

Conference Report

Sixth UNU Global Environmental Forum: Water for Urban Areas in the 21st Century

Tokyo, Japan, 25 June 1997

The 6th UNU Global Environmental Forum was convened at the United Nations University, Tokyo, on 25 June 1997. The annual Forum is organized by the United Nations University, with the support of a leading Japanese construction company, Obayashi Corporation.

The topic of the 1997 Forum was on water for urban areas in the 21st century. Eight leading international experts from Asia (including Japan), Europe, North America, Latin America and the World Bank were specifically invited to address the Forum.

The Forum agreed that the world is likely to face a water crisis in the early part of the next century, the impacts of which are likely to be more severe and long lasting than the energy crisis of the early 1970s. Provision of clean water and appropriate sanitation facilities to all people living in urban areas will be a major challenge during the coming decades. The number of urban dwellers is expected to double to more than 5 billion people between the years 1995 and 2025. Asia and Africa are now experiencing explosive urban growth at around 4 per cent per year. Between 1950 and 1990, the number of cities having more than one million people increased almost four times, from 78 to 290. By the year 2025, the number of such cities is expected to double to more than 600. Providing clean water and sanitation facilities to the mega-cities of the developing world such as Bombay, Lagos, Shanghai, Jakarta and México City is going to be a very challenging task in the 21st century.

Implications of the inadequate water supply and sanitation facilities in the developing countries are already very serious. For example, currently:

- unsafe water is responsible for 80 per cent of diseases and 30 per cent of deaths;
- 1.2 billion people suffer annually from diseases caused by unsafe drinking water or poor sanitation;
- annually more than 4 million children die from waterborne diseases; and,
- 15 per cent of children will die before reaching the age of 5 years due to diarrhoea.

In spite of the above serious conditions, water has largely disappeared from the international political agenda. For example, it was at best a minor player at the Earth Summit held in Rio de Janeiro in 1992. As Prof. Asit K. Biswas, one of the founders of the World Water Council, pointed out during the Forum, if an alien from outer space visited Earth and read the Japanese and international press during the Forum week, the creature would have to conclude that the only

serious environmental problem the human race is facing is climate change. And yet, not a single person has died up till now from climate change, nor is one expected to die even under the worst case scenario for another two decades. In contrast, more than 6 million people are dying each year due to a lack of clean water, and flood- and drought-related hazards. Still, the world seems to be determined to ignore this continuing water-related tragedy.

On the positive side, the final communiqué of the recent Denver Summit of the Eight devoted an entire paragraph to fresh water. This, however, attracted no media attention. It is to be hoped that the above declaration is a sign of a new era where water will receive the priority it deserves.

Prof. Biswas further pointed out that so far the main emphasis has been to manage water supplies. As new sources of water all over the world become scarce and more expensive to develop, emphasis needs to shift from supply to demand management. One of the tools will be increasing reliance on water pricing. Globally, more than 70 per cent of all water is used for agriculture, and farmers in most cases at present pay very little or nothing for irrigation water. Appropriate water pricing will significantly reduce water wasted in the agricultural sector, as well as elsewhere.

Prof. Yutaka Takahasi, a leading Japanese water expert from the Shibaura Institute of Technology, pointed out that losses taking place in the urban water supply system of Tokyo have been reduced from 80% in 1945 to 9% at present. Infrastructure development in the Japanese cities has reached maturity and the challenges have shifted. What is now needed is new technologies which could provide good quality water at the least possible cost.

The Director of the Lake Biwa Research Institute, Dr Masahira Nakamura, outlined the need for balancing the development around Lake Biwa, the largest freshwater lake in Japan, with the environmental and ecosystem requirements. The Lake Biwa Comprehensive Development Project (LBCDP) took 25 years to complete. Similar projects in the future will require an even longer time since LBCDP occurred during the period of rapid economic growth in Japan, a period when environmental and social concerns were not as much in the forefront.

Rajendra Sagane, Member Secretary of the Maharashtra Water Supply and Sewerage Board, analysed the problems of the four largest mega-cities of India, where demands are outstripping supplies. Operation and maintenance practices leave much to be desired, and emphasis has to be shifted from construction of new projects to more efficient management.

Cecilia Tortajada of Mexico's National Water Commission reviewed the problems facing the sprawling metropolitan area of Mexico City. Continuing population growth (currently 25 million people live in this region) and ever-increasing water demand mean that additional water has to be transferred in the future from more and more distant basins at rapidly escalating costs. Such a system cannot be sustainable over the long-term.

University of California professor Takashi Asano discussed wastewater management and reuse in mega-cities. He argued that given the escalating conflicts in water resources development and because complete sewerage construction will not be possible in the near future, wastewater reclamation and reuse will become an increasingly important alternative to develop long-term sustainable strategies.

Dr Walter Stottman of the World Bank said that the public sector has often failed to deliver sustainable water supply and sewerage systems. The World

Bank estimates that the current investment needs in this sector in developing countries and the countries with economies in transition are of the order of US\$50 billion per year. Such huge investments can only be harnessed through public and private sector partnerships. The private sector will have to play an increasingly important role in the future.

Dr Charles Scawthorn discussed vulnerability and water management during disasters like the Great Hanshin earthquake that devastated the Japanese city of Kobe in 1995, or the Rwandan refugee crisis in Zaire. Such cases need special attention. For example, human suffering and property damage due to fires could have been significantly reduced following the Kobe earthquake with more efficient planning and operation of the water supply systems.

There was a general agreement that major industrialized countries like Japan and the United States need to rethink the priorities for, and focus of, their official development assistance programmes in this sector. So far, the main emphasis has been on the construction of new projects. What is needed is a long-term vision for overall aid for the water sector, which needs to give more emphasis to 'software' such as capacity building, institutional strengthening, changing national policy environments which would facilitate efficient water management, and raising public awareness.

The world is now facing an urgent water crisis of dimensions which no earlier generation has had to face. Unless these problems can be resolved, it would contribute to a major human tragedy. However, given political will and active collaboration between North and South, and East and West, in terms of investment, technology, and management expertise, the problems can be solved. If countries can initiate urgent actions, there is reason to be cautiously optimistic for the future.

The Forum was very focused and the complex problems were discussed from multi-disciplinary angles as well as from regional perspectives. The papers that were specifically commissioned for the Forum and the summary of discussions will be published as a book by the United Nations University Press.

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