Natures Sciences Sociétés 15, 430-431 (2007)

DOI: 10.1051/nss:2008015

Disponible en ligne sur :
www.nss-journal.org

Natures
Sciences
Sociétés

Vie scientifique

Fourth World Water Forum

Compte rendu de colloque (Mexico, 16-22 mars 2006)

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The program of the fourth World Water Forum was very extensive; there were 4-5 parallel sessions going on most of the time. Therefore, I do not attempt to make a comprehensive summary of the content. Instead, I try to put forward some messages, which I feel to be important for the water sector in coming years.

In the opening session, the crucial role of water for development in general was emphasized several times. Solving water problems contributes to most Millennium Development Goals (MDGs) such as poverty and hunger reduction, health, agriculture and equality, sustainable development and education. Water management planning should be one element in poverty reduction programs and sustainable development strategies.

However, financing remains a major obstacle. In order to reach the MDGs, far higher investments than currently are needed. In particular Africa is lagging behind: doubling investments is therefore necessary to fulfill the commitments made in Johannesburg. Unfortunately, the donor countries do not prioritize water projects. According to the World Bank, new initiatives can only be taken onboard if money is taken away from some older ones, this despite the fact that according to the World Health Organization (WHO) investing in water supply and sanitation pays back 30-fold. Investments would be reflected in improved economic growth and reduced malnutrition. According to their data malnutrition is not so much a result of lack of food, but of diarrhea which prevents food from being digested.

Integrated Water Resources Management (IWRM) was one of the central themes in the Forum. During the day devoted to IWRM, over 40 official events as well as many side events were organized. The numerous examples given showed that IWRM can be implemented in many different ways and at different levels. There is no single approach to be used; what is needed instead is a case-by-case approach. The main challenges in implementing IWRM in developing countries are funding, lacking responsibility, long-term planning and participation. It was emphasized that water resources need to be managed in a holistic and balanced way taking into account economic, social, environmental as well as political issues. It is important that other natural resources, especially different types of land use (agriculture, forests, etc.) and their impact on water resources are properly incorporated into IWRM.

Transboundary water issues were discussed extensively. It became clear that cooperation of neighbouring countries is now understood as a key to sustainable management of transboundary waters. Several positive examples were given, *e.g.*, the rivers Senegal, Nile, Niger and Danube. The representatives of Israel, Palestine and Jordan emphasized their importance of water not only as such, but also for peace negotiations in general. Although many problems remain, cooperation has developed. The dialogue has to continue. So far, transboundary cooperation has mainly dealt with surface waters, while only a few examples were presented on transboundary groundwaters. However, there are many important aquifers extending into the territories of several countries and more cooperation is needed to safeguard the sustainable use of transboundary groundwaters. In many cases data concerning them are scant.

Sustainability of ecosystems as well as ecosystem services were discussed in different thematic events as well as in the ministerial meeting in which EU in particular emphasized their importance. The World Bank strongly supported the development of payments on ecosystem services. Several examples were given on this aspect from the USA, Mexico, El Salvador and Costa Rica. The

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second World Water Assessment Report was introduced under this theme. Its central message is that coastal and freshwater ecosystems are deteriorating further. The Living Planet Index, which measures trends in the Earth's biological diversity, has decreased by 30% between 1970 and 2003 as a result of human activities. Emphasis was also laid on the series of extreme events which occurred in 2004 and 2005, such as the tsunami, floods, droughts and other natural disasters. Water-related risks were discussed in almost 40 sessions. The same themes were also present in ministerial sessions.

One of the very interesting sessions was that on the assessment of policy instruments and particularly economic instruments. The two case studies from Morocco and Mexico emphasized the need for analytical assessment of these instruments as, when wrongly targeted, economic tools can cause considerable damage. For example, electricity used for pumping groundwater for irrigation is heavily subsidized in Mexico. The consequences are "perverse" as the lecturer said: overexploitation, salinization of groundwater, increasing concentrations of heavy metals in groundwater. In addition, almost all subsidies go to the richest third of the farmers. Decoupling of subsidies and electricity consumption is necessary. Higher prices could also encourage farmers to adopt less electricity-consuming technologies.

Water supply and sanitation were naturally widely discussed. While water supply has already been classified earlier as one of the basic needs of human beings, now the two are being increasingly coupled: it is understood that without proper sanitation clean water can only be safeguarded with great difficulty. Several international organizations presented their projects.

The advantages of ecological sanitation over the dominant way of using water as a carrier were emphasized in the Forum. Only 20% of the world's wastewaters are properly treated before being discharged to recipients. Wastewater treatment also produces high amounts of waste, which cannot be used as fertilizer due to its pollutant content. In ecological sanitation, everything can be used. Dozens of examples of ecological sanitation were presented from both developed and developing countries. All were, however, only pilot projects. The techniques are not fully developed, and therefore ecosanitation has not yet been widely accepted as a true alternative.

Privatization of water supply facilities was discussed in two sessions. Concrete cases showing advantages and disadvantages of privatization were given. However, one could conclude that there is no one truth regarding the institutional setting of water supply. Independently from ownership, whether public or private, good management as well as transparent and fair principles of operation are crucial for achieving efficient water services.

Sessions on Water Management for Food and the Environment emphasized the need for a broader perspective on water productivity in agriculture. Water management and technologies should be developed taking into account biochemical as well as socio-economic aspects of water. Agriculture should be understood in a broader sense than just production of food, *i.e.*, include fisheries, forestry and ecosystem services. It was also pointed out that agricultural productivity should be measured against the amount of water used, not against the land area used. The need to apply the concepts of "virtual water" and "green water" was considered important.

The overall theme of the fourth World Water Forum was "Local Actions for a Global Challenge". This was reflected in the active participation of numerous non-governmental organizations.

The next World Water Forum will be held in 2009 in Istanbul, Turkey.