

UNESCO and Johannesburg

Education for Sustainable Development Decade a 'tremendous challenge for UNESCO'

Arguably the most spectacular outcome of the World Summit on Sustainable Development (Johannesburg, South Africa, 26 August – 4 September 2002) for UNESCO is the recommendation to the United Nations General Assembly that 'it consider adopting a Decade of Education for Sustainable Development starting in 2005' (para. 117d, Plan of Implementation). The decision comes as welcome news to UNESCO, which first tabled the idea at the final preparatory meeting for the Summit in Bali (Indonesia) last May.

The next step is for the recommendation to be presented to the United Nations General Assembly in 2003 for adoption. UNESCO is preparing to take a leadership role in the

We are making great efforts to use satellite technologies and the Internet.

Many people in Mongolia... would like the information and broadcasts emanating from the major developed countries to focus more on learning and education.

President Bagabandi
of Mongolia

Decade, in close association with a full range of partners from the inter- and non-governmental communities. The Decade 'represents a tremendous challenge for UNESCO', comments Andras Szollosi-Nagy, Deputy Assistant Director-General for Science at UNESCO.

As an early follow-up initiative to the Summit, UNESCO and the government of France are studying the feasibility of launching a virtual university on sustainable development at the University of Lyon in France.

One billion promised access to sanitation by 2015

As expected, the global water crisis took priority at the Summit. Today, more than 1 billion people lack access to safe drinking water and more than 2.4 billion are without adequate sanitation. One of the most ambitious targets in the Plan of Implementation is that of halving the proportion of people without access to these basic requirements by 2015. Given the size of the challenge, UNESCO will most likely be maintaining 'water resources and supporting ecosystems' as the principal priority for natural sciences in 2004–2005.

The challenge is to improve water resources management and scientific understanding of the water cycle. The new UNESCO centres for water resource management and the UNESCO-IHE Institute for Water Education in Delft (Netherlands) provide a unique opportunity for UNESCO to demonstrate the practical significance of its science programmes in water resources.

UNESCO may also be asked by the World Water Forum in 2003 to expand its action. Preliminary results of the most extensive United Nations undertaking ever to assess the world's freshwater resources were presented to the Johannesburg Summit and will be published in the *World Water Development Report* due out in 2003. UNESCO is lead agency for the World Water Assessment Programme, which involves 24 United Nations agencies.



Women carrying water in Antigua (Guatemala). Only 0.26% of the world's freshwater is stored in lakes and rivers. The remainder exists in the form of groundwater (30%) and ice and snow

Towards regular reporting on the marine environment

In the Plan of Implementation (para.34), the Intergovernmental Oceanographic Commission (IOC) received a clear confirmation of its current mandate to address the scientific uncertainties of climate and global change, and look more closely at new developments, especially in integrated coastal management. Through the IOC, UNESCO will be contributing towards establishing by 2004 a regular global reporting and assessment system on the state of the marine environment.

The IOC is a member of several Type 2 partnerships on oceans and coasts, including the 'African Process'.

One of the goals of the 2000 United Nations Millennium Declaration¹ is 'to integrate the principles

1. www.developmentgoals.org/

Constructing the new paradigm
[of sustainable development] **is not about coining new terms – it is about action.**

Kader Asmal,
Minister of Education,
South Africa

of sustainable development into country policies and programmes and reverse the losses of environmental resources'. In the Plan of Implementation, governments commit themselves to achieving the Millennium goals and identify new targets. They undertake for example to restore fisheries to their maximum sustainable yields by 2015 and to establish a representative network of marine protected areas by 2012.

UNESCO will be participating actively in a Task Force on Water and Oceans established by the heads of all United Nations agencies under the chairmanship of the Secretary-General of the United Nations, to develop effective implementation plans to achieve the Millennium Goals.

Reversing natural resources degradation

Governments undertake in the Plan of Implementation to reduce biodiversity loss by 2010 and to reverse the current trend towards natural resources degradation.

We must grasp the links between how different cultures shape the environment and vice versa.

Koïchiro Matsuura,
Director-General
of UNESCO

Moreover, they commit themselves to improving developing countries' access to environmentally sound alternatives to ozone-depleting chemicals by the same date. They also invite the Global Environment Facility to consider including the United Nations Convention to Combat Desertification (UNCCD) as a focal area for funding.

It could be said of UNESCO's Man and the Biosphere (MAB) programme that it was fostering sustainable development long before the term was coined. For 30 years, MAB has been promoting through its biosphere reserves – which today number 408 in 94 countries – the sustainable use and conservation of biological diversity, while striving to improve the relationship between people and their environment (*see also page 12*).

The Plan of Implementation underscores the need to protect the rights of local and indigenous communities and to respect their traditional knowledge and resource management systems. Through the Local and Indigenous Knowledge Systems (LINKS) project, UNESCO is striking partnerships between indigenous people and scientists to bring traditional knowledge and world views into the biodiversity conservation process ².

2. Contact: d.nakashima@unesco.org

Summit innovates with 'Type 2' partnerships

The Summit produced three official documents: the Johannesburg Declaration on Sustainable Development and a Plan of Implementation (implemented by all governments and known as Type 1 outcomes) and, for the first time, the inclusion of partnership initiatives as an integral part of the Summit. These 'Type 2 partnerships' were agreed upon in Johannesburg only by those parties directly involved.

A number of Type 2 initiatives were made public in Johannesburg. For example, the USA announced it would be investing US\$970 million over the next three years in water and sanitation projects, while the European Union introduced the 'Water and Life' initiative engaging partners to meet goals for water and sanitation primarily in Africa and Central Asia. By the end of the Summit, countries had pledged to replenish the Global Environment Facility with a total of US\$3 billion.

A range of agreements were concluded by nine major electricity companies from G7 countries and the United Nations to facilitate technical cooperation for sustainable energy projects in developing countries. The European Union announced a US\$700 million partnership initiative on energy and the USA that it would be investing up to US\$43 million in 2003. The South African energy utility Eskom announced a partnership to extend modern energy services to neighbouring countries.

Some 20 Type 2 initiatives concluded in Johannesburg involve UNESCO. For examples, see the boxes on IGOS and GRASP.

Summit produces 'collateral gains'

Independently of the formal Type 1 and Type 2 partnerships, there were distinct 'collateral gains' in Johannesburg. It was at the Summit that Russia pledged to ratify the Kyoto Protocol – foreseeing the reduction of greenhouse gas emissions to pre-1990 levels by 2012 –, a move which would enable the five-year agreement to enter into force. The Russian pledge was accompanied by Thailand's and China's announcements that they had ratified the Protocol and by Canada's pledge to submit the Protocol to Parliament for ratification before the end of the year.

Another 'collateral gain' was the pledge by individual countries in Johannesburg to increase official development assistance, which had fallen over the past decade from 0.33% of donor country GNP to 0.22% – far below the target of 0.7% agreed upon in Rio de Janeiro. This is all the more significant in that finance and trade issues represented much of the 25% of the Johannesburg documents still needing to be agreed upon when the Summit began on 26 August.

UNESCO would have liked to see the Summit place greater stress on respect for cultural diversity as an essential element of sustainable development but is nevertheless pleased that the level of awareness has been raised substantially.

When small rhymes with vulnerable

Those who were in Johannesburg will recall the poignant appeal for help from the state of Tuvalu (26 km²), a tiny group of atolls in the South Pacific with 12,000 inhabitants which is slowly sinking into the sea. According to a report published by the Intergovernmental Panel on Climate Change last year, sea level may rise 1 m over the next 50–100 years. The average altitude of Tuvalu is 1.5 m.



A father with his children during a traditional dance ceremony in Vanuatu

No-one speaks out against biopiracy. Our resources are taken from us without any payment, in total disregard for the rights of local populations.

Professor Catherine Odora-Hoppers,
University of Pretoria,
South Africa

UNESCO is giving a voice to small island states through its Small Islands Voice project launched in 2002. The Organization is pleased to see that the sustainable development of small island states was given importance in Johannesburg (*see also page 45*).

Preparing for disaster

Another theme stressed in Johannesburg of obvious relevance for UNESCO is the development and strengthening of activities to improve natural disaster preparedness and response. As Summit follow-up, UNESCO will be targeting both natural and man-made hazards in megacities and rural areas. In addition to emergency relief and recovery, it will be engaging further in disaster prevention with vulnerable countries as a focus. Through joint international observation and research, countries will be familiarized with new techniques in surface-based

IGOS - or the new space race

The space race has entered a new phase. Today, it is fuelled by a far more critical goal than that of Cold War politics – the quest to understand the planet's life-support systems. There may be several global initiatives to observe the climate or the oceans but no single agency or organization can afford to implement one of these systems alone. This is where the Integrated Global Observing Strategy (IGOS) comes in.

An umbrella organization, IGOS is made up of 14 partners including UNESCO, the World Meteorological Organization (WMO) and the Committee on Earth Observation Satellites (CEOS), which represents 23 space agencies.

IGOS is weaving a global network to collect, compare and synthesize the data of the various satellites with land-based observations. The aim is to finalize the system within the next two years to prepare for the launch of a constellation of nine Global Precipitation Measurement satellites, which will be able to measure the rainfall at any spot on the globe every three hours.

IGOS is developing a similar strategy to study the impact of rising carbon dioxide emissions. Carbon dioxide is the most dangerous greenhouse gas because it can hang in the air for tens and even thousands of years, trapping heat in the atmosphere. To predict how atmospheric carbon dioxide levels and climate may change in the future, we must understand where and how it moves between the land, oceans and atmosphere in what is known as the global carbon cycle.

For further information on this Type 2 initiative, go to www.igospartners.org or contact r.missotten@unesco.org. (*see also p. 28*)

monitoring and encouraged to use and disseminate satellite data.

Within an International Consortium on Landslides, UNESCO is launching a new International Programme on Landslides encompassing science, education and culture. Moreover, in the face of ever-increasing damage caused by flooding, the Council of UNESCO's International Hydrological Programme recently adopted a Resolution proposing the launch of a Joint UNESCO/WMO Programme on Floods.

Renewable energy target wasn't to be

The Secretary-General of the United Nations, Kofi Annan, and the government of Brazil were among proponents of raising the market share of renewable energies to 10%. Solar energy may represent only 0.1% of today's energy demand, but it is also one of the world's fastest-growing renewable energy sources. The photovoltaic solar market for example is expanding by 15% annually, according to the Global Environment Facility, thanks largely to the lower costs made possible by research (*see also pages 23-27*).

Although the hoped-for target is ultimately absent from the Plan of Implementation, governments do commit to increasing access to modern energy services to augment energy efficiency and to fostering the use of renewable energy. They also agree to phase out, where appropriate, energy subsidies.

Of great interest to UNESCO is the government commitment to supporting the NEPAD³ objective of ensuring access to energy for at least 35% of the African population within 30 years. UNESCO launched the ten-year World Solar Programme in 1996 to help Africa in particular gain access to energy. The Programme includes the Global Renewable Energy Education and Training Programme (GREET). GREET is particularly active in sub-

S a h a r a n

Africa, where 15% of the urban population and 92% of the rural population lack electricity (UNESCO data).

* * *

UNESCO is in the process of putting together its own transdisciplinary action plan, involving its programmes not only in natural sciences but also in the social sciences, education, culture and communication. Of particular interest to UNESCO are the areas emphasized in Johannesburg of education for

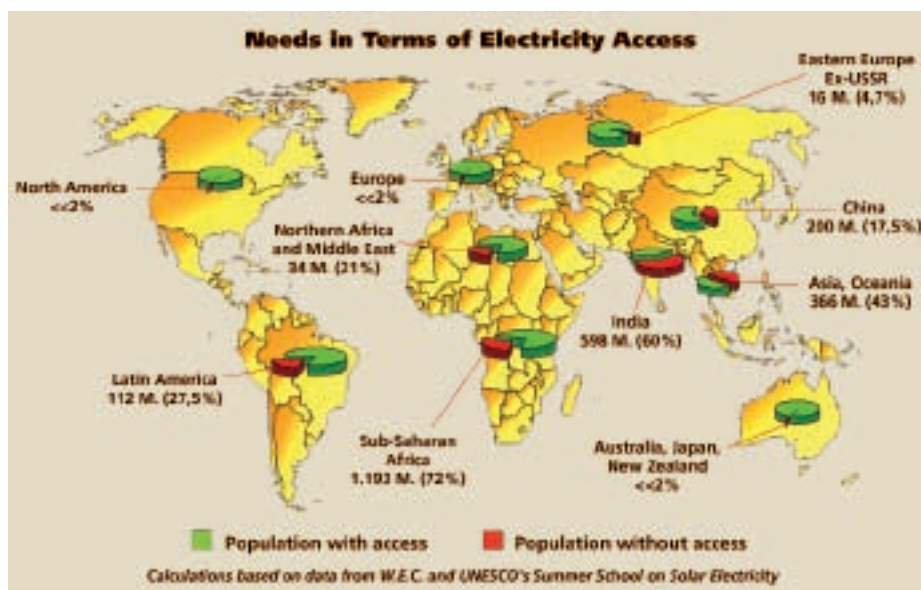
sustainable development, freshwater and the oceans, ecosystem management, renewable energy and the ethical dimensions of sustainable development.

UNESCO looks forward to working with its inter-governmental and non-governmental partners to implement follow-up to the World Summit on Sustainable Development.

Susan Schneegans⁴

For details:
j.damlamian@unesco.org

3. *New Partnership for Africa's Development*: www.nepad.org
4. *Editor*, A World of Science



UNESCO calculations of the world's renewable energy outlook (UNESCO exhibition at the Johannesburg Summit)

It is inhuman that developing countries must spend about half their budgets on international financial obligations. The resources should be made available for education and social programmes to ease the extreme poverty which is a major cause of environmental damage in developing countries.

President Noboa of Ecuador

The Great Apes Survival Project (GRASP)

At current rates, the orang-utan may have disappeared from the world's forests within the next ten years. It is a voiceless victim of habitat destruction, including that caused by the fires which regularly ravage Borneo's forests, the orang-utan's primary habitat. And the orang-utan is not alone. Chimpanzees, gorillas and bonobos are also threatened with extinction. In Africa, poaching and armed conflict pose the greatest threat to their survival.

Faced with the urgency of saving *Homo sapiens sapiens'* closest relatives, UNESCO and the United Nations Environment Programme (UNEP) have launched the Great Apes Survival Project (GRASP) in partnership with a number of non-governmental organizations (NGOs) as a Type 2 initiative. Through GRASP, UNESCO is using its World Network of Biosphere Reserves and World Heritage Sites to help conserve the Great Ape habitats in Africa and Asia.

For further information on this Type 2 initiative, go to: www.unesco.org/mab/grasp/home.shtml or contact: s.mankoto@unesco.org



'Boris', a chimpanzee in Chester Zoo (UK) drawn by Professor Aterini. His mother was shot in the wild when he was a baby