

Conference Reports

The 11th Stockholm Water Symposium—Achieving Water Security: Time to Move from Rhetoric to Action, Stockholm, Sweden, 13–16 August 2001

Earlier symposia stressed the importance of both a radical shift in thinking and of radically improved governance. This is not possible without cross-sectoral bridge building through dialogue—the theme of this year’s symposium. The ongoing globalization is strong and complex with three main categories of responses: integration into the world economy, marginalization or a mix of both. Since water is a key element to achieve poverty eradication, health, nutrition and ecological service protection, i.e. for socio-economic development, it is imperative to change the outdated water agenda so that it fits with current and future situations. Proactive rather than reactive, crisis-driven approaches are very much wanted. If present trends continue, water pollution will become a major crisis, especially in the developing world, with very serious consequences for human health, agricultural production, ecosystem health and enormous investment requirements to alleviate the crisis. The symposium dialogue indicated that there are, however, options for actions. It is time to move on and make sure that water security becomes a reality for the present as well as the future generations.

Strong Driving Forces Influence Water Security

The 2001 symposium had as its starting point that achieving water security is essential for sustainable development. Water security is, however, not achievable without a major shift in thinking. Despite having preached the advantages of integrated water resources management approaches for more than three decades, water professionals still tend to keep their compartmentalized thinking and behaviour. This makes the building of bridges through dialogue between interdependent societal sectors particularly urgent. The driving forces that increasingly influence the state of the planet’s finite freshwater resources are strong—globalization, population growth, urbanization and industrialization—while the balancing forces to these influences remain weak. It is increasingly important to develop society’s capability to cope with such processes. Political processes and policy making need to respond to the fast changes, and business-as-usual with sector-oriented water management is not an option.

The processes of globalization are complex and have different effects on different world regions. Two distinct forms of globalization have to be distinguished. One is a fast, market-driven and powerful globalization. The other is a slower, alternative and weaker one, and related to various global linkages and the political process, with non-governmental organizations (NGOs), the United Nations and the World Bank as major actors. In some regions the market-based globalization works to integrate countries into the world economy, in others tremendous problems produce marginalizing forces and in a third group both

forces are at work, producing a mix of modern urban regions and poor, marginal, rural regions.

Incentives for Change

Among the biggest challenges today is to avoid compartmentalizing water management. Thus, a great challenge is to break intellectual and institutional barriers. Catchment area plans are an important mechanism towards this cross-sectoral approach. Events like droughts might act as external forces and help promote an intersectoral consensus. In cases where there is strong distrust in society, this might be a strong triggering force behind the move towards catchment-based planning. Basically, stakeholders need to experience the value of giving up the outdated compartmental approaches. Incentives for change should be linked to personal benefits and hopes for a better life. For this, there is a need to understand what drives people's attitudes and expectations, and the resulting resource demands and the resource problems. At the same time, 'globalization' of the human mind must be avoided. Diversity in thought generates local solutions and alternative approaches and discourages prescribing of single solutions world-wide.

Water is a Key Element in the Environment/Development *Problematique*

The crucial role of water for socio-economic development, even in arid, drought-stricken countries, remains poorly understood by politicians, decision makers and the general public. When water is entered into an integrated dynamic world development model (one that assumes continuous economic growth and a growing population) the results contradict the widespread perception that water is not a global issue. In particular, persistent organic pollution and heavy metals show a crisis already in progress. If not counteracted now, the crisis will have devastating consequences and cause severe convulsions in coming decades in most of the productive sectors of the society.

Water must become part of the political agenda since it is a key element in poverty eradication, health improvement, nutrition of malnourished people and an army of unborn babies and protection of indispensable ecological services and regional development. Water management strategies, whether at the national, international or project level, should focus more on the interdependence between the environment and socio-economic development. Strategies should clearly visualize how effective water management policies contribute to a more sustainable economic and social development. The language in such strategies should be clear and unambiguous: only then can policy and decision makers use the information appropriately.

Increasing the Status of Water

It is imperative to increase the status of water in society and among politicians and policy makers. The meagre and simplistic appearance of water issues on the high-level global political agenda is nothing less than pathetic. It is imperative to generate in the political establishment a shift in thinking as regards water issues and how they may be challenged. Water's deep importance for development is a message of fundamental importance to be propagated at the highest

possible political level—a major pedagogical task. In order for water experts to reach decision makers, messages must be framed so that they are easy to understand. Politicians, with their involvement in the ‘re-election business’, are prisoners of their voters and thus can best be reached through the latter. Public awareness through news media is unfortunately subject to severe constraints due to unwritten collective rules. Stories have to have local relevance, and preferably be linked to local individuals. A message has to be properly tailored to be interesting, and preferably cut into a sequence of short messages. Professional magazines are important and may be interesting channels. Journalists appreciate having access to water professionals when needs arise. There are also many other actors and channels for raising awareness, including religious preaching, schools (curricula, competitions), water companies and posters, etc. In developing countries, radio has wide audiences and should not be underestimated. To be effective, water professionals need to learn the art of communication, preferably as part of the curricula.

Adapting to Catchment Dynamics

The importance of catchment dynamics, which are based on hydrological realities, cannot be neglected. Successful catchment management depends on successful involvement of the stakeholders, a rather difficult group to identify. The concept of water resources management itself is misleading. The challenge is rather to manage the people depending on, and making decisions about, the water. On one hand, there are primary stakeholders like polluters, user associations, authorities and local NGOs. On the other, there are groups whose welfare is influenced or at stake in water resources management decisions.

Stakeholder involvement is critical to achieving societal acceptance of the outcome. There have to be rules for the participation process to secure legitimacy of viewpoints and legal recognition. Water professionals (expertise with water issues as one of their main focuses) have to assist in problem analysis, and provide easily understandable explanations. Successful cross-sectoral dialogues also depend on access to terminology that bridges the understanding gaps, and on the development of an easily understandable meta-language. An overarching and integrated catchment-based analysis and management does not necessarily depend on the existence of a particular river basin organization, but could exist under other institutional forms. Institutional arrangements have to allow a cross-cutting dialogue, but the form will have to vary between countries. Thus, there is a clear difference between the form and the content.

Speeding up Water Pollution Abatement

After three decades of water quality management efforts, the inability all over the world to halt water pollution remains a serious failure. The crisis of water pollution is increasing steadily in the developing world. The hydrocide which was discussed at earlier symposia is approaching reality in these countries. Downstream stakeholders are increasingly being left without usable water. In discussions of compromise building, mutual respect between different catchment stakeholders is essential. In this process, polluting industry and agriculture must contribute. While several major multinational firms have now entered such a process, the developing world’s dynamic, small- to medium-sized industry

remains extremely difficult to get on board. The link to poverty eradication and higher incomes through large-scale employment from a multitude of small-scale industries poses enormous problems, and there are examples of court decisions to close down such industries that cannot be enforced due to a lack of societal acceptance. The court decisions are counteracted by a soft political and regulatory system, and the industries reopen.

At the same time, a set of positive signals was reported in the developed world. A Global Compact Forum is being formed for multinational industry in co-operation with the United Nations. A European Water Framework Directive, constituting a new legal instrument, and prescribing clean water bodies and aquifers by 2015, was recently adopted by the European Union (EU) Parliament and the EU Council.

Bridging to Energy, Food, Sanitation and Land Use Sectors

There are close linkages between water and energy, including the linkages between the need for access to water to produce energy, and the need for energy to get access to water and to treat the waste water. Closer links and integration are therefore essential for cross-sectoral water and energy management. A dialogue is essential on electricity production and use of water as well as the need of the water sector for energy to function efficiently.

Increased food production to feed a growing humanity will be an issue of water, nutrients and pesticides, and incorporate difficult compromise building. The 10-member Consortium for Dialogue on Water, Food and Environment was launched during the symposium to address these issues. For irrigated agriculture, local water loops are promising where urban waste water, after treatment and reclamation, can be reused for peri-urban irrigation. In poor countries, the choice between increased food production and food importation is difficult, due both to lack of foreign currency and to their need for guarantees.

However, since nutrients can safely be recycled from the waste water, ecological sanitation might have dual benefits, not only for poor developing countries but also for developed countries. At present the potential risks involved are not understood well enough. Interesting developments might be foreseen also in traditional systems, including the development of recirculation and packaging of urine.

In the general debate, potential linkages are often suggested between land use changes and floods. Floods are, however, unique in character and caused by extreme meteorological inputs or failing infrastructures. Land use changes have significant impacts only in small basins and for moderate floods, but are difficult to identify for extreme floods and large basins. At the same time, the impact of floods is often related to changes in land use.

Water Storage behind Dams

On the controversial issue of dams, a remarkable conversion of opinions has occurred in recent years. Today, increasing emphasis is placed on social and environmental aspects. One fundamental difficulty is—except for extensive resettlement often associated with large dam schemes—that negative impacts are often diffuse and less visible than positive ones, such as regional-scale poverty eradication and electrification. Large regional differences between North and

South became evident with the former talking about alternatives to dams, while the latter have to solve the problem of making a rainfall input of maybe only 100 hours accessible for use during the rest of the year. Multi-criteria approaches are evidently needed to replace the conventional reductionist approach based on monetary estimations only. In the analyses, experts are first of all to illuminate the different perspectives and impacts and then to recommend the most appropriate solutions and possible mitigating measures to alleviate negative impacts. The future has to involve an interactive learning process, with attention to the complementary perspective as recently presented by the World Commission on Dams.

It Is Time to Move On

In a water-dependent world with strong driving forces at work, it is almost criminal to continue to treat water as if it is a ubiquitous and robust resource, accessible to everybody and everything without any cost and without any problematic side-effects. A more adequate attention to water pollution abatement is imperative, in order to avoid water pollution-driven convulsions that will otherwise threaten the world community in the coming decades. The professional community will moreover have to decide what water to focus on: just the blue water that happens to go in rivers and aquifers today, but in hot climates is sensitive to land use changes, or the rainfall over the catchment, essential also for terrestrial ecosystems and rain-fed food production.

The intensive and extensive discussions at the 2001 symposium demonstrated that there are many options for actions that can be taken at present. The main issue now is to move from rhetoric to action, and to ensure that water security will become reality for the present and future generations.

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International Conference on Freshwater, Bonn, Germany, 3–7 December 2001

The International Conference on Freshwater was held in Bonn, 3–7 December. There were approximately 2500 participants from 122 countries, United Nations (UN) agencies, international organizations and the so-called 'major groups', which included local authorities, non-governmental organizations, groups working on gender, children and youth issues and representatives from indigenous people, workers and trade unions, business and industry, farmers and institutions dealing with science and technology, as well as hundreds of observers.

In addition to the plenary and the ministerial sessions, there were working groups and side-events on several important and not-so-important topics. The working groups were on: governance, integrated management and new partnership; mobilization of financial resources; and capacity development and technology transfer. The side-events covered issues, among which were private and public partnerships for infrastructure development and services, local govern-

ment panels, river basin management, frameworks and dialogues for co-operation, formal and non-formal training and education efforts, as well as case studies from different countries. It was undoubtedly the side-events where good interactions among the participants took place, not only because of the smaller number of people, but also because of the higher level of the discussions. Unfortunately, there were important groups that were grossly under-represented during this consultation. Among these were farmers, irrigation experts and scientists and technologists.

The issue paper prepared for the conference identified five major areas where global attention is needed: access to affordable water and sanitation for the poor; protection of ecosystems and water resources; balance between water for food production and nature conservation; management of transboundary water; and management of floods and droughts. No clear rationale was given as to the basis of the criteria on which these areas were identified. The issue paper recommended that actions are required in three main areas: governance, integrated management and new partnerships; mobilization of financial resources; and capacity development and technology transfer.

The conference for the most part was traditional, and did not cover any new ground or considered any innovative alternatives. The only new issue that was raised was the one of corruption. For the first time it was recognized in public that it is "a bigger leak of resources compared to that due to rotten pipelines". Water projects are linked to enormous amounts of money, and hence the risk of dishonest behaviour is high. It was noted that even though this problem is normally associated with private sector companies, it also is an important concern within the public sector. Accountability, implementation of legal sanctions against corruption, monitoring of the performances of the public institutions and the private companies, development of codes of conduct, transparency in decision making and civil society involvement were noted as potential countermeasures to reduce, or even eliminate, corruption.

During the Second World Water Forum in The Hague, in March 2000, opinions and actions were very much polarized, especially on issues like water pricing, privatization and construction of large dams. However, these issues were discussed in a more rational manner during the Bonn conference. The importance of these topics was recognized not only because they could play a role in terms of more efficient water distribution and wastewater treatment, but also because, properly planned and regulated, they could represent tools for poverty alleviation. It was agreed that there must be a balance between the costs and benefits of large water projects, and also that social and environmental issues should be an integral component for their development. For example, involuntary resettlement should be considered to be a development activity by itself. However, it was also emphasized that, when necessary, projects to develop additional water resources should remain a priority, especially in developing countries.

It was argued that prices should represent sufficient income to finance operation, maintenance and capital costs. However, tariff systems (subsidies) that allow social targeting should be considered. This, of course, should be adapted to the needs of the individual countries. It has yet to be conclusively proven that the private sector is consistently more efficient when compared to the public sector. Additionally, it is not only public-private partnerships that represent a feasible option for water supply, infrastructure development and

maintenance activities; public–public partnerships could also be an efficient alternative (i.e. the Baltic Sea between Sweden and its neighbouring countries). Hence, it is necessary to analyse in depth specific cases to understand what makes some management practices successful and efficient, and what makes them fail.

It was generally agreed that external development assistance for the construction, operation, maintenance and rehabilitation of water infrastructures and services in developing countries needs to be increased significantly. Donor governments were urged to reach the target for the official development assistance of 0.7% of gross domestic product, and make real progress towards reaching this target.

International financial assistance plays a very important role for the developing economies. However, there is an urgent need for better co-ordination among the donor agencies which work in specific geographical areas, since in many cases the requirements of one agency contravene those of the others, jeopardizing the projects and affecting the local people. Additionally, some claimed that the practices of international financial institutions are negatively affecting the developing countries. The most frequently mentioned example was the World Bank, which was accused of promoting privatization of water resources and services, without prior analysis of what changes are necessary to make public sector institutions more efficient, or which type of public–private partnerships would be the most appropriate ones for individual cases. Privatization should not be put forward as *a priori* best solution. The World Bank's water resources sector strategy was criticized because of 'an unbalanced obsession' with the private sector.

Strangely enough, for the first time at an international water forum, poverty alleviation was stressed as a priority issue. As important as it is, it was not until early 2001 that an international forum was proposed in Ahmedabad, India, to specifically analyse and discuss policies and actions related to water development for poverty alleviation, economic growth, improvement of quality of life and management and protection of the environment and the ecosystems. Case studies on how properly planned and managed water projects can successfully reduce regional disparities and contribute to significant improvements in social well-being are still conspicuous by their absence.

The ministerial declaration was somewhat general, and focused on governance, funding, roles of the international community, capacity building, technology transfer, participation and gender. The ministers agreed that "ten years after the UN Conference on Environment and Development and the Dublin Conference, and several years after the global water conferences in Paris and The Hague, there is still a need for greater commitment to implement commonly agreed principles on water resources management". Even though governments should use internationally agreed principles to solve national and local problems, even now considerable doubt lingers as to the operational validity of the so-called international principles. There was no discussion of other possible principles which could be as important as, if not more important than, the so-called Dublin principles.

Undoubtedly, the most impressive performance at Bonn was given by Dr Uschi Eid, Parliamentary State Secretary, Federal Ministry for Economic Co-operation and Development, Germany. Dr Eid very clearly and objectively put into perspective the linkages between water, poverty alleviation and development.

She made it clear what is generally well known, but not always recognized: the uncertainty of the public reactions in terms of ideological push for the private sector. Instead it should be noted that there is a big gap in financing of the water sector, part of which could be filled by the private sector.

During the closing session, Dr Eid pointed out that the main conclusion of the meeting had been that the need for action is more urgent than ever. She also questioned why, if it is known that water is crucial for peace, justice and social development, there is not yet enough progress towards the goal of water security for all. If the international development target to halve the proportion of people unable to reach or afford safe drinking water is considered, it would be necessary to provide access to clean water to more than 300 000 people per day, every day over the next 15 years. A similar target for sanitation would mean an extra 390 000 people per day would have to receive services. These will not be easy targets to meet, since simply, at present, the financial gaps are of the magnitude of \$100 billion per year. Hence, private investment is necessary, but under a good, transparent and functional regulatory regime.

The draft recommendations for action stated that the conference had the objective "to review the role of water issues for sustainable development, to take stock of progress in the implementation of Agenda 21, and to analyse the bottlenecks and constraints preventing better achievements". Irrespective of the official statements, the conclusion of the multi-stakeholder dialogues expressed a sense of frustration at the 'disconnect' between the rhetoric of the international water conferences and declarations and the reality of actions that have followed past meetings. Dr Klaus Topfer, Executive Director of the United Nations Environment Programme, noted that poverty has to be overcome as a precondition to development, and the gaps between the North and the South should be closed. While everyone agreed with this sentiment, the real issue is how it can be achieved. This issue was not even addressed. Dr Topfer went on to say: "water is a key to social equity and environmental stability, the issue is then management, technology development and co-operation. We had the Second World Water Forum in The Hague in 2000. We will be in Japan in 2003 for the Third World Water Forum. But in the meantime we are here, where we must concentrate on Johannesburg so that we can make this a summit of implementation, not of declaration. We have many declarations. It is now high time for action and co-operation."

The concerns expressed by the participants in the Bonn conference were not new: most of them are expressed every year at the Stockholm Water Symposium, which unquestionably has become the most important annual global water event. Discussions at Bonn focused on the need to increase investments for water supply and wastewater infrastructures and services, to improve efficiency of water management practices, to make water institutions more efficient, to ensure decision making at the lowest possible level and to consider social and environmental factors.

Irrespective of the official recommendations for action, it was clear from the dialogues and discussions in the side-sessions that there is an urgent need for governments to sit and listen to the opinions and suggestions of the rest of the participants. It was further suggested that the format of the ministerial conferences should be modified so that ministers play parts in the sessions, and not limit their interactions to the ministers-only discussions. Whether the ministers will be willing to practise what they preach, i.e. dialogue, communication and partnership, is still to be seen.

The Bonn conference basically agreed that progress since the Dublin and Rio conferences has been minimal. Two fundamental questions thus arise. First, what would be the contributions of the Bonn conference for the water world? Second, what would be the benefits to the normal citizens of the developing world whose quality of life depends on the availability of water for all uses? For the first question, the German government will put forward the Bonn recommendations to the World Summit of Sustainable Development, which will be held in Johannesburg in September 2002. This is contrary to what happened during the United Nations Conference on Environment and Development in Rio de Janeiro in 1992, for which the Dublin conference was expected to make the necessary inputs in the area of water. However, the Dublin–Rio process was fundamentally flawed since Dublin was organized as an expert group meeting, and not as an inter-ministerial meeting. Under international rules, Rio could consider only the results of inter-governmental meetings.

So far as the second question is concerned, only time will tell if the Bonn conference will have perceptible impacts in terms of improving water supply and sanitation conditions in the developing countries.

The Declaration of the United Nations Millennium Assembly, in September 2001, stated that by 2015, the number of people in extreme poverty, as well as the number of people without access to safe and affordable water, should be reduced by half. This is an enormous challenge, considering the number of people that are to be served and its financial implications. However, if the governments and the international community are truly committed to achieving this goal, it should be possible.

The organization of the Bonn conference was excellent, and unlike the forum at The Hague, there were no unnecessary distractions. Only time will tell what the real impacts of this conference will be on the developing world and on the water profession as a whole. Irrespective of what may be its future impacts, the German government should be applauded for taking the lead to host this conference.

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