



United Nations
Educational, Scientific and
Cultural Organization

UNESCO biodiversity initiative



Graphic Design: Eric Loddé
Coordination: Salvatore Aricò
Editorial Direction: Anatheia L. Brooks and Anne Candau
Technical Assistance and Iconography: Natasha Lazic, Nissrine El-Ghazal Mouawad

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Why has UNESCO launched a Biodiversity Initiative?

In October 2010, the Executive Board of UNESCO noted the important international developments related to biodiversity science and policy in the context of the 2010 International Year of Biodiversity (IYB), including in relation to strengthening the biodiversity science-policy interface and the establishment of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES).

The Board noted that in order to address, in a holistic and integrated manner, all aspects related to the conservation and sustainable and equitable use of biodiversity from the perspective of UNESCO's mandate and its relevant programmes and activities, a coherent UNESCO-wide initiative on biodiversity – the UNESCO Biodiversity Initiative – is to be developed.

TO WHAT INTERNATIONAL GOALS AND TARGETS DOES THE UNESCO BIODIVERSITY INITIATIVE RESPOND?

Biodiversity and the Millennium Development Goals

In addition to the need to integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources, reducing biodiversity loss and achieving a significant reduction in the rate of loss, is a main target for MDG7 – 'Ensure Environmental Sustainability'. Moreover, biodiversity issues cut across a number of other MDGs, including those related to eradicating extreme poverty and hunger (MDG1), promoting gender equality and empowering women (MDG3), developing a global partnership for development (MDG8) as well as those related to health (MDGs 4, 5 and 6). Biodiversity is likely to be a central theme at the United Nations Conference on Sustainable Development 'Rio+20' in 2012.

Biodiversity and Sustainable Development Targets

Despite increasing attention to biodiversity, the international community failed to meet the 2002 World Summit on Sustainable Development target to significantly reduce the rate of biodiversity loss by 2010.

Therefore, the UN General Assembly adopted a resolution proclaiming 2010 as the International Year of Biodiversity (IYB) to further raise awareness concerning biodiversity loss and to solicit commitments and new determination from the international community to improve and foster biodiversity conservation and its sustainable and equitable use.

The UNESCO Secretariat implemented several activities in support of IYB, including its official high-level launch, substantive conferences dealing with science and policy aspects of biodiversity and with the relations between biological and cultural diversity, and the production of public awareness and education materials including a comprehensive travelling exhibition, "*Biodiversity is life, is our life*", that benefited from worldwide exposure, and the launching of the production of a Biodiversity Learning Kit for schools. IYB triggered many initiatives on behalf of the various UNESCO communities – Member States, National Commissions and Programme Committees, UNESCO Chairs and the network of Associated Schools, and partner intergovernmental and non-governmental organizations. Partly due to UNESCO's contribution, IYB won the Green Award Prize as the best environmental campaign of 2010.

THE NAGOYA OUTCOME

THE STRATEGIC PLAN FOR BIODIVERSITY AND THE AICHI BIODIVERSITY TARGETS

“By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.”

Mission: “Take effective and urgent action to halt the loss of biodiversity in order to ensure that by 2020 ecosystems are resilient and continue to provide essential services, thereby securing the planet’s variety of life, and contributing to human well-being, and poverty eradication.”

Strategic Goals and the Aichi Biodiversity Targets

The Strategic Plan includes 20 headline targets for 2015 or 2020 (the «Aichi Biodiversity Targets»), organized under the following five strategic goals:

STRATEGIC GOAL A. Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society

Specific targets

1. Raising awareness about biodiversity values
2. Integrating biodiversity values into national and local development and poverty reduction strategies and planning processes
3. Eliminating or reforming perverse incentives
4. Implementing plans for sustainable production and consumption and keeping the impacts of use of natural resources well within safe ecological limits.

STRATEGIC GOAL B. Reduce the direct pressures on biodiversity and promote sustainable use

Specific targets

5. Reducing the rate of loss and degradation of all natural habitats
6. Achieving sustainable management of fisheries so that overfishing is avoided
7. Conserving biodiversity in areas under agriculture, aquaculture and forestry
8. Reducing pollution to levels that are not detrimental to ecosystem function and biodiversity
9. Managing pathways to prevent the introduction and the establishment of invasive species
10. Minimizing the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification to maintain their functioning.

STRATEGIC GOAL C. Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

Specific targets

11. Conserving terrestrial and marine areas, especially areas of particular importance for biodiversity and ecosystem services, through effectively and equitably managed, ecologically representative and well connected systems of protected areas and effective area-based conservation measures
12. Improving and sustaining the status of known threatened species
13. Minimizing genetic erosion and maintaining the genetic diversity of cultivated plants, domesticated animals and other valuable species.

STRATEGIC GOAL D. Enhance the benefits to all from biodiversity and ecosystem services

Specific targets

14. Restoring and safeguarding ecosystems that provide essential services and contribute to human well-being, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable
15. Enhancing ecosystem resilience through its conservation and restoration, thereby contributing to climate change mitigation
16. Making operational the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization.

STRATEGIC GOAL E. Enhance implementation through participatory planning, knowledge management and capacity-building

Specific targets

17. Ensuring that each party develops and adopts as a policy instrument a national biodiversity strategy and action plan
18. Ensuring that traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity are fully integrated and reflected in the implementation of the Convention and subject to national legislation
19. Improving knowledge, science and technologies relating to biodiversity and ensuring they are widely shared, transferred, and applied
20. Mobilizing financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020.

The Nagoya Protocol on Access and Benefit-Sharing

The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity is an international agreement which aims at sharing the benefits arising from the use of genetic resources in a fair and equitable way, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding, thereby contributing to the conservation of biological diversity and the sustainable use of its components. It was adopted by the Conference of the Parties to the Convention on Biological Diversity at its tenth meeting on 29 October 2010 in Nagoya, Japan. The Nagoya Protocol will be open for signature by Parties to the Convention from 2 February 2011 until 1 February 2012 at the United Nations Headquarters in New York. The fair and equitable sharing of the benefits arising out of the utilization of genetic resources is one of the three objectives of the Convention on Biological Diversity.

The UNESCO-CBD Joint Programme of Work on Biological and Cultural Diversity

In June 2010, a conference co-organized by UNESCO and the Secretariat of the Convention on Biological Diversity (SCBD) pressed for biological and cultural diversity to be genuinely integrated into development cooperation strategies and programmes. The Conference resulted in the 2010 Declaration on Bio-Cultural Diversity and the draft Joint Programme between UNESCO and the SCBD containing a number of proposed actions. The draft programme was acknowledged by the World Heritage Committee at its last meeting in Brasilia in July 2010 and welcomed by the CBD COP 10 held in October 2010 in Nagoya, Japan (Decision X/20). COP 10 recognized the Joint Programme as a ‘useful co-ordination mechanism to advance the implementation of the Convention and deepen global awareness of the interlinkages between cultural and biological diversity’. State parties and other relevant stakeholders were invited to ‘contribute to and support the implementation of this joint programme’.



The UN Decade on Biodiversity

In 2010, the UN General Assembly proclaimed the UN Decade of Biodiversity spanning the period 2011-2020. The main objective of the Decade is to support the achievement of the revised and updated global biodiversity targets that are part of the Strategic Plan for Biodiversity. The UN General Assembly resolution on the Decade requests the Secretary-General to coordinate the activities of the Decade with the support of the secretariats of CBD and other biodiversity-related conventions and relevant UN specialized agencies, funds and programmes.

The UNESCO Biodiversity Initiative will position the organization to respond to all of these and future relevant developments on the international stage relating to the challenge of biodiversity conservation.

WHY ARE MEMBER STATES CONCERNED WITH BIODIVERSITY AND WHY SHOULD THEY SUPPORT THE BIODIVERSITY INITIATIVE?

What is biodiversity?

Biological diversity or ‘biodiversity’ – is defined as the diversity of all living forms at different levels of complexity: genes, species, ecosystems and even landscapes and seascapes. Biodiversity is shaped by climatic conditions, the properties of soils and sediments, evolutionary processes and human action. Biodiversity can be greatly enhanced by human activities; however, it can also be adversely impacted by such activities due to unsustainable use or by more profound causes linked to our development models.

What is causing biodiversity loss: direct and more profound causes?

Partly due to scientific findings on biodiversity and partly because of the increasingly explicit link between the degradation of biodiversity and continuing poverty, the international community is more criti-

cally aware that biodiversity is being eroded and lost. This loss cannot be explained in light of variations in the distribution and evolution of biodiversity.

Only a socially and environmentally aware development model can allow us to reconcile human well-being and biodiversity conservation. Incorporating ancient wisdom, such as compassion for all forms of life and altruism in meeting other people’s needs compatibly with biodiversity, are manifestations of how a New Humanism can assist in dealing with the loss of biodiversity and ecosystem services we are currently facing.

The contribution and value of UNESCO to the international biodiversity agenda is evident, particularly in addressing the underlying drivers of biodiversity loss, such as human demographics; consumption and income levels; the resource-intensiveness of industry; and how economies value – or do not value – biodiversity. UNESCO’s action is also relevant to proximate

drivers, such as conversion of more natural landscapes to production oriented ones; exploitation beyond sustainable yields; invasive exotic species resulting from trade and transportation; pollution; natural disasters; and global climate change. Education, communication and policy are instrumental in addressing these underlying and proximate causes.

Why is biodiversity important for the future of the earth and its peoples?

Biodiversity is essential not only to the proper functioning of earth systems; it is also key to the delivery of those ecosystem services that are crucial to human dignity and well-being. These biodiversity-dependent ecosystem services include: provision of potable water, food and fibers; soil fertility; maintenance of the “genetic library of biodiversity” – an irreplaceable source of new innovations, pharmaceuticals and chemicals; composition of the atmosphere; climate regulation; recreational and aesthetic values – among others.



Moral values, norms and traditions will be needed to reshape our relationship with the living world of which we are part.

Biodiversity is also instrumental to social organization and resilience, and contributes to the maintenance of cultural identities. Each culture possesses its own set of cultural practices which depend upon specific elements of local biodiversity for their continued existence.

Numerous experiences and scientific studies have demonstrated the interlinkages between biological and cultural diversity. Understanding the long term co-evolution of people, animal and plant species is important in the context of managing biological and cultural diversity and their interactions.

WHAT CAN UNESCO OFFER TO THE INTERNATIONAL COMMUNITY TO HELP CONSERVE THE EARTH'S BIODIVERSITY FOR CURRENT AND FUTURE GENERATIONS?

UNESCO's specific and unique contribution to the conservation and sustainable and equitable use of biodiversity differs from other UN agencies and other organizations, both international and local, because of UNESCO's:

- convening power and role as an honest broker with a holistic perspective combining expertise in natural and social sciences, culture, education and communication;
- track record in advancing the science of biodiversity through pioneering work in the ecological sciences on ecosystems, biosphere reserves, biodiversity related projects, capacity building, scientific assessments and policy briefs to assist decision-makers;
- study and observations of the biodiversity of oceans, arid zones, mountains, wetlands and agricultural systems, work in using remote sensing in support of World Heritage and other UNESCO designated sites, and work in the area of biotechnology and related capacity building;
- multidisciplinary mandate in education and public awareness on biodiversity and sustainable development, links between cultural diversity and biodiversity, societal aspects and ethical issues; and
- creation of information and communication tools and work with broadcast media in support of biodiversity education.



Examples of UNESCO's action in the field of biodiversity

- > UNESCO contributes to the development and implementation of, and wholly or partly governs, several scientific programmes and activities that provide important tools supporting the decision-making process on biodiversity. This is done through the generation of scientific knowledge, the transfer of this knowledge to decision-makers and related capacity-building. Examples are the Man and the Biosphere (MAB) programme, work in the area of ecohydrology led by the International Hydrological Programme (IHP) and the marine biodiversity portfolio of UNESCO's Intergovernmental Oceanographic Commission (IOC).
- > Anthropological research, management experience and local voices teach us that many indigenous and local communities shape, and manage biodiversity through their actions and social organization. Tenure and stewardship systems, combined with knowledge and know-how, worldview and ethics, have a very important role in conserving a mosaic of ecosystems created through co-evolution between people and other

forms of life. UNESCO's Local and Indigenous Knowledge Systems (LINKS) programme aims to study and understand how traditional and indigenous knowledge and biodiversity are interconnected.

- > The gendered division of labor has resulted in women and men in many societies having distinct forms of traditional knowledge related to biodiversity. Women embody specific biodiversity knowledge, and there are many examples of the sustainable manner in which women use biodiversity. Nevertheless, their role in biodiversity management and the decision-making process is not properly recognized and capitalized upon. The Natural Sciences Sector, in collaboration with the Division for Gender Equality in the Office of the Director-General, promotes the incorporation of gender-responsive and gender-transformative approaches to biodiversity conservation and sustainable development in the activities of the Organization, as outlined in its Gender Equality Action Plan for 2008-13. Efforts in this respect also include highlighting and showcasing the value of indigenous knowledge held by women in biodiversity conservation.

- > UNESCO is mandated to assist Member States in the design and implementation of national policies in education as well as in science, technology and innovation, including in relation to biodiversity. These policies will support nationally-driven efforts to reduce and revert biodiversity loss that are fully integrated into and advanced through appropriate strategies and action plans. Efforts in the area of non-formal education and raising public awareness through media campaigns will further complement such national efforts.
- > The Organization plays an active and long-standing role in setting normative standards in the field of the environment; examples are the World Heritage Convention, the Convention on Wetlands (the Ramsar Convention, for which UNESCO acts as the legal depositary) and the MAB programme. Normative instruments and guidelines in the area of culture and cultural diversity are also of relevance, including the Convention for the Safeguarding of Intangible Cultural Heritage (2003), the UNESCO Declaration on Cultural Diversity (2001) and the UNESCO Endangered Languages Programme.

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)



IPBES will be an interface between the scientific community and policy makers that aims at building capacity for, and strengthen the use of, science in policy-making.

Many organizations and initiatives contribute to the science-policy interface on biodiversity and ecosystem services. There is, however, currently no global mechanism recognized by both the scientific and policy communities that brings information together and synthesizes and analyses it for decision-making in a range of policy fora such as the global environmental conventions and development policy dialogues.

Following a gap analysis and three intergovernmental and multi-stakeholder meetings convened between 2008 and 2010, it was determined that there was a need for a new platform to fill in the gaps in the science-policy interface on biodiversity and ecosystem services.

IPBES will respond to requests for scientific information related to biodiversity and ecosystem services from govern-

ments, relevant multilateral environmental agreements and United Nations bodies, as well as other relevant stakeholders. Governments have agreed that the four main functions of IPBES will be:

- To identify and prioritize key scientific information needed for policymakers and to catalyse efforts to generate new knowledge;
- To perform regular and timely assessments of knowledge on biodiversity and ecosystem services and their interlinkages;
- To support policy formulation and implementation by identifying policy-relevant tools and methodologies; and
- To prioritize key capacity-building needs to improve the science-policy interface, and to provide and call for financial and other support for the highest-priority needs related directly to its activities.

IPBES will collaborate with existing initiatives on biodiversity and ecosystem services, including multilateral environmental agreements, United Nations bodies and networks of scientists and knowledge holders, to fill gaps and build upon their work, while avoiding duplication.

What is the added-value of this Initiative beyond the sum of the different UNESCO programmes related to biodiversity?

Among the specialized agencies, funds and programmes of the UN, UNESCO is the organization with the most multi- and inter-disciplinary mandate. This translates into an objective value-added, as the combined action of communication, culture, education and the sciences creates the conditions for the inclusion of the human dimension of adaptation to global change together with the scientific and technical aspects of the management of biodiversity and natural resources. This provides comprehensive solutions to complex problems related to sustainable development.

UNESCO intends to contribute substantially to a successful outcome of the UN Conference on Sustainable Development – ‘Rio+20’, including to making operational the notions of green economy and green societies, in which healthy biodiversity and ecosystem services will play a central role.

The UNESCO Biodiversity Initiative provides an opportunity to formalize the rich and diverse portfolio of UNESCO’s biodiversity-related programmes and activities and to occupy a clear niche in relation to on-going UN system-wide efforts in support of biodiversity. In implementing the Biodiversity Initiative, UNESCO will strive to cooperate at all levels through the “One UN” initiative in support of efforts by Governments to implement their biodiversity commitments, including those under biodiversity-related conventions.





WHAT ARE THE GOALS AND ACTIONS OF THE BIODIVERSITY INITIATIVE?

Main elements of the UNESCO Biodiversity Initiative include:

Mission

To address, in a holistic and integrated manner, all aspects related to the conservation and sustainable and equitable use of biodiversity from the perspective of UNESCO's mandate, programmes and activities.

Goal

To ensure that UNESCO delivers relevant, timely and effective assistance in providing policy advice to Member States in addressing the biodiversity crisis and in capitalizing upon the opportunities provided by biodiversity such as the contribution of biodiversity to green societies consistent with the Strategic Plan for Biodiversity and relevant MDGs.

Strategy

UNESCO Member States can expect that the Organization's action in the area of biodiversity will result in, *inter alia*, increased scientific knowledge emanating from biodiversity research, enhanced sustainable management of biodiversity, and support to Member States in attaining the international biodiversity goals and related MDGs.

The Biodiversity Initiative is consistent with virtually all of the Overarching Objectives and many of the Strategic Programme Objectives of the current UNESCO Medium-Term Strategy for 2006-2013 (34 C/4). Indeed, pursuing actions in support of biodiversity is a function of attaining quality education (Overarching Objective 1), mobilizing science knowledge and policy for sustainable development (Overarching objective 2) and addressing social and ethical challenges (Overarching Objective 3). Fostering cultural diversity (Overarching Objective 4) and building knowledge societies through information and communication (Overarching Objective 5) are also preconditions towards societies that properly value and use biodiversity.

Main areas for action and related operational objectives

- Biodiversity science: To continue expanding the biodiversity knowledge base through promotion of research and systematic observations, the expansion of the number of experts in relevant disciplines and by enhancing the effectiveness of the biodiversity science-policy interface through sound STI policies and the process of scientific assessments;

- Education and communication in support of biodiversity: To mobilize individual and societal participation for biodiversity through education and public awareness;
- Biodiversity, cultural diversity and social organization: To explore further the interlinkages of biodiversity and cultural diversity by mobilizing the social and human sciences to identify the key social drivers of biodiversity loss and to identify theoretical and practical grounds for the construction of robust strategies for adaptation to global environmental change.

Principles guiding implementation

Recognizing and respecting the role of poor and vulnerable groups, including indigenous peoples, as custodians of biodiversity; the need to take into account gender-specific dimensions of biodiversity use and conservation; and the need to give priority to Africa and other vulnerable regions will be followed as principles guiding the implementation of the Biodiversity Initiative.

Ways and means of implementation

The Biodiversity Initiative will be implemented through the regular means of implementation of UNESCO's programmes and activities. Flagship activities will be designed and implemented, including UNESCO's contribution to IPBES.

Strategic partnerships

These will include *inter alia* the following partners: the Convention on Biological Diversity (CBD); the Convention on Wetlands (Ramsar, 1971); the United Nations Environment Programme (UNEP); the United Nations Development Programme (UNDP); the Food and Agriculture Organization of the United Nations (FAO); the United Nations University (UNU); the International Council for Science (ICSU); TWAS, the Academy of Sciences for the Developing World; the International Social Science Council (ISSC); the Scientific Committee on Problems of the Environment (SCOPE); DIVERSITAS – the International Programme on Biodiversity Science and the International Human Dimensions Programme (IHDP).

Focal Sectors, Divisions and Programmes

These will include Natural and Social Sciences, Culture, Education, Communication, Strategic Planning, Africa, Gender, Public Information, World Heritage, the Intergovernmental Oceanographic Commission as well as the UNESCO Intersectoral Platforms on UNESCO's contribution to Climate change Mitigation and Adaptation and on Small Island Developing States and UNESCO's leadership for the UN Decade of Education for Sustainable Development (DESD, 2005-2014).

Timeline

It is proposed that the first phase of the Biodiversity Initiative will coincide with the 2012-2013 biennium of UNESCO's Programme and Budget.

Budgetary considerations

Depends on the UNESCO Programme and Budget as well as the Consolidated Additional Programme for 2012-2013.

Future steps

Criteria by which UNESCO's contribution to the decrease in the loss of biodiversity will have to be addressed in terms of a results based approach. Understanding what constitutes impact and constructing rigorous indicators will be an integral part of the Biodiversity Initiative.

Desired results and outcomes of the Initiative include its contribution to IPBES to generate knowledge on and assessing the status and trends of biodiversity and ecosystem services, identify possible policy responses and build capacity at the biodiversity science-policy interface. It is expected that the Initiative will contribute significantly to the implementation of the Strategic Plan for Biodiversity and to specific Aichi Biodiversity Targets and increase substantially Member States' awareness of biodiversity and ecosystem services.

Member States' capacity to monitor and assess biodiversity will improve, and so will media coverage of biodiversity and ecosystem services issues. Biosphere reserves and World Heritage sites will enhance their integration into research and monitoring and increasingly be used as sites for biodiversity and ecosystem services education. Women's role and knowledge of biodiversity will be further highlighted and educational materials developed, piloted and disseminated.

The link between cultural and biological diversity will become more visible and appreciated, and indigenous knowledge of biodiversity will be emphasized and used to prepare policies. The notion of a New Humanism will incorporate an ethics dimension related to biodiversity.

Natural Sciences Sector, UNESCO

1, rue Miollis

75732 Paris cedex 15

France

Salvatore Aricò

Biodiversity Assessments and Inter-agency Coordination

Cross-cutting Thematic Unit on Biodiversity

Tel. + 33 1 4568 4090

E-mail: biodiversity@unesco.org

<http://www.unesco.org/new/biodiversity-initiative>



UNESCO biodiversity initiative