



United Nations
Educational, Scientific and
Cultural Organization

Organisation
des Nations Unies
pour l'éducation,
la science et la culture

Organización
de las Naciones Unidas
para la Educación,
la Ciencia y la Cultura

Организация
Объединенных Наций по
вопросам образования,
науки и культуры

منظمة الأمم المتحدة
للتربية والعلم والثقافة

联合国教育、
科学及文化组织

UNESCO and

Sustainable Development

UNESCO and Sustainable Development

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Sustainable Development, our common task



We have no longer a choice: either we adopt behaviours that respect sustainable development, that is we stop polluting the environment, allow for the renewal of natural resources and contribute to the improvement of the well-being of all, or sooner or later we sign our own death warrant.

Sustainable development is a moral precept as well as a scientific concept. It is closely linked to peace, human rights and equity as much as to ecology or global warming. And if it obviously concerns the natural sciences, economics and politics, it is also a cultural issue. Founded on the values particular to one society or another, it implies that we recognize the complex interdependence of human needs and the natural environment. It also implies that development goals be conceived not just in national terms, but also according to a global vision – as global as our planet.

The years 2005 to 2014, under the banner of the United Nations Decade of Education for Sustainable Development, provide the opportunity for UNESCO to reinforce its commitment in this area in all its different fields of competence. Designated the lead agency for the Decade, UNESCO is responsible for coordinating the efforts of governments, educators and students to integrate the theme of sustainable development in educational systems, both formal and non-formal, at all levels. We also intend to work with civil society organizations, the private sector and the media to help them communicate the problems and requirements of sustainable development to the largest possible audience.

The ultimate goal of the Decade is that sustainable development must be more than just a slogan. It must be a concrete reality for all of us – individuals, organizations governments – in all of our daily decisions and actions, so as to promise a sustainable planet and a safer world, to our children, our grandchildren and their descendants.

A handwritten signature in blue ink, which appears to read 'K. Matsuura'.

Koïchiro Matsuura
Director-General of UNESCO

Sustainable Development: From Awareness to Practice

“Our biggest challenge in this new century is to take an idea that seems abstract – sustainable development – and turn it into a reality for all the world’s people.”

Kofi Annan, United Nations Secretary-General

©UNESCO/Bernard Martinez



Tropical regions are rich in biodiversity.
Giant water lilies, Brazil

In 1968, UNESCO organized the first intergovernmental conference aiming to reconcile environment and development, what we now call “sustainable development”. It led to the creation of UNESCO’s Man and the Biosphere (MAB) Programme. The conference was a significant step in the process that in 1972 resulted in the Conference on the Human Environment, held in Stockholm – the first United Nations conference on the environment.

In 1987, the World Commission on Environment and Development, presided by Gro Harlem Brundtland, used the expression “sustainable development” for the first time in its report, “Our Common Future”. The concept has evolved constantly ever since. At first emphasizing environment only in development policies, the idea has encompassed socioeconomic domains since the Johannesburg Summit (2002). It now incorporates other areas previously neglected by development, such as education or culture, the latter being recognized as a full-fledged source of development by the Universal Declaration of Cultural Diversity adopted by UNESCO in 2001.

Rio Earth Summit 1992

Tens of thousands of participants including 172 governments, 2 400 NGOs and 10,000 journalists

Important outcomes:

- ▶ Agenda 21, a joint program for implementing sustainable development in the 21st century, which has since served as the basis for measuring progress. A number of countries, regions and cities have adopted their own “Agenda 21”.
- ▶ Rio Declaration on Environment and Development
- ▶ United Nations Framework Convention on Climate Change
- ▶ United Nations Convention on Biological Diversity
- ▶ Agreements on desertification and fishing in the high seas

Sustainable development is...

- ▶ “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” [Our Common Future, Report of the World Commission on Environment and Development, 1987]
- ▶ A vision of development that encompasses populations, animal and plant species, ecosystems, natural resources – water, air, energy – and that integrates concerns such as the fight against poverty, gender equality, human rights, education for all, health, human security, intercultural dialogue, etc.

1992: The Rio turning point

The main points of the sustainable development concept are defined by Agenda 21, the Action Programme for the 21st century adopted by governments at the Rio Earth Summit in 1992.

At the institutional level, Rio represents a crucial turning point, opening a new era of cooperation between governments, NGOs and the private sector. UNESCO received the responsibility for implementing the Agenda's Chapter 35 (Science for sustainable development) and Chapter 36 (Promoting education, public awareness and training). The latter states: "Education is critical for promoting sustainable development and improving the capacity of the people to address environment and development issues." UNESCO provides support to Member States and develops pedagogical material for sustainable development education.

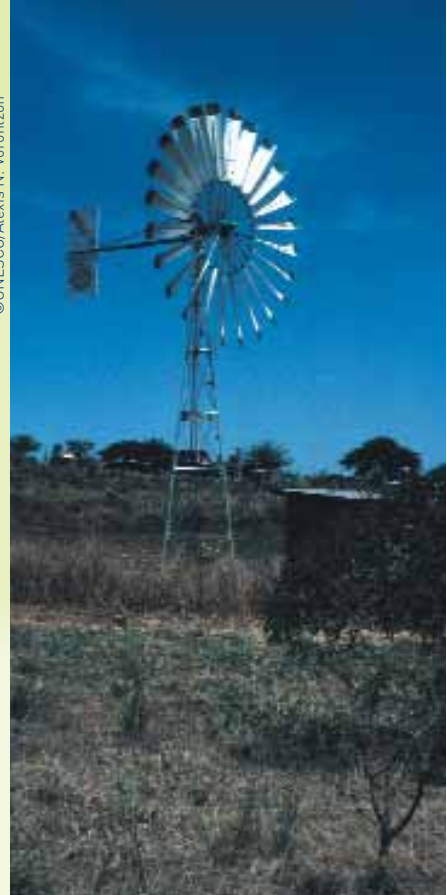
2000: An integral part of the Millennium Declaration

In 2000, the heads of State and Government from all over the world, in solemn assembly at United Nations Headquarters in New York for the Millennium Summit, adopted the Millennium Declaration that reaffirms the international community's support of "development that is truly sustainable" and defines "respect for nature" as a fundamental value. The Declaration led to the elaboration in 2001 of the Millennium Development Goals (MDGs), representing an ambitious commitment to reducing poverty. One of the goals calls for efforts to "ensure environmental sustainability", and specifically "to integrate the principles of sustainable development into country policies and programmes" and "reverse loss of environmental resources". (www.un.org/millenniumgoals/)

2002: Johannesburg Summit

At the Johannesburg World Summit on Sustainable Development in 2002, not only did the number of NGOs and private sector actors among the participants increase, but their commitment to sustainable development deepened at all levels, from local to global. The Summit affirmed its collective determination to promote the pillars of sustainable development – economic development, social development and safeguarding the environment – as interdependent and mutually reinforcing.

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The use of non polluting and renewable energies can not be avoided. Wind mill, Kenya

Millennium Development Goals (MDGs)

Goal 7: Ensure Environmental Sustainability

- ▶ Integrate the principles of sustainable development into country policies and reverse present trend of loss of natural resources.
- ▶ Reduce by half the proportion of people without sustainable access to safe drinking water.
- ▶ Achieve significant improvement in lives of at least 100 million slum dwellers by 2020.



An old sustainable practice, throwing a fishing net. Lake city of Ganvié, Benin

In Johannesburg, UNESCO reaffirmed its commitment to Agenda 21 and benefited from high visibility, notably due to its involvement with water issues. It formed several partnerships, including the UNESCO/FAO Education for All Flagship Initiative on Education for Rural People, the Global Higher Education for Sustainability Partnership, and the Educating for Sustainable Living with the Earth Charter initiative.

However encouraging this evolution, it is not sufficient. Poverty and pressures on the environment and natural resources are increasing, while patterns of non-sustainable consumption and production continue to multiply. The HIV/AIDS epidemic is reversing progress made in rates of infant survival, life expectancy and development in many countries.

Johannesburg Summit 2002

22,000 participants including 100 world leaders, 10,000 delegates from 193 countries, 8 000 representatives of NGOs, the private sector and other sectors of civil society, plus 4 000 journalists

Important outcomes:

- ▶ Collective decision to lower greenhouse gas emissions by 5.2% in the next ten years
- ▶ Launching of partnerships in a new form, involving civil society and not just governments, aimed at implementing sustainable development

2005-2014: A Decade for Change

One United Nations response to these problems is the Decade of Education for Sustainable Development (DESD), adopted in 2002 by the United Nations General Assembly for 2005 to 2014. UNESCO has the task of promoting the Decade, which aims to promote sustainable skills and behaviour, inspired by creative and critical ways of thinking, in order to encourage the resolution and management of problems that stand in the way of sustainable development.

The four priority areas of action for the Decade of Education for Sustainable Development aim to:

■ Promote basic education

It will not be enough to reinforce literacy and numeracy to make significant progress in sustainable development. Efforts must also have impact on the content and methods of education and its adaptation to the cultural context. Basic education must also encourage and support people's involvement in community life and decision-making.

■ Reorient and revise education programs

Programmes must be restructured from nursery school to university to include explicitly the study and comprehension of problems linked to the social, economic, environmental

From Awareness to Practice

and cultural sustainability of our planet, emphasizing interdisciplinary approaches.

■ Develop public understanding and awareness

While the concept of sustainable development is now familiar in institutional, academic and specialized milieus, it still needs to be spread at the grass-roots level. All sectors of society must be targeted, from business people to children in the most remote areas.

■ Provide practical training

All trained, informed people can play an active role: this is a basic precept of sustainable development. Specific training must be provided through scientific and technological education, but also with the help of partners in the world of work, particularly in business and industry.

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"My car runs on Vanuatu coconut oil."
This Pacific Island state uses its own local resources.

Decade of Education for Sustainable Development

Strategic perspectives to inform education and learning for sustainable development

Socio-cultural perspectives

- ▶ Human rights
- ▶ Peace and human security
- ▶ Gender equality
- ▶ Cultural diversity and intercultural understanding
- ▶ Health
- ▶ HIV/AIDS
- ▶ Governance

Environmental perspectives

- ▶ Natural resources (water, energy, agriculture, biodiversity)
- ▶ Climate change
- ▶ Rural development
- ▶ Sustainable urbanisation
- ▶ Disaster prevention and mitigation

Economic perspectives

- ▶ Poverty reduction
- ▶ Corporate responsibility and accountability
- ▶ Market economy



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Learning to reconcile economic and environmental requirements. Road through the Peten Forest, Guatemala

UNESCO and Education for Sustainable Development

Predictably, UNESCO first demonstrated its concern for sustainable development in the science sectors, very early on. Today, that goal is present in all its fields of competence – education, science, culture and communication – and in particular in the projects implemented by its field offices. One of UNESCO's essential comparative advantages in the context of international organizations is this capacity for inter-sectoral action for sustainable development in key areas for the benefit of Member States.

Directly in line with UNESCO's strategic objectives, two crosscutting themes were defined that are intrinsic to all of its programmes. They are the eradication of poverty, especially extreme poverty; and the contribution of information and communication technologies to education, science, culture and information and the construction of a knowledge society.

Furthermore, promoting education for all is at the heart of UNESCO's mission. Essentially all of its programmes and projects have educational content, in varying degrees. Besides its activities in training, informing and raising awareness, UNESCO undertakes studies and reports designed to guide policy-makers, and produces educational materials for its numerous partners, National Commissions, UNESCO clubs, NGOs, and professional organizations.

Given the task of promoting the Decade of Education for Sustainable Development, UNESCO has a key double role

www.unesco.org/education/desd



UNESCO has set up a trilingual interactive website to present information on the activities, initiatives and events organized – at local, national and international levels – in the context of the Decade of Education for Sustainable Development and to encourage the exchange of information and resources.

"I am DD, the mascot of the UNESCO website on Education for sustainable development".



From Awareness to Practice

to play. First, to integrate education for sustainable development in national policies and educational systems. And beyond that, to make the diverse actors in civil society, including the private sector and the media, aware of the importance of the goals of sustainable development.

In the framework of the Decade, UNESCO developed an international implementation scheme aiming to promote education for sustainable development over the course of the next ten years. UNESCO involved in the drafting of this scheme governments, UN agencies and a range of other actors, from universities to the private sector, as well as young people, women, and community groups.

Results achieved during the Decade of Education for Sustainable Development will reinforce the work of Education for All (www.unesco.org/education/efa/) and the United Nations Literacy Decade, 2003-2012 (www.unesco.org/education/litdecade/). These three commitments by the international community, putting education at the heart of sustainable development, match the Millennium Development Goals, particularly those of achieving universal primary education and gender equality (www.un.org/millenniumgoals/).



The 2005-2014 Decade seeks to reach all people. Young girl in a rice field, Indonesia

©UNESCO/Georges Maitempré

Educating for the Future

For nearly sixty years, UNESCO has worked to promote and improve education, in all of its forms and at all levels, throughout the world. Its vision of education encompasses economic, social, cultural, demographic and environmental issues.

Girls education: a priority

Studies show that women and girls are among the best advocates of sustainable development. Unfortunately, "Educational inequality is a major infringement of the rights of girls and women, and an important obstacle to social and economic development," according to the EFA Global Monitoring Report 2003/4. "The state must play the leading role in promoting equal education for all," is one of its conclusions. That is why UNESCO is actively participating in the United Nations Girls' Education Initiative (UNGEI), launched in 2000 by UN Secretary-General Kofi Annan to boost efforts at a global level, by helping governments reinforce their national policies in favor of girls' education.

The vision is at work at the grass roots level, notably through Education for All (EFA), for which UNESCO is international coordinator, and the United Nations Literacy Decade, 2003-2012. In addition, UNESCO is implementing Chapter 35 of Agenda 21 (Science for sustainable development) as well Chapter 36 (Promoting education, public awareness and training).

Education is one of the most effective forces to bring about the changes in knowledge, values, behaviour and lifestyles required to achieve sustainability and stability within and among countries, and to guarantee democracy, human security and peace.

Women and girls are the best advocates for sustainable development.
Inter-generational exchange, Pakistan



©UNESCO/Sayyed Nayyer Reza



Aleya Begum, 35 year old, mother of 3 children. Widowed, she undertook a training and started chicken breeding with a credit from an NGO. Rajapur, Bangladesh

That is the reason why quality education at all levels constitutes a vital tool to tackle the major problems linked to sustainable development, such as poverty, HIV/AIDS, environmental deterioration, non-sustainable patterns of production and consumption, demographic growth and rural and urban transformations. Education should also promote health, ethics, the creation and sharing of knowledge, gender equality, social justice, good governance and cultural diversity.

One certainty today is that education of women and girls is one of the mainstays of sustainable development. UNESCO chose the topic for its Education for All Global Monitoring Report 2003/4, "*Gender and Education for All: the Leap to Equality*" (www.efareport.unesco.org).

The international networks created by UNESCO are the dynamic relays of its action and messages. That is the case in 2005 for some 7650 Associated Schools working together on such themes as peace, dialogue, and the environment (www.unesco.org/education/asp), for UNESCO Chairs in universities, and for the institutions, politicians and experts who cooperate with UNESCO's International Centre for Technical and Vocational Education and Training (UNEVOC) based in Bonn (www.unevoc.unesco.org), and for the other UNESCO Institutes.

What is education for sustainable development?

- education that allows learners to acquire the skills, capacities, values and knowledge required to ensure sustainable development;
- education dispensed at all levels and in all social contexts (family, school, workplace, community);
- education that fosters responsible citizens and promotes democracy by allowing

- individuals and communities to enjoy their rights and fulfill their responsibilities;
- education based on the principle of life-long learning;
- education that fosters the individual's balanced development.

To develop sustainable skills, inspired by creative and critical thinking, in order to encourage the solving and managing of problems that stand in the way of sustainable development, initiatives launched during the Decade will use formal, non-formal and informal modes of teaching and the power of information and communication technologies (ICTs) to reach all audiences, including the poor, women and marginalized people.



©UNESCO/Darryl Evans

Computer training in the "Goutte d'Or" sociocultural centre in Paris, France

Promotion of basic education

Quality basic education is a prerequisite for learning about sustainable development. Yet many still do not have access to basic education: at the turn of the millennium, the number of children not enrolled in school was estimated at 104 million, 57% of them girls; illiterate adults with no access to formal education numbered 862 million, the majority of them women (Education for All Global Monitoring Report 2003/4). Illiterate girls and adults are priority beneficiaries of a number of UNESCO initiatives.

Simply increasing basic literacy and numeracy will not suffice to advance significantly sustainable development. Efforts must focus on the content, methods and quality of basic education; on sharing knowledge, skills and values; on adapting education to different cultural contexts and the needs of learners; on the learning environment; and on cultural diversity, commitment to peace and against discrimination.

Basic education must also encourage and assist people in taking part in the life and decision-making of their community, which fosters greater sustainability in community development.

A CD-Rom to train teachers

How can one get training to teach sustainable development, wherever one happens to be on the planet? UNESCO is making available a free training course on CD-Rom to all teachers, trainers of educators, policy-makers and textbook authors. Launched in 2002 at the Johannesburg Summit, the course was compiled with contributions from 300 education professionals from all over the world. "Teaching and Learning for a Sustainable Future" contains 25 separate modules on a wide range of topics: education for consumption and health, culture and religion, indigenous knowledge, women, agriculture and sustainable tourism.

It demonstrates the interdependence of such factors as poverty, consumption, waste, pollution, demography and conflicts. The CD-Rom outlines strategies for integrating sustainable development in school curricula as well as in activities outside of school. Produced in English, the course is aimed at small groups and individual learners (it can be consulted and downloaded on line). UNESCO is encouraging its translation and adaptation to local contexts – the CD-Rom itself contains instructions for technical adjustments. (www.unesco.org/education/tlsf)



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A natural science course in a primary school. China

In its numerous programmes, UNESCO pays particular attention to the quality of education, to knowledge-sharing, to the skills, values and needs of learners as well as to the learning environment, respect for cultural diversity and commitment to peace and against discrimination.

Reorienting and revising educational programs

Educational content and methods must be oriented more clearly towards the goals of sustainable development. From nursery school to university, curricula must be revised to include explicitly the study and understanding of problems linked to social, economic, environmental and cultural sustainability, while emphasizing transdisciplinary approaches.

Engaged in this process since the 1992 Earth Summit, UNESCO supports necessary reforms and:

- offers professional and technical support to governments (regularly-held conferences of education ministers, coordination of the High-Level Group for Education for All);
- assists in reorienting teacher training;
- encourages teachers and students to develop training materials and curricula;
- produces educational and training materials for education for sustainable development.

Baltic Sea Project: 15 years of on-going training

Since 1989, almost an entire generation has discovered Baltic Sea ecology in bordering countries – Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden. Through the Baltic Sea Project, three hundred schools from UNESCO's Associated Schools Network cooperate to help improve the inland sea's environment. Students work in the classroom and in the field, on such topics as water quality, rivers, coastal observation, air quality, bird ecology, or environmental history. The project has produced a video, "It all starts with the rain," and numerous publications. The most recent concerns environmental history and analyzes the impact of choices made in the past on people today.

Down through the years organizers have acquired valuable expertise in gathering information on the interaction of populations and the environment, and in environmental education. (www.kiss.pl/bsp/)

Pilot project in China

UNESCO is giving technical support to a pilot project in education for sustainable development in China, after signing a Memorandum of Understanding with the government. Launched in Beijing in 1997 then extended to other provinces, it has already involved 200,000 primary and secondary school pupils and some universities. The exciting aspect for students is that instruction is coupled with practical experience, such as filtering dirty water or making objects in workshops from recycled materials like newspapers and scraps of cloth.

The project has trained some 5,000 teachers and 700 principals as well as a number of specialists, and it has brought environmental education into the school curriculum. In a country with severe pollution problems, the project's impact goes beyond the classroom, helping to make parents and others in the community more aware of environmental issues.

Building public understanding and awareness

The concept of sustainable development may be familiar to those in institutional, academic and specialized milieus, but it still needs to filter down to the grass roots level. Information and public awareness campaigns are indispensable tools to make the general population conscious of its importance, everywhere in the world. The media is the key partner to help popularize the concept, but other campaigns can also make use of ICTs, community education and information networks, word of mouth and partnerships with performers and other artistic personalities.

Providing practical training

A basic principle of sustainable development is that every trained, informed individual can play an active role.

Scientific and technological education must be inspired by the principles of sustainable development. It is a key factor in countries' efforts towards sustainability, providing the preparation for scientific careers and the world of work. The support of actors from the private sector is crucial for training and capacity-building initiatives.

Reading a newspaper, a window to the world,
a result of adult literacy programmes, Cape Verde



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Joy in village life. Madagascar

Business and industry actors, having the knowledge and skills to make decisions favouring sustainable development, are also inspired to question their own practices and to give their collaborators and partners concrete knowledge concerning sustainability.

Challenges

- Develop educational programmes for sustainable development for all;
- Ensure quality education by adapting it to different cultural contexts and learners' needs;
- Ensure access to basic education, particularly for adults and girls;
- Emphasize sharing of knowledge, skills and values;
- Integrate an educational component in national strategies of sustainable development;
- Improve teachers' training in sustainable development with use of ICTs and any other locally available means;
- Improve scientific and technological education for sustainable development at all levels;
- Ensure participation of populations and community decision-making.

The Earth Charter

The Earth Charter is the outcome of an extensive process of worldwide consultation, launched in 1992, which mobilized hundreds of organizations and thousands of people from different cultures and origins. It presents values and principles for a sustainable future, encourages reflection and seeks to stimulate questions and raise the awareness of individuals.

Numerous Member States supported the Earth Charter resolution, adopted by UNESCO's General Conference in October 2003. The resolution recognizes the Earth Charter as one of the most significant ethical frameworks of sustainable development and an educational instrument, particularly in the context of the UN Decade of Education for Sustainable Development. (www.earthcharter.org)

Young People, Voices to be Heard

©UNESCO/Michel Ravassard

Representing nearly 20% of the world's population, young people are eager to participate in decisions and actions for sustainable development – the future of the world is, after all, their future. Numerous UNESCO projects allow them to acquire personal and professional capacities to play a significant role.

Participate in governance

In order for its programmes to take into account young people's priorities, UNESCO created the Youth Forum in 1999. It meets during UNESCO's General Conferences, to allow young people to express their visions and needs. UNESCO also organizes Youth Forums everywhere in the world during international or regional events. At the World Youth Festival, for instance, during the Barcelona Universal

Forum of Cultures in 2004, or at the United Nations Small Island Developing States summit in Mauritius in January 2005.

(www.islandyouth.org)

Learn to know the Earth. Cité des Sciences et de l'Industrie. Paris, France



©UNESCO/Dominique Roger



20 March 2004. A young boy is about to speak at the International Day for the Elimination of Racial Discrimination, UNESCO Headquarters, France

Since 2001, the action-research project Quartiers du Monde, in progress in nine cities of the North and South, trains young people in municipal policy through active participation, mapping of urban territories, and exchange with local authorities, in a context of gender perspective and overcoming exclusion. (qdm.chez.tiscali.fr/)

Raising awareness about sustainable consumption

Young people are both major consumers and concerned by environmental questions. Because they have a key role to play in the future in determining patterns of consumption, the United Nations Environment Programme (UNEP) and UNESCO conducted a survey on the subject involving 10,000 young people in 24 countries (www.uneptie.org/pc/sustain/youth/research-project.htm) and created an educational kit

YouthXchange. It consists of a guidebook with concrete examples of sustainable consumption – covering transportation, food, travel, waste reduction and optimal use of energy – and a website (youthxchange.e-meta.net/).

Breaking the cycle of poverty

To empower marginalized adolescent girls and help them break out of the poverty cycle, a pilot project in South Asia combines education in literacy, management of micro-credit and awareness of science and technology, and leads to the creation of community centres for scientific information. Young girls work on such topics as health, environment, human rights, and women's rights.

©YHF/UNESCO



A campaign for peace and environmental education in youth hostels conducted in partnership with UNESCO.

The project is on going since 2002 in India, Bangladesh, Nepal and Pakistan in partnership with governments. It also provides training to local youth NGOs for the programme's follow-up. (www.unesco.org/shs/poverty + pilot projects)

INFOYOUTH: Information and exchange for and about youth

To facilitate access to scattered sources of youth-related information and fulfill the urgent need for appropriate and coherent policies on youth from the local to the global level, UNESCO decided in 1991 to set up a network of international information and exchange of data for and about youth. INFOYOUTH aims to:

- Make available to all those concerned by youth development the knowledge, experience and analysis that can serve as a basis for framing youth policies, using the latest communication and information techniques.

- Encourage dialogue between actors in the field, associations, institutional partners, youth NGOs and researchers, by organizing national, regional and international consultations, seminars and colloquiums, and supporting publications.

The network's implementation was entrusted to the Institut national de la Jeunesse et de l'Éducation populaire (INJEP, France). Since 1992, INJEP, designated as project operator, has taken charge of the network's structure, activity and development, and made sure the information available is relevant and accurate. (www.infoyouth.org/)

Water, Unique Resource, Absolute Priority



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Access to clean water has become a luxury.
Ecuador



Drought, El Goléa, Algeria

©UNESCO/Pierre A. Pitet

Water, source of all life, is currently at the heart of an unprecedented crisis. The main components of the crisis are demographic growth, pollution, inadequate management of water resources, waste due primarily to inefficient systems of agricultural irrigation and urban water supply, and changes in climate. Also contributing, however, according to the 2003 World Water Development Report, are political inertia and the general public's lack of awareness.

The goal set by the Millennium and Johannesburg Summits is to reduce by half between now and 2015 the proportion of people without access to safe water and sanitation, who live in dire conditions characterized by malnutrition, famine, poverty and deadly diseases. Paradoxically, safe water has become more expensive and less available to the poorest.

At the Johannesburg Summit in 2002, UNESCO underlined the ethical dimension of the water issue, by affirming "Access to water should be recognized as a basic human right.... Water is not just a commodity, but a common public good."

Towards an integrated approach to water management

UNESCO has made water its principal priority in the natural and exact sciences, whether it is water in its natural environment – ecosystems, wetlands, arid areas, forests – or in technical terms – transport, supply, waste water.

We are caught in a vicious circle: by exhausting and polluting rivers, lakes and wetlands, we are destroying ecosystems that play a crucial role in filtering and forming freshwater resources, thus reducing their renewal capacities.

Managing water resources therefore demands an integrated approach, as developed by UNESCO's International Hydrological Programme (IHP), whose current focus until 2007 is "Water interactions: systems at risk and social challenges". Jointly with the MAB Programme, IHP is developing integrated strategies of water, earth and

Water for Southern Africa's arid zones

Focused on water as its central theme, SIMDAS is a major programme created by 16 countries in Southern Africa* in close collaboration with IHP, MAB and UNESCO offices in the region. The main goals of the Sustainable Integrated Management and Development of Arid and Semi-Arid Regions of Southern Africa are to integrate sustainable development principles in national policy, increase the number of people with access to safe drinking water, reduce infant mortality and promote gender equality.

A wide range of partners from universities, local communities and NGOs are involved in the projects, which are

aimed particularly at women: advanced training, creation of a data base, reinforcement of professional networks, and local initiatives for managing ecosystems. SIMDAS will also define strategies for supplying arid and semi-arid zones with water from the Congo and Zambezi basins, propose measures for reducing chemical pollution, identify biosphere sites and evaluate the energy potential of the region (hydroelectric, solar, etc.)

*Angola, Botswana, Burundi, Democratic Republic of Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe

biodiversity management and conducting training and education activities related to water (such as the WET Programme, "Water, Education and Training") aimed for maximum impact primarily at universities, continuous professional education, and training of trainers.

UNESCO supports the "Water, women and decision-making" network created in 2004, which has three ongoing projects on water management in Morocco, Brazil and Ivory Coast.

A fundamental tool: the World Water Assessment Programme

We need a better understanding of the world's water resources and their evolution. The international community is facing the challenge through the World Water Assessment Programme (WWAP), which brings together 24 United Nations agencies and programmes, with UNESCO housing its secretariat. In 2003, International Year of Freshwater, WWAP published the first World Water Development Report, dealing with progress made in such areas as health, economy, nutrition, ecosystems, and the sharing and governance of resources.
(www.unesco.org/water/wwap/wwdr/ex_summary/)

Falls of the Nile, Ethiopia

©UNESCO/Dominique Roger



©UNESCO/A. Testut



Swimming in front of a non polluting geothermal power station. The white smoke is water vapor, Iceland

Scene from daily life in India



©UNESCO/Carde Ecker

Promoting water education: UNESCO-IHE Institute

UNESCO has significantly boosted its capacities in relation to water by taking over in 2003 the IHE Institute in Delft (Netherlands), which has acquired international renown in the water sciences since its creation in 1957.

Under its new name of UNESCO-IHE Institute for Water Education, it conducts educational and research activities on water and sustainable development issues: Water Science and Engineering, Environmental Science, Water Management (resources, services, quality), infrastructure, hydraulics, etc. Students come from local and national governments, water services, training centers, development agencies, businesses and NGOs, from over a hundred developing countries and countries in transition.

Absolute Priority

The UNESCO-IHE Institute is the heart of the extensive global network formed by all of UNESCO's partners in water education. (www.unesco-ihe.org)

Furthermore, several UNESCO Chairs are dedicated to the issue of water, as well as three UNITWIN networks: one on sustainable development and peace, at the university of Nice- Sophia Antipolis (France); another on environment and conflicts at the Aristotle university in Thessalonica (Greece); and a third on water and women at Ouagadougou university (Burkina Faso).

©UNESCO/Dominique Rogier



Traditional irrigation techniques in Iraq



©wwap@unesco.org/Rein Urbel

Ice fishing on lake Peipsi, on the border between Estonia and Russia

Challenges

- Improve general access to clean water and sanitation;
- Improve the efficiency of irrigation systems;
- Reorient water resources management and planning toward sustainable development;
- Decrease water pollution.

Natural and Social Sciences for Sustainable Development

2005, International Year of Physics

Celebrating the hundredth anniversary of Einstein's formulation of his relativity, Brownian motion and quantum theories, 2005 has been proclaimed the International Year of Physics. UNESCO is participating by organizing the World Conference on Physics and Sustainable Development in Durban, South Africa, in cooperation with the Abdus Salam International Centre for Theoretical Physics (ICTP) in Trieste (Italy) and the International Union of Pure and Applied Physics (IUPAP). It will also launch initiatives aimed at physicists in developing countries, particularly young scientists and women, including a higher education project created in cooperation with ICTP.

The transition to sustainability is a crucial challenge for sciences and technology. UNESCO, with its Natural Sciences (www.unesco.org/science/index.shtml) and Social Sciences sectors (www.unesco.org/general/eng/programmes/social), participates in the scientific and technological capacity building of Member States for the benefit of development, and contributes to international scientific cooperation. Encouraging interdisciplinary approaches, it helps develop and spread sustainable development policies and practices through its intergovernmental scientific programmes.

In social and human sciences, UNESCO contributes to the elaboration of concepts and methods to guide policy decisions, notably concerning democratic governance and urban management in multicultural societies; to the reinforcement of human rights and social justice; and to the development of ethical principles and approaches.

Man and the Biosphere, a pioneer programme

The main challenge of sustainable development is reconciling biodiversity preservation with human needs. To improve understanding of the relationship between humans and their environment, UNESCO launched the programme **Man and the Biosphere (MAB)**, which led to the Biosphere Reserve as a concept and tool. In 2005, the 459 biosphere reserves in 97 countries serve as living laboratories of sustainable development, fulfilling three functions: conservation (ecosystems, species and genes); development (human and economic); and logistic (observation, research, information exchange).

At various levels and in its different capacities, UNESCO monitors scientific progress closely and provides expertise. For example, in face of the danger of global warming, it created in 1984, in collaboration with the Scientific Committee on Oceanic Research (SCOR),





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Biosphere reserves are life size laboratories for sustainable development. Mananara Nord, Madagascar

an Advisory Committee on Ocean Carbon Dioxide, to follow international research on CO2 capture in the ocean. Concerning genetically modified organisms, it is preparing for 2006 an educational kit containing articles, posters and 12 short films to help teachers and decision-makers teach and inform on this complex subject and its implications.

UNESCO's scientific programmes

- The mission of the **Intergovernmental Oceanographic Commission (IOC)**, created in 1960, is to increase knowledge of oceans and coastal areas, which are more and more threatened. Among its numerous activities, it is developing a programme on ocean science, spanning such topics as harmful algae, coral bleaching, small pelagic fish and global climate changes.
- The activities of the **International Hydrological Programme (IHP)**, created in 1965, are related to hydrologic processes, evaluation of the availability and use of water resources and the dynamics of hydrological basins and aquifers.
- One of UNESCO's main activities in the earth sciences is the **International Geological Correlation Programme (IGCP)**, created in 1972, which has an essential role in increasing understanding of the Earth as a holistic system. Thousands of researchers have participated in its activities, and hundreds of field projects have yielded data on such varied topics as the impact of natural geological factors on human and animal health, the evaluation of landslide risks for cultural heritage, the anthropogenic impact on weathering processes, and the application of remote sensing in geology. The IGCP is preparing a new geological map of the world.

Coastal regions and small islands

Coastal regions and small islands are particularly vulnerable to both natural disasters and negative global changes – environmental, cultural, social or economic. They are therefore sources of precise information about ongoing global phenomena. In response to their specific problems, the Coastal Regions and Small Islands Platform (CSI) provides a framework for intersectoral field projects and for an on-line forum on best practices for use of coastal resources. It is contributing to the Barbados Programme of Action for the sustainable development of Small Island Developing States (SIDS), and to the follow-up of the Mauritius Summit of January 2005. (www.unesco.org/csi/)

Tetrapods against tidal waves, Japan



©UNESCO/Misato Le Mignon



©UNESCO/P. Dewarez

Acid rains: danger! France

Natural disaster reduction

Population density, inadequate urban planning and degradation of the natural environment make our societies vulnerable to natural disasters, as the strong quake and tsunami of December 2004 in the Indian Ocean recently demonstrated. Following this catastrophe, UNESCO was commissioned by the international community to coordinate the establishment of a warning system in the region. Through the Intergovernmental Oceanographic Commission (IOC), the Organization has committed itself to put in place such a system and to work towards a worldwide anti-tsunami alert system.

Furthermore, UNESCO contributes to disaster prevention by promoting better understanding of risks, rational planning of land occupation, appropriate construction techniques, education in risk prevention, and raising awareness of populations at risk.

Other scientific activities

- UNESCO sits on the executive board of the Integrated Global Observing Strategy (IGOS), founded in 1998 to study climate change and the state of the planet, primarily through satellite observation. It is the only forum that links space agencies and scientific communities doing research on our planet.
- UNESCO's main contribution to the United Nations World Solar Programme (1996-2005) is the promotion of wider use of renewable energies, notably through the support of "solar villages". UNESCO also produces demonstration and training materials through GREET, the Global Renewable Energy Education and Training programme.
- UNESCO has launched an educational kit on desertification in collaboration with the Secretariat of the United Nations Convention to Combat Desertification (UNCCD). "Learn to Combat Desertification" includes a teacher's guide, a collection of case studies, two comic strips and a full-sized map of the world's arid zones.
- Scientific education is at the heart of projects undertaken in basic and engineering sciences, whether these concern transferring technology to remote rural areas, contributing



©UNESCO/Nadine Saunier

Using solar energy, Israel



©UNESCO/Jasmina Sopova

Good governance of cities, where half of the world population lives, is a major challenge for the 21st century. Johannesburg, South Africa

to new international centre for synchrotron light in the Middle East (SESAME), or facilitating the access of girls and women to science.

Social Transformations, cities and governance

Societies are undergoing rapid transformations, accelerated by globalization and the spectacular development of new information and communication technologies. Increasingly urbanized and multicultural, they are experiencing in all countries, rich and poor, phenomena of poverty and social exclusion. The programme **MOST, Management of Social Transformations**, serves as a clearinghouse of information between the Social Sciences sector and other partners of the Organization. It conducts research on these transformations, aimed particularly at informing policy decisions on such issues as governance or cities and sustainable development while emphasizing respect for human rights. (www.unesco.org/most/)

Management of public space, democracy, social participation and respecting differences are factors that contribute to sustainable development by promoting political stability. By making negotiation possible among a multiplicity of actors, governance acts as a regulator of the various and sometimes contradictory forces at work.

Encyclopedia of Life Support Systems

EOLSS (Encyclopedia of Life Support Systems) is the most comprehensive encyclopedia ever published on sustainable development. It already contains 50,000 printed pages and 7 000 tables and graphics, and will triple in size once complete. It is a work in progress on all aspects of development: climate, oceans, forests, water, application of pure sciences, and mathematical models for predicting pollution or food consumption. It also covers such themes as human rights legislation, global stability, education on poverty and religious psychology.

Internet-based, with contributions from more than 5 000 scientists in over 100 countries, the EOLSS is founded on the ethics of science and the culture of peace, and conceived as a living encyclopedia and site for action. (www.eolss.net/)

©UNESCO/Alison Clayson



Traditional and modern lives: rapid social transformations make them difficult to manage.

Urban policies on the Mediterranean coast

Five Mediterranean cities are serving as case studies for the intersectoral project “Sustainable Living in Small Historical Coastal Cities” launched by UNESCO in 1996. Essaouira (Morocco), Mahdia (Tunisia), Omišalj (Croatia), Saïda (Lebanon), and Kotor (Yugoslavia) are all confronting the same problems: coastal erosion, salt water seeping into aquifers, demographic pressures, deterioration of buildings and rapid socioeconomic transformations. The municipal authorities initiated restoration projects in their historic centres, with the participation of universities from north and south of the Mediterranean, architects, urban planners, geologists, hydrologists and inhabitants, who acquire the approaches and techniques. (www.unesco.org/csi/act/dure/dure.htm)

Today, half the world’s population lives in cities, where the first level of governance is exercised, through the concentration of human, economic, technical and political forces. If these forces are not managed, the city becomes impossible to live in – sometimes it already is – from a physical as well and a social and political perspective. Nonetheless, cities are also a political and economic driving force, inasmuch as rural areas depend on decisions made in cities, just as rural States depend on the policies of industrialized States.

In Latin America, MOST has created a network of city professionals centered around the UNESCO Chair at ITESO in Mexico, in cooperation with universities and professional and civic organizations throughout the continent. It aims at promoting better adaptation of professional qualifications to the social, environmental, economic and cultural dimensions of urban development.

Ethical principles for sustainable development

Scientific innovation and technology are important aspects of sustainable development, insofar as they bring progress on numerous fronts, such as environmental preservation, agriculture or health. But they also present major ethical dilemmas, as in transgenic research or human cloning. UNESCO has created the International Bioethics Committee as a global intellectual forum on these issues. Its work has

for Sustainable Development

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produced the 1998 Universal Declaration on the Human Genome and Human Rights, the first universal instrument concerning biology, medicine and genetics.

Created in 1998, the World Commission on the Ethics of Scientific Knowledge and Technology (COMEST) is a UNESCO advisory body that works in four areas: freshwater, outer space, energy and the information society. In 2002, it decided to bring them into the broader perspective of environmental ethics and sustainability. In 2004, COMEST published "Water and Governance: Some Examples of Best Practice" that illustrates efforts made in Japan, South Africa, the Philippines, the Andes and the Nile River Basin to resolve the problems of access to clean water.



Without ethics, industrial development can cause damages. Greece

Challenges

- Imbalances in science and technology between the North and the South;
- Decreasing proportion of government financing for science and technology;
- Ethical dilemmas in scientific innovation.

Indigenous knowledge for today's needs

As the 1999 World Conference on Science in Budapest (Hungary) recognized, the profound knowledge of the natural world developed by indigenous populations is a crucial contribution to sustainable development, because of its role in preserving biodiversity.

Communities use these cumulative bodies of knowledge, know-how, practices and representations as the basis for obtaining food, healing, traveling over land and sea, interpreting the weather and adapting to environmental change. These cognitive systems are also an irreplaceable resource to refine and even reorient biodiversity conservation approaches and strategies.

It is a form of knowledge not easily grasped by scientific disciplines because it does not separate culture and nature, rationality and spirituality. The intersectoral project LINKS, Local and Indigenous Knowledge Systems, aims to build dialogue among traditional knowledge holders, scientists and development specialists. It conducts field projects, notably in Canada with the Cree hunters and fishermen; with the Even and the Koryak, reindeer herders who live in the Volcanoes of Kamchatka World Heritage Site, in Russia; and in Vietnam with the Thai Binh farmers. (www.unesco.org/links)

Sustainable Development in Universities

Supporting and developing the crucial role of women

The UNESCO network “Women, science and technology” includes three chairs on the theme in Africa:

- ▶ At the University of Ouagadougou, in partnership with the universities of Lomé, Niamey and Bamako. It provides training for women in scientific documentation and information in the sub-region, and has established a degree program in “Water, women and health”.
- ▶ At the University of Swaziland, which in cooperation with the University of Botswana trains rural women in nutrition, health, environment and agriculture.
- ▶ At the University of Khartoum, which stresses information and communication technologies as tools for access to science and technology training.

The UNESCO Chairs/UNITWIN Networks Programme (University Twinning and Networking), established in 1992, numbers more than 500 Chairs and 63 networks in 116 countries (www.unesco.org/education/unitwin/).

UNESCO has created about 20 university chairs within the programme that are specialized in sustainable development. They fill the need for both boosting qualifications of sustainable development professionals, and for opening universities to transfer of knowledge and know-how from the field. (www.unesco.org/education/unitwin/sd). There are also UNESCO Chairs on desertification, climatology, agricultural development, biology, ecotechnology, and water resources.

Some sustainable development Chairs

- In Brazil, the UNESCO Chair in Sustainable Development at the Federal University of Rio de Janeiro specializes in the sociopolitical and sociocultural dimensions of sustainable development. It has produced a video and a CD-Rom to train development workers in participatory research for sustainable development (in Portuguese, English and French).
- In France, the UNESCO Chair in Training of sustainable development professionals at the University of Bordeaux-3 is aimed at managers from developing countries, NGO agents,

Professional agricultural training. Philippines



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Training on site, Ethiopia



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international organizations and companies. It has published "Entreprises face aux enjeux du développement durable" (Companies facing up to the challenges of sustainable development), published by UNESCO/Karthala, 2003.

- In Uganda, the UNESCO Chair on Institutional Strengthening and National Capacity Building for Youth Health and Development in Africa at Makerere University, Kampala, works on developing health-related programmes, notably on HIV/AIDS.

Some UNESCO Chairs/UNITWIN networks

- The Compostela Group of Universities, based at the University of Santiago de Compostela (Spain), specializes in development related to culture, business administration, energy, water resources, population sciences and training for public administration.
- The CUNY-UNESCO Inter-University Network in Policy Research for Sustainable Human Development at the City University of New York focuses on intercultural dialogue, democratization, environment and health.

A bridge between the international academic community and the United Nations

Since 1975, the United Nations University (UNU) constitutes an international community of scholars oriented towards research, post-graduate studies and knowledge sharing. The UNU (www.unu.edu/) serves as a think tank and builder of capacities for the UN, mainly for the benefit of developing countries. At the same time it offers a platform for dialogue to promote innovation and creativity. The main themes of its programme are: Peace and governance; Environment and sustainable development (www.unu.edu/esd.html); Crosscutting issues; and Capacity development.

There is close cooperation between UNESCO and the United Nations University in the area of higher education, notably in the framework of the UNESCO Chairs/UNITWIN programme, the follow-up on the World Conference on Higher Education, and the activities of the Global University Network for Education (GUNI). The University took an active role in the Johannesburg Summit and presented a report entitled "Making Integrated Solutions Work for Sustainable Development". In cooperation with UNESCO, the University launched the idea of creating a global alliance to promote sustainable development, mobilizing all levels of the educational system (Ubuntu Declaration).

Teacher training, Togo



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Agriculture institute, Iraq



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Acting against HIV/AIDS

Forty million people in the world are living with HIV/AIDS. Every year, three million people die from it and five million are infected (2004 figures). The HIV/AIDS pandemic continues to spread, particularly in the Caribbean, in Asia and in Africa, wiping out decades of investment in human development.

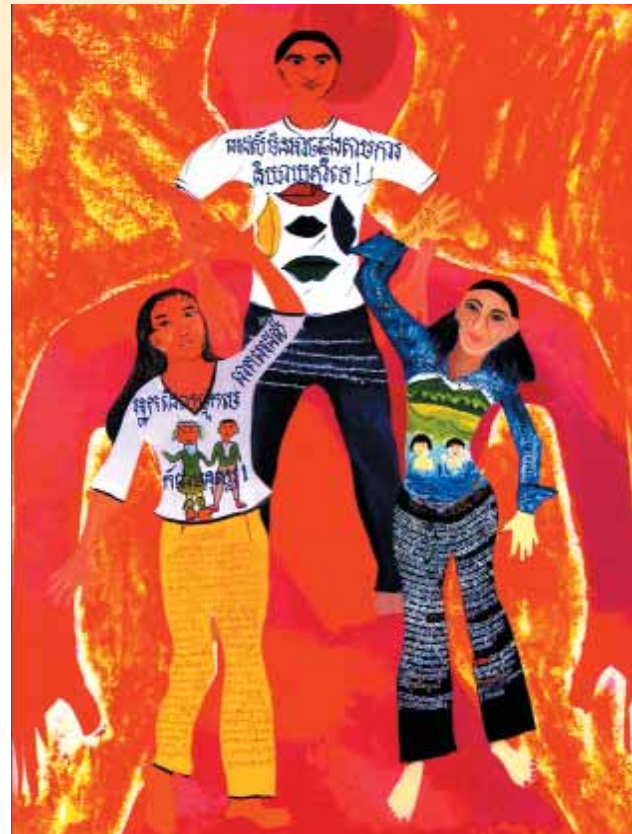
UNESCO strategies for HIV/AIDS

UNESCO's special involvement with the fight against the pandemic gives it a key role in prevention education within the United Nations system. To complement the "3 by 5" initiative, led by the World Health Organization (WHO) and UNAIDS to increase access to antiretroviral treatment to three million people in developing countries by the end of 2005, UNESCO and UNAIDS have launched the Global Initiative on HIV/AIDS and Education. The Global Initiative was launched by the Cosponsoring Organizations of UNAIDS in March 2004 to radically enhance national responses against the epidemic by helping governments and other key stakeholders to implement comprehensive, nation-wide education programmes for young people.

UNESCO's unique interdisciplinary experience allows it to bring together treatment and prevention in an integrated strategy (unesdoc.unesco.org/images/0013/001345/134572f.pdf) that combines educational policies, approaches and practices, scientific knowledge, consideration of cultural and social contexts and communication expertise.

Cultural approach

Launched in 1998, the project "A Cultural Approach to HIV/AIDS Prevention and Care" aims to change risk behaviour. In partnership with NGOs, universities and governments, UNESCO has conducted research projects by country, offered training to community representatives (such as traditional healers in Mozambique) and developed manuals for designing projects applying the cultural approach, for example using theatre or art.



Youth against stigmatisation

HIV/AIDS and Human Rights: Young People in Action provides an educational kit with a series of ideas for concrete action to fight against the discrimination that is provoked by the disease and also helps to spread it. UNESCO has created a website on the subject of young people and HIV/AIDS. (www.unesco.org/hiv/human_rights)

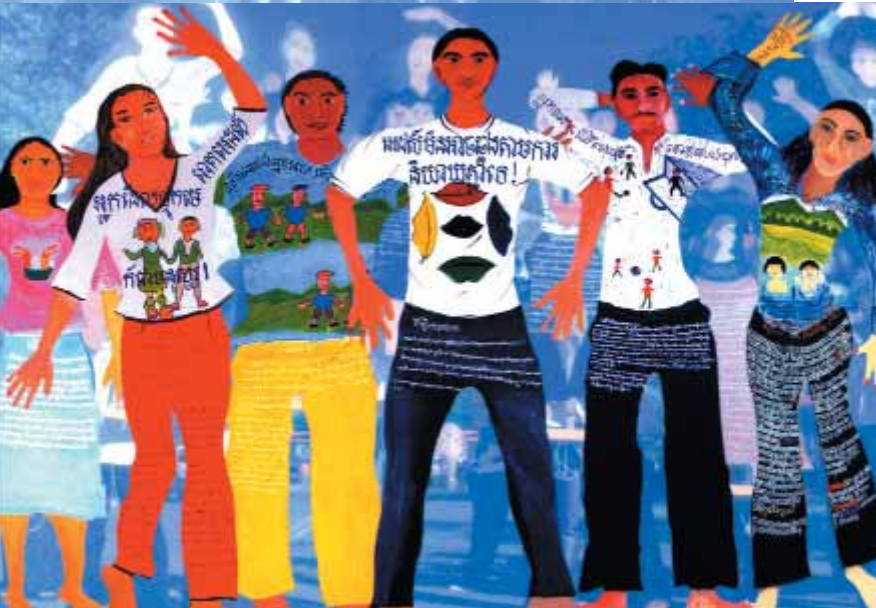
Support for research

In 2003, UNESCO renewed its cooperation agreement with the World Foundation for AIDS Research and Prevention until 2009. The Foundation's director, Professor Luc Montagnier, is involved in a number of projects, notably the search for a pediatric vaccine to prevent mother-child transmission of the virus. In Africa, clinical research programmes are underway in Cameroon, Burkina Faso, and Ivory Coast. (www.unesco.org/aids)



On December 1st 2003, World AIDS Day, 30 young Cambodians living with HIV/AIDS marched in the streets of Phnom Penh with life-size self-portraits made in a

workshop organized by UNESCO and a local NGO, led by an anthropologist and an artist.



Integrating Culture in Sustainable Development

Culture is increasingly recognized as an essential dimension of sustainable development, particularly since the 2002 Johannesburg Summit.

Danger in the Eastern Tropical Pacific

Whales, fish, sea turtles and other migratory species frequent the vast marine ecosystem of the Eastern Tropical Pacific, particularly vulnerable to degradation from human activity. UNESCO is working with Colombia, Costa Rica, Ecuador and Panama to ensure conservation and sustainable development of World Heritage List sites, which are living laboratories for the study of biological processes as well as unique diving areas. (whc.unesco.org/pg.cfm?ID_PROJECT=1&CID=39&I)

The Galapagos islands are part of a vast marine ecosystem. Ecuador



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Protecting World Heritage

The 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage made a unique contribution to sustainable development by creating the World Heritage List of cultural and natural heritage. Inclusion on the list is intended to protect and preserve monuments and sites that are of outstanding value to humanity and often threatened. Projects undertaken on these sites, however, combine restoration of monuments, preservation of the environment and economic development (whc.unesco.org/).



©UNESCO/Fernando Ainsa

Mayan temple in the Tikal National Park, Guatemala

Enlarging the concept of world heritage to include its oral and intangible expressions, UNESCO developed the Convention for the Safeguarding of the Intangible Cultural Heritage, which Member States adopted in 2003. The importance given to this living heritage – 47 exceptional examples are registered on the List of Masterpieces of Intangible Heritage – helps underline the social and cultural dimensions of sustainable development.

Cultural diversity and biological diversity

Promoting cultural diversity is a priority for UNESCO, which in 2001 adopted the Universal Declaration on Cultural Diversity. It affirms that cultural diversity (invoked with respect for human rights) is as necessary for humankind as biodiversity for nature, and that it constitutes the common heritage of humanity, with its wealth of 6 000 ethnic groups.

Because synergy between cultural diversity and biological diversity is a crucial factor for the preservation and balance of social and ecological systems, several actions are led jointly by the Culture and Science sectors. Efforts are concentrated particularly on biosphere and world heritage sites and on insular systems, promoting, for instance, the traditional sustainable uses of land, freshwater and sea.

Diversity implies dialogues between cultures. UNESCO has created university Chairs on

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The Japanese Ningyo Johruri Buna puppet theater is one of the Masterpieces of the World Intangible Heritage. Japan

intercultural dialogue, some of which also focus on dialogue between religions. The latter programme organizes regional conferences with religious leaders, on themes such as HIV/AIDS prevention (December 2003 in Nigeria) or sustainable agriculture (February 2005 in India).

Safeguarding linguistic diversity is another priority for action. The existing 5 000 languages and indigenous cultures are particularly threatened, and they contain a wealth of knowledge handed down by previous generations about biodiversity.



©UNESCO/Peter Coles

"All Different, All Unique: Young People and the UNESCO Declaration on Cultural Diversity"

This publication presents the articles of the UNESCO Declaration on cultural diversity with young people's comments and suggestions on the text, gathered by UNESCO and the International Youth Parliament in 8 countries: Argentina, Australia, Colombia, Guatemala, Indonesia, Italy, Jordan and Togo. (unesdoc.unesco.org/images/0013/001345/134556e.pdf)

Melanesia is the region with the greatest linguistic and cultural diversity in the world.

Sustainable Tourism

Roads of the Ksour

Pilot project of the programme “The Sahara of Cultures and Peoples”, the Roads of the Ksour in Algeria will weave the themes of Saharan roads and historical towns and oases around these fortified villages of earth architecture. Some Ksour will be restored for new uses by inhabitants and tourists, coming back to life as hostels, hammams, cyber teahouses or handicrafts centres. The project, launched in the first semester of 2004 with the support of Algerian authorities and the UNDP, is aimed at the population. Unemployed people, particularly youth and women, are receiving training that will allow them to find jobs.

Angkor

The rapid increase in the number of tourists visiting Angkor in Cambodia is making the famous heritage site vulnerable. Working within the cultural and educational dimensions of sustainable development, a seminar organized by UNESCO and the APSARA Authority in September 2003 provided 16 young teachers with training on cultural heritage, tourism and intercultural dialogue issues. After writing their own educational brochures, they disseminated their new knowledge in the villages. Other training projects will qualify local people for jobs in culture and tourism.

The Atlas of the World’s Languages in Danger of Disappearing estimates that out of 6 000 languages spoken in the world, about half are in danger – or are already in the process – of disappearing.

UNESCO’s new orientations in cultural policy encourage exploring the links between culture and other dimensions of human life, such as environment, agriculture, economy, industry, communication or food. Related to health, the cultural approach to HIV/AIDS is UNESCO’s special contribution to the global battle against the pandemic. At the same time, a cultural approach to behaviour patterns around food could promote better understanding of their evolution in the context of globalization.

Cultural goods and services

Globalization presents a challenge to cultural diversity, due to the increasing commercialization of cultural demand. Artistic creation and cultural goods and services are vectors of identity, values and meaning, and must not be treated as mere commodities, states the Declaration on cultural diversity. It recommends adopting policies that allow their free production and circulation.

Sustainable tourism

Tourism, particularly mass tourism, represents a threat to natural and cultural assets, but also great potential for sustainable development. Sustainable tourism projects are



Sustainable tourism protects sites and provides income for local people. Sale of handicrafts in Angkor, Cambodia

©UNESCO/Sothly Tang Chhin

Sustainable Development

in place on several World Heritage sites: Tikal National Park (Guatemala); Sian Ka'an (Mexico); the El Vizcaino whale sanctuary (Mexico); and Ujung Kulon National Park (Indonesia).

Thanks to its multidisciplinary approach, UNESCO has developed expertise on the subject that it makes available to governments. From 2001 to 2003, for example, it helped Baltic States elaborate an ambitious regional policy for cultural tourism, which balances environmental preservation, highlighting of heritage, high-quality tourism and economic development.

Sustainable tourism can help reduce poverty by stimulating the local economy. This is happening with ongoing projects in Angkor (Cambodia), in the Aral Sea basin, and in Saharan countries.

The UNESCO/UNITWIN university network "Culture, tourism and development" is an important vector of sustainable development education.

Handicrafts and design

UNESCO's action related to handicrafts testifies to the essential contribution these can make to sustainable development and poverty eradication. The organization promotes the work of craftspeople, makes available data on the cultural and socioeconomic impact of handicrafts, and advocates evolution in legislation. It also supports innovative training – in creating new products and packaging and running a small business, for example – particularly for women and young people.



©UNESCO/Madine Saunier

Carving a "moai" figure in the Rapa Nui National Park, Easter Island, Chile

©UNESCO/Georges Malenpre



Weaving is an economic and spiritual activity. Peru

Handicrafts: Bioetiqueta Label

Nothing could be more sustainable than "Bioetiqueta textile", a project to create a label that guarantees cloth was tinted with natural dye using traditional methods. To receive the label, products must respect and maintain biodiversity; sustain the knowledge and know-how of traditional dyers; use local raw materials (to cut down on the financial and ecological cost of transport); and promote health (no toxic or chemical dyes). Responding to market demand for natural, ethical products, Bioetiqueta also aims to promote economic development. A pilot project in Latin America, the Bioetiqueta label will be presented to governments to be awarded at the national level. Its logo will be the cochineal, a common cactus parasite used since antiquity to make red, fuchsia and purple coloring.

From Information Societies to Knowledge Societies

In recent decades, the development of Information and Communication Technologies (ICTs) has advanced at such speed and on such a scale that it represents a global economic and social revolution, as full of hope as it is ominous.

ICTs: Access to Science and Technology

Learning science on CD-Roms

UNESCO New Delhi (India) has developed three training CD-Roms in cooperation with Jawaharlal Nehru University: Computer training in biology, Computer training in chemistry, and Computer training in physics. They are being distributed free of charge to secondary level educational institutions.

Specialized virtual library for engineers

A pilot project to establish a virtual library on engineering for sustainable development, SudVEL-SKN (www.sudvel-uofk.net), is underway at Khartoum University (Sudan). It will be an addition to the virtual library already put on line by UNESCO and the World Federation of Engineering Organisations (WFEO). (avel.edu.au/vessel.html).

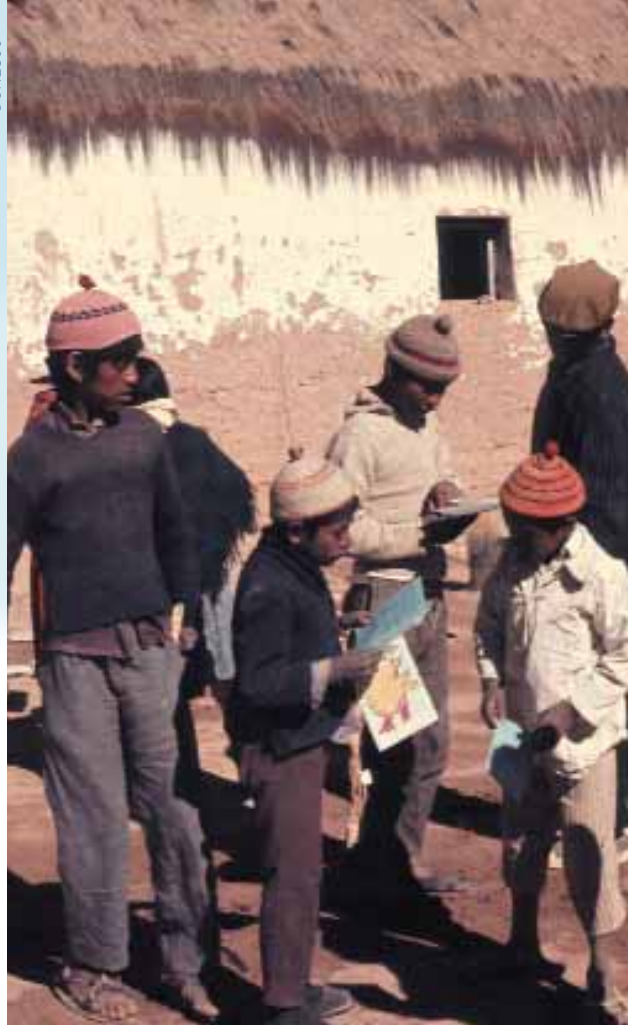
In this context, the free exchange of ideas and knowledge, which UNESCO promotes as one of its principal mandates, is more than ever a condition of sustainable development. Social participation and integration, freedom of expression and the safeguarding of democratic values all depend on access to information.

UNESCO's commitment to the crucial issues of free flow of information and free access to sources of knowledge is deeply rooted in its Constitution, which states that "the wide diffusion of culture, and the education of humanity for justice and liberty and peace are indispensable to the dignity of man and constitute a sacred duty which all the nations must fulfill in a spirit of mutual assistance and concern."

©UNESCO/E. Buggert-Richardson



Scientists at the International Tsunami Information Centre. Honolulu, Hawaii, United States of America



Access to information in remote areas. Latin America

Transparency and responsibility

Information, communication and knowledge are at the heart of humanity's progress, development and well-being. They serve to affirm and consolidate the interdependent and mutually reinforcing mainstays of sustainable development, which are economic development, social development and the preservation of the environment at the local, national, regional and global levels. Information and communication technologies, both new and traditional, can help bring about higher levels of development for the benefit of millions of people in all regions of the world.

To be effective and useful, development programmes must be fully transparent and based on responsibility to beneficiaries, thanks to a strong civil society with the means to act and the ability to define its interests. The resources, structures and technologies of information and communication, and the choices made in that arena, provide civil society with the means to organize and develop.

Similarly, access to relevant information and knowledge, the possibility of free expression of opinions and participation in decision-making in the development process for all sectors of society, particularly women and young people, are some of the prerequisites for attaining sustainable development goals.

Raising media awareness

UNESCO is called upon to play an important role in helping to raise media awareness of the various dimensions and requirements of sustainable development. It also promotes the integration of ICTs in school curricula, to make them accessible to both urban and rural populations, and to create an environment conducive to establishing these technologies.

Free software for all

UNESCO encourages the development of free and "open source" software, which play a key role in education. It distributes free of charge, on line or on CD-Roms, software such as WinDAMS for the validation, manipulation and statistical analysis of numerical data, or CDS/ISIS for databases and advanced text retrieval.

Its free software portal (www.unesco.org/webworld/porta_freesoftware) offers a Virtual Laboratory Toolkit; Greenstone, software for building a virtual library; and a link to the African digital library, containing over 8 000 full-text e-books. (www.africaeducation.org/adl)

Technologies to reduce poverty

UNESCO is fully committed to promote “knowledge societies” at all levels including local, and to face the crucial challenge of promoting the application of technology to the fight against poverty and for sustainable development. A video and associated brochure entitled “Small is working: technology for poverty reduction” aims to present, examine, and highlight the benefits of smaller-scale and intermediate (versus large-scale) technology. (http://www.itdg.org/?id=small_is_working_transcripts)

Another example, “Rays of Hope”, describes renewable energies in a region that served as a laboratory for testing technology that runs on renewable energy. It makes a valuable contribution – in terms of information, education, awareness raising and advocacy – to the promotion and innovation of renewable energy use in small island states.

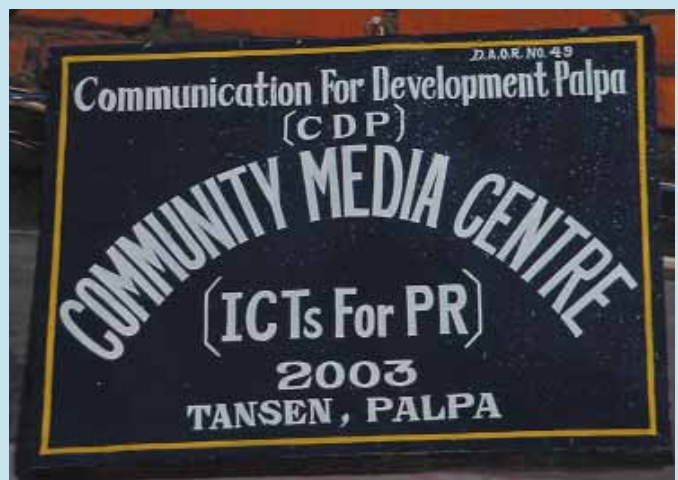
Actions undertaken (www.unesco.org/webworld/) aim to:

- promote the concept of “knowledge societies” – founded on principles of freedom of expression, universal access to information and knowledge, preservation of cultural diversity and equal access to quality education – as the essential concept for reaching Millennium Development Goals.
- support the creation or reinforcement of Community Multimedia Centres, multipurpose community telecentres, public broadcasting, libraries, archives, information services and networks.
- promote pluralist and independent media, at the same time contributing through media development to the consolidation of peace in countries in post-conflict situations – a prerequisite for sustainable development.
- support training for information and communication professionals, especially in the media, to boost their know-how and capacities for reporting on sustainable development and ICT use, in order to reinforce development projects.
- promote production of radio and television programmes with local content and on themes such as gender equality and universal basic education.

Nepal: Multimedia for All

The Community Multimedia Center (CMC) in Tansen, Nepal, is run by young people from poor families, traditionally marginalized by the caste system. They learn how to use radio and video equipment and computers to produce programmes on subjects of local interest. Their goal is to broadcast information gathered on the Web and on CD-Roms in local languages, using community radio, television or press.

The Tansen CMC is part of the regional UNESCO network “Putting ICTs in the hands of the poor” in South East Asia, which helps marginalized people to escape ignorance, acquire skills and learn to use information and communication technology.



ICTs for Poverty Reduction. Tansen Community Multimedia Centre, Nepal

to Knowledge Societies

Community Multimedia Centres

The goal of the Community Multimedia Centres programme (CMC) is to combine traditional and modern information and communication technologies to allow isolated, marginalized or excluded populations to have access to global information resources. Usually a CMC combines a community radio station with telecentre facilities (computers, Internet, CD-Rom).

©UNESCO/Sergio Santimano



Telecentres offer access to information and training to a whole community. José Saide, computer trainer in Namaacha, Mozambique

International Programme for the Development of Communication (IPDC)

The IPDC promotes free and pluralistic media in developing countries and the countries in transition. It helps strengthen people's communicative and analytical skills and their participation in democratic governance. The programme finances dozens of projects every year, with priority given to those promoting press freedom and media pluralism, development of community media, enhancing professional capacity and building partnerships for media improvement.

World Summit on the Information Society (WSIS)

Countries pledged to bridge the "digital divide" that separates the information-rich from the information-poor at this Summit, organized in two phases (in Geneva, December 2003, then in Tunis, November 2005). UNESCO monitors among other aspects the ethical, legal and sociocultural dimensions of the information society, through programmes like the intergovernmental Information for All (IFAP).

UNESCO's activities related to information and communication are in themselves part of the implementation of WSIS goals (www.unesco.org/wsisdirectory). They range from media education, defending freedom of the press and digital literacy to promoting a multilingual cyberspace, support for public broadcasting on radio and television, research on authors' rights and professional training.

Facilitating exchange of geological data in Asia

The South East Asian Network for Geological Information System (SANGIS) is a UNESCO project for geological data management, involving national geological survey operations and governments as participants. Using the Internet, the network facilitates data exchange both within and outside South East Asia. The goal is to make data easily available and accessible to all geological surveyors and participating decision-makers with a view to making socioeconomic and environmental planning more effective.

SANGIS (www.cifeg.org/sangis/sangisbase.htm) brings together 11 South East Asian countries. It aims to enhance the management of earth sciences information within national geological services in South East Asia, and highlight information available at the regional level.

Developing Sustainable Partnerships

UNESCO can efficiently undertake actions in favour of sustainable development, thanks to the synergy between diverse stakeholders that together form an international community. All these actors have valuable contributions to make to sustainable development. Many actors throughout the world are eager to be associated with different initiatives in favour of sustainable development. UNESCO gives them access to its wealth of networks and its worldwide outreach with governments, universities and NGOs. While a certain flexibility is maintained to take into account the diversity of partners, these partnerships are ruled by clear and strict principles to guarantee the credibility of initiatives undertaken.

A community of dynamic actors

This community of actors includes governments, National Commissions, Parliamentarians, NGOs and associations, media, schools, cultural and scientific institutions, private sector partners and the United Nations family of institutions. Together, they give life to UNESCO's ideals and values around the world, at the local, national and international level.

Cooperation with Member States is carried out in particular through sustained consultation and coordination with the National Commissions and the Permanent Delegations to UNESCO. The National Commissions form a vital link between civil society and the Organization. They provide valuable insight concerning the Organization's programme and help implement many initiatives including training programmes, studies, public awareness campaigns and media outreach. (www.unesco.org/ncp/natcom)

Mobilize civil society

UNESCO places emphasis on the development of a range of partnerships, alliances and other cooperative mechanisms so as to foster visibility and impact for its programme activities at international, regional and national levels. The Organization works closely with a wide range

of regional and national organizations. Some 350 non-governmental organizations (NGOs) maintain official relations with UNESCO and hundreds more work with the Organization on specific projects.

For example, the network of UNESCO Clubs, Centres and Associations, the first of which was created in Japan in 1947, is an important link between the Organisation and civil society worldwide. The Programme for Parliamentarians, first introduced by UNESCO in 1994, aims to ensure that UNESCO's values and objectives are reflected in national policy-making and legislation. The Organization seeks also to develop new forms of partnership, with Cities and Local Authorities in order to strengthen the political commitment for the priorities and the initiatives of the Organization.

Partnerships with the private sector

In the framework of the UN "Global Compact", UNESCO also develops new partnerships with the private sector, which can provide valuable technical expertise and financial resources. UNESCO cooperates with many private sector partners: large multinationals or small companies, private foundations, economic, academic and professional associations, philanthropic organizations and individuals.

For the last several years, the United Nations has given increasing importance to relations with the private sector. Policies governing partnerships with the private sector are inspired by directives the UN adopted in 2000. They are founded on the "Global Compact" and its ten universal principles that provide a standard-setting guide for the business world and promote the integration of social values in the process of producing goods and commercial services. (www.unglobalcompact.org)

Not only are the number and scope of such partnerships growing steadily, but also their nature has diversified, surpassing merely financial goals to include interaction, consultation and ongoing dialogue. Recent concepts of partnerships with the private sector now aim to mobilize the entire repertoire of the private sector's special resources for the benefit of sustainable development.

Some UNESCO private sector partners

- ▶ Boucheron for World Heritage
- ▶ Daimler-Chrysler for intercultural dialogue and exchange with "Mondialogo"
- ▶ Fondation Internationale Carrefour for education of children in distress
- ▶ MacArthur Foundation for decentralized scientific projects
- ▶ Hewlett Packard for access to knowledge networks and the fight against brain drain
- ▶ J Walter Thompson for awareness campaigns on sustainable development
- ▶ L'Oreal for support of women scientists
- ▶ Suez for water and sustainable development
- ▶ Mohamed Bin Issa Foundation for projects in the Arab world



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United Nations Decades, reference documents and UNESCO standard-setting instruments

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- 2005-2015 ▶ International Decade for Action “Water for Life” (A/RES/58/217)
[www.unesco.org/water/water_celebrations/decades/index.shtml]
 - 2005-2014 ▶ United Nations Decade of Education for Sustainable Development (A/RES/57/254)
[www.unesco.org/education/desd]
 - 2003-2012 ▶ United Nations Literacy Decade (A/RES/56/116)
[www.unesco.org/education/litdecade]
 - 2001-2010 ▶ International Decade for a Culture of Peace and Nonviolence For the Children of the World (A/RES/53/25) [www3.unesco.org/iycp/]
 - 1997-2006 ▶ First United Nations Decade for the Eradication of Poverty (A/RES/50/107)
[www.un.org/esa/socdev/poverty/poverty.htm]

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- 2002 ▶ The Johannesburg Declaration on Sustainable Development
[www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/POI_PD.htm]
 - 2002 ▶ Johannesburg Plan of Implementation
[www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/POIToc.htm]
 - 2000 ▶ Dakar Framework for Action, Education for All: Meeting our Collective Commitments [www.unesco.org/education/efa/ed_for_all/dakfram_eng.shtml]
 - 2000 ▶ Millennium Declaration [www.un.org/millennium/summit.htm]
 - 2000 ▶ Millennium Development Goals [www.un.org/millenniumgoals/]
 - 2000 ▶ Earth Charter [www.earthcharter.org]
 - 1992 ▶ Convention on Biological Diversity [www.biodiv.org/convention/articles.asp]
 - 1992 ▶ United Nations Framework Convention on Climate Change
[<http://unfccc.int/resource/conv/>]
 - 1992 ▶ Agenda 21, Chapter 36: Promoting education, public awareness and training
[www.un.org/esa/sustdev/documents/agenda21/english/agenda21chapter36.htm]
 - 1992 ▶ Agenda 21, Chapter 35: Science for sustainable development
[www.un.org/esa/sustdev/documents/agenda21/english/agenda21chapter35.htm]
 - 1992 ▶ Agenda 21: Global plan of action for sustainable development
[www.un.org/esa/sustdev/documents/agenda21/english/agenda21toc.htm]
 - 1992 ▶ Rio Declaration on Environment and Development
[www.un.org/documents/ga/conf151/aconf15126-1annex1.htm]
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- 2003 ▶ Recommendation on the Promotion and Use of Multilingualism and Universal Access to Cyberspace [portal.unesco.org/en/ev.php-URL_ID=17717&URL_DO=DO_TOPIC&URL_SECTION=201.html]
 - 2001 ▶ UNESCO Universal Declaration on Cultural Diversity [unesdoc.unesco.org/images/0012/001271/127160m.pdf]
 - 1997 ▶ Declaration on the Responsibilities of Present Generations Towards Future Generations [www.unesco.org/cpp/uk/declarations/generations.pdf]
 - 1997 ▶ The Universal Declaration on the Human Genome and Human Rights [portal.unesco.org/en/ev.php-URL_ID=13177&URL_DO=DO_TOPIC&URL_SECTION=201.html]
 - 1995 ▶ Statutory Framework of the World Network of Biosphere Reserves [www.unesco.org/mab/docs/statframe.htm]
 - 1995 ▶ Seville Strategy for Biosphere Reserves [www.unesco.org/mab/docs/stry-1.htm]
 - 1972 ▶ Convention Concerning the Protection of the World Cultural and Natural Heritage [whc.unesco.org/world_he.htm]
 - 1962 ▶ Recommendation concerning the Safeguarding of Beauty and Character of Landscapes and Sites [portal.unesco.org/en/ev.php-URL_ID=13067&URL_DO=DO_PRINTPAGE&URL_SECTION=201.html]
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Landmarks

- 1972 ▶ United Nations Conference on the Human Environment, Stockholm (Sweden)
- 1987 ▶ Definition of the concept of sustainable development by the Brundtland Commission
- 1992 ▶ United Nations Conference on the Environment and Development, Rio de Janeiro (Brazil), known as the Earth Summit
- 2000 ▶ Millennium Declaration
- 2002 ▶ World Summit on Sustainable Development, Johannesburg (South Africa)
- 2005-2014 ▶ United Nations Decade of Education for Sustainable Development

The designations employed and the presentation of material throughout the publication do not imply the expression of any opinion whatsoever on the part of UNESCO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Published by UNESCO
United Nations Educational, Scientific
and Cultural Organization
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Project management: Education for Sustainable
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Graphic design and layout: Sylvaine Baeyens
Translation: Cathy Nolan
Cover photo: ©UNESCO/Felipe Alcoceba

Printed at UNESCO
©UNESCO 2005
Printed in France