Overextraction and Overfishing - Major Threats to International Waters

A recent report by the Global International Water Assessment has analysed the current and future situation of international water resources and the associated aquatic ecosystems. While unsustainable use of water and overfishing are the most important threats to international waters worldwide, pollution has its most severe impacts in Europe.

Worldwide, anthropogenic activities are affecting aquatic ecosystems, compromising human well-being and sustainable development. Over the past 20 years, the international community has recognised the urgent need for measures to reverse the negative impact on aquatic systems and to achieve sustainability in the use of water resources.

A new study by the Global International Water Assessment project, a water programme led by the United Nations Environment Programme, has addressed and analysed transboundary environmental issues in relation with aquatic ecosystems within four specific major concerns: freshwaters shortage, pollution, overfishing, and habitat modification. Global climate change was considered as a fifth concern, which worsens the other four. The assessment carried out by the authors incorporated both environmental and socio-economic factors and considered the links between freshwaters and marine environments. The global perspective was achieved by conducting regional assessments in the major international drainage systems and marine ecosystems (bottom-up approach). The methodology that was used can be divided into four logical steps:

1. Definition of the geographical extent of the regions considered for the assessment, generally defined by large drainage basins and their adjacent coastal waters.
2. Identification and prioritisation of the problems based on the magnitude of their impacts on aquatic systems and human societies.
3. Determination of the causal chain of the impacts on aquatic systems.
4. Analysis of the policy options to address the concerns regarding aquatic systems’ sustainability.

The results show that, in Europe, chemical contamination and eutrophication are the most relevant concerns. Overall, the authors have found that unsustainable use of freshwater (water shortage) and overfishing are the major problems in transboundary waters. Together with climate change and pollution, these factors are modifying habitats, thus generating biodiversity loss. These problems are expected to increase severely over the next decades, particularly that of freshwater shortage and pollution.

The authors propose the following measures to address transboundary aquatic problems:
   1. Common strategies and commitment between upstream and downstream countries.
   2. Developing international governance frameworks for equitable water allocation.
   3. Improving policies for aquatic ecosystems protection and pricing products taking into consideration the social and economical cost of the natural resources that are used.
   4. Raising both public and political awareness about water issues.
   5. Adopting the concept of ecosystem-based management, such as Integrated Coastal Zone Management, referred to the management of land, water, and living resources to promote the conservation and sustainable use of aquatic ecosystems.

The present study analyses major concerns in relation with aquatic environmental sustainability from a transboundary perspective, determines the societal root causes, and considers actions to resolve or mitigate these causes. It provides strategic guidance to identify priorities for protective and remedial measures in the international waters.


Theme(s): Water, Sustainable development and policy assessment

Opinions expressed in this News Alert do not necessarily reflect those of the European Commission