

Conference Report

Water Management in the Future: An Intergenerational Dialogue, March 2003, Kyoto, Japan

A special session was held for the Next Generation of Water Leaders (NGWL) programme during the Third World Water Forum in Kyoto, Japan, on 18 March 2003. NGWL began in 1999 with 14 future water leaders under the age of 40 selected from a group of several hundred applicants. The first meeting of the group was held during the Second World Water Forum in The Hague. The group has also met on later occasions. The NGWL programme was initiated by the Third World Centre for Water Management. It currently has nine members: Odeh Al Jayyousi (Jordan), Naser Faruqui (Canada), Caroline Figuères (the Netherlands), Rajiv Gupta (India), Johan Rockstrom (Sweden), Christopher Scott (USA), Dajun Shen (China), Cecilia Tortajada (Mexico) and Aaron Wolf (USA).

The intergenerational dialogue was a structured exchange of views among the next generation of water leaders and three peer-generation leaders (Dr Mahmoud Abu Zeid, Egyptian Minister of Water Resources and President of the World Water Council, Professor Kazuo Takahashi, Professor of Political Science at Japan Christian University, and Professor Asit K. Biswas, President of the Third World Centre for Water Management).

The Kyoto session was opened with a welcoming address by Mr Kyoichi Tanaka of the Toyota Foundation, which sponsored the session. Professor Biswas provided an overview of the programme.

Dr Odeh Al Jayyousi chaired the intergenerational dialogue session, and began with a presentation on knowledge creation and reconstruction as products of networking and communication. A great deal of information is embodied as tacit water knowledge by the 'reflective practitioner'. Water knowledge is manifest in local knowledge systems, with different emphases characterized by the approaches from the four parts of the world. The North is rational, the West pragmatic, the East holistic and the South humanistic. Different attributes are conceptualized in each culture and embodied by water professionals. The complementarity or creative juxtaposition among emphases can transform water organizations. Institutional water memory (and the continuity of knowledge transmission) are vital to ensure intergenerational dialogue among water professionals. There is a need to develop a learning organization in the water sector to internalize and transfer learning and lessons. Sharing, documenting and disseminating water knowledge is vital for sustainable water management. Intergenerational dialogue is an important means to synthesize and reflect on lessons learned, paradigm shifts and new perspectives. The NGWL programme provides an opportunity and an institutional platform for this continuity.

Dr Mahmoud Abu Zeid discussed major global water sector issues linked to population growth, scarcity and water quality deterioration. Lack of access to

water services and water poverty, not just supply constraints, are major challenges in most developing countries. Dr Abu Zeid noted the funding required to meet the millennium goals, for which current estimates indicate that US\$180 billion/year will be needed to provide some 360 000 additional people with a water supply (and 400 000 with sanitation coverage) *every day* for the next 15 years. Governments are already falling behind this target. He also pointed out that while increased commitments will be required from developed country donors and international financial institutions, national governments will have to provide the greatly needed investments for the construction of water sector infrastructures. Increasing, and making more effective use of, these public investments will be a major challenge for the future. The need to address urban water supply constraints is essential, along with targeted subsidy to the poor, who may not be able to pay for water and sanitation services.

Professor Kazuo Takahashi noted that extremely large investments are required for the provision of global water services, for which it is necessary to examine the different facets of the investment requirements in the light of the recent changes in the world order. The emerging global security situation brings into serious doubt the assumption of high private sector investments in water services. These projects typically have long gestation periods and involve immovable assets, and consequently, investors carefully consider the political and currency risks associated with infrastructure projects in developing countries. As a result, governments find themselves back where they were a decade ago, with slim prospects of significant private financing of water projects in the future.

Dr Cecilia Tortajada discussed the controversial issue of resettlement of displaced people, with a case study from Turkey. The Ataturk dam on the Euphrates River, constructed nearly a decade ago, provides irrigation and hydropower. On the other hand, Birecik dam has been constructed downstream of the Ataturk under a BOT arrangement with European investors. A number of issues have arisen in relation to resettlement and the rehabilitation of historical monuments. She compared the lessons learnt in resettlement processes used for both the Birecik and Ataturk dams. For Birecik dam, a participatory process was developed during which options and modalities were presented to the population, who then took their own decisions regarding their future. A critical step was the process of consensus building, which took time and patience, but demonstrated once more that effective communication is essential to achieving success. The media played a critical role for both the internal and external audiences. She concluded that dealing creatively with resettlement is a learning process for the society at large, including the population and the government. Lessons learnt from the Ataturk and Birecik dams will undoubtedly affect resettlement efforts for future Turkish dams.

Naser Faruqui reviewed a number of major water management challenges faced by Pakistan, including rapidly declining water availability, deforestation and seawater intrusion, which could lead to massive political instability as well as potential large-scale famine. To date, the government has reacted largely by trying to increase supplies and improve irrigation efficiency. While these measures are necessary, they are insufficient. With 97% of the water used in agriculture, some modest reallocation to urban areas will be necessary. However, even this will be insufficient. Pakistan must achieve deeper change by transforming from a feudal society to a modern industrial one by increasing its

literacy rate, embracing family planning and implementing modest cost recovery for irrigation water and full cost recovery for urban water. This paradigm shift will also require peace with India to achieve regional food self-sufficiency, to gain co-operation on agricultural research and to divert funds from obscenely high arms budgets to education.

Dr Christopher Scott wrapped up the formal presentations with some thoughts on the out-of-the-sector thinking required to address critical water sector problems. The conventional approaches assume linear cause-effect thinking, with ineffective solutions posed for deep-rooted problems, e.g. increasing water supply to confront water scarcity, or increasing cost recovery to deal with poor financial performance. Existing approaches are assumed to have replicability across space and time and be context-neutral. Cultural beliefs and practices are taken as anomalies, or worse, are seen as part of the problem. Social transition is viewed as an outcome of economic development and not in fact a driver of development. Finally, change agents are taken to be the (financial) decision makers and are imputed to have a high degree of effectiveness in implementing changes and solutions.

Examples of the out-of-the-sector, adaptive approach required include energy-water co-management for effective demand management, diversification of water-intensive production approaches, broad economic transition away from water-intensive production and livelihood systems and cultural fine-tuning of adaptive response and innovation in the face of water crisis. The way forward will entail reconceiving the 'crisis', recasting solutions based on a broader definition of the challenge, identifying and strengthening adaptive responses and building strategic alliances.

The session at the Third World Water Forum was the end of the three-year NGWL programme. During this programme, many concrete outputs were produced, the most important of which is probably the book *Rethinking Water Management: Innovative Approaches to Contemporary Issues*, with Caroline Figuères, Cecilia Tortajada and Johan Rockstrom as editors, published in July 2003 by Earthscan, London.

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