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A New Water Paradigm

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We are living in a unique period of human history in which all of humanity is threatened by the demise of a resource necessary for our survival. In fact, it is an age distinctive in the history of the planet. We are rapidly destroying a resource that is not only essential for the survival of humans, but for all forms of life: water. Given the universal need for water, the implications of its mismanagement are extensive and grave. Not only could we see an unprecedented loss of biodiversity, but it is debatable that the collapse of human society is on the horizon due to the severe decline in the state of the world's water. Some even argue that the disintegration of the regulatory systems of the planet are at stake.

There is a growing awareness of the magnitude of this impending crisis. Society is beginning to realize that, similar to the situation with the hole in the ozone layer, the effects of our increasing consumption and contamination of freshwater have not been readily visible and may quickly culminate into a situation of acute scarcity for even those regions of the world considered to be 'water rich'.

It has been our lack of understanding of the nature of water and its crucial role in the greater ecological fabric of the planet that is at the root of this compounding problem. In recent human history, the dominant paradigm in water management has been one of centralization and has disregarded any externalities resulting from the manipulation of this resource. It has become quite apparent, however, that whenever water is diverted from its natural course in large quantities, there will be ecological, economic, and cultural damage.

It is obvious what devastating effects an enormous dam has on a river and its surrounding ecosystems both up and downstream. Large-scale centralized distribution and collection systems lead to a concentration of nutrients and other pollutants beyond the absorptive capacity of the natural environment, or if treated adequately, entail a high input of energy. Moving immense quantities of water against gravity requires massive energy input which translates into economic costs, putting poor populations at a disadvantage. Intensive irrigation leads to the degradation of soils which results in the choking of waterways, and a drastic decrease in agricultural production as well. The detrimental effects on the natural environment resulting from this approach are undeniable.

With increased centralization also comes a greater disconnect between people and their water source which leads to less personal and social concern for its integrity. This has a profound effect on many levels. The great civilizations of the world have arisen around great bodies of water: the Tigris and Euphrates, the Indus, the Nile, and others. Those bodies of water, and our dependence on water in all aspects of life, have been fundamental in the evolution of human culture and society. I don't think we can begin to imagine the long-term societal effects of desecrating that cultural foundation. In India, millions of people make a pilgrimage every year to the holy Ganges River. Now the river has been dammed which will reduce its volume downstream and concentrate the rapidly growing levels of pollution. What will happen to this ancient culture when these pilgrims arrive one year and to find a foul trickle of liquid waste in place of the mighty sacred river?

In much of the industrialized world, it is often the case that people in urban and suburban areas do not know where the water from their tap originates and they do not comprehend what happens with their wastewater. From this disconnect results the mindless disposal of toxic materials that would probably not occur if people realized that they were directly or indirectly poisoning themselves and their children. Yet children are growing up in an environment where, as far as they understand, their drinking water doesn't come from the nearby lake, it comes from the faucet. Of course, when that lake becomes polluted rendering the tap water undrinkable, the prevailing solution is to purchase bottled water rather than address the cause of pollution and restore the local source. People who can afford bottled water (which can cost up to 1100 times more than tap water) do not feel compelled to invest in the health of their local water resources because they have alternative access to clean drinking water through the global economy.

What is truly frightening is that although the imminence of a global water crisis is being recognized, we are attempting to prevent it by perpetuating the same paradigm that has led us into disaster. Not only are we continuing to defy water's natural boundaries with centralized management, we are increasing the degree of this centralization more and more. The corporate-driven policies of the World Bank, the World Trade Organization (WTO) and governments encourage exploitation of water resources on an unprecedented level. Last year, targets were set at the World Summit on Sustainable Development to halve the number of people without adequate access to water by the year 2015. Two things are readily apparent, however: that the task of achieving these goals is intended to be carried out by the private sector, and that it will be done from within the current paradigm. This will not avert the crisis, but rather aggravate it.

It is imperative that we become stewards of the planet's water rather than attempting to force this precious resource to meet our unsustainable demands. We need a new approach that does not center around market forces but rather on the nature of water itself. By working within its natural limitations and through better understanding of its behavior, we can develop methods and technologies that will enable us to meet both human and planetary needs for water.

Dr. John Todd has developed living water purification systems that replicate wetlands, ponds, and streams. Used in a small-scale, decentralized fashion, these systems could not only allow us to return our wastewaters to their source in a state of natural health, but could enable us to make use of our 'waste' nutrients through the cultivation of foods or other botanical products within the system. Solar

distillation systems are a small-scale model of planetary evaporation and condensation cycles, mimicking precipitation. Through this process, contaminants are removed using only sunshine as opposed to energy-intensive and highly technical strategies like reverse osmosis. Vernacular rain-fed agriculture cultivatescrops that have evolved to use only the amount of water naturally available in a particular ecological setting. These methods and technologies, and others like them, are simple and are not dependent on financial capital or technical expertise.

It is also true that, with this new understanding of water in its ecological context, we are able to see the ingenuity in ancient indigenous methods of water control. Spherical clay vessels allow stored water to circulate in natural patterns and to 'breath', keeping it cool, fresh, and healthy. In regions with a long dry season and only a short rainy period, small earthen check dams built in strategic locations slow the flow of storm water enough so that it seeps in and recharges the groundwater. In Southeast Asia, the tradition integrating fish ponds with rice paddies allows for the waste from the fish cultivation to fertilize the rice crop in the process of cleaning the water before it is returned to the river.

Many have expressed the underlying role of water on the planet as analogous to the blood of an organism. Water cycles through the world, bringing with it life-giving energy and revitalizing all the organisms of the planet on its path through the hydrological cycle. Recently, in Japan, Dr. Masaru Emoto has shown by freezing water samples and looking at the quality of their crystalline structure that water interacts with its environment in ways much more subtle than previously thought. His research team has discovered that when water is exposed to 'negative energy', such as being told that it is a fool or by saying words like 'war' and 'hate', there are major structural flaws in the crystals if there is any recognizable form at all. On the contrary, when exposed to 'positive energy', such as saying 'thank you', the crystals are exquisite.

We may only be at the threshold of a new age of understanding in regards to water. What is certain though, is that only along a path of local stewardship will we avert disaster and ensure a water-secure future.

Author Biography:

Ryan Case is Co-founder and Director of the Water Stewards Network

The *Water Stewards Network* is a project to build cohesiveness among the water movements and networks emerging around the world and to emphasize the theme of stewardship in the global dialogue. Through the internet, publications, and public outreach, this network raises awareness about global water issues and disseminates information about sustainable approaches to water management that empowers communities to become stewards of their local water resources. This is an important step in galvanizing the peoples' movement for water sovereignty and promoting a paradigm shift in society's approach to water management.

For more info, visit www.WaterStewards.org or email info@waterstewards.org

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