

- preparing catalogues of the water resources information held by government services, private sector, educational institutes, consultants, local water use organizations and others
  - implementing water management policies based upon realistic appraisals of water resource conditions and trends.
- c. upgrading and increasing technology transfer
- encouraging international organizations and donors to meet initially the immediate needs of the country commensurate with their technological standards
  - developing strategies for meeting requirements over the medium and long term.
- d. capacity building for WRA
- encouraging the provision of attractive terms of employment and career paths for professional and technical staff
  - monitoring human resources needs and meeting them through education and training opportunities, and international programmes of courses and conferences
  - strengthening the managerial capabilities of water users groups to improve water use efficiency at the local level.]

### Means of Implementation

30. [The implementation by developing countries of specific programmes and actions envisaged under Agenda 21 will be subject to the provision of adequate new and additional financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following headings:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development.]

## C. PROTECTION OF WATER RESOURCES, WATER QUALITY AND AQUATIC ECOSYSTEMS

### Basis for action

31. There are few regions of the world that are still exempt from problems of loss of potential sources of freshwater supply and of degraded water quality and the pollution of surface and groundwater sources. Major problems affecting the water quality of rivers and lakes arise from inadequately treated domestic sewage, inadequate controls on the discharges of industrial waste waters, the loss and destruction of catchment areas, siting of industrial plants, deforestation, uncontrolled shifting cultivation and poor agricultural practices, giving rise to the leaching of nutrients and pesticides. Aquatic ecosystems are disturbed and the living freshwater resources are threatened. Aquatic ecosystems are also affected by agricultural water resource development projects such as dams, river diversions, water installations and irrigation schemes. Erosion, sedimentation, deforestation and desertification have led to increased land degradation, and the creation of reservoirs has, in some cases, resulted in adverse effects on the food chain. Many of these problems have arisen from a development model which is environmentally destructive and