SOS Drought: Seeding Life through Low Cost Catchment and Desalination Systems in Semi Arid Region

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The drought has caused several impacts in different continents of the planet. The increase of poverty and hunger has been considered as a direct consequence of droughts for the world population. It has become a global problem resulting in severe material and economic losses for the affected areas. Ceara State, semi-arid region located in Northeastern Brazil, faces the worst drought in 60 years and currently 95% of its cities are in a state of emergency. The factor that stimulates us is the need to offer the Northeastern families, a low cost alternative that can ensure a harmonious coexistence within the semiarid region. The SOS Drought Plan proposes mitigation actions and management and monitoring policies of the drought problem. With this goal we develop a cooperatively low cost collection system using banana's fiber (Musa spp) as aggregate and we also develop a low-cost desalinator in order to focus on environmental, social and economic aspects of the drought. We developed water colleting systems 65% cheaper as well as desalinators using low-cost materials. The application of 25 water collecting systems and 10 desalinators were able to provide drinking water for the entire community. These results show that the water collecting system and the low-cost desalinator are efficient alternatives to mitigate the drought. They also appear to be a proactive measure with direct effect on the difficulties of access to drinking water in Northeastern Brazil which can also be applied in other regions the planet.

Awards Won:

Fourth Award of $500

U.S. Agency for International Development: First Award of $2,000