



Water Pollution and The Current World

In 2017, 71% of the global population (5.3 billion people) used safely managed drinking water service – that is, one that is located on premises, available when needed and free from contamination. 90% of the global population (6.8 billion people) used at least a basic service. A basic service is an improved drinking water source which requires a round trip of 30 minutes to collect water.

But on the other hand, 785 million people lack even a basic drinking water service, including 144 million people who are dependent on surface water. At least 2 billion people use a drinking water source contaminated with faeces which can transmit diseases such as Diarrhoea, Cholera, Dysentery, Typhoid and Polio. Contaminated drinking water is estimated to cause around 485,000 diarrhoeal deaths each year. By 2025, half of the world's population will be living in water-stressed areas.



Water Contamination- A Cry in Bangladesh

Bangladesh — one of the most densely populated countries of the world has plentiful water sources, but these sources are being polluted continuously. Both surface water and groundwater sources are contaminated with different contaminants like toxic trace metals, coliforms as well as other organic and inorganic pollutants. As most of the population use these water sources, especially groundwater sources which contain an elevated amount of arsenic throughout the country; health risk regarding consuming water is very high. Death due to water-borne diseases is widespread in Bangladesh, particularly among children. Anthropogenic sources such as untreated industrial effluents, improper disposal of domestic waste, agricultural runoffs are the main contributors regarding water pollution.

A total water pollution status of this country, as well as the sources of this severe condition, is crucial to evaluate public health risk. Climate change, increasing water scarcity, population growth, demographic changes and urbanization pose great challenges for water supply systems in Bangladesh. Re-use of wastewater, to recover water, nutrients, or energy, is becoming an important strategy. Increasingly countries are using wastewater for irrigation — in developing countries this represents 7% of irrigated land. While this practice if done inappropriately poses health risks, safe management of wastewater can yield multiple benefits, including increased food production.

Options for water sources used for drinking water and irrigation will continue to evolve, with an increasing reliance on groundwater and alternative sources, including wastewater. Climate change will lead to greater fluctuations in harvested rainwater. Management of all water resources will need to be improved to ensure provision and quality.



Giving Something Back to The People

Mr. Fresh is now a big name. Currently they operate in many regions all over Bangladesh for sourcing their raw materials and selling their products in many major cities of Bangladesh. The reason they made it this far is because of the faith put in them by the people of this country. From the very beginning of their business 10 years ago till now, they have been trying to provide fresh and quality organic food to people, improve conventional agricultural processes and introduce convenient systems for the buyers. At the core of Mr. Fresh lies a drive to change and improve. During their travels all over Bangladesh, Nafiz and Fahmeed saw one particular problem persisting in many areas. And that is, lack of proper water resources whether it is for irrigation or everyday use. Now, it's time they took up a new challenge and do something about this pressing issue.



The Situation

For sourcing their raw materials and for production purposes, Mr. Fresh is dependent upon some regions. From a divisional perspective, they rely on Barisal for 35% of their sourcing, 45% on Khulna and 20% on Rajshahi. And the rest, they source from different other regions but these divisions stand out in general. Mr. Fresh has observed that the inhabitants of some regions or districts of these divisions face problems related to water resources in the form of scarcity, potable water crisis as well as arsenic pollution. This deters both their health, and also causes setbacks during irrigation and farming methods.

The Task

Your team has been assigned as the innovation team for solving the aforementioned issue. Your task is to first identify any three particular regions from these divisions (you must identify one from each) and develop a water resourcing model that will not only solve the problems mentioned above but also serve as a CSR activity that can be leveraged by Mr. Fresh to bolster their brand image and have a positive impact on sales.