

The Missing Piece: A Water Ethic

We must make the protection of freshwater ecosystems a central goal in all that we do.

BY SANDRA POSTEL

NOW FOR THE MILLION DOLLAR questions: Why has so much of modern water management gone awry? Why is it that ever greater amounts of money and ever more sophisticated engineering have not solved the world's water problems? Why, in so many places on this planet, are rivers drying up, lakes shrinking, and water tables falling?

The answer, in part, is simple: We have been trying to meet insatiable demands by continuously expanding a finite water supply. In the long run, of course, that is a losing proposition: It is impossible to expand a finite supply indefinitely, and in many parts of the world the "long run" has arrived.

For sure, measures to conserve, recycle, and more efficiently use water have enabled many places to contain their water demands and to avoid or at least delay an ecological reckoning. Such tried-and-true measures as thrifty irrigation techniques, water-saving plumbing fixtures, native landscaping, and wastewater recycling can cost-effectively reduce the amount of water required to grow food, produce material goods, and meet household needs. The conservation potential of these measures has barely been tapped.

Yet something is missing from this prescription, something less tangible than drip irrigation lines and low-flow showerheads, but, in the final analysis, more important. It has to do with modern society's disconnection from nature's web of life and from water's most fundamental role as the basis of that life. In our technologically sophisticated world, we no longer grasp the need for the wild river, the blackwater swamp, or even the diversity of species collectively performing nature's work. By and large, society

views water in a utilitarian fashion—as a "resource" valued only when it is extracted from nature and put to use on a farm, in a factory, or in a home.

Overall, we have been quick to assume rights to use water but slow to recognize obligations to preserve and protect it. Better pricing and more open markets will assign water a higher value in its economic functions, and breed healthy competition that weeds out wasteful and unproductive uses. But this will not solve the deeper problem. What is needed is a set of guidelines and principles that stops us from chipping away at natural systems until nothing is left of their life-sustaining functions, which the marketplace fails to value adequately, if at all. In short, we need a water ethic—a guide

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to right conduct in the face of complex decisions about natural systems that we do not and cannot fully understand.

The essence of such an ethic is to make the protection of freshwater ecosystems a central goal in all that we do. This may sound like an idealistic prescription in light of our ever more crowded world of needs and aspirations. Yet it is no more radical a notion than suggesting that a building be given a solid foundation before adding 30 stories to it. Water is the foundation of every human enterprise, and if that foundation is insecure, everything built upon it will be insecure, too. As such, our stewardship of water will determine not only the quality but the staying power of human societies.

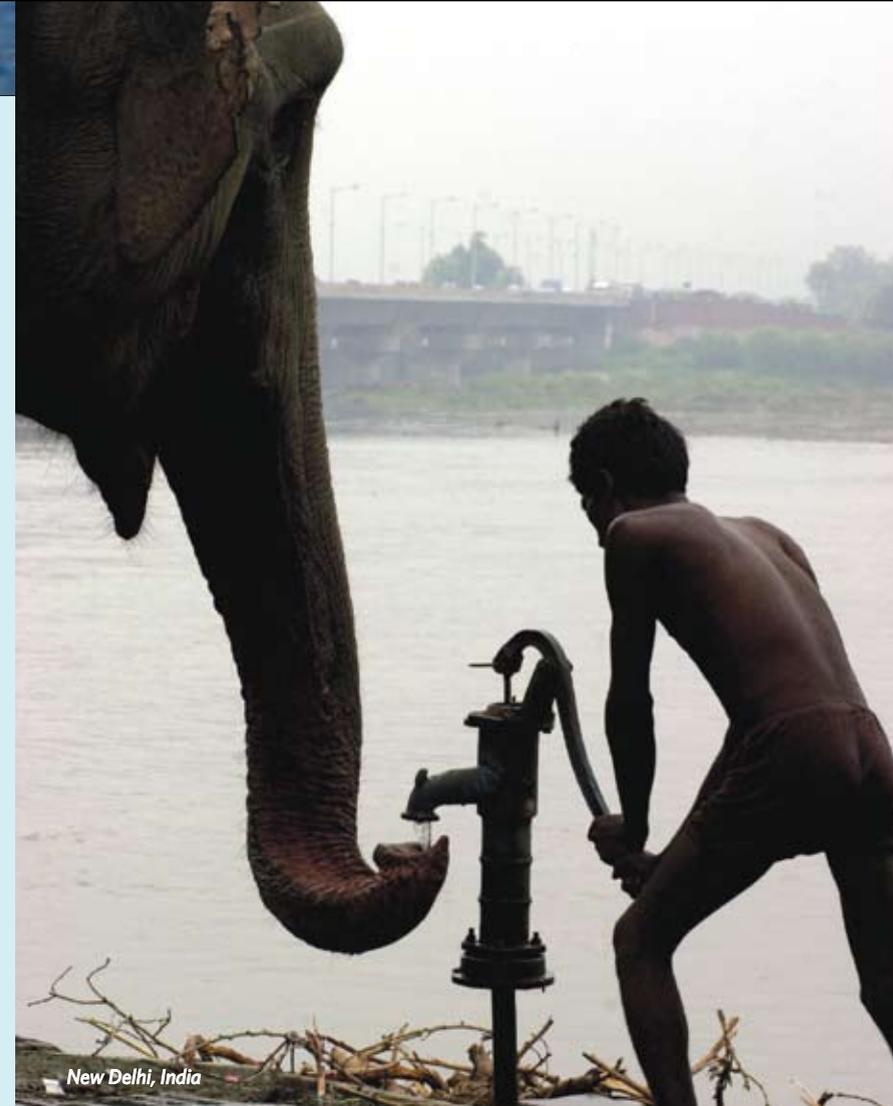
The adoption of such a water ethic

would represent a historic shift away from the strictly utilitarian approach to water management and toward an integrated, holistic approach that views people and water as interconnected parts of a greater whole. Instead of asking how we can further control and manipulate rivers, lakes, and streams to meet our ever-growing demands, we would ask instead how we can best satisfy human needs while accommodating the ecological requirements of freshwater ecosystems. It would lead us, as well, to deeper questions of human values, in particular how to narrow the wide gap between the haves and have-nots while remaining within the bounds of what a healthy ecosystem can sustain.

Embedded within this water ethic is a fundamental question: Do rivers and the life within them have a right to water? In his famous essay, "Should Trees Have Standing? Toward Legal Rights for Natural Objects," legal scholar Christopher D. Stone argued more than 35 years ago that yes, rivers and trees and other objects of nature do have rights, and these should be protected by granting legal standing to guardians of the voiceless entities of nature, much as the rights of children are protected by legal guardians.

Stone's arguments struck a chord with U.S. Supreme Court Justice William O. Douglas, who wrote in a famous dissent in the 1972 case *Sierra Club v. Morton* that "contemporary public concern for protecting nature's ecological equilibrium should lead to the conferral of standing upon environmental objects to sue for their own preservation. ... The river, for example, is the living symbol of all the life it sustains or nourishes—the fish, aquatic insects, water ouzels, otter, fisher, deer, elk, bear, and all other animals, including man, who are dependent on it or who enjoy it for its sight, its sound, or its life. The river as plaintiff speaks for the ecological unit of life that is part of it."

During the next three decades, U.S. courts heard cases brought by environ-



New Delhi, India

mental groups and other legal entities on behalf of nature and its constituents. In water allocation, concepts such as "instream flow rights" began to take hold, although these rights often received too low a priority to offer meaningful protection of river health. With freshwater life being extinguished at record rates, a more fundamental change is needed. An ethical society can no longer ignore the fact that water-management decisions have life-or-death consequences for other species. An ethically grounded water policy must begin with the premise that all people and all living things be given access to enough water to secure their survival before some get more than enough.

On paper, at least one government has grounded its water policy in precisely such an ethic. South Africa's 1998 water law establishes a water reserve consisting of two parts. The first is a non-negotiable water allocation to meet the basic drinking, cooking, and sanitary needs of all

South Africans. (When the African National Congress came to power, some 14 million poor South Africans lacked water for these basic needs.) The second part of the reserve is an allocation of water to support ecosystem functions. Specifically, the act says that "the quantity and reliability of water required to maintain the ecological functions on which humans depend shall be reserved so that the human use of water does not individually or cumulatively compromise the long term sustainability of aquatic and associated ecosystems." The water determined to constitute this two-part reserve has priority over licensed uses, such as irrigation, and only this water is guaranteed as a right.

At the core of South Africa's policy is an affirmation of the "public trust," a legal principle that traces back to the Roman Empire, that says governments hold certain rights and entitlements in trust for the people and are obliged to

protect them for the common good. In addition to the public trust, another rule fast becoming essential for freshwater ecosystem protection is the "precautionary principle," which essentially says that given the rapid pace of ecosystem decline, the irreversible nature of many of the resulting losses, and the high value of freshwater ecosystems to human societies, it is wise to err on the side of protecting too much rather than too little of the remaining freshwater habitat.

The utilitarian code that continues to guide most water management may fit with prevailing market-based socioeconomic paradigms, but it is neither universal nor unchanging. The American conservationist Aldo Leopold viewed the extension of ethics to the natural environment as "an evolutionary possibility and an ecological necessity." More recently, Harvard biologist Edward O. Wilson noted in his book, *Consilience*, that ethical codes historically have arisen through the interplay of biology and culture. "Ethics, in the empiricist view," Wilson observes, "is conduct favored consistently enough throughout a society to be expressed as a code of principles."

In other words, ethics are not static; they evolve with social consciousness. But that evolution is not automatic. The extension of freedom to slaves and voting rights to women required leaders, movements, advocates, and activists that collectively pulled society onto higher moral ground. So it will be with the extension of rights to rivers, plants, fish, birds, and the ecosystems of which they are a part. As societies wrap their collective minds around the consequences of global environmental change—rising temperatures, prolonged droughts, chronic water shortages, disappearing species—it may well be that a new ethic will emerge, one that says it is not only right and good but necessary that all living things get enough water before some get more than enough. Because in the end, we're all in this together. **TAP**

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