

A Sustainable Environment: Our Obligation to Protect God's Gift

by
George P. Nassos

The Most Critical Environmental Issue: Water

In several of my earlier articles, I have mentioned major environmental issues, and they usually include the topic of water. While the earth is covered primarily with water, most of it is saline, and of the fresh water on the earth, most of it is not available. Without going through the calculations, only 0.01% of all the water on the earth is fresh water and available for use – 60% for agricultural use, 30% for industries, and 10% for human consumption. That comes out to only 0.001% of all the earth's water is available for humans – not very much. And when you consider that the world population is approaching eight billion people and growing at a rate of 10 million people every six weeks, the availability is going to continue to get worse.

In an article I wrote exactly 10 years ago, I presented several reasons why we should not be drinking bottled water. One reason that I didn't mention in that article is the amount of water needed to manufacture the bottle itself. It takes three times the volume of the bottle in water just to produce the plastic bottle. It also takes one-third the volume in oil to convert the oil to plastic. So when you consume a 12 ounce bottle of water, just remember that you have really consumed 48 ounces since most of the plastic bottles are not recycled. That is truly a waste.

It is understandable if people drink bottled water in regions where there is little water available so it must be brought in. Here in the Midwest, about 20% of all the available fresh water in the world is found in the Great Lakes. Since we have all this available fresh water, why are we filling plastic bottles rather than drinking our clean tap water?

Another problem that has developed is the exporting of the valuable Great Lakes water. When bottled water became fashionable, a number of companies established water bottling plants in states like Michigan. Initially, their source of water was from the underground springs. But these have now dried up while the bottling plants still exist. So from where are they obtaining the water? The Great Lakes. An example of what is happening is the bottling plant owned and operated by Nestle Company. This company is extracting water from Lake Michigan, bottling it, and shipping it to China for an estimated daily profit of \$0.5 to 1.8 million. Our precious water is being consumed by the Chinese. On top of this, the water levels of Lake Huron and Lake Erie in 2013 were at their lowest levels ever recorded.

The Midwest is not the only part of the U.S. that is having water problems. In fact, availability of water in the western states is much more critical. According to a U.S. government report, 36 states are already facing water shortages or will be facing water shortages within the next few years. It is estimated that California only has a 20-year supply of fresh water, and New Mexico only has a 10-year supply. So what is the answer?

Just as we have talked about placing a price on carbon emissions, perhaps a start is to place a real value on water. Understanding the true value of water and pinpointing limits to growth is a growing global trend. Companies that quantify their natural capital dependencies will benefit from a more complete picture of the most effective ways to allocate water and other resources. How can the water risk be monetized so it can be factored into investment decisions and considered alongside other business metrics? Trucost, a U.K. based company, estimates that the true value of one thousand gallons of water ranges between \$0.40 where it is plentiful and \$60 in areas of extreme scarcity. Forward-thinking businesses should apply this true value of water to include in their operating strategies, such as aligning water use with its availability and evaluating new infrastructure investments, procurement strategies and product portfolios. Companies can focus on the true value of water to prepare for having to absorb costs that were once off the books, but are now being internalized due to new regulations, higher water prices or water shortages.

If a company can understand the true value of water, it can make more informed decisions which maintain business value by avoiding or minimizing the risks associated with water scarcity and other natural capital constraints.