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Educational, Scientific and
Cultural Organization

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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、
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Water Management

Water is the source of all life. But through pollution, destruction of ecosystems and poor management, it risks becoming scarce and expensive.

The global water crisis is growing. It threatens the security, stability and sustainability of the planet and consequently, humanity itself. This is why the period from 2005 to 2015 has been declared the International Decade for Action 'Water for Life'. The overall goal is to reach objectives defined on an international scale in the field of water and sanitation by 2015. In the Millennium Declaration (2000), the United Nations called to "Reduce by half the proportion of people without sustainable access to safe drinking water". They also indicate that good water management is the guarantee of 'equitable access' and 'adequate supplies'.

The work of the Division of Water Sciences at UNESCO is based on three pillars.

The International Hydrological Programme (IHP), launched in 1975, is an intergovernmental programme of scientific cooperation concerning water resources. Its target is to improve scientific and technological data, in order to promote rational water resource management that respects the environment. The theme of the sixth phase of the Programme (2002-2007) is 'Water interaction: Systems at Risk and Social Challenges'. This phase emphasizes social aspects of supply. Indeed, without water, economic and human development is impossible. Poor management also leads to depleted supplies, falling water tables, shrinking inland lakes or diminishing stream

flows. The programme is based on five themes:

- *global changes and water resources.* Today, there is no accurate data about global hydrological change. If it existed, this data would make it possible to know how, when and where human activities that are linked to extreme weather events affect ecosystems;



Schoolgirl using a pump at
Srah Srang school,
Cambodia
(© UNESCO/S. Tang Chhin)

- *integrated watershed and aquifer dynamics.* To manage water, it is necessary to analyse river systems and aquifers, by studying both natural as well as man-induced processes;

- *land habitat hydrology* covers the analysis of interactions between climate (arid, humid, temperate & cold zones), topography (mountains, small islands, etc.) and land use (rural, urban & natural environments);

- *water and society* deals with the complex relationships between people and water resources (attitudes, concepts and beliefs);

- *water education and training.* The results of the IHP must strengthen education and continuing training. Hydrologists, as well as the general public, must benefit from knowledge and technology.

The second pillar is the **UNESCO-IHE Institute for Water Education**. Based

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A few figures...

Every day, 6,000 people die from diarrhoeic diseases linked to water, most of them children under the age of five.

1 billion people lack access to water supply, and 2.4 billion to sanitation systems.

2,200 water-related natural disasters occurred in the world between 1990 and 2001.

50% of the world's wetlands have disappeared since 1900.

70% of water taken for human use is used by agriculture, mostly for irrigation.

Source: UN/WWAP, World Water Development Report: *Water for People, Water for Life*. Paris, New York & Oxford, published by UNESCO & Berghahn Books, 2003.

in Delft (Netherlands), it offers training and postgraduate research programmes in the fields of water and the environment, aimed at professionals from developing countries. In October 2005, the Institute launched a new anti-arsenic water filter that can save tens of millions of lives since arsenic is fatal when present in drinking water.

The third pillar of the Water Sciences Division is the **World Water Assessment Programme** (WWAP). This initiative by the entire United Nations aims to develop the tools and skills needed to manage practices and policies that contribute to improving global freshwater supplies. The WWAP's mission is to:

- assess the state of the world's freshwater resources and ecosystems;
- develop indicators and measure progress towards achieving sustainable use of water resources;
- help countries develop their own assessment capacity;
- document lessons learned and publish a World Water Development Report.

The World Water Development Report - 'Water, a Shared Responsibility' will be launched 22 March 2006, on the occasion of World Water Day. This event, whose theme in 2006 is 'Water and Culture', is held this year under the leadership of UNESCO.

The last few decades have seen the reinforcement of the belief that water resource management must be planned using an integrated approach: decisions aimed to reduce poverty, enable economic development and ensure food safety and health of human populations, while preserving vital ecosystems, must be based on a better understanding of all water management systems.

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To Find Out More

UNESCO portal:
<http://www.unesco.org/water/>

IHP Site:
<http://www.unesco.org/water/ihp/>

UNESCO-IHE site: <http://www.unesco-ihe.org/>

WWAP site:
<http://www.unesco.org/water/wwap/>