

## *Water: The most undervalued resource*

*Posted by Steve Hargreaves, staff writer  
April 13, 2010 9:52 PM*

Yet consider this: Worldwide, 80 countries suffer from water shortages, including highly productive agricultural areas in northern China, the western United States, and northwest India.

Four thousand children under the age of five die each day from water-borne diseases. Almost 40% of all the water used in agriculture - the biggest consumer of water by far - is wasted.

But only 1% of venture capital money is going into efforts to alleviate the water shortage. The key to changing that, say many experts, is to raise the price. "The notion that there's an inherent right to water makes investment challenging," Will Sarni, head of the sustainability consulting firm Domani, said Tuesday during a panel at Fortune's Brainstorm Green conference.

"It is a human right," said panelist Kevin McGovern, chairman of the Water Initiative, a business that brings water purification systems to homes and organizations worldwide. "But you can't have it for free."

The increased cost for water doesn't have to be prohibitive. There could be larger fees for additional water used, thereby encouraging conservation going forward but not really increasing the costs now for farmers and other large users, Sandra Postel, director of the research organization Global Water Policy Project, said in an interview before the conference.

But even Postel, who does not stand to gain from raising water prices, said current rates are too low, especially for big users like farmers. "We've heavily subsidized water in many ways," she said. "They are not paying close to the real cost."

The problem is this: We are pumping water out of many underground aquifers at a much faster rate than it is being replenished. Worse, as the aquifers are drawn down, the remaining water becomes more concentrated with metals and other substances that are hazardous to human health.

In the United States, 40 out of the 50 states suffer from too much arsenic in their drinking water, said McGovern, a situation that is only likely to get worse as aquifers further deplete.

And 10% of the world's food supply depends on over pumped aquifers, said Postel. Ultimately, food yields in those areas will go down, and regions that once exported food will become net importers.

"That is going to influence the food picture as well as water," she said.

Naturally, whenever water shortages are discussed there's always the question of desalination - that is removing the salt from the vast amounts of ocean water.

But desalination has many problems, the panelists said, including requiring huge amounts of energy and difficulty removing salt particles that are smaller than nano scale.

Postel recommended stronger regulations as to how much water can be withdrawn from aquifers and rivers. For entrepreneurs that perfect the systems needed to help solve the water problem, things like more efficient irrigation systems, smarter sewage control technology, and pricing structures that reduce use, the bounty could be anything but dry: It's estimated the world needs \$22 trillion in water investments to ensure adequate supplies in the years ahead.