

pollution in many world regions demands truly integrated water resources planning and management. The multi-sectoral nature of water resources development in the context on socio-economic development must be recognized as well as the multi-interest utilization of water resources for agriculture, industry, urban development, hydropower, inland fisheries, transportation, recreation and other activities. Rational water utilization schemes for the development of surface and underground water supply sources and other potential sources have to be supported by concurrent water conservation and wastage minimization measures.

11. Integrated water resources management necessitates appropriate mechanisms at the global, regional, national and local levels for implementing, coordinating and funding the related strategies and action programmes. Management of water resources should, as far as possible, take place in a river basin context (catchment level). [The options proposed by the International Conference on Water and the Environment—Development Issues for the 21st Century, held in Dublin, January 1992, has provided an input to identifying suitable implementation mechanisms.]

12. Capacity building is a prerequisite to integrated water resources management. Technical solutions will not achieve programme objectives on their own without suitable attention given to the human factor. The Symposium on a Strategy for Water Resources Capacity Building, held in Delft, June 1991, recognized the importance of capacity building for integrated and sustainable development of water resources at all levels. Capacity building consists of four basic elements:

- creating an enabling environment with appropriate policy and legal frameworks;
- institutional strengthening and development, including local community participation;
- human resources development, including the strengthening of managerial systems and water users interests;
- awareness building and education at all levels of society, [including *inter alia*, the consideration of a UN World Water Day].

13. [Adequate new and additional financial resources are indispensable for the effective utilization and protection of freshwater resources. Pursuant with the recognition of water as an economic good, but with priority to the satisfaction of basic needs, internal revenues have to be generated through cost recovery schemes, water tariffs, taxes, etc. for uses implying productive activities, reflecting marginal and opportunity costs. In addition, external support will be required for water resources development from multilateral or bilateral sources (External Support Agencies) and from the private sector.]

14. Innovative technologies, including the improvement of indigenous techniques, are much needed to fully utilize limited water resources and to safeguard them against pollution. Implementation of Agenda 21 in the water sectors must therefore be supported by broad-based research and development programmes allowing for new technological solutions to be developed and field-tested. Technology [transfer on preferential and concessional terms] and [cooperation and diffusion] on all aspects of integrated water resources management is to be built into each programme area.

### III. PROGRAMME AREAS OF AGENDA 21

15. In accordance with the general objectives, the following components were developed for the freshwater sector:

- (a) Integrated Water Resources [Mobilization and] Management
- (b) Water Resources Assessment