

## 19.44 Water Regimes of Rivers, Floodplains and Wetlands

RECOGNIZING the productivity of rivers, floodplains and wetlands and their consequent value to both people and wildlife;

CONSIDERING the importance of water in meeting the basic biological requirements of all species living in these areas and in maintaining the productivity and biodiversity of these areas;

NOTING that the water regimes of rivers, floodplains and wetlands include seasonal patterns of through-flow or in-flow; patterns of daily, seasonal and annual variability and predictability of flow; low flows and periods of cessation of flow; flood flows of different magnitudes, durations and recurrence intervals; flushing flows; and that rivers may be perennial or have intermittent flows;

RECOGNIZING that populations of all species that have evolved or lived for many generations in rivers, floodplains or wetlands are adapted to the natural water regime of their habitat and are, therefore, dependent on some or all of the characteristic elements of that regime;

NOTING ESPECIALLY that in areas of particularly variable rainfall or river flow the life cycles and survival of many species and ecosystems depend either on floods or on drying and wetting cycles, and that regulation of river flows or water level therefore is a serious threat to such species and ecosystems, unless important elements of the natural water regime are retained in the regulated regime;

CONSIDERING that since the tolerance of most species to alteration of water regimes is unknown and costly to determine, it is essential to take advantage of local knowledge of the water regime and of the ecosystem, to protect and manage important species and the functional integrity of ecosystems;

AWARE that many human communities have developed ways of life that depend on some elements of the natural or existing water regimes for sustainable production of food, and for many other activities;

CONCERNED that, in attempting to meet demands for water, people responsible for planning or managing water resource developments have often been unaware of or paid too little attention to the dependence of people and ecosystems on the pre-existing water regime or significant elements of it, and that this has led to unacceptable adverse impacts on people and wildlife in many countries;

CONCERNED also that gross alterations of water regimes are not limited to large new water resource developments, but are just as inevitable through the cumulative effect of smaller developments;

RECOGNIZING that human demands for fresh water in most parts of the world are growing, that many people already face water scarcity and that it is imperative to begin managing water demand in accordance with the limitations and ecological functions of the resource;

APPRECIATING that individuals, communities and governments in many countries are attempting to contain demands for water diversion by encouraging more efficient use, and to manage water resources in ways that are socially, economically and ecologically sustainable;

SUPPORTING the activities of the IUCN Wetlands Programme that are promoting "design with nature" approaches to water resource development, such as IUCN's recommendations for water management in the Okavango Delta;

The General Assembly of IUCN - The World Conservation Union, at its 19th Session in Buenos Aires, Argentina, 17-26 January 1994:

1. URGES all governments and development assistance institutions:
  - (a) to promote awareness of the principle that populations of most plant and animal species living in or near rivers, floodplains and wetlands depend on characteristic elements of the natural water regime for their survival, and that sustainable development therefore requires the maintenance or restoration of these characteristic elements for the benefit of both wildlife and local people;
  - (b) to use existing hydrological and ecological data and local knowledge to identify characteristic elements of natural water regimes as a first approximation of the water requirements of valuable native ecosystems, until detailed knowledge of the tolerance to changed water regimes of all important species in the ecosystem is available;
  - (c) to use the above information in all aspects of planning, developing and managing water resources (including existing developments, the timing and volumes of water diversions), in order to avoid significant or regular alteration of the most characteristic elements of the natural flow regimes of rivers, floodplains and wetlands;
  - (d) to encourage or require continuing improvements in the efficiency of urban, agricultural and industrial water uses, particularly where the existing level of use adversely affects important ecosystems, and restore elements of the water regimes needed by these ecosystems;
  - (e) to provide and document action programmes that apply these principles, in order to help all countries cope with the growing scarcity of water in all its forms;

REQUESTS the Director General to ensure that activities of the Union with potential to influence water resource developments, including but not

limited to those under the Wetlands Programme, continue to promote sustainable approaches to water resource developments that recognize the likely dependence of both people and biodiversity on near-natural water regimes in rivers, floodplains and wetlands.

