



IUCN – The World Conservation Union

Water Law Series – Issue 6

Adapting to Climate Change

What threats does climate change pose to water resources?

Climate change is an additional pressure on already stressed water resources. Apart from effects that are usually associated with climate change, such as alterations in precipitation patterns and the increasing frequency and magnitude of storms and typhoons on the one hand, and prolonged period of droughts on the other, climate change has many other lesser-known effects. It is influencing migration and breeding patterns of species through changes in water temperature. Sea level rise is threatening to affect the quality of available water as well as the livelihood of many communities that live in coastal and low-lying areas. Due to predicted increases in temperatures, demand for water is also likely to increase. These are only a few of the many effects that climate change will directly or indirectly have on water resources. All of these are expected to have considerable economic, social, and environmental costs.

While many uncertainties both with regard to climate change, and its effects on water resources still exist, several patterns can already be deduced. All over the world the effects of climate change are already being felt. While the predicted scenarios are largely a matter of natural forces at work, human response to these challenges can significantly shape the extent of the effects of these threats. In particular, management approaches can increase the resiliency of people and nature to the effects of climate change.

What can be done to respond to these threats?

Despite existing uncertainties, policymakers can not afford to delay action. They must ensure that water management laws and policies take due consideration of the effects of climate change and promote actions that strengthen resiliency to these effects. An important starting point is to recognize climate change in the context of a multiplicity of factors that affect water resources, and the complexity of the effects of climate change, which can rarely be reduced to a simple chain of consequences. Hence, responses to the problem cannot be drawn in isolation. At the same time, water must be seen as a component of an ecosystem that includes wetlands and forests, which both perform important roles in climate change adaptation, and other portions of the watershed.

At the very least, existing policies that address water related issues should be reexamined to see how they take climate change into account. The main objective of the basket of responses should be to strengthen the adaptive capacity of people and nature to the threats posed by climate change on water resources. The assessment should, however, recognize that many adaptation measures are not labelled, or may not have been intended, as such, but result in increasing adaptive capacity anyway. The basket of responses should form

part of a framework that recognizes a full range of challenges: from large-scale, occasion-specific threats to those that slowly build up over time, and many in between.

What is the role of the law in such a response?

Laws, well thought out, based on sound science and making room for scientific development and advances, and developed in transparent manner, are an indispensable component of any adaptation framework. Laws are the instrument through which rights to water are defined and become enforceable. Such rights should include recognition of the importance of environment flows. Laws and their implementing regulations should facilitate water allocation priorities under a variety of situations and promote the most efficient distribution of water rights through a combination of direct regulation and incentives for efficient water use. Provisions on regulating water abstraction should include the ability to make fair and equitable modifications to water sharing rules in order to adapt to changing environmental conditions. Laws on land use, coastal zone management and urban and rural planning can provide the necessary tools for reducing exposure to risks caused by sea level rise and inundation through promoting proper location of establishment and facilities. Clearly stated but flexible mandates can assist in defining lines of responsibility, promote inter-agency cooperation and quick response to disasters.

International environmental instruments and the initiatives undertaken within these provide useful opportunities for advancing adaptation. As an example, least developed countries can avail of financial support for the preparation and implementation of national programmes of actions (NAPAs) under Decision 27/CP.7 of the Conference of the Parties to the United Nations Framework Convention on Climate Change, and can use the guidelines provided under Decision 28/CP.7 for the preparation of their NAPAs.

Where do I go for further assistance?

The IUCN Environmental Law Programme: see below for contact details.

IUCN Environmental Law Centre for the IUCN Environmental Law Programme

Contact the IUCN Environmental Law Centre at: waterlaw@elc.iucn.org

Visit the IUCN Environmental Law Programme Website at: www.iucn.org/themes/law