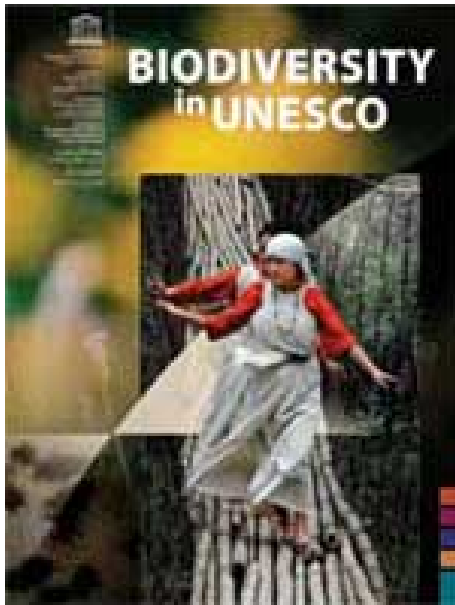


BIODIVERSITY IN UNESCO



"In the last decades biodiversity has been lost at an unprecedented rate mostly due to unsustainable human activities. There is no doubt that biodiversity is a very complex issue that cuts across different sectors of society. Consequently, biodiversity issues should be addressed in an integrated interdisciplinary manner. It is crucial that different disciplines and competencies are brought together so as to develop urgently needed solutions to address the global challenge of biodiversity loss. Since its early days, UNESCO has provided support and guidance to countries to help them conserve and sustainably and equitably use biodiversity. UNESCO's interdisciplinary and cross-sectoral action aims at setting standards, developing ethical frameworks and building capacity for efficient biodiversity governance. It focuses on addressing the educational, scientific, cultural and communication aspects of biodiversity in an integrated way." Extract "[Biodiversity in UNESCO](#)".

[More Information](#)

Biodiversity & international conventions



UNESCO contributes to major international conventions dealing with biodiversity issues. It also provides technical support to countries to help in implementing the provisions of these agreements.

[More Information](#)

Biodiversity science, research and monitoring



UNESCO contributes to the scientific understanding of biodiversity, expanding the fundamental knowledge from genes to landscapes, applying new and traditional knowledge, building bridges between the natural and social sciences, bringing science into policy making.

[More Information](#)

Biodiversity conservation, sustainable use & management



UNESCO's activities related to conservation, sustainable use and management of biodiversity entail the introduction and application of methods for reversing the rate of loss of biodiversity, thereby maintaining its potential to meet current and future human needs and aspirations.

[More Information](#)

Biodiversity & cultural diversity



UNESCO adopted an intersectoral approach to explore and enhance the linkages between different forms of diversity that are essential for their sustainability.

[More Information](#)

Biodiversity education, communication and capacity building



UNESCO's actions on biodiversity are infused with education, communication and capacity-building activities, with priority to development of specialist skills in science, policy, awareness and outreach. UNESCO encourages communication and coordination by creating networks and supporting training initiatives and centres.

[More Information](#)

Ecosystem Related Activities



The health and wellbeing of human populations depends upon the services provided by ecosystems. These include food, fuel and fiber, purification of air and water, moderation of floods and droughts, stabilization of climate, cultural and aesthetic benefits, and many others. Yet, nearly two thirds of the services provided by ecosystems to humankind are found to be in decline worldwide. UNESCO's activities, covering a wide range of ecosystems, focus on ensuring long-term sustainability of ecosystems and the critical services they provide to humanity.

[More Information](#)

BIODIVERSITY IN UNESCO

Biodiversity, the variety of life on Earth, is disappearing at an increasing rate. The international community has committed itself to significantly reducing this rate of loss, as it strives to achieve the Millennium Development Goals. UNESCO's activities promoting international cooperation from biodiversity science to governance, taking into account cultural, educational and ethical dimensions of biodiversity related issues are therefore essential to help countries to meet this global objective.

Biodiversity and international conventions

UNESCO contributes to major international conventions dealing with biodiversity issues:

- [World Heritage Convention](#)
- [Convention on Biological Diversity \(CBD\)](#)
- [Ramsar Convention on Wetlands](#)
- [United Nations Framework Convention on Climate Change \(UNFCCC\)](#)
- [United Nations Convention to Combat Desertification \(UNCCD\)](#)
- [Intergovernmental Platform on Biodiversity and Ecosystem Services \(IPBES\)](#)

Biodiversity science, research and monitoring

Biodiversity science for decision-making

UNESCO co-sponsored the Millennium Ecosystem Assessment (MA) - the most comprehensive assessment on the links between ecosystem changes - including biodiversity changes - and human well-being and options for responding to those changes. UNESCO is now engaged in a MA follow-up exercise, jointly with [ICSU](#) and [UNU](#), on identifying knowledge gaps identified by the MA and possible policy responses.

UNESCO is involved in the International Assessment of Agricultural Science and Technology for Development ([IAASTD](#)) aimed at evaluating the relevance, quality and effectiveness of agricultural knowledge, science, and technology; and effectiveness of the related public and private sector policies as well as institutional arrangements.

UNESCO Sector: Division of Ecological and Earth Sciences

[More Information](#)

Biodiversity research

UNESCO co-sponsors [Diversitas](#) - an international programme of biodiversity science which provides a platform for integrating scientific knowledge on biodiversity. It also promotes national research efforts on functional, evolutionary, and monitoring aspects of biodiversity. An expected outcome of its collaboration with Diversitas is further involvement of developing country scientists in international biodiversity research efforts, promotion of capacity building and knowledge sharing. UNESCO collaborates with [ICSU](#) and its Scientific Committee on problems of the environment, and promotes the current efforts on development of Novel Ecological Theory focused on complex socio-ecological systems, which is important for advancing knowledge and is relevant to society.

UNESCO Sector: Division of Ecological and Earth Sciences

[More Information](#)

Biodiversity and climate change

UNESCO recognizes that current climate change coupled with other human pressures is stressing biodiversity far beyond the levels imposed by the global climatic change that

occurred in the recent evolutionary past. UNESCO's activities focus on those ecosystems that are particularly vulnerable to climate change, such as coral reefs, high mountain ecosystems, drylands, and others:

- Coral reef ecosystems
UNESCO Sector: IOC
More Information: [Coral Reef Targeted Research Program](#) or [Global Coral Reef Monitoring Network](#)
- Dryland ecosystems
UNESCO Sector: Division of Ecological and Earth Sciences
[More Information](#)
- Marine ecosystems
UNESCO Sector: IOC
[More Information](#)
- Mountain ecosystems
UNESCO Sector: Division of Ecological and Earth Sciences
[More Information](#)

More on [UNESCO climate programmes](#) and [Africa Bio-carbon Initiative](#)

Global biodiversity observing and monitoring systems

UNESCO promotes the participation of its Member States and scientists in international biodiversity monitoring programmes and global observing systems: Biosphere Reserve Integrated Monitoring (BRIM) promotes monitoring of abiotic, biodiversity and social changes in biosphere reserves

UNESCO Sector: Division of Ecological and Earth Sciences
[More Information](#)

- Global Terrestrial Observing System (GTOS) focuses on observations, modelling, and analysis of terrestrial ecosystems to support sustainable development.
UNESCO Sector: Division of Ecological and Earth Sciences
[More Information](#)
- Global Coral Reef Monitoring Network (GCRMN) focuses on the improvement, management and conservation of coral reefs and helps with finding funds for reef monitoring.
UNESCO Sector: IOC
[More Information](#)
- Global Ocean Observing Systems provide products, including ocean observations, measurements, and data that can be used by governments, industries and scientists to assess, understand, forecast and manage trends in the global ocean-atmospheric system.
UNESCO Sector: IOC
[More Information](#)
- Global Water System Project (GWSP) seeks to answer the fundamental and multi-faceted question: how are humans changing the global water cycle, the associated biogeochemical cycles, and the biological components of the global water system and what are the social feedbacks arising from these changes?
UNESCO Sector: IHP
[More Information](#)

Space technologies and biodiversity

In order to provide the best space expertise available, UNESCO's remote sensing activities are implemented in partnership with space agencies, space research institutions, academies and the private sector. The main focus is to assist developing countries to become able to monitor their own associated UNESCO sites (e.g. World Heritage sites and/or Biosphere Reserves). This is a unique tool to identify threats and resolve such threats to improve conservation.

UNESCO Sector: Division of Ecological and Earth Sciences

[More Information](#)

Biodiversity conservation, sustainable use and management

Conservation of biodiversity and the world natural heritage

UNESCO seeks to encourage the identification, protection and preservation of cultural and natural heritage around the world considered to be of outstanding value to humanity. This is embodied in an international Convention on the World Cultural and Natural Heritage, adopted by UNESCO in 1972. By regarding heritage as both cultural and natural, the Convention reminds us of the ways in which people interact with nature, and of the fundamental need to preserve the balance between the two.

UNESCO Sector: CLT/WHC/ Natural heritage section

[More Information](#)

Integration of biodiversity conservation and socioeconomic development

UNESCO's Man and the Biosphere Programme proposes an interdisciplinary research agenda and capacity building aiming to improve the relationship of people with their environment globally. It notably targets the ecological, social and economic dimensions of biodiversity loss and the reduction of this loss. It uses its World Network of Biosphere Reserves as vehicles for knowledge-sharing, research and monitoring, education and training, and participatory decision-making which innovate and demonstrate approaches to reconcile conservation and sustainable development based on sound science and local communities' efforts.

UNESCO Sector: Division of Ecological and Earth Sciences

[More Information](#)

Ecohydrology - an integrative science to solve issues surrounding water, environment and people

UNESCO promotes research, demonstration and capacity-building in the field of ecohydrology, which aims to enhance the sustainable use of water resources by using the dual interactions between biota and hydrology to regulate, remediate and conserve ecosystems.

UNESCO Sector: Division of Water Sciences

[More Information](#)

Indigenous knowledge and practices for biodiversity management

UNESCO LINKS project builds dialogue amongst traditional knowledge holders, natural and social scientists, resource managers and decision-makers to enhance biodiversity conservation and secure an active and equitable role for local communities in resource governance.

UNESCO Sector: Division of Science Policy and Sustainable Development

[More Information](#)

Partnership on coastal and marine protected areas

All UN agencies are currently involved in activities concerning marine and coastal protected areas and these represent an important component of their mandate and programmes of work. Since strengthened cooperation and coordination among UN agencies and major partners would be beneficial to improve coherence and effectiveness of efforts, the Intergovernmental Oceanographic Commission of UNESCO (IOC), UNESCO's Man and Biosphere Programme (MAB), UNESCO's World Heritage Centre (WHC), The Secretariat of the Convention on Biological Diversity (CBD) and United Nations Environment Programme, Regional Seas Programme (UNEP/RS), jointly with selected organizations and programmes have initiated a partnership on marine and coastal protected areas.

[More Information](#)

Prevention of conflicts and management for biodiversity

In the context of the MAB Programme, training workshops are organized in selected regions and biosphere reserves for testing methodologies and approaches to conflict prevention and management for biodiversity, including in transboundary biosphere reserves context.

UNESCO Sector: WHC.

The World Heritage Centre focuses on Biodiversity Conservation in regions of armed conflicts.

[More Information](#)

UNESCO Sector: Division of Ecological and Earth Sciences

[More Information](#)

Sustainable tourism and biodiversity

UNESCO promotes sustainable tourism development in vulnerable terrestrial, marine and coastal ecosystems and habitats of major importance for biological diversity and protected areas, including fragile riparian and mountain ecosystems. These activities are consistent with the principles of conservation and sustainable use of biological diversity and include ecotourism, nature- and culture-based tourism:

Sustainable tourism within the World Network of Biosphere Reserves

UNESCO Sector: Division of Ecological and Earth Sciences

[More Information](#)

- [The World Heritage Sustainable Tourism Programme](#)
UNESCO Sector: World Heritage Centre
[More Information](#)
- [Cultural Tourism](#)
UNESCO Sector: World Heritage Centre
[More Information](#)

Biodiversity and cultural diversity

Sacred natural sites and cultural landscapes

Natural systems cannot be understood, conserved and managed without the recognition and respect of the human cultures that shape them. Together, biological and cultural diversity hold the key to ensuring resilience in both ecological and social systems and understanding the links between nature and culture is crucial for its safeguard.

UNESCO's involvement in sacred natural sites and cultural landscapes as areas of biodiversity conservation is an obvious outcome of the shared work it carries out in the natural sciences and culture sectors.

- Cultural landscapes and world heritage
UNESCO Sector: World Heritage Centre
[More Information](#)
- Cultural landscapes and sacred natural sites
UNESCO Sector: Division of Ecological and Earth Sciences
[More Information](#)

Biodiversity and local and indigenous knowledge

UNESCO LINKS project builds dialogue amongst traditional knowledge holders, natural and social scientists, resource managers and decision-makers to enhance biodiversity conservation and secure an active and equitable role for local communities in resource governance. It also develops 'bothways' education that supports local biodiversity conservation and sustainable use, by reinforcing the transmission of indigenous knowledge, practices and worldviews, alongside Science.

UNESCO Sector: Division of Science Policy and Sustainable Development
[More Information](#)

Biodiversity and gastronomy

UNESCO recognizes that gastronomy lies at the crossroad of agriculture and the environment, nutrition and health, biological and cultural diversity. This means that the gastronomy sector not only has the potential to forge local development in an effort to fight against poverty, but it also has an important role to play in the protection of biodiversity, in reducing diseases linked to malnutrition, linking rural and urban communities and in the expression of cultural diversity and culinary traditions.

- Cities of gastronomy
UNESCO Sector: Division of Ecological and Earth Sciences, The Global Alliance for Cultural diversity
[More Information](#)
- Terroirs et Cultures
UNESCO Sector: Division of Ecological and Earth Sciences
[More Information](#)

Biodiversity and intangible heritage

In the framework of the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage, field projects are implemented aimed at safeguarding knowledge and practices concerning nature and the universe ("Action Plans" of the Proclamation of Masterpieces of the Oral and Intangible Heritage of Humanity). In the framework of the CBD 2010 target, UNESCO and UNEP are preparing an indicator on "Status and trends in linguistic diversity and numbers of speakers of indigenous languages".

UNESCO Sector: Division of Intangible Heritage
[More Information](#)

[Links between biological and cultural diversity - Science & experiences](#)

Biodiversity education and capacity building

The Open Training Platform

UNESCO initiative to facilitate access to training materials and resources, including those related to biodiversity management, elaborated by development stakeholders with an objective of providing training and capacity-building resources openly available to local communities and development stakeholders in order to foster sustainable development.

UNESCO Sector: Communication and Information

[More Information](#)

Global Initiative on Biodiversity Education

UNESCO and the Convention on Biological Diversity have jointly developed the Global Initiative on Biodiversity Education, which has led to the agreed CBD Programme of Work on Biodiversity Education and Public Awareness.

[More Information](#)

Biodiversity education for sustainable development

Building on more than 30 years of experience in environmental education, Education for sustainable development must continue to highlight the importance of addressing the issues of natural resources (water, energy, agriculture, biodiversity) as part of the broader agenda of sustainable development. In particular, the links with societal and economic considerations will enable learners to adopt new behaviours in the protection of the world's natural resources, which are essential for human development and indeed survival.

UNESCO Sector: Education for Sustainable Development

[More Information](#)

Education and training on natural heritage conservation

Education and training, including youth, higher education, and professional trainings are recognized as crucial to the long-term preservation of World Heritage sites, including natural heritage sites and the rich biodiversity they encompass.

UNESCO Sector: World Heritage Centre

[More Information](#)

Education on integrated tropical forest management

The Regional School on Integrated Management of Tropical Forests and Territories (ERAIFT) located at the University of Kinshasa in the Democratic Republic of the Congo, was created in 1999 under the UNESCO's Man and the Biosphere programme. Each year, it trains some 30 African specialists from more than 20 countries to sustainable resource management in tropical forests.

UNESCO Sector: Division of Ecological and earth Sciences

[More Information](#)

Education and capacity building on remote sensing and biodiversity

UNESCO promotes the involvement of major space agencies, conservation authorities and research institutions, to make use of space science and technology to create awareness of conservation among children. It also works on strengthening capacities at local levels through the use of space technologies to monitor natural and cultural sites. This is

done by involving the end-users (local staff involved in site management) from the outset of a project and encouraging their participation at all stages.

UNESCO Sector: Division of Ecological and Earth Sciences

[More Information](#)

Ecosystem Related Activities

Agricultural Ecosystems

- [International Assessment of Agricultural Science and Technology for Development](#)
- [MAB Programme](#)
- [Local and Indigenous Knowledge Systems](#)
- [UNESCO and Agriculture](#)

Dry and Sub-humid Lands Ecosystems

- [Man and the Biosphere \(MAB\) Programme - drylands programme](#)

Forest Ecosystems

- [MAB Tropical forests programme: research, conservation, and training for sustainable resources management](#)
- [Forests: World heritage thematic programme](#)
- [The Great Apes Survival Project](#)

Freshwater Ecosystems

- [Ecohydrology](#)

Island Ecosystems

- [Island and coastal areas: sustainable use of natural resources and human development](#)
- [Sustainable Development in Coastal Regions and Small Islands](#)

Marine and Coastal Ecosystems

- [Marine Environmental Protection](#)
- [Partnership on coastal and marine protected areas](#)
- [Global Ocean Ecosystem Dynamics](#)
- [World Heritage Marine Programme](#)
- [Global Coral Reef Monitoring Network](#)

Mountain Ecosystems

- [Sustainable mountain resources management](#)

Urban Ecosystems

- [UNESCO's Man and the Biosphere Urban Group](#)
- [Sustainable Urbanization](#)
- [The Global Alliance's Creative Cities Network](#)
- [World Heritage Cities Programme](#)

Wetlands

- [UNESCO and Ramsar join efforts to preserve important sites](#)