

The Challenge of Sustainable Water

An article by Jeffrey D. Sachs, Director of the Earth Institute at Columbia University
and of the U.N. Millennium Project

Reviewer: John Burton
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Dr. Sachs begins by reminding us that scarcity of water will be as much a challenge for our world as shortage of oil. He gives examples of water-related problems in India, China, the U.S. and Mexico, and then points out that continuing population and economic growth can only exacerbate these problems.

He then turns to climate change.

Millions of people get their water from melting glaciers or snowmelt. The glaciers are disappearing and, even if the amount of snow in any area remains the same, something we cannot guarantee will happen; snowmelt will begin earlier in the spring and may not last through the longer summers.

“Climate change will also alter the patterns of precipitation and evaporation in ways that are still poorly understood. Dry places are likely to get drier; rainfall is likely to arrive in fewer but more concentrated episodes; and extreme weather events such as tropical cyclones are likely to increase in intensity ... warming surface temperatures in the Indian Ocean may be leading to droughts in parts of East Africa.”

These are complex problems, and resolving them will not be easy. Dr. Sachs concludes with the suggestion that we need a global effort to consider questions of water scarcity that is similar in scope, scientifically, technically and in policy, to the works on global warming/ climate change of the Intergovernmental Panel on Climate Change (IPCC – www.ipcc.ch).

Reviewer's comments:

Like climate change, water scarcity will have its worst effects on people in the developing nations, as they are more dependent on agriculture and do not have the wealth and technology for mitigation measures that are available to the industrial world.

Desalinization, increasingly used by the industrial countries, adds to climate change because the process is energy intensive and most of this energy comes from burning fossil fuels.

Sachs, J.D. 2006. The challenge of sustainable water. *Scientific American*, Dec. 2006, p. 48.