's population consist of youth who need to be fully aware of the crisis facing them and modify their behaviour accordingly to overcome it. It is imperative that we look at a consumer inclusive approach (Hegger et al, 2011) to gather support and change future water related behaviour patterns.

This paper looks at the perception of urban Indian teenagers towards water as a resource. The paper presents findings from 200 responses gathered from teenagers across schools in Bangalore and a few metropolitan cities of India. The findings show that most respondents agree the country does not have enough water to support a huge population and almost seventy five percent of the respondents have a strong belief in their individual efforts. However, the same number is unsure of how their individual efforts can contribute towards reducing industrial wastage of water to have a greater overall impact on the water conservation movement. Hence the paper highlights the importance of involving the future citizens of India to not only be aware of water conservation, but also to involve them from an early stage in this very critical movement, at the grassroots level.

**Keywords: Perception, behaviour, teenagers, water conservation, consumer – inclusive approach**

### **Introduction**

Water has typically been a low involvement and low cost product, even though as a resource it has a huge impact on the social and economic wellbeing of people. It starts garnering attention only when it gets scarce and there is no doubt that water is rapidly turning into one of the most critical and scarce resources of the 21<sup>st</sup> century. Various studies point out that a severe water crisis is staring India right in the face. Even though we are lacking a comprehensive and futuristic water policy, this issue is no longer the sole responsibility of the government. A grassroots level approach involving the citizens is the need of the hour.

India accounts for 18% of the world's population and has access to only 4% of the world's water resources. It has an average availability of 1588 cubic metres of fresh water per person every year. A country falls into water stressed category if the availability drops below 1700 cubic metres (Saran, Mittwra & Hasan, 2014).

India is projected to be reaching a state of 'water scarce' situation before 2030. Government bodies, public and private entities have put in tremendous efforts over the last few decades to provide sufficient water supply to residents. Access to safe drinking water for households in India increased from approximately 74% in 2001 to 83% in 2011 (Kumar & Das, 2014). In addition to improved water supply, higher standard of living and increasing usage of water appliances would, however, lead to a large increase in domestic consumption of water. As a result, serious water shortages will continue to persist in India and according to the World Bank, water supplies of major Indian cities will run dry in the near future.

Till now most of the studies are focusing on water consumption patterns on the demand side or water conservation techniques such as rainwater harvesting, on the supply side. It is now time to look at a consumer inclusive approach (Hegger et al, 2011) to gather support and change future water related behaviour patterns. As a saying goes "Once you carry your own water, you will learn the value of every drop".

### **Literature Review**

As per Businessdictionary.com Perception is "A process by which people translate sensory impressions into a coherent and unified view of the world around them." Perception is the first stage of the formation of an opinion and it is linked to experience, expectations and the general impression. Thus perception is the first impression which may be true or not but if allowed to settle it becomes a conviction or belief leading to formation of opinion. Research has also shown that people's behaviour can be unknowingly influenced by knowledge activated in memory during the forming of perception. Perception and action are interwoven and interdependent (Ferguson & Bargh, 2004)

"The world is not facing a water crisis because of a physical scarcity of water. It is facing a crisis because of poor management of water" (Biswas & Tortajada, 2016). India is a young country with two – thirds of its population under 40 years of age. It is important to understand youth's perceptions related to water consumption as that will impact their future actions. Perceptions are important to know for getting at the root of the water problem in a complex country like India. In a report titled 'Attitudes towards water in India' (2014), community efforts and strong community participation were recommended. This can be taken forward with the involvement of youth in the country.

A high rate of urban expansion in India is seen as a vital area impacting the demand and efficient use of water. It is postulated that 40% of Indian population would be urban by 2040 and six cities will have a population of around ten million each (Sadashivam T, Tabassum S, 2016). Since supply of water is limited, demand needs to be managed.

Many studies have been done around the world linking water consumption levels to different variables. Water consumption is seen as a social practice which is shaped by consumer's lifestyle characteristics such as attitudes, knowledge and expectations (Hegger, et al 2011). Income levels have an impact on water conservation; higher income level is related to higher water consumption (Russel and Fielding, 2010). Education is also studied as a variable for water conservation though the correlation is always not clear. It could be that people who are better educated have higher income levels and more comfortable lifestyles, which leads them to consume more water. People with high income and educational levels easily underestimate their water consumption. As per (Fan, Wang et al, 2014), water conservation behaviour and attitude

rely heavily on the perception of people about their water usage. Additionally, perception on water consumption helps develop attitudes and behaviour that lead to water conservation as emphasised by Corral – Verdugo (Fan, Wang et al, 2014)

A study was done in South Africa to check college students' attitude towards water conservation. The findings suggested that though students consider water conservation necessary and would want to make efforts to conserve water, they do not think water conservation of paramount importance and have an attitude of indifference towards it. Individuals may be motivated to perform a behaviour if they perceive that others in their environment are also engaging in that behaviour (Onyenankeya K, Caldwell C, Okoh A, 2015).

### Methodology

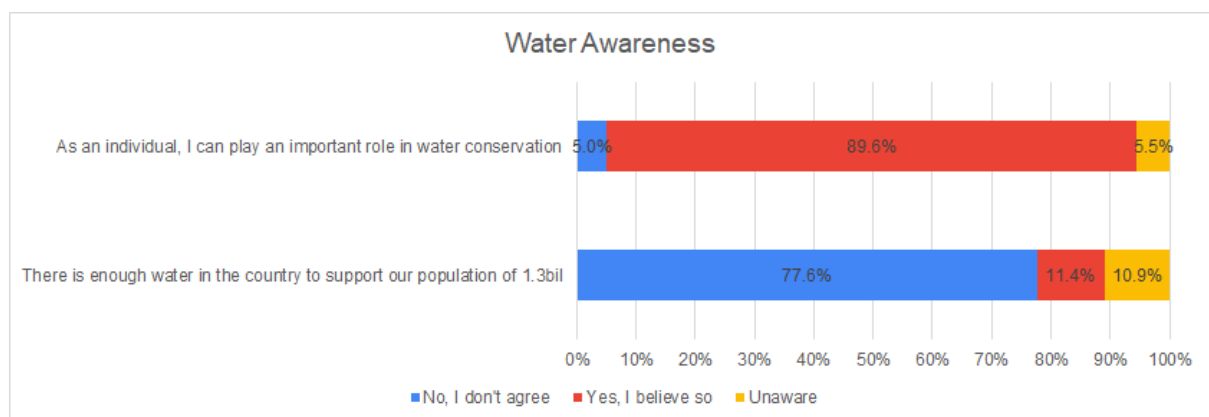
An online survey was conducted on teenagers residing in Indian metropolitan cities, aged between 15 to 18 years. They completed a self – administered questionnaire and a total of 202 responses were recorded. The questionnaire was divided into three parts, given below, and most of the questions in the study followed the Likert type scale.

1. Teenagers water usage patterns and habits
2. Teenagers water awareness levels
3. Teenagers attitude towards water conservation

### Findings:

#### Water Awareness

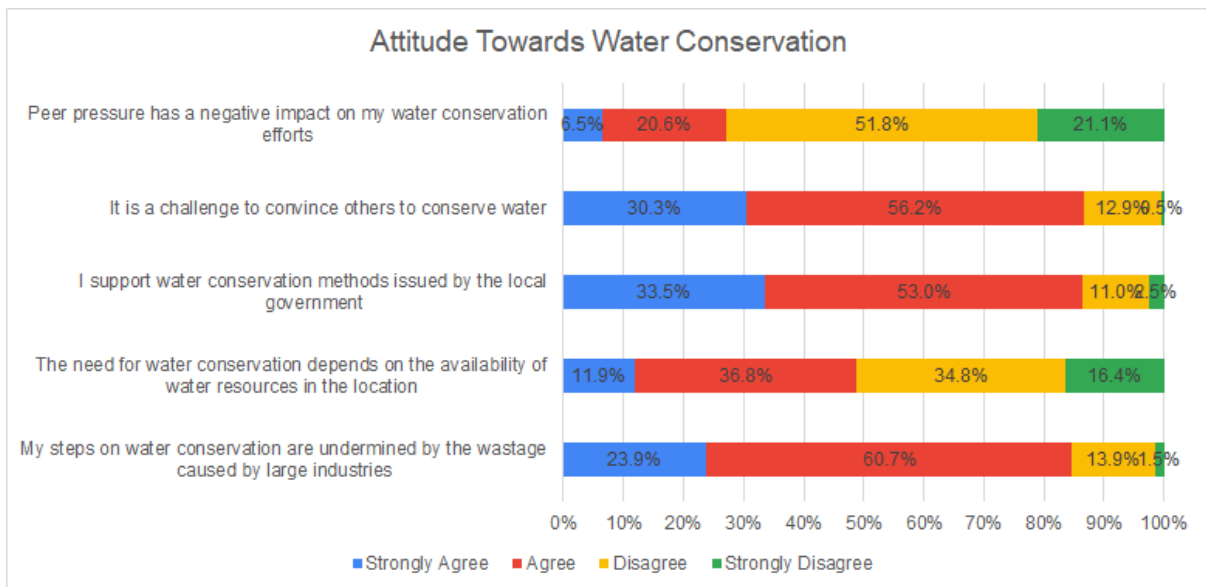
Teenage water users were asked questions to gauge their awareness on the state of affairs with respect to water conservation. They were asked if as an individual, they can play an important role in water conservation and if there is enough water in the country to support 1.3 billion people. 77.7% of the respondents felt that our country does not have enough water to support such a huge population while 10.9% of the people were not aware of the situation.



#### Attitude towards water conservation:

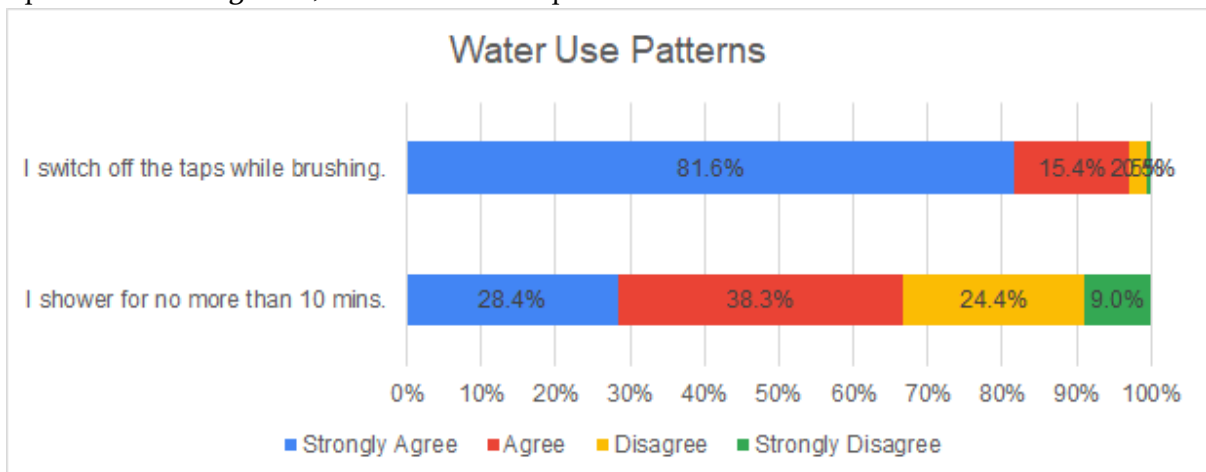
Teenage water users were asked to answer a series of questions to measure their attitude towards water conservation. They were asked questions on impact of peer pressure, their own water conservation methods, and if they believed that their individual efforts really helped the community/country. The options they were presented with was a 5 point Likert scale, ranging from Strongly Agree to Strongly Disagree.

51% of the respondents disagreed that peer pressure had a negative impact on their water conservation methods though 56% of them agreed that it is a challenge to convince others to conserve water. 53% of the people also support the water conservation methods issued by the local government. When asked if water conservation depends on the availability of water resources in that location, the number of people who agreed and disagreed were almost the same - about 35%. About 60% of the population feel that their efforts on water conservation were undermined by the wastage caused by huge industries.



**Water Use patterns:**

The teenage water users were asked two questions to measure their individual water use patterns. They were asked to indicate their responses on a scale of 1 to 5 with 1 being strongly disagree to 5 being strongly agree. 81.6% of the respondents indicated very strongly that they switch off their taps while brushing teeth, and 67% of the respondents took showers in less than 10 minutes.



**Discussion**

The survey showed good patterns of teenagers towards regular water consumption activities such as taking shorter showers, switching taps off while brushing teeth and no wastage of drinking water. Majority of the respondents follow the basic water conservation practices, showing that there is both awareness and sensitisation towards daily water consumption habits. Continuous water related campaigns at school and public places maybe the reason for the above behaviour. However, having low flow shower heads and dual flush toilets at homes scored low in the survey and this could be because these are areas monitored by adults. It is now time for the local civic bodies to get more specific in their water consumption messages as higher standards of living are leading to high water usage. Urban homes are installing more luxurious gadgets which leads to wastage of this precious resource.

Urban teenagers seem well aware of the inadequacy of water availability to support our large population and knew the source of water in their homes – whether it was bore well, river or tanker water. Almost fifty percent of the responses were positive towards having some rainwater harvesting method in their homes – either rainwater recharge or storage.

Since most of them have personally not felt the effects of water shortage, it is difficult for them to convince others about the importance of conservation. However, almost three - fourths of the respondents did not feel that peer pressure has a negative impact on their water conservation efforts and they have a strong belief in their individual efforts. They have knowledge of huge wastage of water by industrial houses which leads them to be unclear about the individual actions that can be taken by them. If consumers and future consumers have to be included in this movement, the government and NGOs have to do their bit in raising the decibel level. Studies show that water conservation impact of social messages appears to be short lived if not supported by information on the importance of saving water (Koop, Dorrsen & Brouwer, 2019)

Lawmakers have to put in stringent rules for all urban dwellings as well as commercial buildings to follow. Focus has to be on strict implementation backed by fines and penalties. For this to happen, support will have to be provided to citizens in terms of professionals and trained people, to make water conservation actions doable. Additionally, digital mediums can be tapped to capture the attention of the young population. Small, practicable actions leading to better usage habits, need to be highlighted by authorities.

## **Conclusion**

There is no study done capturing Indian teenager's perception on water conservation. The findings show that most respondents agree there is insufficient water to meet the needs of our population, yet they are not sure what actions they can take as an individual to make an impact. This is a critical group who are going to be the future consumers and this survey emphasises on the importance of reflecting on the measures that can be taken up to enhance water conservation. A more detailed study covering a larger sample of youth and focusing on finer points of water conservation activities, can be undertaken as a follow – up.

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