The PlayPump: What Went Wrong?

**philanthropic foundations** (groups that donate money)

**viability** (the ability to continue/survive)

**panacea** *(overall easy fix)*

**infrastructure (structures and facilities - e.g. buildings, roads, power supplies**) needed for the operation of a society or enterprise)

**multitude** (a wide variety)

**imperative** (really important)

**proponents** (supporters)

Earlier this week, PBS’s Frontline [ran a story](http://www.pbs.org/frontlineworld/stories/southernafrica904/index.html)about the PlayPump, a technology that was supposed to bring drinking water to thousands of African communities by harnessing the power of children at play. The title of the Frontline story, “Troubled Water,” indicates that all didn’t go as planned with the PlayPump. As Frontline reports, dozens of PlayPumps in Mozambique sit idle, and in many villages, PlayPumps have been removed and hand pumps reinstalled.

The idea behind PlayPump is simple, and it’s not hard to see why so many people got excited about it. A merry-go-round type device is installed and connected to a water pump. As children play on the merry-go-round, water is pumped into a storage tank, and is then available on demand.  Frontline originally reported on the technology in 2005, leading to a tremendous amount of excitement, including support from Laura Bush and AOL founder Steve Case. As the new Frontline story reports, however, it seems that PlayPump hasn’t lived up to its original promise and even its strongest backers have had to admit that the large-scale roll-out they had originally planned was not realistic.

So, what went wrong? There are many ways to answer this question, some relating to the appropriate role of development agencies and **philanthropic foundations (groups that donate money).**  Another thorny question, particular to PlayPump, is whether children playing is an appropriate source of energy for water. As reporter Amy Costello [says](http://www.pbs.org/frontlineworld/stories/southernafrica904/reporter.html), the line between work and play isn’t as clear-cut as one would think.

However, the [Sphere Project](http://www.sphereproject.org/) states that the [recommended minimum](http://www.lshtm.ac.uk/hpu/conflict/epidemiology/page_160.htm) daily water requirement is 15 litres per person which – based on the pump's capabilities – would require children to be "playing" non-stop for 27 hours in every day. Under more reasonable assumptions, a Playpump could theoretically provide the bare minimum water requirements for about 200 people a day based on two hours' constant "play" every day – considerably less than its claimed potential.

WaterAid, one of the world's biggest water charities agrees. It recently [issued a statement](http://www.wasrag.org/downloads/technology/Viability%20of%20PlayPumps.pdf) explaining why it does not support using Playpumps in its projects. It outlines concerns over the high costs ($14,000, excluding drilling), the complexity of the pumping mechanism (making local operation and maintenance difficult), the reliance on child labor and the risk of injury.

It also raises questions over the project's **viability (the ability to continue/survive)** – pointing out that children's high spirits to drive the merry-go-round may not be available at times of water demand, ie in the early morning, early evening and during wet weather. It concludes that you could provide four conventional wells with hand pumps for the cost of just one Playpump, and that there are far cheaper and more sustainable ways of providing water without using Playpumps.

In addition, though, I would contend that in many cases, the problem with PlayPump is that it was addressing the wrong problem. PlayPump can only work in very specific types of situations: when there are large supplies of high-quality groundwater, close to the surface, and when present **infrastructure (structures and facilities (e.g. buildings, roads, power supplies) needed for the operation of a society or enterprise)**  is insufficient. As we often argue at the Columbia Water Center, many times the root problem is due to actual [**water scarcity**](http://water.columbia.edu/?id=learn_more&navid=water_scarcity)—not having enough supply to meet demand. In these cases, a PlayPump will not be helpful, and indeed at least some appear to have run dry. Similarly, if water is available but of poor quality, a PlayPump alone is not a viable solution. Finally, for PlayPump to work, it must be in a setting where the supply it produces can meet the demand. If demand is too great for its relatively modest capacity, there is the real threat of exploitation of children: to force them to keep “playing” in order to pump and meet demand.

The failure of PlayPump points to a huge problem in meeting water challenges—simply put, there is no **panacea** ***(overall easy fix).*** Water problems are very complex and come in a **multitude (a wide variety)** of flavors. In some very specific situations, PlayPump may be the right type of solution. In most situations, though, it **is imperative (really important)** to first really understand the problem and to then design appropriate, tailored solutions. It’s also necessary to focus on the big picture, with an emphasis on water supply. If sufficient supply isn’t available to start with, no amount of pumping, no matter how playful it may be, will help.

One impressive aspect of the PlayPump story is the dedication by some of its early **proponents (supporters),** including the Case Foundation and Save the Children, [to learn from the experience](http://www.casefoundation.org/blog/painful-acknowledgement-coming-short). We’ll only be able to solve water challenges through innovation, and with that comes the risk of failure.  While in many ways PlayPump didn’t live up to its original promise, it would be a mistake to be overly critical of the project or its funders. They tried something new, innovative and bold, and learned from the experience. We can continue to learn from it, but let’s also focus on what we do next.

**GIST STATEMENT**: In a paragraph, explain in your own words why the PLAYPUMP project did not work. Be sure to **use evidence and one vocabulary word from the passage** in your GIST statement.