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Committee on Science and Technology  
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Item 7 of the provisional agenda

## **TRADITIONAL KNOWLEDGE**

### Addendum

#### Note by the secretariat

1. Pursuant to decision 16/COP.6, in which the Conference of the Parties (COP) to the United Nations Convention to Combat Desertification (UNCCD) invited the Parties through their national focal points to involve relevant governmental and non-governmental organizations, research institutions and local and indigenous communities in formulating views on how traditional knowledge can contribute to fulfilling the objectives of the Convention, and especially on the elements proposed for establishing a network on traditional knowledge to combat desertification, and to submit these views to the secretariat. The secretariat received the following submission from the Government of Italy, and is submitting it to the Committee of Science and Technology (CST) at this session.
2. The submission is contained herein without formal editing, for the consideration of the Committee.
3. The Committee may wish to consider the report and make any recommendations to the COP that it deems appropriate.

Annex

**CASE STUDY CONTRIBUTION RECEIVED FROM ITALY**

**1. Background**

In July 1997 and October 1998, Italy organized in Matera the first and second International Forum on European Policies to Combat Desertification in the Mediterranean Basin. The proceedings of the forum were published by the Italian Ministry of Environment and the UNCCD in *Italian actions in support of the United Nations Convention to Combat Desertification*, Vols. I and II, Matera 1999 and 2000, Italian and English editions.

As part of the early activities of implementation of the UNCCD, Italy decided, by law no. 426 of 9 December 1998 (art. 4), to set up a centre on traditional and local knowledge to combat desertification in Matera.

The resolution of the Inter-Ministerial Committee for Economic Planning (CIPE) dated 21 December 1999 approved the national action programme to combat desertification and stated the fundamental role of traditional knowledge within this field in encouraging the Italian regions to make an inventory, to safeguard it, and to promote it within their local action plans.

Within the framework of the activities in support of the UNCCD, Italy hosted and supported the organization of the first and second ad hoc panels on traditional knowledge to combat desertification held in Matera on 15-18 July 1999 and 8-12 May 2000.

After decision 12/COP.4 which invited the Italian authorities to continue the work undertaken on traditional knowledge in collaboration with other interested international institutions, and to present at COP 5 a proposal for the realization of a pilot project to create a network of institutions, bodies and experts on traditional knowledge, the Italian Research Centre on Traditional and Local Knowledge (IPOGEO) began the formulation of a proposal for the creation of a research network to compile an inventory of traditional knowledge and its innovative use.

The proposal presented at COP 5, contained in document ICCD/COP(5)/CST/2, for the realization of a network of institutions, bodies and experts on traditional knowledge, received the support of many countries and international organizations. Following the comments and observations made by the Parties during the meeting of the CST, Italy was requested by decision 12/COP.5 to revise its proposal for the realization of the pilot project. Document ICCD/COP(6)/CST/4, presented by Italy at COP 6, proposed the establishment of networks on traditional knowledge within the regional action programmes as thematic programme networks (TPNs).

The main objectives of the Italian proposal were:

- Sharing a structured model of local knowledge on geographic information system (GIS) map;
- Constantly integrating and increasing knowledge;
- Reducing the rural and urban digital divide both among countries and within a given area;
- Creating a traditional knowledge worldwide network, in particular by integrating those areas and rural resources which are still excluded from the information society;
- Protecting, promoting and enhancing inherited local knowledge.

## **2. Ongoing activities**

Although no decision has been taken by COP 6 regarding implementation of the proposal made in document ICCD/COP(6)/CST/4, some important aspects of the project idea are being implemented by IPOGEA with the support of different institutions and organs (United Nations Educational, Scientific and Cultural Organization (UNESCO), European Commission, Italian Ministry of Foreign Affairs and the North Atlantic Treaty Organization (NATO)). In particular, progress made concerns implementation of the data bank, network organization and research into specific areas.

A prototype expert system, realized with the help of UNESCO, has been placed on the Web (<http://www.tkwb.org>). It allows consultation of a dynamic questionnaire based on the Iconographic System of Traditional Techniques and Innovative Use (SITTI) which guides the searcher to the recognition and notification of new knowledge. Textual, graphical and photographic data are automatically inserted in a Geographic Worldwide Maps System through a method of geo-reference. Through this system data are constantly integrated and enlarged with further information: bibliographies, texts, maps, photographs and projects. The 3D-worldwide maps can be enlarged to more and more precise detail.

The current activities are being carried out thanks to contributions from different organizations as follows:

### ***2.1 Inventory of traditional knowledge***

The SITTI system, for recording and identifying traditional techniques, is a further elaboration of the work *Atlante d'Acqua, Conoscenze tradizionali per la lotta alla desertificazione* by Pietro Laureano, published in Italian, English and Spanish by UNESCO. In collaboration with the UNESCO Regional Office for Science and Technology in Europe (ROSTE) in Venice, Italy, a data processing device has been prepared on the basis of the structure of the iconographic classification. It is an expert system which enables identification and notification of existing knowledge. This system enables the world network of survey and classification to be created on the Internet.

## **2.2. Analysis of systems of specific techniques**

This activity specifically concerns:

- Techniques for restoration of traditional centres and the building of a sustainable town
- Agricultural techniques and landscaping
- Drainage tunnel systems and other water harvesting and management techniques
- Terracing systems.

The successful experience of recovery of the whole historical heritage of the Sassi of Matera, a troglodyte town recorded in the UNESCO World Heritage List which was completely deserted by its inhabitants in the 1960s, was made possible thanks to pilot work restoring and organising a a sustainable town using traditional materials, water harvesting systems and a passive architecture.

Italy is proposing a very similar experience in the Kasbah of Algiers with a training initiative funded by the Italian Ministry of Foreign Affairs and entrusted to IPOGEA.

Specific surveys on terracing systems were carried out in Italy (a prototype of an interactive database on traditional knowledge has been realized by the *Agenzia per la Protezione dell'Ambiente e per i Servizi Tecnici* (APAT) and IPOGEA on terracing systems in Italy) and all over the Mediterranean area as well. The results have been published in *La cultura dei terrazzamenti (The culture of terracing systems)* realized by IPOGEA together with the non-governmental organization Italia Nostra. Pilot projects of landscape restoration using the technique of terraced walls are being carried out in the small towns of Palagianello and Grottaglie in the Italian region of Apulia. Following this experience, the Campania region is proposing a law to safeguard and fund the terracing systems, and some members of European Parliament propose to support this initiative within the European Union.

Through IPOGEA, Italy has contributed to the drawing up of the Environmental Kit to Combat Desertification for use by teachers and students in primary schools in desertification-affected countries; the kit has been developed by the UNESCO MAB (Man and Biosphere) Programme in collaboration with the UNCCD secretariat.

The importance of activity concerning traditional knowledge has received acknowledgment from NATO, which estimated as positive its role in the mitigation of conflicts caused by environmental disasters and migratory flows; in 2004, NATO granted an award to IPOGEA as coordinator for its project Combating Desertification with Traditional Knowledge - A Contribution to Euro-Mediterranean Security.

## **2.3. Assessment of ecosystems by means of the Iconographic System of Traditional Techniques**

SITTI is used to make an inventory of traditional techniques, their qualities and the possibilities of evolution in the areas of the highland of Murgia, the Park of Cilento and other Mediterranean areas (Algeria, Syrian Arab Republic and Palestine). The application of this

methodology contributes to furthering the research and each site may be included in the traditional knowledge list which can be continuously updated. A local strategy has been decided upon, of conservation, restoration and innovative enhancement based on the archaeological and historical memory. The sites was acknowledged as having adopted protocols of good practices. This experience will be further expanded on a worldwide scale thanks to a European project.

#### **2.4. *Innovative use of traditional techniques***

Firms proposing the innovative use of traditional techniques or creating new solutions fitting the logic of traditional techniques have been selected. The Pisa branch of the Italian National Agency for New Technologies, Energy and the Environment (ENEA), the Florence office of the National Research Council (CNR), the universities and the research centres organized in a world network have joined this project. The Province and the Municipality of Florence and the Tuscany Region are candidates to host a centre of excellence as a point of reference for the 800 UNESCO sites all over the world. Federparchi and Legambiente have launched an initiative involving a network of 751 protected areas spread over a three-million-hectare area. The results of this activity will be presented in a final exhibition focused on traditional techniques and their innovative use.

#### **2.5. *International conference***

In October 2005 in Viterbo, the Italian Committee to Combat Drought and Desertification and the University of Tuscia organized the conference “Toward an integration of traditional knowledge and new technologies for combating drought and desertification”, to assess existing experience at national and international level. The conference proceedings, a brochure and a CD demonstrating a “World Bank of Traditional Knowledge” will be produced, in cooperation with IPOGEA, and made available at COP 7. The main topics addressed by the conference have been:

- Traditional methods and techniques
- Innovative methods and techniques
- Best practices and case studies: comparison of experience for better integration
- Technology assessment for an integrated evaluation
- Technology, climate, social and economic scenarios.

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