

Introduction to biodiversity and climate change module

Climate change and its associated effects are one of the major group of threats to the conservation and sustainable use of biodiversity. Measures taken to address climate change and its effects, including those under the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol (KP), have also been identified as having potentially negative impacts on biodiversity (although they may also have positive, or no impacts). This module focuses on the relationship between the conservation and sustainable use of biodiversity and climate change.

Climate change, as defined in Article 1.2 of the UNFCCC, is understood to mean:

a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable periods of time.

Adverse effects of climate change, as defined in Article 1.1 of the UNFCCC, means:

changes in the physical environment or biota resulting from climate change which have significant deleterious effects on the composition, resilience or productivity of natural and managed ecosystems or on the operation of socio-economic systems or on human health and welfare.

The associated effects of climate change include rising surface temperatures, sea level rise, and extreme climatic events.

Biological diversity, as defined in Article 2 of the Convention on Biological Diversity (CBD) refers to:

The variability among living organisms from all sources including, *inter alia*, terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

The module has been divided into the following sections:

- Assessment, which includes research and monitoring;
- Legislative measures and national policies
- Management, which is further divided into the following two sections:
 - Mitigation, referring to actions that aim to reduce greenhouse gas emissions through avoided emission or sinks and carbon stores; and
 - Adaptation, which would include mitigating the impacts of climate change;
- Economic instruments, dealing with incentives and other policies and measures to create an enabling environment for technology transfer and diffusion;
- Provision of resources, encompassing financial and technical support;
- Communication, education and public awareness, which includes training; and
- Cooperation, which includes cooperation among Parties to agreements examined (see below), their subsidiary bodies or their equivalents, and the secretariats of these agreements.

A group of activities are listed under each section, with some activities being further broken down into components. Actions are then listed under each activity or component, based on a survey of the decisions, resolutions and recommendations of the Conference of the Parties or

equivalent decision-making bodies of the following multilateral environmental agreements (MEAs): the UNFCCC and its KP, the CBD, the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention), the Convention on the Conservation of Migratory Species of Wild Animals (CMS), the Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention), and the Convention on International Trade on Endangered Species (CITES). In the case of the World Heritage Convention, only the most recent obligations (2002 to present) have been reviewed; earlier obligations, if any, will be studied and included in the module once the electronic versions of these become available.

European regional treaties drawn on for the climate change and biodiversity module include:

- Convention on the Conservation of European Wildlife and Natural Habitats (Bern, 1979)
- Kiev Resolution on Biodiversity (2003)
- MOU concerning Conservation Measures for the Siberian Crane
- EU Directive 2003/87/EC (13 October 2003)
- EU Directive 2004/101/EC (27 October 2004)
- Pan-European Biological and Landscape Diversity Strategy (PEBLDS)
- Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)

Actions chosen focus on those directed at Parties; in certain instances, however, actions referring to other actors have been included, especially those referring to secretariats and sources of funding. **Directly relevant obligations** refer to those actions that expressly mention climate change and biodiversity or any of its components, or have a clear link to the module's theme, i.e., a link that can be established without looking beyond the text.

Indirectly relevant obligations describe those actions whose implementation are necessary to achieve the objective of the activity or section, despite the lack of an explicit reference to climate change, biodiversity or any of the latter's components in the description of the action. Obligations arising from provisions of MEAs examined are listed first, followed by activities listed in identified decisions, resolutions or recommendations, which are arranged in chronological order, with most recent references mentioned first. Commentary is provided to identify complementarities, possible synergies, and gaps, as well as to further clarify the link between the action and the activity.

When the cited actions make reference to other threats to biodiversity or its components, these other threats have been filtered out in the interest of focusing on the theme of the module. The exact language found in the referenced texts has not always been adopted, but every effort has been made to stay faithful to the spirit of each cited provision.

The actions included indicate a growing recognition of the value of the biological diversity to detecting, monitoring and dealing with climate change, a value that goes beyond its role in mitigating climate change and adapting to its inevitable effects. However, many gaps remain in such understanding, gaps that some of the actions pointed out seek to address. Much attention has been given to maintaining and enhancing the resilience of the components of biodiversity to adapt to climate change and its effects, and also to ensuring that actions taken in relation to climate change do not result in adverse effects to biodiversity. Most of these actions can only take place if additional financial and technical support is provided through multilateral and bilateral means.

To have a better understanding of the structure and elements of the module, an overview has been provided for ease of navigation. The navigation bar on the left of the page can be used

to go directly to specific sections within the module. Introductions to each section have also been developed to give the user an overview of the coverage of each section.