

DESERTIFICATION

# DIS/MED

## Desertification Information System in the Mediterranean Basin

- CAPACITY BUILDING
- NETWORKING
- TRANS-NATIONAL  
SYSTEMIC APPROACH



European Environment Agency



Ministero degli Affari Esteri



## Background and rationale

The United Nations Convention to Combat Desertification (UNCCD) provides the innovative framework for sustainable development in arid, semi-arid, and dry sub-humid areas. It suggests an appropriate implementation mechanism to combat desertification and the effects of drought. It assigns particular relevance to the identification of criteria for the formulation and implementation of National Action Plans and for the evaluation of progress accomplished in combating desertification at all levels. Further to a recommendation of the Committee on Science and Technology (CST), the Conference of the Parties at its second and third sessions invited Governments to initiate testing the application of impact indicators and to introduce them in national reporting to the Conference. This request stems from the need to check the real effectiveness of the national, sub-regional and regional policies and measures to combat desertification. A sub-regional workshop on the Desertification Information Systems for planning needs in the Mediterranean area was held in November 1998 in Marrakech, Morocco, jointly sponsored by the UNCCD Secretariat, the Authorities of Morocco and Italy. It convened representatives from Northern Mediterranean and Northern African countries, as well

as international and sub-regional organizations. Participants recommended exploring the possibility of establishing an operational information system for planning purposes, potentially to service all Mediterranean partners, taking into account the existing local capacities and facilities. They also urged countries to establish a close collaboration to harmonise the means by which information related to all aspects of land degradation is exchanged. The Mediterranean basin is one of the world's most complex systems, as it includes countries bearing many different characteristics in terms of economic structures, production patterns, ecosystems and culture. Mediterranean countries developed and are still developing on the basis of a long history of interaction and integration. Changes in one single country rapidly spread through the whole region, at the environmental as well as at the social and economic levels. The Mediterranean Sea has always been a shared space and one of the most effective medium for the circulation of information at all levels. The characteristics of this area represent an ideal case for the testing and validation of an operational information system to support planning, where desertification is not so closely linked to the survival of the populations involved, but rather to a complex economic model. Indeed, Mediterranean countries are experiencing serious soil degradation. Irreversible losses are being caused by increasing soil compaction and erosion. These processes will continue and probably increase as a result of climate change, land-use changes and other human activities. Although soil degradation is generally recognised as a serious and widespread problem, its quantification, geographical

distribution and total impact are only roughly understood. Notwithstanding the preparation of some National Action Plans to combat desertification (NAPs), the new initiatives for natural resources management are not the result of a coherent and organised framework of actions.

**Main problems to be addressed can be summarised as follows.**

- National and sub-regional policies to combat soil degradation are often based on an empirical evaluation and qualitative analysis, rather than on information resulting from data analyses, due to the limited interaction between scientific institutions and policy-makers.
- The NAPs of the Mediterranean countries are not based on common and homogeneous information, due to the scarce linkages amongst the national institutions of the different countries. National and sub-regional policies in the Mediterranean Region are not sufficiently appropriate and consistent.

The present "Desertification Information System to support National Action Programmes in the Mediterranean (DIS/MED)" project aims at tackling these issues. The Project has been formulated, under the request of the Italian Cooperation, by UNCCD Secretariat in collaboration with the European Environment Agency (EEA) and the Italian Applied Meteorology Foundation (FMA). Participating countries are Algeria, Egypt, Libya, Morocco and Tunisia for Northern Africa region; France (observer), Greece, Italy, Portugal, Spain and Turkey for the Northern Mediterranean region. Total funds amount to around 800,000 euros.

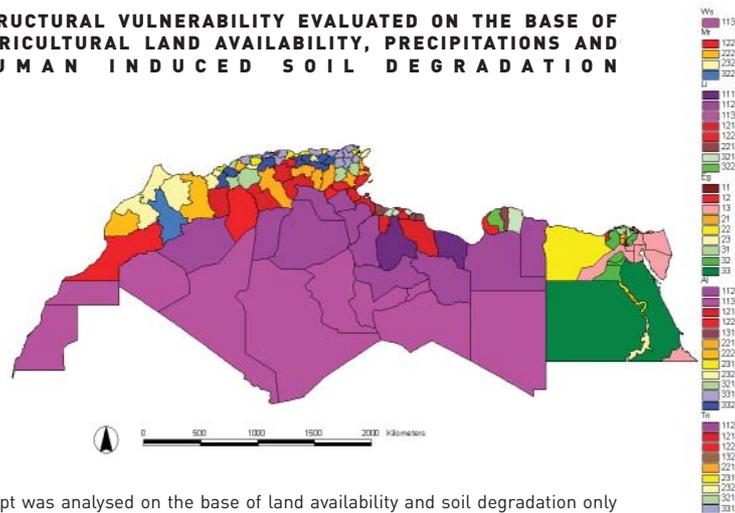
## Goal, objectives and expected outputs

The purpose of the DIS/MED project is to improve the capacity of the national administrations of Mediterranean countries to effectively programme measures and policies to combat desertification and the effects of drought. This aim will be pursued by reinforcing communication amongst them, facilitating the exchange of data and establishing a common information system to monitor the physical and socio-economic conditions of areas at risk, as well as assess the extent, severity and the trend of land degradation.

**Expected results relate to both institutional and technical issues.**

- Information is circulated and exchanged between the relevant institutions at the regional level.
- Interactions between scientific institutions and decision-makers are recognised at the national level.
- Available information is suitable for planning purposes at the national level.

### STRUCTURAL VULNERABILITY EVALUATED ON THE BASE OF AGRICULTURAL LAND AVAILABILITY, PRECIPITATIONS AND HUMAN INDUCED SOIL DEGRADATION

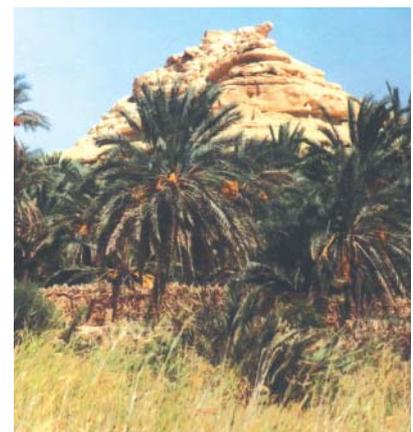


Egypt was analysed on the base of land availability and soil degradation only

- New information technologies are diffused in national services.
- Standards and procedures for vulnerability mapping, impact indicators and databases, are agreed for the Mediterranean area.
- Homogeneous and standardised data are available.
- Methodologies to produce information suitable for planning and monitoring are fully available, in particular for cross-referencing data of different types from different sources, for managing analysis at different levels and for producing information in a useful format.
- The common information system on desertification is set up and operational.

The information system has to be based on a minimum set of agreed common indicators for the Mediterranean area, which should be:

- already available or that may be immediately derived from the existing information;
- at low cost, to allow a frequent updating;
- user-friendly and of easy understanding for decision-makers;
- on a suitable scale, in order to enable planning at national and regional scales;
- comparable and suitable at the regional level.



Left: Tafrata, province of Taza, Morocco. Pistachio tree, a species that has almost disappeared in the area of Tafrata because of degradation, is protected from animals grazing by the planting of Jujube fruit trees around it



## Implementation and results

Different stakeholders, in particular decision-makers and national scientific institutions, participate in the Project. The latter provides for the enhancement of the planning capacity of National Coordination Bodies (NCBs), by facilitating the exchange of information between partners and the transfer of technology as well as through a common information system for the Mediterranean region.

**The Project aims at facilitating the relationships among the existing institutions in order to make their action more serviceable and effective and is based on the following principles:**

- rely on existing capacities and structures;
- build consensus on common methodologies and procedures for the processing and circulation of information;
- define a common set of benchmarks and impact indicators.

For these reasons, three workshops have already been held, and others have been scheduled. In particular, participants to the “Technical Workshop on Thematic and Sensitivity Mapping of Desertification and

Drought” (Djerba, February 2002) agreed to create two working groups on the following subjects: mapping sensitivity to desertification in the Mediterranean area and information systems, meta-databases and contents.

**Project coordination is ensured by a coordination board formed by the following institutions.**

- The European Environment Agency provides the technical and institutional assistance facilitating consensus on technical options and overviews the coordination of the different national institutions.
- The Italian Applied Meteorology Foundation provides scientific assistance. This entails elaborating proposals on the following issues to be reviewed at the operational workshops: technical specification for the system; system design; identification of development needs; technical assistance to the information system; support to the system management.
- The UNCCD Secretariat plays the role of executing agency, providing for the coordination of the Project activities, the management of technical and financial resources and the follow-up of the Project’s strategic objectives.

Partner countries actively participate through the NCBs and the selected relevant scientific institutions.

Further expansion of the information system is expected as other potential partners adhere to the initiative, as well as other potential contributors and donors.

The European Union, the Arab Maghreb Union and the Sahara and Sahel Observatory (OSS) participate as observers in the validation workshops and support the implementation and the expansion of the system to other Mediterranean countries.

**Actions should focus on the following three areas.**

- Design and develop a system to manage data and spread information at the regional level. This system will be based on standardised and homogeneous databases.
- Develop methodologies for the assessment of desertification at regional, national and local scales. These methodologies will lead also to the definition of a reference framework for monitoring of trends.
- Provide decision-makers with a number of operational tools and outputs, which could be directly used for planning.

