

Remarks by the Right Honourable Kim Campbell
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It is a great pleasure for me to be back in Beijing to participate in another timely and important discussion convened by CISS. As I mentioned last year when I had the pleasure of speaking at the conference on public health security, I served as my country's Minister of National Defense at a time when security was still largely seen in terms of military preparedness and capability. In an increasingly globalized world, factors that affect a country's ability to trade can be as devastating to the wellbeing of citizens as conflict. And so, last year, we looked at the importance of public health- response to epidemics, product and worker safety- in maintaining the free flow of goods and services in a globalized economy. This year, CISS has chosen another vital topic – water security. Here, the security issue is nothing less than life itself as the world confronts what many describe as a crisis of water.

When we look at how much water there is on the earth, it may seem impossible to imagine that we could experience shortages amounting to a crisis. Over 70% of the earth's surface is covered in water. Of that, 97.5% is salt water, and of the fresh water, most is in frozen storage in the ice sheets of Greenland and Antarctica. Nonetheless, there remain 10 million cubic kilometers of fresh water in available form, much more than the 8,000 cubic kilometers of water needed each year to support the world's current 6.5 billion population. The problem is that much of the water is in the wrong places in the wrong amounts at the wrong times. As a consequence, 1 billion people do not have the 5 liters of clean water per day just to survive, and 2 billion lack the 50 liters per day to satisfy basic needs for drinking, cleaning and sanitation. Over 90% of the water consumed by human populations is used by agriculture. As intensive agriculture grows and as people in newly prosperous countries demand increasing amounts of water for personal hygiene and sanitation, the demand on the world's water supplies continues to rise. Climate change, population growth and depletion of traditional sources of supply combine with these factors to create what some have called "a perfect storm" that could push countries into violent conflict over water. With its enormous population and rising standard of living, China is at the heart of this crisis.

During the meetings of this conference, you will hear expert opinions regarding the various aspects of the world water situation. Today, I want to focus on two major themes: the supply and demand approaches to addressing water shortages and the management of transboundary water resources.

The very fundamental necessity of water as the supporter of life has often made addressing water shortages more difficult. Water is traditionally regarded as a 'common' good, with no individuals being held responsible for it. Recently, my husband and I bought a house in France and we are conducting renovations. When there was a leak in the pipe supplying water to the house, the plumber was very anxious to fix it as quickly as possible because otherwise, we could possibly incur a high cost for the wasted water. More and more communities around the world charge fees to homeowners for the water they receive from the municipal water supply. This discourages waste and has created a market for plumbing fixtures and appliances that use

water economically. But domestic use of water accounts for only 10 percent of human consumption. The same price constraints do not often apply to the 90 percent of water consumed by agriculture. Even in many arid regions, farmers either do not pay for water or pay a fraction of what homeowners pay, so they have less incentive to conserve it and therefore deprive the water suppliers of funds that could be used to improve infrastructure and further reduce waste.

China has some of the lowest prices for water in the world and has tried to address water shortages through increasing supply, rather than by reducing demand. In my view, this is not a sustainable policy. Through projects such as the Three Gorges Dam, China seeks to redirect water to dry areas and to address the increasing pressures on its water resources. But the degradation of the Yangtze River system is not addressed by this approach and the financial, social and political costs of a « supply » only approach to addressing China's water needs carry considerable risks to China's security.

Several decades ago, it seemed that rivers and lakes that had been destroyed by pollution were lost forever. However, around the world, enlightened policy makers who have come to understand the terrible price their communities were paying in health, safety and economy from these degraded resources engaged in programs that have had remarkable successes in restoring the health and vitality of water resources once written off as « dead ». In Britain, the River Thames, once a polluted mess that could not sustain life, is now home to thriving fish stocks. Still serving its important role as a major transportation route into the London region, dramatic changes in standards for shipping and industrial use have shown that good policy can recover these resources for people. The Hudson River in New York is a similar story and I am sure you will hear tomorrow about many more success stories. Where governments have imposed limits on industrial effluents into waterways there has, of course, been resistance from the enterprises who had been accustomed to this cheap and easy form of waste disposal. But companies have learned new techniques for dealing with waste and new businesses have grown up to provide the services necessary to meet the new standards.

Last year I was in the city of Pittsburgh –for many years the heart of the US steel industry built at the confluence of three rivers. Pittsburgh had become a filthy, smelly place surrounded by dead water. Today, it is a beautiful city with clean waterways that teem with fish and wildlife and are enjoyed by recreational boaters who no longer risk their health by using the rivers. It is true that some of these improvements result from the removal of the industries that have created the problems, such as the steel industry in Pittsburgh, but the real story is a different approach to corporate environmental responsibility and the willingness of governments to set standards.

Not all degraded water resources can be restored. Communities around the world have been forced to tap rivers, lakes and aquifers, sometimes millions of years old, far beyond the limit at which they can replenish themselves. Above ground, lakes are shrinking and rivers are being reduced to pathetic flows, or drying up altogether. Below ground, a largely invisible crisis is unfolding as millions of wells have been sunk into aquifers - 4m in Bangladesh alone. Many aquifers are replenishable, but not all, and many that can be recharged don't get enough rain to match demand. Sometimes the empty cavities simply collapse, putting them beyond use forever. In his recent book, *Plan B 3.0*, Lester Brown catalogues the results. In the breadbaskets of China, India, the US, Pakistan, Afghanistan, Iran, Saudi Arabia, Yemen, Israel and Mexico, water tables are falling, sometimes by many meters a year. Pumps are being drilled a kilometer or more to find water, thousands more wells have dried up altogether and agricultural yields are shrinking. These countries contain more than half the world's people and produce most of its grain, warns Brown.

Meanwhile, almost forgotten amid the human suffering are the terrible consequences for the natural world: freshwater fish populations fell by half between 1970 and 2000, says the UN.

Dramatic efforts to reroute water supplies only forestall the problem and create environmental dangers of their own. Unless people can understand the value of water and become part of the process of conservation and careful use, the water crisis will remain. There are growing technologies for preserving water and recycling waste water for human use. More efficient irrigation, erosion prevention and rain harvesting are techniques that ought to be standard practice. Tree planting and the removal of more « thirsty » species of plants can make a significant contribution to conserving water resources.

Another interesting approach to conserving water is trade. Countries in the Middle East import the food products that their dry climates do not permit them to grow. On the basis of the fact that we have enough water, just not in the right quantities in the right places, encouraging a division of labor to produce water intensive crops and products in those parts of the world with ample supplies is another way of letting drier countries or regions « import » water. Analyzing a country's competitive advantage for economic development should include a consideration of its water supply and the burden that certain forms of economic activity would impose, not only in the short term but in the long term on vital water resources.

Putting a price on water is not the same as « privatizing » water supplies. It is a mechanism to put water in its proper place in the calculation of the public interest. Where prices are low or nonexistent, as in China, a public education campaign could be used to change the way people think about the water they use and to empower them with the techniques they need to play a responsible role in protecting this vital resource.

Transboundary issues

I want to address a few words to the issues of transboundary, or international regulation of water supplies. Interstate conflict over water has been relatively rare and even in areas characterized by other conflicts, such as Israel/Jordan/Palestine and India/Pakistan, the management of water resources has often been the cooperative exception to an otherwise fractious relationship.

Water has emerged as a key issue that could determine whether Asia is headed toward mutually beneficial cooperation or deleterious interstate competition. No country could influence that direction more than China, which controls the Tibetan plateau — the source of most major rivers of Asia.

Tibet's vast glaciers and high altitude have endowed it with the world's greatest river systems. Its river waters are a lifeline to the world's two most-populous states — China and India — as well as to Bangladesh, Myanmar, Bhutan, Nepal, Cambodia, Pakistan, Laos, Thailand and Vietnam. These countries make up 47 percent of the global population. Yet Asia is a water-deficient continent. Although home to more than half of the human population, Asia has less fresh water — 3,920 cubic meters per person — than any continent besides Antarctica.

The looming struggle over water resources in Asia has been underscored by the spread of irrigated farming, water-intensive industries (from steel to paper making) and a growing middle class seeking high water-consuming comforts like washing machines and dishwashers. Household

water consumption in Asia is rising rapidly, according to a 2006 U.N. report, but such is the limited supply of water that not many Asians can aspire to the lifestyle of Americans, who daily use 400 liters per person, or more than 2.5 times the average in Asia.

The specter of water wars in Asia is also being highlighted by climate change and environmental degradation in the form of shrinking forests and swamps, which foster a cycle of chronic flooding and droughts. China's discussion of possible major water diversion projects in the Tibetan Plateau raises the risk of serious repercussions if such projects were to seriously affect water supplies in the other nations of the region. China's interests could be negatively affected. But a regional approach to watershed management could contribute to the protection of a resource on which so many depend.

Canada and the United States have faced a similar challenge in managing transboundary water resources. With a boundary that is itself 40 percent water – in particular the Great Lakes – and river systems that cross the border, Canada and the United States are now celebrating the 100th anniversary of the Boundary Waters Treaty which has enabled our two countries to manage and cooperate in the best interests of both. The International Joint Commission which manages the treaty is a model of a mechanism that brings policy makers and scientists together to protect national interests and look for fair ways of sharing this important resource, whether for the production of hydroelectric power on the Columbia River, flood control or agriculture. This approach to watershed management engages local communities and local levels of government as part of an ongoing process of public education that involves all levels of society in the protection of our water.

While not as old as the Canada/US water management system, the 1960 Indus Waters Treaty between India and Pakistan and the acceptance by both countries of a regime of serious cooperation and transparency in the management of shared waters is a clear demonstration that water issues can be resolved intelligently without conflict, even between states that have a history of conflict. In Latin America, the states that share the Lempa Basin have developed regional mechanisms to manage the supplies of that river's waters.

China has the choice of risking serious conflict with the states that rely on the waters from the Tibetan Plateau Watershed, or enhancing its credibility as a world leader by engaging in serious efforts to create a water management regime that serves the interests of all the affected states. Given that the watershed originates in China's territory it is up to China to lead the process, but there are many examples of successful transboundary water management to demonstrate that such regimes can be valuable to all the participants.

In China itself, ordinary citizens are developing an environmental consciousness, which both leads them to want products that are ecologically responsible and to be ready to embrace the values that could lead to changes in the way water is managed in this country. Breach of environmental norms can also negatively affect consumer acceptance of products in foreign markets. I believe that a leadership role played by China in the management of its water resources would not only contribute seriously to the security of China's water supplies in the long term, but also would enhance the « brand » of China as a source of desirable and respected products.

Climate Change

A discussion of the world water crisis would not be complete without a mention of global warming. Through the melting of our mountain glaciers and the changing patterns of precipitation which are the cycle by which water is distributed around the world, global warming has the capacity to exacerbate the problem of water in the wrong quantities in the wrong places at the wrong times. One of the most important initiatives governments can take is to address the production of greenhouse gases. I commend China for the initiatives it is taking in creating cleaner coal burning technology for power but much more must be done by all of us.

Conclusion

A U.N. study released on the eve of World Water Day Mar. 22 2008, says the lack of safe drinking water is not confined to the world's poorer nations; it also threatens over 100 million Europeans. The result: nearly 40 children in Europe, mostly in Eastern Europe, die every day due to a water-related disease: diarrhea.

Lack of water is blamed for many of the world's most distressing crises: millions of deaths each year from disease and malnutrition, chronic hunger, keeping children away from schools which offer hope of a better life. Mostly it is the poor who suffer, but increasingly rich nations are struggling, too. Australia has endured so many dry years that a leading climatologist has said it's time to stop saying 'gripped by drought' and accept that the lack of rain is permanent.

In 2006, the UN World Water Development report declared that the water crisis is not the result of nature's vagaries or financing but has been caused by "profound failures in water governance". The International Water Management Institute's report, "Water for food, water for life" concurred; no one size fits all, and solutions have to be specific to location, culture and history. Furthermore, reform must address decades of citizens' alienation from managing their own natural resources, from taking responsibility for natural resources, and from traditional practices. Yet the responsibility for governance reform is not just of technocracy and bureaucracy but of all citizens too.

Ultimately governments must follow several paths at once: raising prices to reflect the true value of water to humans and the environment, investing in technology to improve efficiency and supplies, engaging in more trade, and making peace with neighbors that can hold up incoming water or food. These will only be possible, though, if people can be lifted out of poverty, to afford higher prices, capital spending and imports.

Sharing knowledge will also be key and I want to say thank you again to CISS for providing this opportunity to put our heads together. I am pleased to say that Canada and China are engaged in fruitful discussions about sharing Canadian environmental technology. Canada looks forward to welcoming the Chinese Minister of Health in June and our own Ministers continue to come to China to find opportunities for cooperation. Like all of China's friends and trading partners, we want China to thrive. Finding solutions to water problems is key to China's future and to the future of us all.