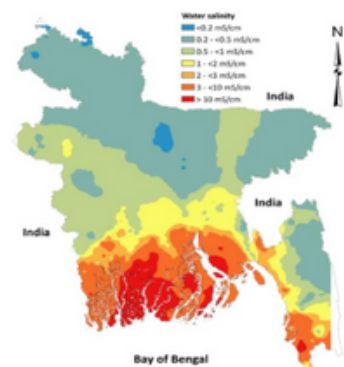


The Safe Drinking Water Challenge in Bangladesh

In our pursuit to expand impact, 1001fontaines undertook a comprehensive feasibility study to understand Bangladesh's critical need for safe drinking water. After a year of extensive engagement with key stakeholders, the study conducted by the consulting firm LightCastle Partners revealed a complex situation: an immediate need for a model for safe drinking water and a challenging operational environment that obstructs the development of sustainable solutions.

A Multi-Faceted Crisis

Bangladesh's unique position as the eighth most populous and densely populated country amplifies the challenge of ensuring safe drinking water for all. Limited resources hinder the expansion of adequate water infrastructure in both rural and urban areas. With less than half of municipalities equipped with basic piped water systems, a significant portion of the population relies on self-supply. However, reliance on raw water sources leaves the vast majority at risk of contamination due to high arsenic and iron levels, presence of E. coli, and salinity intrusion, particularly in the southern regions where the feasibility study took place. This results in a mere 16.7% of the population actually having access to safe drinking water, posing a severe public health threat.

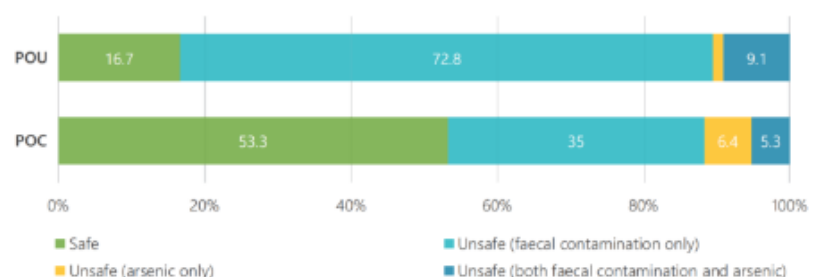


Regions affected by salinity levels in drinking water sources

Usage of Different Water Sources

Sources	% of Population with access
Tap/Pipe (supply)	11.74
Tube well (deep/shallow)	85.66
Bottled water/Water jars	0.59
Well	0.35
Pond/river/canal/lake (surface water)	0.89
Spring	0.12
Rainwater	0.42
Others	0.24

Proportion of the population with safe water (no E.coli and <math>< 50 \text{ppb}</math> arsenic at the point of Collection vs. Point of Use (MICS 2019)



Unpacking Unsustainable Potable Water Infrastructure

The urgency of potable water needs becomes most apparent during the dry season when rainwater is unavailable. In response, various attempts have been made to address the water crisis, including the establishment of reverse osmosis plants to treat raw water sources and supply households through delivery systems. However, the proliferation of disparate initiatives, managed by municipalities, NGOs, or private operators seeking economic opportunities, highlights the absence of a unified safe drinking water service model. Seasonal fluctuations in demand, with minimal activity during rainy periods, challenge the sustainability of this business model. Despite subsidized capital expenditures, the financial burden of maintenance during inactive seasons remains unaddressed, compromising sustained operational viability. The interplay between fluctuating revenues, service continuity and quality further hampers customer adherence and therefore operational sustainability.



Informed Strategies for 1001fontaines to Provide an Innovative Sustainable Safe Water Service

While the challenge of low consumer willingness to pay for year-round safe drinking water may appear significant, it is important to acknowledge that these obstacles can be overcome. The limits faced by potable water models are not solely rooted in the context but also arise from suboptimal project design and execution. This is further compounded by a fragmented service delivery approach that falls short of meeting the required quality standards to encourage consistent adoption throughout the year.

Drawing upon our experience in establishing from scratch a market for 20L bottled water as a community service, along with our expertise in capacity-building, operational and maintenance support, as well as in strategic collaborations and advocacy initiatives, we believe 1001fontaines is well-equipped to design an adequate solution that could be deployed at scale in Bangladesh.

Our objective is now to find the relevant stakeholders to engage with for a pilot phase. This will allow us to validate and refine our operational insights, generating momentum for future scalability through an emphasis on business sustainability and quality service.