



# Book Unit 4 - National Implementation

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Course: Introductory Course to the International Legal Framework on Freshwater Resources

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# 1. Introduction

Not all river basins are international, and not all aspects of international river basins are regulated at the international level. Indeed, nearly every state in the world has set in place a legal regime regulating the use of water resources in their territory.

Many existing legislations have not been updated to take into consideration environmental protection and sustainable development considerations that have been integrated in national policies and legislation relatively recently where water policies have been developed followed by new consolidating Water Acts and regulations. Hence, many countries are undertaking a process of integration of such considerations in their respective water laws, or developing additional legislations dealing with the environmental aspects of water management.

Many countries are also working to ensure that the institutions responsible for water management and the environment collaborate so as to ensure that environmental considerations are taken into account when decisions are made that concerns the use and management of national waters.

Rather than reviewing specific recent Acts, major trends and lessons learnt are outlined later. Diversity in conditions and circumstances in different regions and countries necessitate such treatment, thus leaving it to an interested party to critically examine the situation in their own country and other countries they may be interested in.

## 2. Major trends in national legislation

Governments have taken several different approaches to the protection and conservation of freshwater resources. The two most prominent approaches are water quality standards and effluent limitations.

The first approach prescribes a specific quality standard for a particular watercourse, effectively proscribing pollution that would cause water quality to fall below that standard.

The second approach sets the quantity of pollutants that may be legally discharged from a specific source. While the two approaches are fundamentally different, they may be combined, as some states have done. Thus, it is possible, for example, to rely principally upon effluent limitations but to calibrate them according to what is needed to meet overall water quality standards.

## Integrated watershed management

While law, policy and the literature concerning the protection of freshwater have traditionally focused on the control of pollution of water in rivers, lakes or aquifers, many experts have become convinced that it is essential to include the entire freshwater ecosystem in protection and preservation programmes. Various uses of land may affect water quality.

The United Nations General Assembly has recognized the urgency of developing and implementing water resource protection approaches based on the principle of integrated watershed management, that recognize the interrelationship between water and land and provide for the preservation of aquatic ecosystems.

The maintenance of the integrity of aquatic ecosystems, and their protection from degradation on a drainage basin basis, has been identified as the primary objective of freshwater management. In summary, the protection of freshwater from pollution and the preservation of aquatic ecosystems are not ends in themselves. They are not objectives appropriate only for rich countries. They can actually sustain and increase the quantity of water available for a variety of uses, from domestic to agricultural and industrial. Safeguarding water supplies is a key objective of water resources management in today's world.

## Sustainable development

There are several important trends and issues in national water policies and legislation. The most obvious and significant trend is the incorporation of sustainable development into legislation concerning freshwater resources. Sustainable development may appear explicitly in relevant statutes or may be incorporated implicitly through an emphasis on the need to strike a proper balance between economic development and environmental protection. Other aspects of sustainable development, including a participatory approach to water management, transparency in public decision-making, and the need to ensure that minorities, women and children are not subject to discrimination, also feature in this trend.

An increasingly important aspect of the trend toward incorporation of sustainable development into national water legislation is the conservation of freshwater resources. The rapidly declining supply of freshwater on a per capita basis, coupled with increasing pollution and other forms of degradation, as well as the impact of global climate change, are leading governments to emphasize the need to conserve precious water resources and protect them against contamination.

## Impact assessment

A crucial aspect of environmental protection and natural resource management is impact assessment. The notion of Environmental Impact Assessment is widely recognized as an indispensable element of legislation in these fields at regional and national levels.

This is an important part of the preventive approach to environmental protection. Impact assessments are often broadened to consider effects other than those on the environment, per se, such as those on groups that may be affected by the planned project or activity. The World Commission on Dams final report advocates for a new decision-making framework based on a rights and risks approach.

## Provision of water services

Finally, many governments are moving in the direction of various forms of water pricing and privatization of water service, seeking for greater efficiency and as a mechanism for generating the financing needed to solve public health problems caused by inadequate water supply and sanitation systems.

### 3. Lessons learned

A wealth of lessons has been learned over the past several decades concerning the management of freshwater resources and legislative approaches to regulating the management, use and protection of this vital resource.

Some of these lessons derive from past experience, which has revealed the kinds of approaches that work well and those that have not performed up to expectations. Other lessons are based upon a better understanding of both the functioning of natural systems, of which water forms a critical part, and of how these systems serve to support human life and contribute to economic development. These latter lessons are thus based not so much on experience with actual water legislation, as on knowledge that did not exist when a number of water laws were drafted.

## Manage freshwater for sustainable development

The World Commission on Environment and Development has defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

Sustainable development includes not only equity between generations (inter- generational equity) but also equity among members of Earth’s, and individual countries,’ present populations (intra-generational equity).

More generally, sustainable development entails taking care in managing freshwater resources to ensure that efforts to raise living standards do not compromise the sustainability of those resources and associated ecosystems over time. Economic development that degrades the resource base on which it directly or indirectly depends will be short-term development only. Degradation of freshwater will threaten the livelihoods of many, if not all, and especially the poor.

## Manage freshwater in a holistic manner: an ecosystem approach.

In the words of Agenda 21, “Freshwater is a unitary resource. Long-term development of global freshwater requires holistic management of resources and a recognition of the interconnectedness of the elements related to freshwater and freshwater quality.”

Management of water resources is holistic when it is done on a catchment or drainage basin basis. This includes both land and water resources, since land use can have significant impacts on freshwater and related ecosystems.

A holistic approach also implies that water resources management will be integrated. Integrated Water Resources Management takes into account not only the ecosystem of which water forms an integral part but also the many different human activities, both existing and proposed, that use and affect freshwater resources. It also has a technical component (i.e., the optimal operation of a watershed or a region’s entire system of water diversion, storage, conveyance, treatment and discharge works).

Holistic water management is a cornerstone of sustainable development because without it, gaps, overlaps and conflicts among different sectoral management and regulatory efforts are bound to occur, impairing their effectiveness. A holistic approach also means that the different aspects of water management (i.e., its qualitative and quantitative aspects) should be managed and regulated in an integrated and consistent manner because they are strictly interdependent. This approach, also known as the ecosystem approach, is gaining consensus at the international level and is increasingly followed in many national contexts.

Treat all matters concerning freshwater in a single, integrated water law.

The lessons that have already been discussed have shown that sustainable development and holistic water management require an integrated approach to the stewardship of freshwater resources. Following such an approach in a coherent manner may be difficult if the relevant laws are contained in scattered statutes. Therefore, as far as practicable, all aspects of water use and protection should be dealt with in a single piece of legislation. There is a tendency in some recently enacted water legislation to follow this approach. The greater the integration of law, the greater the facilitation of holistic management, since all aspects of water regulation may be harmonized in one document. It also helps the drafter to avoid gaps, overlaps, inconsistencies and conflicts in the statutory scheme.

Several countries have gone beyond the integration of water resources statutes into a single law by enacting laws that address the sustainable development of multiple resources (e.g., water resources, forestry resources, land use, biological communities), in a single law. The same benefits that come from integration of all the laws governing a particular resource into a single law may be multiplied by the integration of all the laws governing multiple natural resources into a single law.

## Conserve water through rational urban development policies

There are well-known examples of large population centres that are located in arid areas, far from sources of freshwater. These cities have, typically, experienced fast growth and inadequate local water supplies, and have therefore been forced to transport water over long distances. This usually results in losses of water through evaporation and seepage, and often works to the serious detriment of ecosystems and even populations at the water's source. While there are well-recognized limits on the authority of governments to control where people live, this sort of situation should be anticipated and avoided wherever possible.

## Build in ways to collaborate with stakeholders

A participatory approach to freshwater resources management should be ensured, one that includes all stakeholders in relevant decision-making processes that provides opportunities for meaningful collaboration between water planners and managers, and interested public and private sector stakeholders.

By harnessing the interest, the knowledge, the financial and staff resources, and the political support of stakeholders, water planning and management authorities can leverage their own limited ministerial resources.

Among other benefits, such an approach allows those with knowledge of specific local needs and conditions to inform planning and management processes, helping to forestall potential future difficulties. This approach also fosters a sense of legitimacy of those processes and hence of ownership of the results they produce.

Ultimately, it can help ensure a more robust solution to planning and management challenges in a given area.

## Inclusion of environmental impact assessment in project approval processes

Inclusion of environmental impact assessment in project approval processes: Many countries today have legislation requiring the assessment of environmental and other impacts of proposed projects. Impact assessment is an integral part of the preventive approach to environmental protection and thus, sustainable development.

Groundwater and surface water should not be treated separately: While there are differences between surface and groundwater that make some provisions applicable only to one water body and not the other, water codes should treat surface and groundwater as parts of a unified planning and permit system. This is especially important for aquifers that are hydrologically connected with a surface watercourse. In such circumstances, groundwater extraction and surface water diversion can have mutually reinforcing effects.