

WATER: THREATS AND OPPORTUNITIES

Recommendations for the Next President

Dr. Peter H. Gleick¹ October 9, 2008

Safe and adequate fresh water resources are central to the economy, foreign policy, and security of the United States. You, as the next President of the United States, will face four critical domestic and international challenges related to fresh water. These challenges will require unilateral, bilateral, or multilateral action and the special attention of you and senior members of your Administration. Failure to address them will have diplomatic, economic, political, and public health ramifications. Below I offer a short assessment of these four problems and 16 key recommendations for addressing them.

Problem 1: Lack of a National Water Policy

The nation's limited and unevenly distributed fresh water resources are used inefficiently and ineffectively, in part because of the lack of basic national water policy. Our water quality is not as well protected as it could, and should, be. If inefficient use and water contamination continue unabated, they will impoverish this and future generations, destroy the limited remaining aquatic ecosystems, and threaten our future food supply. Increasing the productive use of water nationwide will benefit farmers, cities, our economy, and our natural environment. More effective water-quality monitoring and protection will help protect public and environmental health. Key recommendations include restructuring and streamlining federal water programs, updating federal water quality laws, and rethinking federal subsidy programs.

Recommendations: Develop a 21st Century National Water Policy

- Constitute a new national, bipartisan Water Commission for the 21st Century to evaluate and recommend changes to national water policy.
- Work with Congress to update the national Clean Water Act and the Safe Drinking Water Act to ensure the integrity of the nation's water resources, protect against new contaminants, and permit the use of new technologies.
- Reorganize and streamline the diverse and uncoordinated federal water responsibilities and expand the collection of water-use and water-quality data.
- Reinvigorate and expand investment in our drinking water and wastewater infrastructure through bonds, tax incentives, and direct support for small communities.

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- Work with Congress to establish incentives for improving water efficiency and reducing wasteful use of water, such as through the Farm Bill, water pricing, trade laws, plumbing codes, and tax code revisions.
- Establish a process for setting and enforcing environmental flows for all major river systems.

Problem 2: Water-Related Threats to National Interests and Security

There is a growing risk of political insecurity and instability in regions where access to fresh water is a problem. U.S. interests will be affected in many of these regions, including the Middle East; central/southern Asia (including India, Pakistan, China, Tibet, and Thailand); and the central Asian republics. Other less predictable hot spots are likely to appear. Because the root cause of many conflicts is related to access to resources, diplomatic efforts to reduce the risks of conflict must now include an "environmental" component. Furthermore, military preparedness should also include a threat analysis with serious attention given to water in particular. More attention should also be given to the best ways of protecting of our national water system from domestic terrorism.

Recommendations: Spotlight National Security Issues Related to Water

- Explicitly monitor and track water-related threats to security and U.S. interests.
- Conduct a series of integrated workshops within the War College system, the State Department, CIA, Homeland Security, and other agencies on critical water security challenges, including the vulnerability of U.S. water systems to terrorism, and regional threats.
- Reduce the risks of international water-related conflicts by committing appropriate diplomatic resources within the State Department.
- Reduce the risks of domestic water-related terrorism by working with local and regional water agencies to identify and reduce vulnerabilities.

Problem 3: A Continuing Global Water Crisis

Access to basic water services, including clean drinking water and sanitation, is still unavailable for between two and three billion people. International efforts to spotlight this problem are necessary, as are multilateral efforts to solve it. The failure to provide these basic services has direct and indirect public health and economic ramifications for the U.S. Furthermore, the U.S. stands to gain substantial international goodwill if we make serious efforts to help provide clean water and sanitation globally. The U.S. should play a leading role in addressing these problems, in redirecting foreign aid budgets, and in encouraging international aid organizations to refocus efforts toward meeting basic water needs.

Recommendations: Expand the Role of the U.S. in Addressing Global Water Problems

- Refocus U.S. international aid spending priorities toward meeting basic water needs in conjunction with efforts of international nongovernmental organizations and the private sector.
- Increase efforts for monitoring water quality and water-related disease.
- Expand the scientific, educational, and financial leadership of the U.S. in addressing unmet needs for water for all.

Problem 4: The Growing Consequences of Climate Change

Global climate changes are already affecting vital sectors across the U.S. and these impacts will likely intensify. Changing climate conditions affect the supply of and demand for water resources, with adverse consequences for the reliability and quality of the nation's water supply, hydroelectric generation, and food security. The nation is also beginning to see changes in the magnitude, frequency, and costs of extreme events like floods and drought. The failure to update our knowledge on climate impacts or to take actions to reduce their consequences will put further pressure on the nation. This must be remedied early in your Administration through the development of a national strategy to integrate climate into water management and planning at all levels. Particular emphasis must be given to two simultaneous efforts: reduce greenhouse gas emissions associated with our water system, and help local communities adapt to the unavoidable impacts of climate change on water availability and quality.

Recommendations: Integrate Climate Change into all Federal Water Planning and Activity

- 1. Update the 2000 National Assessment on the impacts of climate change on U.S. water resources by developing adaptation strategies for responding to unavoidable impacts.
- 2. Reduce greenhouse gas emissions associated with water systems by reducing the energy cost of providing, treating, delivering, using, and cleaning water.
- 3. Integrate climate change into all federal water decisions, planning, and management, including new construction and the operation of existing water systems and reservoirs.

Additional information on these issues can be found at **www.pacinst.org**.



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