Having gratitude for safe water

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There is nothing like an occasional reminder of how safe our water is in this country, and this is thanks to guidelines in the Safe Drinking Water Act originally passed by Congress in 1974, and enforced by the U.S. Environmental Protection Agency. Other countries should be so fortunate. We just returned from three weeks in Asia (Myanmar, Cambodia, Vietnam and China) and the only water we drank, starting with the trans-Pacific flight, was bottled water or water boiled for tea and (usually bad) coffee.

I am no fan of bottled water, but it really did not bother me that I was violating one of my own principles when I considered the options. In public facilities everywhere we went there were signs indicating that the water was non-drinkable. And even when hotels claimed to have "safe" tap water, we still opted to drink bottled water, which was widely available and reasonably priced, except at major tourist sites. Even the locals drink only bottled water, or public water they had boiled.

Just before leaving the Beijing Capital International Airport, we noticed water-dispensing stations with the label, "The water in this machine has been purified to meet the national ((Life Tap Water Health Standard))." That exact language comes from a photo I patiently waited to take when there was no one in the queue. The breakdown of people in line appeared to be about half travelers and about half uniformed airport workers, for whom a fringe benefit was being able to drink safe water on the job as well as take full plastic bottles of this water to their homes.

We know that the earth is about 70 percent covered by water, but only about 2.5 percent is fresh water and about 70 percent of that water is tied up in glaciers and ice caps. I do think it is safe to say that anthropogenic effects will ultimately tend to decrease this latter number through time. Some might argue that water is "the new oil," but there are some major differences. Water is returned to the global hydrologic cycle - "Location" is everything! - and the burning of oil constitutes the loss of a non-renewable fossil fuel with the negative side effects of carbon dioxide emission and acid rain production.

The absolute amount of water on Earth is postulated to be relatively constant, but its distribution (particularly on land) is highly variable. Although not without some controversy, many scientists attribute the origin of water on Earth to collision by asteroids and comets after the planet was formed - supported by NASA's interpretation of recent photographs of comets. It seems unlikely that the amount of water on Earth will change. So with a relatively constant supply of water, and a rapidly growing global population (having recently surpassed 7 billion inhabitants) we are in for some changes on a global scale. Purifying our water for drinking may become a much simpler problem than having a water supply available for purification.

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