High School Model United Nations 2009

UNEP – The Question of Creating a Framework for Sustainable Water Usage

Goldman Sachs, an investment bank known for their forecasts on future conditions, has recently suggested that one of the biggest threats to mankind in the upcoming century will be the shortage of water. Moreover, they estimate that global water consumption is doubling every 20 years.[i] Clearly, fresh water usage and management is of paramount importance and yet there has been very little concrete legislation or development at the international level to address the shortages which are already beginning to occur in many parts of the developing world. If water is to become the "petroleum for the next century" then there needs to be a framework in place for its distribution and usage to ensure that the boom/bust cycles, monopolies, and shortages that have plagued the oil industry do not threaten water supplies.

Only 2.5% of the world's hydrosphere consists of fresh water. 29.9% of this fresh water exists as groundwater and only 0.26% of all fresh water can be found in lakes, reservoirs and river systems where it is most easily accessible to meet our basic drinking and living, agricultural, and industrial needs as well as sustain vital freshwater ecosystems.[ii] The UN estimates that approximately 18% of the world is without access to safe drinking water.

However, talk of a global water shortage can be misleading as experts suggest there is more than enough fresh water for everyone, simply not distributed proportionally. For example, Canada and Brazil have more than enough water but Yemen and Northern China suffer shortages. Even within countries there can be vast discrepancies as to water distribution. Clearly then there is a need to address the lack of management and regulation which would help even out water supplies.

Drought and water shortages and their corresponding declines in standard of living have been attributed to helping cause the Maoist insurgency in Nepal and the original uprising of the Taliban in Afghanistan. Experts warn that the dry continent of Africa should be prepared to face increasing conflict as water becomes increasingly scare. The Economist notes that "'water stress' may exacerbate existing separatist struggles; it may already be doing so in places like Mauritania, Mali and Ethiopia." Elsewhere, in the badlands of south Somalia, southern Ethiopia and northern Kenya, the annual death toll from battles over water and grazing is in the hundreds. Aid-workers suggest that rising numbers of people and livestock, escalation from rifles to machineguns, erratic rainfall and especially the increased rates of evaporation due to climbing average temperatures will see the number of deaths hit the tens of thousands.

There are numerous ideas being suggested at the international level. Economists have long been promoting the creation of a market value for water as a way to both curb

water usage and also set up sustainable management systems. However, there are numerous concerns with the system. Sovereignty over water resources is not a new phenomenon and disputes over water ways have only grown in number as water supplies become increasingly important for industry and agriculture but are also polluted at higher levels, leaving downstream populations to make costly decisions. That being said over 400 treaties in the past half-century have been signed regarding water usage, the majority of which have been surprisingly durable even in cases where the nations involved have gone to war. If the international community and national governments can build off the success of these treaties and a create clear definitions of water rights then those who require water to operate their businesses, such as agricultural and industrial users, could be encouraged to begin trading. Of course, measures would have to be in place to ensure that "water theft" does not become a problem but by creating a flexible and concrete definition of water rights which respects national sovereignty but also allows developing countries to participate could be a viable solution, even if it was first implemented only at national or sub-regional levels.

Peter Gleick has identified several questions which must be addressed when considering long-term water management at the local and global levels:

1. How much water is needed for satisfying the domestic use of a family in a dense urban center or in a rural agricultural community?
2. Should people be able to use as much water as they can pay for?
3. Under what situations should water be delivered to farmers at rates below full operating and capital costs?
4. How much water is needed to maintain ecological systems and environmental quality and services, and at what level?
5. How much water should be available and at what quality for the use of future generations?
6. What is the basic minimum standard of water quality, including variations based on location and use?

He goes on to discuss what sustainability entails and notes that the definition should include provisions which allow current users to maintain their benefits and usage without affecting the ability to provide comparable levels of usage to future generations, much like the definition developed by the World Commission on Environment and Development which states "Humanity has the ability to make development sustainable-to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs." That usage levels will change as political, religious, cultural, and technological differences develop but this merely underscores the complexity of any framework that attempts to be sustainable in the long-term. Moreover, sustainability must be understood as relating not only to the needs of humans but also of naturally occurring ecosystems.

Naturally, any sustainable framework will include provisions to analyze current water usage of major water basins so that integrated water resources management strategies can be implemented with maximum impact. Deeper understanding is needed of local situations so that new technologies can be implemented with maximum efficiency and local governance and legal frameworks can be strengthened accordingly. Delegates will want to consider how UNEP, and the UN as a whole, can work closer with local NGOs, scientists and other civil society activists to develop targeted plans for the most endangered water basins and those most crucial to helping even out water distribution.

Any resolutions will need to be sensitive of sovereignty issues over resources and pay special attention to the concerns of countries which are dependent on water-intensive agricultural and industrial practices. There will be the question of who can afford to implement any new technology and who should bear the brunt of cleaning up and protecting large basins. Many of the difficulties faced by those seeking to limit global carbon emissions will also be found within this debate as changing and influencing water usage requires not only economic sacrifices but cultural ones as well. Affecting change in either situation is expensive and requires both technological and educational resources. That being said, Goldman Sachs rightly sees this as having potential for industry and greener technologies and new infrastructure. They estimate that America alone needs to spend around $1 trillion on new pipes and waste-water plants by 2020. As for the higher-tech side of the industry—for example in desalination efforts, or ultraviolet disinfection—Goldman Sachs reports it is now worth $425 billion dollars, globally.

In reality, solutions to sustainable water use will largely be local. Where the international community should focus its attention is in creating general standards and providing expertise and monitoring technologies as well as economic aid. There needs to be a more realistic valuation of water and this will come by raising international attention to the issue and closely studying water basins and their use. Like many of the situations faced by the UN, most work must be done at the national and local levels but the organization has the most potential for changing the perception of the issue and placing new value on it. Water is a precious resource and the international community must reflect on their current usage of it and how it can be protected for future generations.

---

[i] http://www.economist.com/world/international/displaystory.cfm?story_id=11751887

[ii] http://webworld.unesco.org/water/ihp/publications/waterway/webpc/definition.html

Links

An article from The Economist on water trading - http://www.economist.com/world/international/displaystory.cfm?story_id=11751887

The Water Policy and Strategy of UNEP - http://www.unep.org/Themes/Freshwater/Policy_And_Strategy/index.asp

Regional Information on Freshwater Usage and Management - http://www.unep.org/themes/Freshwater/Regions/index.asp

The United Nations World Water Report "gives an overall picture of the state of the world's freshwater resources and aims to provide decision-makers with the tools to implement sustainable use of our water." - http://www.unesco.org/water/wwap/wwdr/

A variety of publications of interest (including regional briefings) from the International Water Management Institute can be found here - http://www.iwmi.cgiar.org/Publications/index.aspx