Helping the Community

The people of rural Guatemala are in desperate need of a cost effective and reliable method to retrieve clean and safe drinking water. Groundwater is the perfect solution to their problem but it can be anywhere from a few meters to 20 meters beneath the earth’s surface. With limited technology, gathering this water may be expensive and difficult. A rope pump is a simple device that can efficiently pump groundwater out of wells using materials that are readily available in the community. Frequently rope pumps are cobbled together making them unreliable and inefficient. This requires an overload of effort from a population that may be mal-nourished and less in strength.

The team goal is to produce a concise and detailed visual guide to educate anyone on a rope pump and its installation, maintenance, use and rebuilding. Provided will be a list of common materials ranked by superiority, as well as tables and charts. All the necessary details needed to create a fully functional and efficient rope pump are to be included for simplicity of the adopter.

Clean ground water from a functional, efficient rope pump will improve the quality of life. Aquifers are 95% potable water in rural Guatemala, making a well a safe source for the people. Lasting up to ten years and built for under US $150, hundreds or thousands of lives will be saved each year.

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