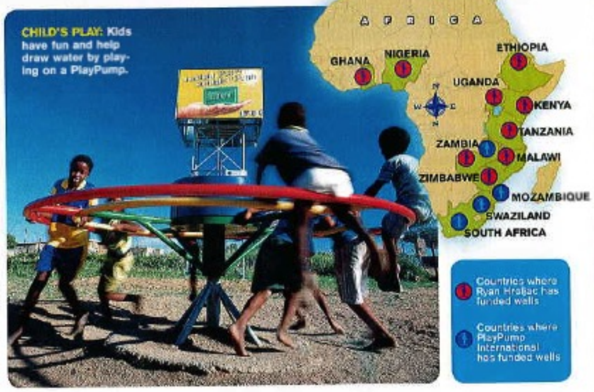
Water World

How kids are helping to solve the world's water shortage



CHILD'S PLAY: Kids have fun and help draw water by playing on a PlayPump.

In the dusty yard outside their school, children cling to a new red, green, and yellow merry-go-round as it spins round and round. The younger kids laugh and hang on tight as an older boy runs to give the wheel another push. It may sound like a scene you'd see at any playground, but these children in Africa aren't just enjoying a period of recess. Each spin on their merry-go-round is also pumping up valuable water for their entire community from a well deep underground.

When you turn on your faucet at home or school, you expect clean water to pour out. But more than a billion people around the world, especially in Africa and Asia, struggle to get enough clean water for drinking, cooking, cleaning, and bathing. "The minimum amount of water required to meet these basic household needs is 20 to 50 liters (5 to 13 gallons) per person per day," says Sandra Postel, director of the Global Water Policy Project in Massachusetts. That's not much when you consider that the average person in the U.S. uses roughly 378 L (100 gal) per day—more water than anywhere else in the world.

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Get involved: World Water Day is March 22, 2007. Find out more about this year's theme, "Coping with Water Scarcity," at: www.unwater.org/wwd07/flashindex.html

With water covering 70 percent of Earth's surface, why isn't there enough to go around? Almost all of this water is found in oceans; it is not freshwater that people can drink.

As for the tiny fraction of drinkable water, it takes a lot of money and effort to build and maintain enough pipes, sewers, and water treatment plants to deliver it to all the citizens of a country. "The problem has more to do with poverty and governments' lack of will to provide access to water for everyone," says Postel.

KID POWER

By drilling into the ground, people can tap into a hidden resource—water held between underground layers of rock or soil. These *aquifers* contain 40 percent more freshwater than all lakes, rivers, and streams combined. Reaching this groundwater may require a hole to be drilled as deep as 305 meters (1,000 feet) below Earth's surface. This *well* can provide safe, reliable water to people who live far from any streams or lakes.

The merry-go-round used by students in South Africa is part of the PlayPump water system. It relies on kid-power to draw water up a pipe from a drilled well (*see Nuts & Bolts, below*). You don't have to be very strong to get the water flowing, says Marissa Valdez, a program manager for the nonprofit organization PlayPumps International in Washington, D.C. "One woman could draw up water with just a few spins of the merry-go-round." But when kids take a turn on one of the more than 800 PlayPump systems installed in Africa (*see map, p. 18*), they get the added bonus of having fun.