

## SUMMARY

The fact that over 1.1 billion people do not have guaranteed access to drinking water and over 2.4 billion do not have safe sanitation, whilst the health of the planet's aquatic ecosystems is breaking down, has prompted the emergence of growing social and political conflicts worldwide. Achieving *sustainability, equity and democratic governance in water management* is one of the main challenges for the international community in the 21st century, and we believe that the scientific community must become involved in this debate through an inter-disciplinary effort.

Taking on this challenge requires far-reaching changes in our scales of values, our conception of nature, our ethical principles, and in our lifestyles; in short, there is a need for a cultural change that we have termed the birth of a New Water Culture. A New Culture that must assume a holistic approach and recognize the multiple dimensions of ethical, environmental, social, economic, political, and emotional values embodied in aquatic ecosystems. On the basis of the *universal principle of respect for life*, rivers, lakes, springs, wetlands and aquifers must be considered as the *Heritage of the Biosphere* and must be governed by communities and public institutions in order to guarantee their *democratic and sustainable management*.

During the 20th century, the principle of the domination of nature led to *productivist* water management approaches. The predominant *supply-side* strategies, based on large hydraulic works paid for by public subsidies, have induced a careless resource utilisation, while the individualistic approach in groundwater management has induced a lack of collective rationality. These productivist approaches are in a deep crisis due to:

- The break down of the water cycle and the degradation of aquatic ecosystems resulting from the impacts of large hydraulic infrastructures, depletion and pollution of water bodies, and wetland desiccation;
- The excessive exploitation and degradation of underground aquifers;
- Worsening water quality (specially by diffuse pollution) with dramatic public health impacts, particularly in developing countries and poor communities worldwide;
- Social conflicts originating in the lack of respect for the human right to essential water services or in the displacement of huge populations from their land by large-scale hydraulic schemes, among other issues;
- Problems of inefficiency and economic irrationality derived from supply side strategies;
- A crisis of governance due to
  - o the lack of consensus about the principles and ethical values that should provide the basis for the design and implementation of water policies
  - o citizen defencelessness owing to the weakness of democratic systems in promoting social participation in the design, implementation and monitoring of these policies.

Moreover, climate change is likely to increase water-related hazards and threats and must be confronted through a serious application of the Precautionary Principle. In particular, there is a need to prioritise alternative strategies to the traditional large-scale engineering solutions, and recover the good ecological state of aquatic ecosystems.

## The Water Framework Directive and the New Water Culture

The European Water Framework Directive (WFD), one of the most advanced examples of environmental legislation in the world, aims to tackle this crisis, and many of its objectives and propositions are compatible with our proposal for a New Water Culture:

- 1- Adopting an ecosystemic approach with the central objectives of recovering the *good ecological state* of rivers, lakes, lagoons and wetlands, as well as the *good quantitative and qualitative state* of aquifers. Furthermore, the WFD redefines the concept of basin which now also includes deltas, estuaries, and coastal ecosystems;
- 2- Introducing new criteria for economic rationality in water management governed by the *cost recovery principle*, including *environmental costs* and *scarcity value*;
- 3- Opening water management activities to *proactive citizen participation* and *monitoring*;
- 4- Promoting the sustainable and equitable management of transboundary river basins.

These criteria and objectives represent a shift from traditional *supply-side strategies* to *demand-side* and *conservation strategies*, prioritising water saving, efficiency improvements, and the introduction of new technologies, as well as groundwater conservation strategies under integrative and sustainable approaches. Under the same logic, the WFD induces new approaches for the management of flood and drought risks.

Being coherent with the principles of the New Water Culture will require moving even further in order to assume a holistic approach to water management. Undoubtedly, the restoration of rivers, lakes, springs, wetlands and aquifers as a heritage of the biosphere, including its values of collective identity, aesthetic beauty, and quality of life, will pose a significant challenge. In this context, we believe that the highest priority is to adopt a new ethical approach based on the recognition of the different functions and values of water in order to prioritise the rights involved:

- *Water for life*. The basic function of water of providing survival for humans must be recognised as a top priority, a universal, *human right*. The sustainability of the biosphere and the exercise of human rights must be guaranteed on the basis of the principle of efficacy.
- *Water for general interest purposes*. This concerns the functions of water in preserving public health, social cohesion, and equity, which must follow in the ranking of priorities. This function is connected with the social rights of citizens and with society's general interest, and must be governed by the principle of social efficiency.
- *Water for economic growth*. This refers to the function of legitimate water-based economic activities oriented by private interest, which must be recognised as being a third level of priority. This function is connected with the individual right to improve living standards, and water for this function must be managed under principles of economic rationality in order to optimise economic efficiency.

## Challenges and proposals

Within the EU the challenge of ensuring a correct implementation of the WFD requires:

- a) The defence of the *Principle of no deterioration* of aquatic ecosystems when faced with practices of *fait accompli* in national water policies;
- b) Preventing abusive practices in the characterisation of “heavily modified water bodies” by national governments;
- c) Adopting rigorous criteria for defining and measuring the *good ecological state* of water bodies across Europe;
- d) Ensuring a serious and progressive implementation of the *cost recovery principle*;
- e) Guaranteeing that institutional reforms in the water sector promote substantive citizen participation in the decision making and monitoring processes.

On a wider international basis the EU must accept responsibility in making a substantial contribution towards developing the principles of sustainability and democratic, participatory governance of water worldwide. This should be part of a wider effort towards achieving a multi-lateral and democratic world order, and will require the adoption of a serious commitment in the fight against poverty and inequity, which must be done by:

- Adapting actions to the realities of each location, fostering the capacity building of local and regional levels of government with active citizen participation;
- Conditioning any financial support for major dam projects to the strict fulfilment of the recommendations of the *World Commission on Dams*;
- Promoting an international *Public Services Code* that will guarantee that the standards of citizens’ rights in relation to water are analogous to those we defend in Europe;
- Making effective efforts to enhance education about water, as the key driver to promote the much sought cultural change towards a New Water Culture.

Finally, we recognise that there exist wide-ranging positions held by the scientific and technical community, and by the European society at large, regarding the debate on the liberalisation of water services. We believe that, regardless of the water management model adopted:

- 1- Essential water services must be granted the status of *general public interest* to guarantee the priority of human and social citizenship rights over market interests;
- 2- Current debates on the liberalisation of water services must be subject to broad-based public debate, with substantive participation of citizens, NGOs, workers’ unions, user organizations, and other relevant actors in the decision making and monitoring process;
- 3- The achievement of the Millennium Development Goals (MDGs) will require that governments and international institutions take urgent decisive action to meet the financial cost involved, as a matter of public duty;
- 4- Public and private operators alike must be subject to strict regulation by representative public bodies to ensure transparency and citizen participation;
- 5- International financial institutions and the development agencies of the OECD countries should no longer condition the financing of investments by liberalization and privatization. Their efforts should be centred on supporting the public sector to achieve the MDGs, demanding democratization, respect for human rights, transparency, and fighting corruption.