INTERACTION COUNCIL

High-Level Expert Group Meeting

Chairmen's Report on the High-Level Expert Group Meeting

"The Global Water Crisis: Addressing an Urgent Security Issue"

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A hydraulic bomb has started to tick. Humankind lives on a planet covered by water, but more than 97 per cent is salty and two per cent is locked up in iced and snow. This leaves less than one per cent to grow crops, cool power plants and supply drinking and bathing water for households. One of the great issues of the 21st century is how we will share this one per cent amongst the increasing population. The InterAction Council, in collaboration with the Walter & Duncan Gordon Foundation of Canada, convened a High-Level Expert Group Meeting in Toronto, Canada the 21 to 23 of March to look into water issues from the perspective of development, energy, technology, international law, public health, and conservation and environment.

Urgency and Risk

Multiple, cumulative and compounding problems with water supply and quality are converging on us globally. Humans are now the driving force behind the global hydrological cycle. Water demand, water availability and aging water infrastructure are on a collision course, which will be made worse by uncertainties associated with climate change.

Population growth is already colliding with finite water resources. Advances in technology, innovation, and best practices are being mocked and overshadowed by relentless population and economic growth. Water stress is expanding globally but especially at mid-latitudes. Despite critical need, investment in water management as a percentage of GDP has dropped by half in most countries since the late 1990s. The magnitude of the problem and the risks has been greatly underestimated. One billion people on Earth are without reliable supplies of water. More than two billion lack basic sanitation. A growing number of rivers do not make it to the sea. There is widespread surface and groundwater contamination that makes valuable water supplies unfit for other uses. Many water systems will collapse over time without urgently needed integration of water policy.

The jurisdictional fragmentation and institutional territoriality that have made it impossible to meaningfully restore critical flows of many of our most important rivers make responses to similar problems difficult to resolve, not just in North America but around the world. So far, talk relating to a willingness to cooperate about water has not led to effective action. Difficult reforms remain necessary based on integrated land and

watershed management principals, rather than the fractured jurisdiction of artificial management units imposed by political boundaries. In such situations, even the most enlightened management practices cannot succeed because of ongoing political impasse.

There is a disturbing mismatch between investment in the form of aid and results. There is too often a focus on water treatment but not on providing basic services in the poorest places. No set of interventions underpins the attainment of the millennium development goals more critically than water, sanitation and hygiene. The world lags far behind on the sanitation target, which is predicted will be missed by over one billion people. Some 1.5 million child deaths occur annually. Some 88 per cent of these deaths can be directly attributed to water-borne pathogens.

There is an inextricable link between water and food. Due to the link between health, nutrition, equity, gender equality, well-being and economic progress: water, sanitation and hygiene underlie not only the achievement of Millennium Development Goals but also overall long-term development.

Equitable water supply and quality problems are not just a problem in developing countries. In the United States, for example, concern over water supply is no longer confined to dry regions in the West and Southwest. Water availability is already a national concern. The global water crisis has finally arrived in America. As a result, water, food and energy security are all threatened. The situation elsewhere in the world is often far worse.

In many parts of the world, economic development has been slow, as has been investment in science. Activities of government have been focused on continuity instead of ingenuity. While this has been changing slowly, there are many hotspots, which should cause us serious concern.

In many countries, national security has been historically defined by military security. We now realize that that is only one element in the human security equation. Water, food and nutrition, and energy security are as important as military security. There remains real potential for conflict over water.

The number of environmental migrants moving within their country and beyond their own borders in response to climate change and other impacts on water is expected to grow. The 24 million environmental migrants that were created in 2002 could increase tenfold by 2050. A change of terminology from "water wars" to "water point clashes" or "conflicts of use" will be essential to shift focus away from semantic arguments and towards practical solutions.

The consequences of our inability to manage the water-energy nexus could be grave. Global energy consumption will continue to rise, increasing perhaps by as much as 50 per cent by 2030. This will put the energy sector into greater competition with other water users, which will likely impact regional energy reliability and energy security. The combination of more water users and more uses has altered the traditional ladder that helps elevate human economic development progress. Until our thinking about water and energy can be integrated, sustainability will continue to elude us.

We face a vacuum in international water leadership. New forms of hydro-diplomacy are desperately needed. Everyone knows what the problem is but political will, financial resources and good governance is widely lacking. Leaders and policy makers are inundated by "legislative congestion" but the fact remains that inactivity in the face of a growing global water crisis is unconscionable. Future generations will drink the very same water we drink. There is, therefore, huge urgency in creating the political will to address the root cause of the global water crisis.

Challenges and Opportunities

Growing populations, changing diets, increased urban, agricultural and industrial water demands and a growing understanding of nature's need for water decree the need to radically reform our attitudes toward water and how it is managed globally. Putting water on the global political agenda is critical not just to the need to feed nine billion people in 2050 with less agricultural water than we have today, but to address the critical development challenge of doing this in a safe, sustainable way while protecting the livelihoods of the vast number of rural poor. In addressing water issues, we address economic and public health woes simultaneously and also go a long way in advancing capacity to adapt to climate change. In addressing water security issues, foundation for peace and well-being must be created.

Economics must be considered in all policy reform. Not all solutions are expensive. Quite the contrary. But a real global problem needs real funding. With an investment of only $20 billion a year we could have nearly 100 per cent water supply coverage globally by 2025.

But money is not the only solution. In many countries major public institutions do not have the wherewithal to address water issues even if they had the money to do so. Outside help as well as financing are required to ensure that water quality and availability issues do not stall economic or social progress, or worse yet, result in further conflict in many parts of the world.

Regional cooperation is essential to achieving transboundary security and optimal levels of water and food and nutrition security. International examples suggest that watershed-scale management of water resources generates increased economic benefit for all within a regional context. It may be helpful to employ the same principles that generated cooperation over water to stimulate similar international cooperation over climate change. Globally relevant models exist. The Northwest Territories *Northern Waters, Northern Voices* water stewardship strategy demonstrates how the right of both people and nature to water can be a foundation of sustainable economic development.

An international yardstick of water security was created by the UN but many countries are not meeting these standards. The UN international water protocols should be supported and advanced. An example of real progress toward higher international standards of water management is the 1997 UN Watercourses Convention, which, unfortunately, was not ratified.

Another important example of successful international agreements over water management standards is the *European Union Water Framework Directive*. In this framework, water quality standards and parameters of aquatic ecosystem health are defined by the European Union. Individual nations are charged with meeting those standards by whatever means they feel will work best in local circumstances. In the EU model agricultural policy and water policy are linked.

The right to water is a powerful tool that can be used to focus attention and resources on improving access to water for those individuals and communities who currently endure

the hardships imposed by the absence of safe water. The global food security issue shows it is related as much to lack of storage and transport as it is to actual food production. Improving these processes could contribute to water and food security.

Leaders must also address the issue of emerging unhealthy diets and its huge impacts on water security. It will also be important to explore the possible benefits of virtual water trade. Innovative thinking cannot only prevent crisis but can result in enhanced economic development and the improvement of living standards widely.

Public-private sector partnerships may be necessary to address the growing global water infrastructure deficit. The requirement for new energy sources will exacerbate water use and increase tensions over water security. Thus, it becomes crucial that the efficiency of water use in energy production is increased. Huge growth is projected in unconventional biofuels and substitutions. We should not be growing fuel where we should be growing food.

Water re-use is no longer an option. A revolution in water re-use technology is essential, if any meaningful level of sustainability is to be achieved. There is no choice but to employ wastewater and saline water in energy production. Government regulation can provide huge incentives for change. New laws can start the "ingenuity engine" and keep it running.

The setting of high standards can produce rapid change. When standards are set higher than they have ever been, it stimulates innovation in water conservation and treatment. This creates economic opportunity.

Revitalizing irrigation institutions, technology and practices will improve water productivity. However, water security is about human interaction with the environment with water as a mediator. Nature is a silent stakeholder in all water use dialogue. The value of ecosystem services may often exceed alternative human uses. It is essential to learn quickly how to invest in critical natural infrastructure nationally and globally; to explore the possibility of payments of environmental services; to ask whether farmers and others should be paid to provide ecosystems that urbanites don't have the space to provide or don't know how to duplicate adequately or reasonably through engineering means.

Science and water governance experience must be proactively linked to the political process. The failure to address the global water crisis is not a question of austerity but of priority.

RECOMMENDATIONS

From the above deliberations, the following recommendations have been put forward, which the Co-chairmen of the meeting urge the Council to consider and adopt:

1. Endorse and support the global aspiration to make the right to water implementable and enforceable through the rule of law.

2. Urge national governments and the international community to make linkages between climate change research/adaptation programs and water issues, which are inherently and fundamentally related.

3. Encourage national governments to stimulate private and public sector innovation to address the global water crisis and capitalize on the economic opportunities that arise from finding solutions to these complex challenges.

4. Urge governments to ensure that water is being valued appropriately and priced to reflect its full cost with provision for those in poverty.

5. Assert that where water supplies are threatened, water used to grow food should not be substituted for water to grow crops for biofuel production.

6. Encourage increased investment in urgently needed sanitation coverage and improved access to safe water supply globally.

7. Support the ratification of the UN Watercourses Convention and the development of the draft articles on transboundary aquifers.

8. Encourage the UN Security Council to focus specifically on water security.

9. Encourage the linking of agricultural and water policy with energy policy nationally and globally.

10. Support renewed national, international and global focus on monitoring hydrological processes and increased attention to mapping and monitoring of groundwater.

11. Support the reduction of freshwater use in electric power and transportation fuels development through technical innovation and improved water efficiency.

12. Encourage the development of materials and water treatment approaches to enable non-traditional water use in energy generation and refining.

13. Encourage the improvement of water availability assessment and energy and water systems analysis and decision tools.

14. Support the conservation of the world's intact freshwater ecosystems, the establishment of ecological sustainability boundaries, and investment in ecosystem restoration.

15. Support the creation of an international water institution or forum specifically focused on helping water-troubled countries resolve their problems within a global context, in which experts on science, law and policy collaborate directly with political leaders.

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