

## Sharing Water Resources: Conclusions

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The workshop considered the upstream/downstream dimension of river basin issues in their totality. Specific issues considered were related to management of international rivers (Ganges–Brahmaputra, Jordan and Tigris–Euphrates), interstate rivers (Lerma–Santiago basin of Mexico and Cauvery and Periyar Rivers of India), and on a country and regional basis (Namibia).

On the basis of the papers presented and an intensive discussion, the following eight important issues can be identified.

- (1) The work of the Middle East Water Commission, sponsored by Sasakawa Peace Foundation, indicated three major constraints: high variance in local rainfed water supplies and mining of aquifers; a universal and disproportionate allocation of water for agricultural purposes; and unchecked population growth through both natural increase and migration. The lion's share of available water for the agricultural sector is generally rationalized in terms of food security and unemployment in the rural areas, although a 30% reduction in agricultural water use should obviate the present water crisis. If the present rates of population growth continue, all available water must be earmarked only for the domestic sector within a few decades. Unless population in the region could be stabilized, no cost-effective alternative would be available to resolve the water scarcity. A similar conclusion on the importance of stabilization of population levels to ensure reasonable water availability for various uses in the future was reached by several other speakers during the main symposium.
- (2) Integrated river basin development cannot be achieved without properly assessing the technical, social, economic and environmental aspects of the resource base. The river basin must be seen as a unit for integrated management of land and water resources. The national development objectives of each basin state of a river system must be harmonized to arrive at a beneficial allocation of water resources according to an agreed development plan.
- (3) The importance of institutions to manage upstream/downstream issues should not be underestimated, especially for international and interstate rivers. Analyses indicate that some of the institutions created for management of international waters were seriously flawed and lacked the features

essential to build trust and confidence among the basin states. This is one of the main reasons as to why very little progress has been made in some cases in resolving water conflicts.

- (4) An international and impartial third party can facilitate negotiations between the concerned co-basin states, especially if it can harness significant funds to implement projects, but only after the parties reach an agreement. A good example is the Indus River Treaty which was brokered by Eugene Black, the then President of the World Bank. The type of enlightened leadership shown by Black has been missing for decades from the concerned international organizations.
- (5) Education and awareness of the people concerning water scarcity issues need to be raised. Processes used to increase awareness will depend upon the levels of education, culture and attitude of the people concerned. Knowledge and awareness alone would, however, not change human behaviour. People must know what they can do to alleviate the scarcity and pollution problems.
- (6) The water needs of the rivers to maintain their integrity, and also that of the associated ecosystems, have generally been neglected in the past. The question is no longer whether such a need should be considered but rather how such needs can be quantified in order that these can specifically be incorporated in water allocation processes. More research is urgently needed on how water needs of rivers and associated ecosystems can be quantified, and the criteria that could be used for such quantification.
- (7) Data sharing between co-basin countries and states for rational planning and management of rivers is essential. However, in most instances this is not happening.

This also does not help in fostering trust between the parties concerned, which is essential for negotiating mutually acceptable treaties within a reasonable time period.

- (8) Water scarcity is a critical resource issue in nearly all developing countries, and is likely to get worse unless serious countermeasures are taken in the near future. As an earlier Stockholm Water Symposium concluded, water has basically been missing from the international agenda. There appears to be a water deafness among senior decision makers and politicians on the critical nature of the global scarcity issues. The reasons for water deafness need to be seriously examined, and appropriate steps taken to overcome it.