

A volunteer-based set-up – A place to help you find free and clean drinking water at public places

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Key Words :

Volunteer-based set-up, Clean drinking water, Public places

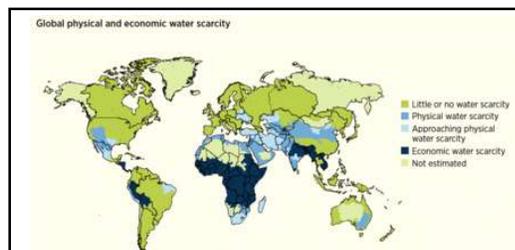
Executive summary:

The problem :

“Water, water everywhere, not a drop to drink.”

–The Rime of the Ancient Mariner

Global water crisis:



Despite covering about 70% of the Earth surface, water, especially drinking water, is not as plentiful as one might think. Fresh water is only 3%, out of which only 0.014% is available for direct consumption.

Depletion of water in Morocco, India, Iraq and Spain could spark the next “day zero” water crisis. Cape Town recently grabbed headlines by launching a countdown to the day when taps would be cut off to millions of residents as a result of a three-year drought.

The starkest decline is that of Morocco’s second-largest reservoir, Al Massira, which has dropped by 60% in three years due to frequent droughts.

The following countries consume only contaminated water:

- Sudan (12.3 million)
- Venezuela (5.0 million)
- Ethiopia (2.7 million)
- Tunisia (2.1 million)
- Cuba (1.3 million)

Over one billion people lack access to water and another 2.7 billion find it scarce for at least one month of the year. A 2014 survey of the world’s 500 largest cities estimates that one in four are “water stressed”, a situation that arises due to lack of access to potable drinking water. In Syria and increasingly also Iraq, water stress has added to conflict and been a driver for relocations of people from the countryside.

Demand is expected to outstrip supply by 40% in 2030, if current trends continue.

Water crisis in India:

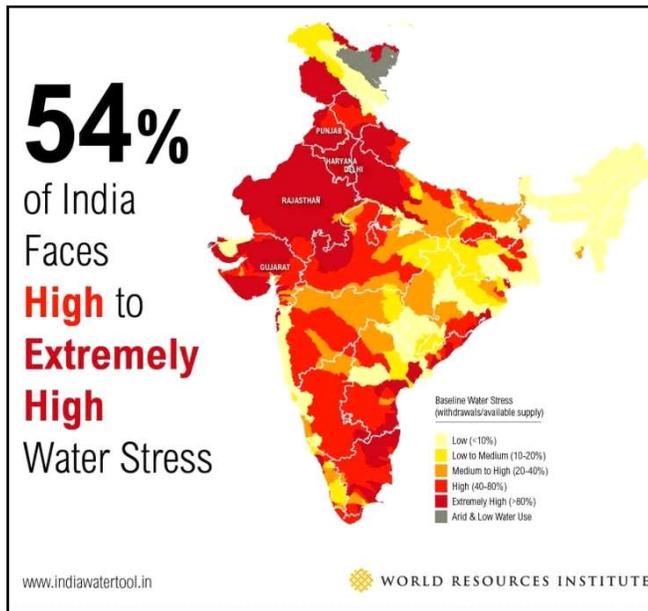
With a diverse population that is three

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See end of the article for
Coopted authors’

times the size of the United States but one-third the physical size, over 163 million people in India are deprived of clean water. Almost 600 million people are at high risk of being incapable to continue relying on surface water.



Water supply in India may fall 50 per cent below demand by 2030, the Asian Development Bank has forecast.

Shimla, a historic hill town in the northern state of Himachal Pradesh, is the latest addition to a list of Indian towns and cities that are water starved. Earlier this year Bangalore, also called India's Silicon Valley, made it to a list of world cities most likely to run out of drinking water.

In developing countries like India, people face the problem related to accessibility of clean drinking water at public places. People hardly believe the drinking water at public places are safe to consume. They spend money on buying bottled water which increases the use of plastic. People who complain about these problems get slow or no response at all from the concerned authorities.

Why water?

When asked what would improve their lives the most, the majority of people in developing countries prioritise access to clean water. Populated countries like India and Africa face a major water crisis today with India having the highest number of people in the world without access to clean drinking water.

Growing up, we girls have seen many people around us live in harsh conditions, deprived of their basic necessity: Clean Water. We are aware of the importance of access to clean drinking water. Having interacted with people in our community, we realised that safe water is the need of the hour, not just in our country, but all over the world. Hence, we decided to build an app that addresses to this problem in a way that is useful to the users and also empowers them to resolve this issue at individual levels.

Our mission:

In September 2015, the General Assembly adopted the Agenda #Envision2030 which works to promote the implementation of 17 Sustainable Development Goals (SDGs) throughout its 15-year lifespan. These goals are built on the principle of "leaving no one behind". Following their footsteps, we aim to provide every citizen with their immediate necessity- clean and free drinking water. This also emphasises on the 6th goal of Sustainable Development Goals of United Nations- "Clean Water and Sanitation".

The solution: H₂O :

Our app H₂O: Healing Tomorrow's Oases is based on the idea to provide location of free potable water dispensaries. Using GPS feature a map of the city will be displayed on which public water dispensaries would be indicated. A user can register a complaint by using the GPS feature or by giving the details of the water dispenser. The user can also add their review on a specific water dispenser

Company description :

H₂O is a volunteer-based set-up that works to help you find free and clean drinking water dispensaries at public places. We hope to create a difference in the world using water as the medium. According to water.org, 163 million Indians do not have access to clean drinking water. This issue is our driving force as we endeavour to provide all these people with access to one of their basic necessities using a mobile application.

Our emphasis is on improving access to clean drinking water. In India, there have been many governmental policies and programmes that focus on supply and security of water.

H₂O acknowledges the role of the government and assists them in achieving its objective.

The key to attaining this objective is community involvement. Our method intends to promote locally-owned and managed drinking water security plans at the community-level. Our app is simple which can be used and monitored by people and the community.

Product description:

Clean drinking water is a necessity. Access to free and clean drinking water, is our right. People often face the challenge of finding clean drinking water dispensers at public places. Be it metro stations or local bus stops, water dispensers with signs saying ‘Clean Drinking Water’ come with zero assurance of quality and are very hard to trust.

Aiding to this communal problem, we bring to you ‘H₂O: Healing Tomorrow’s Oases’, an app specifically designed to find clean, free and quality-assured drinking water dispensers near you.

Features:

– As mentioned above, our app helps you find Clean and free drinking water dispensers near the user using the GPS tracker. Upon turning on the GPS, the app tracks all the nearby water dispensers and displays it on the map.

– The Map component of our app comes with user-friendly features. It comes with markers that display locations of water dispensers around you. It also shows the details of the dispensers including Water Quality, User Rating, etc.

– An important element of H₂O is its ‘Register Complaint’ feature. Apart from finding water dispensers, the app also allows the user to register complaints of certain water dispenser. Unsure about the quality of water? Tag the location, give a description and SUBMIT. The app does the rest of the work. The complaints are forwarded to the nearby water-testing laboratory and the status of the water dispenser will be changed to ‘In Progress’.

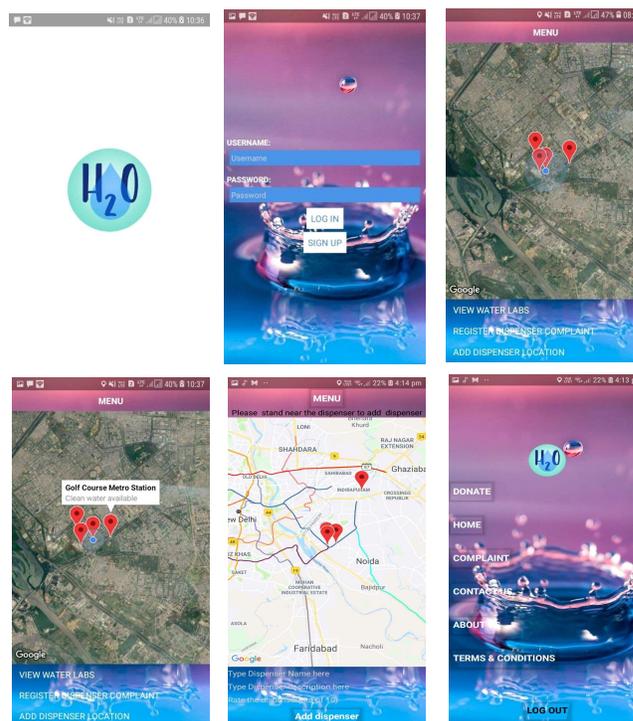
– The Rate and Review section of our app allows users to rate and review a particular water dispenser. The user can also read reviews and ratings by other users for particular water dispensers which are displayed upon clicking the dispenser location on the map.

– We also have a ‘Donate to Support’ option which enables users to donate an amount (Rs.5 or more) to help support our application. As we aim to form a non-

profit organisation, all the donations will be used in the completion of our mission.

– ‘My Complaints’ feature of our app allows the user to keep records of their past complaints which have been tended to.

Screenshots:



Keys to success :

% H₂O’s main advantage is that it allows the user to locate water dispensers as well register complaints all in one app.

% Our users play a key role in our app, which majorly depends on community involvement. Active participation of users who register complaints will lead quality check of dispensaries regularly and reduce wastage of water.

% It has a large potential user base as the problem it tries to combat is something millions of people face on a daily basis.

% The soothing colour scheme and the sleek and attractive UI design makes it easier for everyone to use and also attracts many users.

% It reduces the usage of plastic and helps users save money by not spending on packaged drinking water as user can locate dispensaries providing free and clean drinking water.

% H₂O is an eco-friendly community set-up that tries to engage and connect a diverse group of users and urge them towards achieving the same goal: Free and Clean Drinking Water for Everyone, Everywhere.

Market:

Target market :

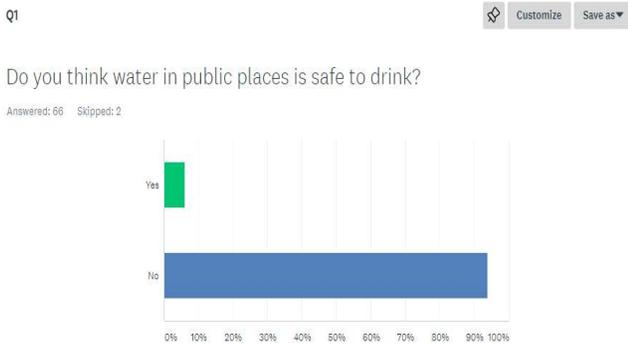
As per reports released by the Census India 2011, the population of Noida is 637,272. The literacy rate of Noida is 86.23 per cent out of which 40 per cent have smartphones and know how to use them. In the initial period, our app targets the urban population focusing mainly on the Middle and Lower economic classes of our city Noida. As we expand, we plan to extend our app to other major metropolitan cities in India such as New Delhi, Mumbai, Kolkata, Chennai etc. We plan to advance our app even in rural areas in our country such that no one is left behind from attaining their basic right.

Consumer research :

We reached out to a number of people of different age groups as well as of different backgrounds- Some of the urban population, some of the rural population, some of the working class and some of the old age groups-on Survey Monkey. Over 65 responses were collected.

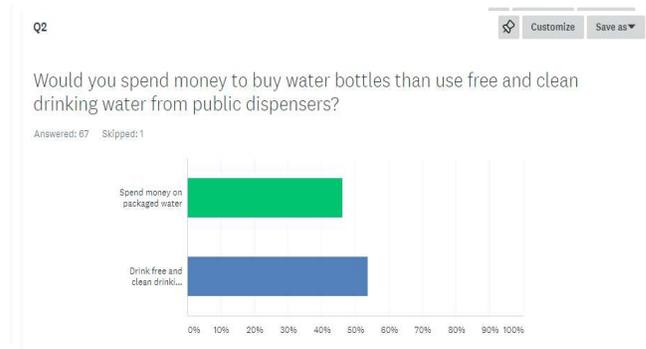
Question 1 :

We found that 93.94% did not trust the water quality they were being provided with at public places. Only 6.06% believe that the water is clean.



Question 2:

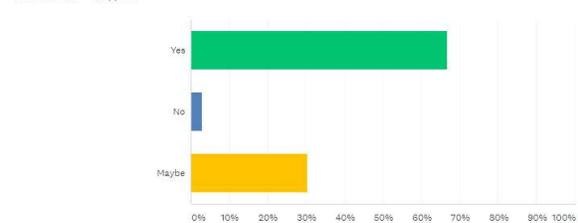
About 53.73% of people would consider drinking the water at public places if they were sure that it was clean but still about 46.27% of the people would still prefer a bottle of water.



Question 3:

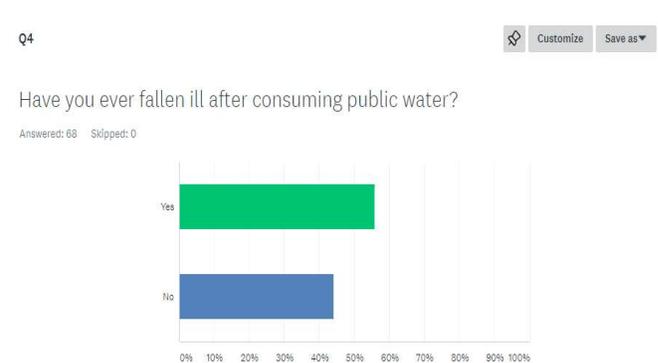
Almost 63.24% of people have never consumed from a public water dispenser in their whole life. This shows the lack of trust people have in these public water dispensers.

Would you actively register complaints on the app and work with the community to ensure clean drinking water in public places?



Question 4:

From this graph, we can see how bad the conditions are of the public water dispensers as approximately 55.88% people have fallen ill after consuming public water.

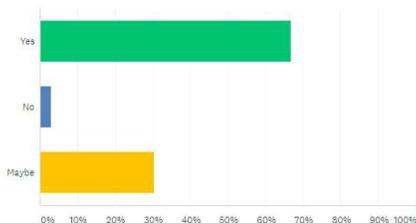


Question 5:

From this graph, we can see that almost 66.67% of the people would use H₂O for the betterment of the society. Approximately 30.3 %people may use our app.

Would you actively register complaints on the app and work with the community to ensure clean drinking water in public places?

Answered: 66 Skipped: 2



Consumer analysis:

This shows us that many people do not trust the water at public dispensers and would rather buy bottled water than get their immediate need: clean water. People do not believe that the drinking water at public places is safe to consume.

Many people are willing to be a part of our mission and we all believe that our app H₂O can make a difference.

Competitive analysis :

				
Register Complaints	✓	✓	✗	✗
Map	✓	✓	✓	✓
Volunteer Work and Community Involvement	✓	✗	✗	✗
Free Services	✓	✓	✗	✓
Details of Dispensers (Functional Status, Water Quality)	✓	✓	✗	✓
Rate and Review	✓	✗	✗	✗

Competitive edge :

After comparing our H₂O to other similar apps out there in the market such as Tap*, mWater** and Reefill***, we found out that only H₂O provides users with a wide-range of features, allowing users to find water dispensers, rate and review dispensers, and register complaints. It allows the user to identify the problem and take an initiative to solve the problem on their own.

Thus, we can conclude that H₂O is a comprehensive app.

*Tap: <https://findtap.com/>

**mWater: <https://www.mwater.co/>

***Refill: <https://www.refill.com/>

Branding and promotion :

Branding :

% We chose our company name 'H₂O' as it is easy to remember and is the chemical formula for WATER.

% The blue background of our logo represents clean water.

% The outer circle of logo represents the planet earth.

% The inner water droplet reminds us that even a single drop of water is crucial for survival of life.

% Our aim to ensure that all public water dispensers are clean and healed of any impurities is represented by the tagline 'Healing Tomorrow's Oases'.

% 'Healing Tomorrow's Oases' also represents our app name phonetically, H₂O.

Promotion :

% Collaboration with government bodies that provide clean drinking water to mass at public places is one way by which we will promote our app.

% We will rely on the word of mouth to spread awareness about our app.

% We will promote our app through social network postings and targeted mobile applications like Google, Twitter and WhatsApp.

% We will also promote our app through search engine marketing on Google, Bing and Yahoo.

% As we have limited budget, we will try to collaborate with private organisations to promote our app through their websites and applications under their Corporate Social Responsibility (CSR) section.

Future plans:

Short term (Immediate plans):

% To introduce our app in Hindi, Tamil, Bengali, Telegu and Marathi languages as they are major languages in India.

% To introduce a tablet version of the app and provide users with better functionality.

% To expand our map to whole of Noida and slowly move towards Gurgaon.

% To provide colour coded water dispensers such that the colour of the markers on the map show the status of the water dispenser.

% To provide layouts of locations with multiple water dispensers.

% To allow users to sign in using social networking sites such as Twitter, Facebook, Gmail.

% To add a Camera feature to support registration of complaint with pictures.

% To provide accessibility support for people with disabilities.

% A special mark indicating regular sanitation of a water dispenser during the pandemic.

% Registering volunteer groups and NGOs who distribute potable drinking water.

% Registering water purifier service centres.

% A button in the corner which redirects to <https://www.mohfw.gov.in/> to show Covid-19 updates in India.

Long term (Over time):

% To expand to all Metropolitan cities in India like New Delhi, Mumbai, Kolkata, Chennai, etc.

% To make our app multilingual by introducing 'H2O' in all 22 languages spoken in India.

% To expand map to rural villages and remote areas in India.

% After year 6, we plan to slowly expand our app internationally.

% To add international languages like Mandarin, Spanish, German, French, Japanese, Russian etc.

Acknowledgement:

In successfully completing this H2O project, many people have helped us. We would like to thank all those who are related to this project.

Primarily, we would thank God for being able to

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