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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

## Bureau of Public Information UNESCO addressing water scarcity

The rise in water use is more than twice the rise in the population over the last century, and an increasing number of regions are chronically water short. Climatic variability, population growth and economic development among other global changes put pressure on water resources. Water scarcity is aggravated by inappropriate water management and inadequate governance. Through provision of policy guidance, dissemination of best practices, capacity building, networking and advocacy, UNESCO helps its Member States towards more sustainable water management.

**S**ome 1.1 billion people in the world are estimated to lack access to the 20-50 litres of safe freshwater that is the minimum daily range suggested by the UN to ensure each person's basic needs for drinking, cooking and cleaning.

### Combating water scarcity

The way water scarcity issues are addressed will impact upon the successful achievement of most of the Millennium Development Goals. In particular, eradication of poverty and hunger are strongly linked to access to water.

An increase in demand for water to meet the needs of the people in water-scarce areas usually threatens the sustainability of the environment. This makes sound, responsible management of water resources critical for achieving the goals of environmental sustainability.

A number of UNESCO's activities relevant to water scarcity, which are mainly implemented by the International Hydrological Programme (IHP), focus on drylands/arid areas where the problems of water scarcity are the most prominent. In many water-scarce areas, groundwater is the main water source, and with a suite of projects IHP provides methodological and technical advice for better management of the groundwater resources.

In areas with insufficient water, the water resources are being augmented in various ways, e.g. using desalination of seawater or brackish water, by recharging "artificially" groundwater, harvesting rainwater and by "mining" non-renewable groundwater resources. IHP in particular and also the Man and the Biosphere (MAB) Programme are developing and disseminating information about the appropriate use of these techniques.

### The need for a multi-disciplinary approach

Even though science clearly plays a key role in developing effective technologies, an efficient management



Photo: P. Coles. Sri Lanka

# Water scarcity

According to the 2<sup>nd</sup> World Water Development Report, an estimated twenty-six countries, totalling over 350 million people, suffer from severe water scarcity although available water resources appear adequate. With appropriate water demand and supply management measures taken these countries could better meet reasonable water needs. Many countries are facing a double challenge of water scarcity, and limited political rights and civil liberties. Reform of the water sector, therefore, must go hand-in-hand with overall governance reform.

# Water scarcity

## Problems related to water scarcity:

- Imbalances between availability and demand
- Water quality degradation due to pollution can be one of the main causes of water scarcity
- Water development being closely linked to poverty reduction, a growing water scarcity is a major threat to advances in poverty alleviation
- Although water scarcity is not limited to arid and semi-arid regions, climatic conditions and unsustainable practices make these areas highly vulnerable to water shortages.
- Water conflicts can arise in water-stressed areas due to competition for a limited resource.

Source : Coping with Water Scarcity: A strategic issue and priority for system-wide action. UN-Water.

and governance also requires consideration of cultural, educational and communication aspects.

UNESCO, with its mandate in sciences, education, culture and communication, is uniquely well-placed to lead a holistic and multi-disciplinary approach to formulating policies to help cope with water scarcity. For example, problems of water scarcity, water pollution and water management are being tackled at several World Heritage Sites. The work done on water ethics and the current development of an inter-sectoral programme on water education and capacity building demonstrate UNESCO's commitment multi-disciplinarity.

## UN-wide coordination

"Coping with water scarcity" has been identified by UN-Water – the mechanism coordinating the UN system actions in aspects related to freshwater – as part of strategic issues and priorities requiring joint action. According to the UN-Water Plan of Action (PoA), the concerned agencies are to provide countries with advice on transboundary water management issues, focussing on negotiations and dialogue and promoting regional cooperation. At national level, the PoA focuses on policy advice and related water governance, and at local level best practices in all fields are promoted. In order to highlight the increasing significance of water scarcity worldwide and the need for increased integration and cooperation to ensure sustainable, efficient and equitable management of scarce water resources, both at

international and local levels, "Coping with Water Scarcity" was selected as the theme of the World Water Day in 2007 (March 22).

## To Find Out More

The World Water Day 2007 official web site  
<http://www.unwater.org/wwd07/flashindex.html>

Coping with Water Scarcity: A strategic issue and priority for system-wide action. UN-Water  
<http://www.unwater.org/downloads/waterscarcity.pdf>

UNESCO Water Portal :  
<http://www.unesco.org/water/>

The 2<sup>nd</sup> issue of the World Water Development Report  
[http://www.unesco.org/water/wwap/wwdr2/2able\\_contents.shtml](http://www.unesco.org/water/wwap/wwdr2/2able_contents.shtml)

Water and Development Information for Arid Lands (G-WADI)  
<http://www.g-wadi.org/>

The Sustainable Management of Marginal Drylands project (SUMAMAD)  
<http://www.unesco.org/mab/ecosyst/drylands/Sumamad.shtml>

UNESCO-IHE Institute for Water Education  
<http://www.unesco-ihe.org/>

Internationally Shared Aquifer Resource Management  
<http://www.isarm.net/>