

Global Water Crisis

Ninety-seven percent of all water is salt water—too salty to drink or grow crops with. The vast majority of the other three percent is locked up out of practical human reach in the icecaps of Greenland and Antarctica and in deep groundwater aquifers. The small fraction of fresh water that is accessible to us is extremely unevenly distributed between time and space. While the average American uses about 100 gallons of water per day for showers, toilet flushing, clothes washing, cooking, and lawn watering, on a global scale, already one in five people have no access to safe drinking water.

With fresh water depletion from the source and contamination due to pesticides, chemicals and sewage, water will soon replace oil as the next precious commodity. The demand for water has already begun to surpass the Earth's fresh water supply and our numbers are steadily increasing. Both the United Nations and the United States government estimate that by 2015, at least 40 percent of the world's population will lack an adequate water supply. Furthermore, experts predict that water shortages will affect the livelihood of one-third of the world's population by 2025.

While our numbers place the greatest stress on the world's fresh water supply, pollution has become the second major adversary to our water. For example, pollution has so diminished the world's fresh water resources that less than one percent of it can be used for drinking or agriculture (Mairesse, 2005). A prime example for the US's faltering water supply can be found in the nation's most populous state, California. According to U.S. Census Bureau figures, California's population is currently estimated at 35.5 million, and is projected to hit 49.3 million by 2025 (and these are conservative figures). The state Department of Water Resources in their 1998 California Water Plan update forecast a gap between water supply and demand ranging from 2.4 million acre-feet during normal years up to 6.2 million acre-feet in drought years by 2020. To better visualize this forecast, an acre-foot of water is about 326,000 gallons—enough to cover an acre of land, about the size of a football field, one foot deep and meet the average needs of between one and two residential households (The Water Education Foundation, 2004).

An astonishing 65 percent of the world's fresh water flows into industrialized agriculture, which requires huge irrigation projects. To reach this irrigation demand as well as our demand for fresh water in our homes, government planners and developers draw water from out underground aquifers and build dams. The construction of dams has many far reaching environmental consequences. Perhaps one of their greatest strains on the environment, however, is that they prevent streams and rivers from replenishing groundwater. The Ganges, Nile, Yellow, Indus, and Colorado Rivers often run dry before reaching the ocean. Ninety-five percent of the United States' fresh water is underground. Our largest aquifer the Ogallala, underlying land from the Texas Panhandle to South Dakota, is being depleted at a rate of 12 billion cubic meters (bcm) a year. The total depletion to date amounts to some 325 bcm, a volume equal to the annual flow of 18 Colorado Rivers. There are over 200,000 wells that draw 13 million gallons of water a minute from the Ogallala and if this wasn't enough, T. Boone Pickens, a Texas 'corporate raider',

convinced the Texas state water district to allow him to pump and sell up to 65 billion gallons of water a year from the Ogallala Aquifer (Mairesse, 2005).

Since the nineteenth century, there has been the notion that water could be considered a commodity sold for private gain. However, the implications of this have only just begun to take on new significance as we enter into times where water is scarce. In 2001, several multinational water corporations lobbied the World Water Forum meeting to change the definition of water from being a "human right" to a "human need." Maude Barlow, chair of Canada's largest public advocacy group protests, "These companies completely reject the idea that water is a common property belonging to all living creatures. Their only goal is to commodify the Earth's most precious resource" (Mairesse, 2005). The fact that governments and local bureaucracies, influenced and bribed by lobbyists, are using water as a commodity to sell to those who can afford it is truly a travesty. Various public interest and environmental groups, urban water agencies and irrigation districts are working to find solutions to our water problems. Innovation is a key component in this solution, and practices such as water recycling, desalination and water marketing are becoming the "water jargon" of the future.

Discussions will surely continue in the areas of growth, expanding urban supplies, water conservation, the Bay-Delta, water marketing, agricultural drainage and water needs for fish and wildlife (The Water Education Foundation, 2004). While these discussions are essential to a brighter future, there are many things we as individuals can do to help conserve and protect our fresh water supplies.

Information for this article was sourced from:

1. Mairesse, Michelle. 2005. The Global Water Crisis.
2. The Water Education Foundation. 2004. <http://www.water-ed.org/>.