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Educational, Scientific and  
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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  
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## Desertification and arid zones

Dry lands are fragile ecosystems. They are at the center of UNESCO's efforts at international scientific co-operation in the study of natural resources.

One quarter of the total land area of the world is dry land and yet home to about one sixth of the world's population. Many dry lands are prone to desertification, which is defined as land degradation in arid, semi-arid and dry sub-humid areas as a result of a combination of different factors including climatic variation and human overexploitation. Dry lands are fragile ecosystems: scarce freshwater resources, shallow top soils, low biomass productivity render them vulnerable to overexploitation such as grazing, deforestation, and inadequate irrigation

practices leading to salinization. Widespread poverty is characteristic of many dry lands. And yet dry lands have been cradles to some of the world's greatest civilizations. Desert landscapes have throughout the ages elicited feelings of mystery and vision and have fascinated poets and travelers.

### An interdisciplinary approach

Dry lands were precisely at the center of UNESCO's earliest efforts at international scientific co-operation in the study of natural resources. The first international research program on arid zones was launched in the early-mid 1950s. One of its merits, and not the least, was that it blazed a trail in its interdisciplinary approach to the study of natural resources and its holistic view of the problems of arid and semi-arid lands. The UNESCO Programme on Man and the Biosphere (MAB) and the

International Hydrological Programme (IHP) continue scientific work by studying the sustainable use and management of freshwater resources in dry land ecosystems.

Fifty years later, our understanding of arid lands has vastly improved, and the amount of data available with which to study arid lands has virtually exploded.



Desertification in the area of  
the river Senegal  
(D. Roger © UNESCO)

However, new challenges have come to the fore, such as climate change (particularly with regard to the hydrologic and carbon cycles), sustainability (or the continued provision of ecosystem goods and services), or energy (both

as a problem in terms of fuelwood consumption or as an opportunity for solar energy).

### 2006, Year of Deserts

These and other issues will be discussed at the international conference "The Future of Drylands" which UNESCO organizes in Tunisia from 19-21 June 2006 in collaboration with the Tunisian Government and about 10 international organizations such as FAO, UNDP, UNEP and UNCCD. Embedded within the *International Year of Deserts and Desertification* proclaimed by the UN General Assembly for 2006, the conference will open new perspectives for future research priorities in understanding dryland ecosystems and promoting sustainable development in the world's dry lands.

Desertification and arid zones

# Desertification and arid zones

## Facts and figures

In all, more than **110** countries have drylands that are potentially threatened by desertification. Africa, Asia and Latin America are the most threatened by desertification:

- 2/3 of the continent is desert or drylands in Africa. The region is afflicted by frequent and severe droughts. Many African countries depend heavily on natural resources for subsistence. Africa's desertification is strongly linked to poverty, migration, and food security;
- Asia contains some 1.7 billion hectares of arid, semi-arid, and dry sub-humid land reaching from the Mediterranean coast to the shores of the Pacific. In terms of the number of people affected by desertification and drought, is the most severely affected continent;
- Although better known for their rain forests, Latin America and the Caribbean are actually about one-quarter desert and drylands. Poverty and pressure on land resources are causing land degradation in many of these dry areas;
- 30% of the land in the United States is affected by desertification.

UNESCO is well positioned in addressing and resolving problems of the world's dry lands:

Hindi, English, French, German, Mongolian, Russian and Spanish).

The **Man and the Biosphere (MAB) Programme** studies sustainable management and rehabilitation of dry lands using research sites from the World Network of Biosphere Reserves;

The **International Hydrological Programme (IHP)** is concerned with studies on arid and semi-arid areas which are under higher water stress so as to mitigate serious water crises;

The **Division of Cultural Policies and Intercultural Dialogue** with its project on "The Sahara of cultures and people" develops a strategy for the sustainable development of tourism in the Sahara in the context of combating poverty;

The **World Heritage Convention** safeguards many outstanding natural and cultural sites in dry lands which can become "motors" for dryland development;

The **MAB Programme** and the **Associated Schools Project Network** have developed and diffused an "Education Kit on Combating Desertification" for use in primary schools (available in Arabic, Chinese,

## To find out more

The World Day to Combat Desertification and Drought, is celebrated every year the 17th of June

## Contact :

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