

An initiative to empower and provide safe water from rain



Objective of the project

Secure drinking water for vulnerable communities or people invisibilized by public policies through a simple, creative, and effective solutions.

Problem addressed

Brazil is one of the 15 richest countries in the world, yet, there are more than 35 million Brazilians without access to safe water for human consumption. One hundred million Brazilians lack access to sanitation and 233.000 people, 50% of which are less than 5 years old children, are hospitalized annually due to contaminated water.

The first implementation area of the project is the Jardim Gramacho, located in the municipality of Duque de Caxias, in the state of Rio de Janeiro State in the South-east region of Brazil. For three decades, this neighborhood was the largest dumping ground in Latin America. Currently, its households lack water plumbing, sanitation, and even bathrooms; a reality that has repercussions on the low income and education of its population, not to mention the violation of women's rights.

Solution proposed

The goal to change this reality motivated us to create the Thousand Waters project, a 1000L rainwater harvesting and purification system designed for community use. The purification system consists of two main parts: first, pipes are used to harvest the rainwater, which are filtered by two hollow membrane filters in order to guarantee a safer water supply. As an alternative to the 1000L tank, we have also foreseen a compact version of a 50L tank, which takes up less space and provides quality water in a smaller reservoir, ideal to more populous and denser communities.

Additionally to the tanks, the project plans to distribute an educational and disinfection kit along with an app to strengthen the communication with the families impacted by the solution. The system will allow monitoring and data collection, ensuring its sustainability on the quality of the water and meet the needs of its beneficiaries.

Expected impacts

We estimate that one full 1000 L system can supply up to 10 people for 20 days without rain, considering that each person consumes, 5 L of water per day for drinking and cooking. Therefore, the 50L version shall supply enough water for a family of 5 people for 10 days. With 50 systems in hand, we hope to impact 175 residents of Jardim Gramacho.

Through the Thousand Waters project, we expect to reduce the rates of contamination by waterborne diseases, consequently improving the community health and well-being additionally to savings on water service costs. In the long term, we hope to increase children's schooling rates, house income, since mothers would not need to miss work due to children's health problems, in addition to promoting urban water resilience of communities.

Current state of development and What is the project looking for?

The proposal is currently in its ideation and prototyping phases. We are currently looking for partnerships and investors who can help us to test the prototypes and develop a first social-environmental impact.

Contacts

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