



REGIONE
TOSCANA



ITKNET
International Traditional Knowledge Network
Major Conference



FINAL REPORT

*CLIMATE CHANGE, DESERTIFICATION, ENVIRONMENTAL
CONFLICTS AND MIGRATIONS - An international Network of experts
on Traditional Knowledge for a common strategy*

SALA GIUNTA REGIONE TOSCANA

Via Cavour 18 – Firenze

28-29 June 2007



1 **INCO FP6 - RESOURCENET**
project

CNLS Comitato Nazionale per la Lotta
alla Siccità e alla Desertificazione



Nato Linkage Grant



Funded by European Commission

1. Background information

Traditional Knowledge constitutes the ancient knowledge of humanity, the deepest layer onto which our science and culture developed, the local techniques that made it possible to manage and create ecosystems and cultural landscapes on the planet. It originated from resource shortage in pre-industrial societies where a strong social cohesion and environmental integration were main features. Traditional Knowledge represents techniques with low energy dispersal and resource consumption that adapt to variability and are flexible in responding to environmental emergencies and catastrophes.

Extraordinarily tenacious cultures managed to use locally available materials and renewable resources. They exploited solar energy and the principles of Nature: thermal insulation to protect themselves from heat and cold; hydrodynamics to collect and distribute water; biology principles to combine and re-use the elements that are needed to create humus and cultivable soil. They managed to control the strength of the wind, use the law of gravity and exploit the faintest sign of humidity to start interactive autocatalytic phenomena and broaden positive dynamic processes.

Today the world's ecological balance system is in danger: Traditional Knowledge shows how to intervene without disrupting the environment and how to enhance its potential without exhausting the resources. It is the bearer of the technologies disseminated on the territory that developed using everyday life materials and objects. It is constituted by fragile elements that are subject to today's transformations but form strong and ingenious systems to produce energy, recycle resources, regulate the microclimate and manage the land that is still exploited in most of the planet.

This Knowledge is in danger and its disappearance would not only mean a loss of artistic and natural heritage but also of an extraordinary reservoir of knowledge and cultural differences from which appropriate innovative solutions can be derived.

Using Traditional Knowledge does not mean directly reapplying technologies belonging to the past, but understanding the reasoning underlying this model of knowledge. During time this has made it possible for societies to manage ecosystems, to create technologies, artistic and architectural works universally accepted but also to renew themselves and adapt to changes. Traditional Knowledge is a dynamic system capable of incorporating innovation that has been examined in the long run at local and environmental sustainability levels.

Many International Organizations have expressed their interest in Traditional Knowledge during the main conferences on sustainability. On these occasions it was stated that it is necessary to classify, protect and disseminate Traditional Knowledge. The UNCCD Conference Of the Parties entrusted Italy with the mandate of organizing an International Network of institutions and experts on Traditional Knowledge and to create an International Centre.

Much work has been done since the first initiatives regarding the role of Traditional Knowledge in combating desertification:

- The United Nations Convention to Combat Desertification (UNCCD) attaches high relevance to traditional knowledge, with specific reference to the protection, promotion and use of traditional knowledge in combating desertification (Article 18 paragraph 2 of the Convention).
- Traditional knowledge is a standing item on the agenda of the Committee on Science and Technology (CST), and the Conference of the Parties to UNCCD (COP) has taken action on this matter since its first session. By decision 14/COP.2, the secretariat was requested to complete its ongoing work on compiling the most widely applied traditional knowledge and make a synthesis of this work available at the third session of the CST. This was considered as important since a wide range of traditional technologies have evolved through empirical experimentation by different communities in their bid to improve living conditions and the quality of life in drylands. By the same decision, the COP decided also to appoint an ad hoc panel of experts to draw from the synthesis the most important and widely applied traditional knowledge, which was convened by Italy in July 1999.

- By decision 12/COP.3, the COP requested the secretariat to develop a closer working relationship with related institutions and to generate synergies through collaboration. By the same decision, the COP decided also to appoint a second ad hoc panel of experts to develop further appropriate criteria to be used by national focal points so as to: a) measure and promote the reciprocity between traditional and modern knowledge; b) assess how CCD networks and mechanisms are incorporating traditional knowledge in their work programmes; c) assess the socio-economic and ecological benefits of traditional knowledge in the light of environmental changes. The ad hoc panel of experts met again in Italy in May 2000.
- Parties recognized the promotion and development of traditional knowledge as a reliable and environmental-friendly tool for the fulfillment of the Convention's since the inception of the UNCCD process. The Government of Italy, based on the long-lasting experience of national institutions in this field, submitted to COP 5 a proposal for the implementation of a "Pilot project of a network of institutions, bodies and experts on traditional knowledge" (as contained in document COP5, ICCD/COP(5)/CST/2).
- By its decision 12/COP.5, the COP took note with appreciation of this proposal and encouraged the Italian Government to continue its work on traditional knowledge undertaken in collaboration with the other interested institutions. The COP also requested Parties, international organizations and institutions dealing with traditional knowledge, and the Global Mechanism (GM), to explore a partnership agreement to establish a network on traditional knowledge as proposed by the Government of Italy
- The Italian Ministry of the Environment and Territorial and Sea Protection has signed a protocol with the UNCCD for the creation of the International Centre for Traditional Knowledge in Italy.
- The Region of Tuscany has offered to host the Centre in Florence and decided on the Villa Medici of Careggi as its location. While this is being restored the office is temporarily in the Region's Presidential building.
- The UNCCD, the Ministry of the Environment and the Region of Tuscany have chosen IPOGEA to be the executive Agency for the Centre's creation.
- UNESCO and IPOGEA have created an expert prototypal system available on the Internet (www.tkwb.org) presenting a dynamic questionnaire based on an Iconographic classification system for Traditional Knowledge (SITTI), elaborated by IPOGEA, that guides the identification and classification processes of new knowledge.
- At its seventh session, the COP took note of the state of progress in the Iconographic System of Traditional Knowledge and Innovative Use (SITTI) presented at the meeting of the CST, and encouraged Parties to develop initiatives on traditional knowledge in collaboration with other institutions and organizations (decision 16/COP.7).

2. Widening expertise and consolidating experience

It is against this enabling framework, that the Ministry of Environment, Territory and Sea of Italy decided to increase the added value the existing network in terms of outreach, efficiency and visibility and to further emphasize its global dimension, and proposed to institutionally frame it within an intergovernmental setup, through the establishment of an international centre on traditional knowledge.

The centre aims at further developing international cooperation in the field of traditional knowledge and strengthening the implementation of multilateral sustainable development and environmental agreements.

The centre's mission would be to identify, study, assess, publicize, promote and protect traditional knowledge¹ worldwide, with the view to ensuring that traditional knowledge are fully integrated in land use planning and implementation.

In the framework of an agreement for the International Year of Desert and Desertification signed in October 2006, the Ministry of Environment of Italy requested the UNCCD secretariat to advise on legal and institutional requirements for the establishment of the centre and to facilitate a wide consultation process among country Parties, international research centers, individual experts and other potential stakeholders. IPOGEA, was identified as a key technical and scientific partner. Additional support was received by the Regional Government of Tuscany, which will host the centre in the city of Florence, provide office facilities and further assistance in its establishment.

Against this background, preliminary contacts were established with potential technical, scientific and financial partners, both bilateral and multilateral, in order to formulate joint operational programmes and strategic alliances. Among others, UNESCO and WIPO are referred to as potential interested partners in the operations of the centre.

As second step of this consultation process, an expert meeting was convened in June 2007 in Florence, Italy, with the aim of:

- Consolidating the international network of institutions and experts on traditional knowledge;
- Reviewing operational and institutional strategies leading to the establishment of the centre.

The conference was held on the 28th and 29th of June in Florence in the Sala Giunta of the Region of Tuscany and its topic was:

CLIMATE CHANGE, DESERTIFICATION, ENVIRONMENTAL CONFLICTS AND MIGRATIONS - An international Network of experts on Traditional Knowledge for a common strategy

The objectives of the Conference were:

- Organize and consolidate an international network of experts on Traditional Knowledge.
- Proposal of operational and institutional strategy for the creation of the Centre.
- Continue with the implementation of the Traditional Knowledge classification structure and expert system, disseminate and share it with other Countries.

The expected results of the Conference were:

- Creation and consolidation of a network of International Experts on Traditional Knowledge.
- Guidelines for the institutionalization of the Centre.
- Strategies for broadening the network.
- Recommendations and conclusions to be presented at CST/COP 8.

¹ Traditional knowledge originates from people and is transmitted to people by recognizable and experienced actors. It is systemic (intersectorial and holistic), experimental (empirical and practical), handed down from generation to generation and culturally enhanced.

Accordingly, traditional knowledge as considered by the Centre consists in the techniques and practices of common use on a territory for soil management, use and protection of natural areas, rural and monumental architecture and urban centers organization.

Knowledge related to living organism and genome are excluded from the areas of operation of the Centre given the very sensitive issue of economic speculation and piracy.

- Implementation of the Traditional Knowledge classification structure and expert system.
- Computer structure for data management.
- Classification and validation procedures.
- Proposals for Property Rights protection.

Recommendations and conclusions will be transmitted to the Committee on Science and Technology (CST), and to the Conference of the Parties (COP) CST/COP 8 that will take place in Madrid from the 3rd to the 12th of September 2007.

The following people were present (see also list below):

- UNCCD Secretary-General **Hama Arba Diallo**,
 - President of the Region of Tuscany **Claudio Martini**,
 - Undersecretary at the Italian Ministry of the Environment the Territory and the Sea **Bruno Dettori**,
 - Deputy of the Italian Parliament and President of the EuroMed Commission **Tana de Zulueta**,
 - 20 international experts representing UNCCD regions,
 - Italian experts from the Italian Panel on Traditional Knowledge,
 - International organizations and Research Centres on Traditional Knowledge
- *Background organization:* Valerio Calzolaio, Massimo Candelori, Pietro Laureano
 - *Chair Persons:* Iwao Kobori and Anna Luise
 - *Rapporteur:* Sabina Asins
 - *Speakers:* Hans Günter Brauch, Pietro Laureano, Piero Coppo, Francesco Francioni, Giampiero Maracchi, Corinne Wacker
 - *Round table on Traditional Knowledge:* Belachheb Chahbani, Corinne Wacker, Massimiliano Burgi, Claudio Grisolini.
 - *Work-Session Coordinators:* Massimo Candelori, Brunello Ceccanti, Giovanni Quaranta, Philippe Pypaert, Andrea Mancuso, Pierluigi Bozzi

LIST OF PEOPLE PRESENT

PERSONALITIES

President of the Region of Tuscany - Claudio Martini
UNCCD Secretary-General – Hama Arba Diallo
Undersecretary at the Italian Ministry of the Environment Territory and Sea– Bruno Dettori
Deputy of the Italian Parliament and President of the EuroMed Commission – Tana De Zulueta

SCIENTIFIC COORDINATION

Pietro Laureano - IPOGEA

INTERNATIONAL EXPERTS

ALGERIA	Ali Ghazi	Ministère de l'Àménagement du Territoire et de l'Ènvironnement
---------	-----------	--

	Mourad Boutleflika	Université de Blida - Departement d'Architecture
	Abdelkrim Benhassan	Société SUD TIMMI - Adrar
CANADA	Ella Hermon	Université Laval Québec
	Elly Hermon	Université Laval Quebec
CILE	José Miguel Torrico	CODEFF-RIOD-ALL Cile
CUBA	Maria Elena Rodriguez Fuentes	Agencia Medio Ambiente CUBA
EGYPT	Ismail Abd El-Galil Hussain	Desert Research Center, Cairo (Egypt)
GERMANY	Hans Guenter Brauch	United Nations University - Institute for Environment and Human Security UNU-EHS - Bonn
JAPAN	Iwao Kobori	United Nations University Environment and Sustainable Development Department
	Hiroshi Nawata	Tottori University, Arid Land Research Center
MEXICO	Ursula Oswald Spring	UNAM/CRIM Mexico; UNU-EHS – Bonn
MOROCCO	Mohammed El Faiz	Université Marrakech
NIGER	Mahaman Tchouso	SE/CNEDD CAB/PM Niger
SENEGAL	Mawade Papa Wade	Ministere de l'environnement - Dakar, Senegal
SPAIN	Albert Cuchi	Escola Tècnica Superior d'Arquitectura del Vallès , Barcelona
	Catherin Andres	University of Valencia, Department of Geography
	Sabina Asins	Centro de Investigaciones sobre Desertificación-CIDE
SWISSE	Corinne Wacker	University of Zurich, Institute of Social Anthropology
TUNISIA	Bellachheb Chahbani	Institut des Régions Arides (IRA)
ITALIAN EXPERTS		

Andrea Baldioli	Politecnico Nova Gorica
Pierluigi Bozzi	Facoltà di Economia Università degli Studi di Roma "La Sapienza" - Economia dell'ambiente
Brunetto Chiarelli	Antropologia, Università di Firenze
Piero Coppo	ORISS-AMPHOT
Alfonso Crisci	CNR- Istituto di Biometeorologia - Firenze
Giulia Fiore	Dip. Biologia Genetica, Università di Firenze
Claudio Grisolini	Tessilnova – Museo Lanificio di Stia
Judith Herrmann	Comune di Firenze, Ufficio Centro Storico patrimonio mondiale UNESCO
Federico Lenzerini	Università di Siena
Ramona Magno	CNR- Istituto di Biometeorologia – Firenze
Stefano Mancuso	LINV-Laboratorio Internazionale di Neurobiologia Vegetale - University of Firenze
Giampiero Maracchi	CNR- Istituto di Biometeorologia – Firenze
Alessandro Margaglio	Consigliere Comunale Comune di Firenze
Saverio Mecca	Università di Firenze - Research Centre on Innovation and Local and Idigenous Knowledge Systems - INN-LINKS
Giorgio Menchini	COSPE Firenze
Raffaele Milani	Università di Bologna
Domenico Nicoletti	Osservatorio Europeo del Paesaggio
Michele Nori	Agronomo ed esperto di sviluppo rurale e società pastorali
Sonia Passarella	Università di Basilicata
Giovanni Quaranta	Università di Basilicata
Caterina Rinetto	Comune di Firenze, Ufficio Centro Storico patrimonio mondiale UNESCO

Carmela Vaccaro	Dip. Sc. della Terra, Università di Ferrara
Daniele Vergari	CNR- Istituto di Biometeorologia - Firenze
Luciana Vitelli	Dip. Biologia, Università di Firenze

INTERNATIONAL ORGANISMS, INSTITUTIONS and CENTRES OF EXCELLENCE

UNCCD	Massimo Candelori Valerio Calzolaio Federica Meneghetti
UNEP	Alessandra Sensi Nori
UNESCO BRESCE - Venezia	Andrea Mancuso Philippe Pypaert
IFAD Roma	Ilaria Firmian
FAO Roma	Carlo Fadda
Istituto Universitario Europeo - Firenze	Francesco Francioni
Ministero dell' Ambiente del Territorio e del Mare	Aldo Dejana
Ministero dei Beni Culturali	Annalisa Zarattini
Regione Toscana	Fabrizio Pizzanelli Mauro Perini
Soprintendenza dei Beni Architettonici e Paesaggio	Vincenzo Vaccaro
APAT	Anna Luise
ARPA Toscana	Sonia Cantoni Carlo Alberto Graziani
ARSIA	Maria Grazia Mammuccini
NRD-UNISS (Nucleo Ricerca Desertificazione) - Università di Sassari	Giuseppe Enne
CNR-Istituto per lo Studio degli Ecosistemi (ISE)- Sede di Pisa	Brunello Ceccanti
Istituto Agronomico per l'Oltremare - Firenze	Riccardo Bocci
Centro UNESCO - Firenze	Francesco Grassellini Claudio Santodirosso Marialuisa Stringa
LAIA LIBROS Barcellona	Antonio Peman

Centro Civiltà dell'Acqua - Venezia	Eriberto Eulisse
IPOGEA	Debora Giorgi
	Massimiliano Burgi
	Lorenzo Caponetti
	Katherine E. W. Infantino
	Shahrzad Orouji

Report on the 28th June 2007

The President of the Region of Tuscany, **Claudio Martini**, greeted all the participants and highlighted the importance of Traditional Knowledge as a resource to face global environmental change and as an instrument towards a sustainable future. He also affirmed the necessity of a strong commitment and cooperation between the organisms that implement traditional knowledge, that is between International organizations, the Italian Government, the Regions and Local Authorities. Globalization has on one hand intensified the international global dimension, but on the other hand it has emphasized the importance of maintaining a local dimension and a strong connection to the territory. The Region of Tuscany has always been a landscape territory, a place where dialogue between different cultures and religions is a priority, it is for this reason that it decided to host the future Centre for Traditional Knowledge.

The next person to speak was the Undersecretary at the Italian Ministry of the Environment Territory and Sea, **Bruno Dettori**, who expressed his pride for attending the meeting which is an important step towards the realization of a dream that started many years ago. His presence testified the serious commitment of the Italian Government and the appeal to the scientific communities to create a larger community by going back to traditional knowledge.

The UNCCD Executive Secretary **Hama Arba Diallo** stated that in this difficult period of climate change, with its negative impact on production capacity and life conditions, it is essential to find solutions that can be applied to stop the degradation process. The presence of numerous experts from all over the world testifies the interest and importance of looking at traditional knowledge for these solutions. The aim of the Centre is to use this Knowledge for the benefit of the entire humanity.

The signature of the Convention between UNCCD and the Region of Tuscany followed signed by the UNCCD Executive Secretary and The President of the Region of Tuscany. (you will find this document here attached).

Philippe Pypaert representing UNESCO in its cultural, scientific and educational sectors, expressed the satisfaction of the organization for the achievements gained with Traditional Knowledge in dealing with human settlements, urban systems, water, soil protection, controlling floods etc. UNESCO is optimistic about the Centre, on the bases of the collaboration it has already experienced, and wishes it will become a point of reference at an international level for everyone involved in working for a sustainable future.

Background of the Centre

Valerio Calzolaio, who is currently a consultant for UNCCD but was the Undersecretary to the Ministry of the Environment in 1996 when Italy decided to ratify the UNCCD Convention, explained how the network of international experts on Traditional Knowledge was constituted during one of the first COPs and was designed right from the beginning as a permanent instrument. These experts, for Italy particularly Pietro Laureano, worked continuously towards the realization of the Centre. The Italian Government passed two resolutions unanimously on the 14th of June 2007 sustaining the Centre of Florence for its capability of confronting today's ecological problems with simple but effective technologies.

Massimo Candelori, from the UNCCD, is one of the creators of this Convention and he reminded the experts that the recommendations elaborated during the work sessions will be transmitted to the COP8 in Madrid next September. During this meeting the main goal is to identify the best action strategies, the next Institutional Conference will define to what extent the Countries of the Convention will contribute.

Pietro Laureano, from Ipogea and one of the organizers of the Conference, concluded the presentation by specifying that the Centre will consolidate the Network of experts and create a World Data Bank (as the prototype designed in collaboration with UNESCO shows) to which everyone will have access. The Centre in Florence has the aim of implementing and developing this Network.

I part

Thematic speeches

The Chair Person, **Iwao Kobori**, on behalf of the Conference participants, congratulated the Italian Ministry of the Environment, Territory and Sea, the UNCCD, UNESCO and the Region of Tuscany for the important initiative of the creation of the International Centre for Traditional Knowledge. He also expressed the participants gratitude to the Conference organisers for the opportunity to be present on the important day of the signature agreement between the involved partners.

Speech I

Immediately afterwards, the Chairman introduced the first speaker to the audience. **Hans Günter Brauch** offered an in-depth speech on “*Global environmental changes and population security*” focused on the following items:

- ❑ Global Environmental Change (GEC) as a Security Danger and Concern for the People
- ❑ Policy Contexts: Securization of GEC Issues
- ❑ Desertification as a Security Danger and Concern
- ❑ Desertification as a Security Problem for the People for Human, Food, Water, Health and (Inter)national Security
- ❑ Desertification and Environmental Migration as Security Problems
- ❑ Desertification and Environmental Conflicts
- ❑ Security for the People: Them or US?
- ❑ Traditional Knowledge for Security of the People.

In this last aspect, he emphasized the role of Traditional Knowledge as a key factor of coping strategies that relies on the empowerment of the people and on strategies of resilience building.

The slides of this presentation can be downloaded at:

http://www.afes-press.de/html/download_hgb.html

Speech II

The second lecture “*Ecosystem collapse: Traditional Knowledge as innovative solution*” was carried out by **Pietro Laureano**. He synthesised the contribution of Traditional Knowledge as:

- ❑ a strategy to face the world in a different way
- ❑ an understanding model of the economic patterns
- ❑ a global solution for the ecosystem collapse.

He presented some examples of the actual menaces concerning soil degradation and soil sealing, water exhaustion, etc., but he also offered a positive lecture on what can be done if people act recovering traditional knowledge. Interesting examples of this recovery were presented, such as the work done in Matera (Italy), Switzerland (*le bisse*), etc. The final part of his speech was focused on the Global Traditional Knowledge Inventory and the Iconographic System of Traditional and Innovative Techniques. The content of the Traditional Knowledge World Data Bank can be visited at: <http://www.tkwb.org>

Speech III

Francesco Francioni spoke about “*Juridical protection of Local Knowledge and Community Rights*”, based on the awareness that “knowledge” is part of the human values and is needed to protect it. The protection has to be performed at two levels:

- ❑ development of cultural human rights
- ❑ standard setting of the protection of cultural traditions.

The cultural human rights have been recognised since 1966, but more recently in the UN Convention on Biodiversity, in the Heritage Convention and in the Human Rights Council. The standard setting as living cultures is developing their own instruments, such as UNESCO programmes, Living Human Treasures, 2003 Convention on the Safeguarding of the Intangible Knowledge, etc., that constitute the fora where local communities could participate. The protection of local culture has to face up economic globalisation, commerce liberalisation, and the risk of maintaining traditional knowledge empty of meaning.

Speech IV

Piero Coppo presented a comprehensive speech on “*Ancient Knowledge of Dogon: a millenary tradition*” focused on the links environment-health-territory and the integral intervention for the territory safeguard. Work on Traditional Medicine in Bilani and Tà communities has to integrate the local knowledge through the relationship with the local leaders, mediators between the visible and the invisible, the actors playing an important role dealing with local environmental problems (drought years, floods,...), health problems (they are also the representatives of the traditional medicine), and territorial protection. Coppo introduced the audience the evidence found in Mali, dating back to the 19th century, which offers a vision of the local world and a very refining sample of its techniques and cultural instruments. He also presented the projects of international cooperation, such as projects creating botanical gardens for the preservation of plants in danger of extinction or intensively used, and to promote training courses about the territorial knowledge. Information can be download at: <http://www.oriss.org>

Part I Conclusions

The morning speeches made it possible for the participants to have a broad vision of the role that traditional knowledge can play in today’s environmental, cultural, political and social issues, therefore creating new opportunities. The lecturers emphasized the need of strengthening the links between ecosystem management in times of globalization and traditional knowledge/traditional knowledge updated, as a sustainable way to avoid the ecosystem collapse.

II part

Work sessions: the participants divided up, as follows, into four work groups on the basis of different discussion topics

WORK SESSION ORGANIZATION

Session I	
Network consolidation and collaboration schemes	
<i>Coordinated by:</i>	
Candelori Massimo	UNCCD
Meneghetti Federica	UNCCD
<i>Participants:</i>	
Asins Sabina	Velis – Spain. UNU-EHS, AFES PRESS – Germany.
Brauch Hans Gunter	Università di Firenze.
Chiarelli Brunetto	European University Institute, Florence.
Francioni Francesco	Bilani de l’Environnement – Algeria.
Ghazi Ali	Bilani Tà Laval, Canada
Hermon Ella	Bilani Tà Laval, Canada
Hermon Elly	Bilani Tà Laval, Canada
Hussein Ismail Abd al-Galil	DRC, Cairo – Egypt
Luise Anna	APAT – CNLSD
Mawade Papa wade	CSE, Dakar – Senegal
Nawata Hiroshi	Bilani University, Japan
Sensi Alessandra	INFO/RAC, UNEP
Vergari Daniele	Associazione Landeschi
Session II	

Inventory and Classification of Traditional Techniques

Coordinated by:

Ceccanti Brunello CNR-ISE Pisa
Quaranta Giovanni Università della Basilicata

Participants:

Andrés Catherin Università di Valencia, Spain
Baldioli Andrea Università nova Gorica
Bouteflika Mourad Université de Blida, Algiers
Burgi Massimiliano IPOGEA
Cuchi Albert VPC, Barcelona, Spain
El-Faiz Mohamed Université Marrakesh, Morocco
Enne Giuseppe NRD-Università di Sassari
Eulisse Eriberto Centro Civiltà dell'Acqua
Firmian Ilaria IFAD Roma
Grisolini Claudio Museo della lana, Stia, Arezzo
Kobori Iwao University, Tokyo, Japan
Mecca Saverio INN-LINKS Università di Firenze
Raffaiele Università di Bologna
Peman Antonio LAIA libros, Barcelona, Spain
Tchouso Mahaman SE/CNEDD, Niger
Torricio Jose Miguel CODEFF, RIOD-ALL – Cile
Vitelli Luciana Università di Firenze
Zarattini Annalisa Ministero dei Beni Culturali

Session III

Data bank management

Coordinated by:

Mancuso Andrea UNESCO BRESCE Venezia
Pypaert Philippe UNESCO BRESCE Venezia

Participants:

Crisci Alfonso IBIMET CNR Firenze
Magno Ramona IBIMET CNR Firenze

Session IV

Protection of Community Rights

Coordinated by:

Pier Luigi Bozzi Università La Sapienza Roma

Participants:

Benhassan Abd el-Kerim SUD TIMMI, Adrar, Algeria
Bocci Carlo IAO Firenze
Chahbani Bellachheb IRA Tunisia
Fadda Carlo FAO Roma
Lenzerini Federico Università di Siena.
Osservatorio Europeo del
Nicoletti Domenico Paesaggio.
Oswald Spring Ursula UNU-UNAM Mexico.

Visit to the Villa Medici of Careggi

At the end of the first day of work the participants visited the future headquarters of the International Centre for Traditional Knowledge, a historical Villa on the hillside just outside the centre of Florence that used to belong to the Medici family and will host the Centre as soon as its restoration will be concluded.

The CO₂ emissions created by the energy consumption of the meeting were compensate by planting 15 trees, three of these were planted at the Villa during the visit and the others were planted later.

Report on the 29th of June 2007

The Chair Person **Anna Luise** introduced Prof. Giampiero Maracchi, climatologist and Director of the biometeorology Laboratory (IBIMET) of the National Research Council for global change that studies the relations between the physical, chemical and biological aspects.

Speech V

Giampiero Maracchi talked about “*Signals of global change*” stating that the global climate depends on the earth’s energy-budget that is the balance between sun radiation and earth radiation, in these years there has been a considerable variation in the elements that regulate the energy-budget such as changes in the atmosphere circulation etc.

Environmental globalization derives from the globalization of economy, particularly from the industrialization period which has caused the increase of emissions due to the increased use of oil and transport commodities.

The actual energy model that is based on the 3 items:

- Climate change
- Conflicts
- Geopolitical variability

Maracchi suggested that Genuine Produce Index should be taken as new economy models and independent indicators instead of GDP that is no longer effective as a wealth indicator.

Speech VI

Corinne Wacker spoke about “*The Role of Traditional Knowledge in the United Nations Convention to Combat Desertification (UNCCD) and in other UN Conventions*” and underlined that where the objective of an environmental convention is not only the natural, but also the cultural environment, such as in the UNCCD and in the landscape and cultural heritage conventions, Traditional Knowledge is not only a means to achieve the aim but an aim in itself: the protection and promotion of culture as second nature of man.

- ❑ The UNCCD Convention endorses a human rights approach to sustainable development and places the knowledge holders and capacities of the local communities in the centre of the efforts to prevent and combat desertification.
- ❑ Traditional Knowledge contributes to develop the adequate science and technology to achieve sustainable development
- ❑ Traditional Knowledge is a dynamic resource for inventions and adaptations to environmental change
- ❑ Traditional Knowledge has to be protected and promoted through benefit sharing mechanisms and the acknowledgement of the cultural rights of the knowledge holders
- ❑ there are synergies between the UNCCD approach to Traditional Knowledge and other environmental conventions

- ❑ Traditional Knowledge has an important role in the UNCCD to achieve the Millennium Development Goals

Speech VII

Tana de Zulueta, presented by the Chair Person Anna Luise as Deputy of the Italian Parliament and Vice-President of the Deputy Commission for Foreign Affairs, updated the audience on the work carried out by the Italian Government on the topics of the Conference and specifically on the resolution unanimously passed committing the Italy to sustain the Centre. In the resolution there is also the suggestion to work towards a protocol to recognize the Right to Water.

During the COP8 there will be a seminar for the Italian deputies on these specific issues.

The Italian Government recognized the importance of environmental security to avoid conflicts and has organized a mission in Sudan and Darfur.

GOOD PRACTICES

open forum

In this section anyone who wanted to report about practices using traditional knowledge was invited to speak. 4 cases were presented:

Innovative use of Traditional Techniques for water saving in Tunisian agriculture

Belachheb Chahbani talked about some of the techniques developed in Tunisia, with the collaboration of the population, to contrast soil aridity.

One way to preserve water is to collect it in a system of underground cisterns built on a slope where the water is distributed thanks to the siphonic principle and to the presence of a floater inside each cistern.

Another technique is the “poche en pierre” consisting in a small stone well about 70 cm deep positioned between trees in order to stock the water that is collected through a pipe set vertically in the centre of the well.

A “dripping system” has been designed and created using new technological materials to recover soil that has undergone long periods of drought. An underground diffuser releases water in the earth drop by drop, avoiding evaporation and the consequent soil salinization.

These were three clear examples of how traditional principles can be applied using innovative materials to solve problems caused by desertification.

The Technique of Artificial Glaciating, an Innovation based on Traditional Knowledge in Ladakh reported by Corinne Wacker

Situated on the rain shadow side of the Himalaya in the upper part of the Indus at 3000 m.a.s.l., life in Ladakh is fully dependent on irrigation. The villagers build terraces to which they channel the water from seasonal springs emanating from glaciers, situated at 6000 m.a.s.l. above the village. The irrigation systems are built, maintained and managed by the villagers until today.

Norphel Chhewang was one of the first Ladakhi, having studied in India, he worked all his life in Ladakh trying to adapt the prevailing traditional irrigation systems to the changing climatic conditions. He has invented “artificial glaciating”, a technique implemented today in more than thirty villages in Ladakh. In autumn, when much glacier water continues to run down, although the barley and wheat crops have already been harvested, Norphel taps the water and pumps it to an altitude of 4.5 thousand meters, where it freezes in layers and forms “artificial glaciers”. The places for these frozen water deposits is calculated in such a way, that the ice melts just at the right time, in April, when the seeds need most water to grow. With this invention, the Ladakhi were in the position not only to maintain the prosperity of the fields but also to increase the irrigated perimeter by adding new irrigated terraces.

If the pace of the rapid climatic change continues, the beautiful village settlements spread all over the mountain terrain of Ladakh will vanish. Therefore, the technique of artificial glaciating will be one of the solutions for the survival of the mountain oases of Ladakh.

Restoring water catchment cisterns in the Murge near Matera (south of Italy)

Massimiliano Burgi presented the restoration of a roof-cistern, a construction built to create water through vapour condensation on the roof. The system stopped working because a nearby quarry interfered with the

natural flow of water down the slopes. The owners of the land where the cistern is sited, Italcementi a company that produces cement and similar materials, recognized the importance of recreating the natural balance and its workers carried out the restoration for free because they felt the necessity to preserve a place belonging to their tradition.

The same Italcementi decided to restore another construction presenting the opposite problem: the Cilivestri Fountain, representing a system for regulating the abundant water in the area. The system had been abandoned with the resulting creation of swamps and landscape degradation. The fountain is connected to two external basins which were restored using a traditional plaster called *coccio-pesto* made of crushed terracotta bricks and drainage channels were dug to direct the excess water.

The restoration adopted both indigenous techniques such as the *coccio-pesto* plaster and traditional techniques from north Africa such as the dangling well that was built in tufa bricks to get the water out of a well, demonstrating that traditional techniques can be used also in situations that are different from their original environment.

The traditional wool fabrics of Casentino

Claudio Grisolini illustrated how a natural resource such as the river Staggia, the biggest affluent of the Arno, was the reason for the development of the wool industry in Stia, that became famous all over Italy for its precious fabrics. The energy for the factory was produced by the river itself (first with mills, then with water-power plants and a steam boilers) and today it is scientifically proven that the quality of the fabrics' colour is strictly connected with the particular characteristics of the water. The factories of Stia were the only ones at the beginning of the 20th century to have decantation tanks where the water was purified from the dyes (although they were strictly natural dyes) and directed back to the river. This shows how it was and still is possible to produce respecting the environment and recycling resources.

Work Session conclusions

Conclusions and recommendations of the Working Group on Network consolidation and collaboration schemes – Session I

In the framework of the agreements between the Italian Ministry of Environment, Territory and Sea, the Regional Government of Tuscany and the United Nations to Combat Desertification for the establishment of an International Centre on Traditional Knowledge;

the participants to the working group on Network consolidation and collaboration schemes recommend establishing a consultation process to address issues relating to the establishment of this centre, with the view to assessing:

- Ways and means of cooperation among different stakeholders involved in this field, including definition of areas of collaboration between members and added value of networking;
- Scope of the centre, which would include research, technical assistance, information dissemination, education, training activities and field programmes;
- Objectives and functions, which would include advise to intergovernmental environmental treaties, primarily UNCCD, and national governments with the view of having impact on national legislations and global policies;
- Status and membership, which should allow for wide scientific autonomy and international relevance, under the rules and regulations applying to bodies with international status;

Such consultation process should be undertaken through the ITK network, be as wide as possible and include not only UNCCD country Parties but all stakeholders, governments, institutions, individuals and civil society.

The participants also recommended that the UNCCD secretariat facilitate this process, including consolidating and ensuring the required facilities for the ITK network to operate, giving the required institutional advice, with the support of the Government of Italy and the Regional Government of Tuscany, in cooperation with IPOGEA.

Conclusions and recommendations of the Working Group on Inventory and Classification of Traditional Techniques – Session II

Outline

It is important to focus on the following issues

- Network and involvement
- Information collection
- Review of previous documents and standards and questionnaires

1. Network and involvement

- COP 8 seems a good opportunity to share the creation of the “Center for TK” both to involve other institutions working on the topic and for increasing the support to the initiative.
- To establish links with other initiatives like TPN 5 (thematic program network on TK in Latin America), MEDINA project (Mediterranean), Australian initiative, etc

2. Information collection

- Take into account that information exists in different national and international institutions and has to be collected and organized.
- efforts to make this process as simple as possible through a common format (questionnaire and icons)
- At collection phase two major classification status have been suggested: material and immaterial
- Validation of the information collected: establishment of an open expert panel

3. First reaction on the previous documents

- The questionnaire has to be improved in order to consider also the “oral” TK
- All participants agreed on the necessity to review the preliminary documents on TK sending written comments directly to the organizers by the end of July (to be finally assembled at COP 8 on a side event).

Conclusions and recommendations of the Working Group on data bank management – Session III

1. Basic assumptions

The International TK Centre would operate in the field of traditional knowledge, understood as practical (instrumental) and normative knowledge concerning the ecological, socio-economic and cultural environment. Traditional knowledge originates from people and is transmitted to people by recognizable and experienced actors. It is systemic (intersectorial and holistic), experimental (empirical and practical), handed down from generation to generation and culturally enhanced.

Accordingly, traditional knowledge as considered by the Centre consists in the techniques and practices of common use on a territory for soil management, use and protection of natural areas, rural and monumental architecture and urban centers organization. Knowledge related to living organism and genome are excluded from the areas of operation of the Centre given the very sensitive issue of economic speculation and piracy.

2. Goals of TKWB

The International TK Centre’s mission is to identify, study, assess, publicize, promote and protect traditional

knowledge worldwide, as a means to strengthen and ensure participatory approach to sustainable land management, protection of natural resources and empowerment of local communities. **TKWB's main goal is therefore that of supporting all efforts directed to ensure that traditional knowledge is:**

- **mainstreamed into local strategic frameworks and policy formulation processes;**
- **is fully integrated as an operational factor for land use planning and implementation.**

TKWB will therefore serve as a tool to let people collaborate and share information on line in order to:

- gathering and organizing information on TK;
- raising awareness and disseminating about TK;
- encouraging safeguarding and re-use of TK;
- stimulating innovation for sustainable development.

3. Targets

The target groups are the following :

- International Experts participating in the Network on Traditional Knowledge;
- National representatives and focal points of UNCCD and UNESCO related programmes;
- Stakeholders, Decision and Policy-Makers involved in the fight against desertification and the promotion of local sustainable development;
- Local communities;
- Practitioners / Private Sector.

4. Philosophy of TKWB development

Referring to the most advanced modalities for collaborative network development (WEB 2.0 oriented) and existing tools (scientific networks, web-based databases, glossaries...), TKWB will operate as a facilitator of **cooperation among two distinct and fundamental networks**: the “**expert network**” on one side, and a so-call “**social network**” involving all the above mentioned target groups, with the main aim of enhancing their capacity to share knowledge and to promote concrete solutions for reducing desertification, but also alleviating poverty and safeguarding landscapes and ecosystems in the very perspective of sustainable development.

In particular, a network of experts, organisms and bodies (**ITKNET**) will be organized with the twofold task of:

- discussing and developing a classification structure for TK, and;
- validating new data on TK and its innovative use coming from all countries, to support action by the target groups.
- Any user from the “social network” will be allowed to contribute to TKWB development and customizing by participating in the **submission** of information concerning TK maintained and/or developed in his/her context. Before being shared with the final users, this information will be **validated** and reviewed by the ITKNET, who will also use similar information, when pertinent, to refine the proposed system of **certification and classification** of TK. When considered consistent with the aims and goals of the Centre, this information will then be **shared** with all possible users worldwide.

Being confronted with the classification system developed by the ITKNET, user will also be stimulated to consider unexplored links among TK and innovative practices, and will in turn be invited to contribute to the refining of the classification system itself. The ultimate goal is to progressively reduce the distance between the two networks (experts and users), so to reach a situation where the networks are fully integrated and synergetic.

The **sharing and dissemination** of TK will not be limited to possible access to the TKWB portal, but by allowing any web-based entity to incorporate knowledge about TK through the development of a specific protocol for data exchange (TKML) and interoperability among data owners and providers In turn, TKWB itself will gather additional knowledge from the net.

2 Conclusions and recommendations of the Working Group on Protection of Community Rights – Session IV

The members of Working Group IV have considered that three elements are particularly important (although they are not the only ones) in order to effectively ensure the safeguard of community rights within the competence of the Center.

These are:

1. full participation of the communities concerned in all phases of all activities of the Centre;
2. the community prior informed consent;
3. establishment of appropriate mechanisms for avoiding any misappropriation of traditional knowledge.

They thus recommend:

- 1) The Centre is an open forum with the purpose of collecting and systematizing traditional knowledge and supporting its safeguard within a pluralistic legal system.
- 2) Safeguard of traditional knowledge carried out by the Centre will include policy activities to be implemented before all relevant international bodies and institutions.
- 3) Participation of communities concerned: in all phases of the activity of the Centre, full involvement of local and indigenous peoples, groups, communities and civil society will be ensured, with a particular attention for highly-vulnerable categories, such as gender, children and the elder.
- 4) In this respect, customary law, cosmovision, and traditional social structures will be respected and duly taken into account.
- 5) Access and use of any manifestation of traditional knowledge for the purposes of the Centre requires prior informed consent of the local and indigenous peoples, groups and communities concerned.
- 6) Prevention of misappropriation of traditional knowledge: according to the principle of prior informed consent, in order to avoid that the activity of the Centre may lead to misappropriation of traditional knowledge, the following will be ensured:
 - 6.1 The origin of any manifestation of traditional knowledge used for the purpose of the Centre will be disclosed in public domain;
 - 6.2 Any manifestation of traditional knowledge used for the purpose of the Centre will be accompanied by a detailed description of its origin and of its historical evolution and traditional use by its bearers;
 - 6.3 Any manifestation of traditional knowledge used for the purpose of the Centre will be used to the exclusive benefit of humanity as a whole. In no way it will be used for private and/or economic purposes;
 - 6.4 Use of traditional knowledge for the purposes of the Centre will have the only purpose of dissemination and sharing in public domain;
 - 6.5 Use of a manifestation of traditional knowledge for the purposes of the Centre will in no way imply an exclusive right of use in favour of any community, private entity and individual.

Recommendations for COP8

The Conference confirms the determination to:

- Recognize, study and make an inventory of Traditional Knowledge
- Share and promote the dissemination of knowledge from the local level to the international level
- Assure the protection of Traditional Knowledge
- Promote integration between Traditional Knowledge and the scientific system
- Defend the rights of local communities and indigenous populations holding Traditional Knowledge and indigenous science systems
- Promote the dissemination and the innovative use of Traditional Knowledge
- Implement the use of traditional practices for the realization of works and participatory approach in the choice of technological infrastructures
- Promote protocols that adopt Traditional Knowledge in Parks, protected areas and UNESCO sites
- Contribute to the protection of traditional cultures and cultural diversity
- Promote the realization of an International Convention and of a World Organism for Traditional Knowledge

and recommends to transmit the following resolution to the UNCCD COP8 that will be held in Madrid next September:

In the framework of the agreements between the Italian Ministry of Environment, Territory and Sea, the Regional Government of Tuscany and the United Nations to Combat Desertification for the establishment of an International Centre on Traditional Knowledge; the participants to the working group on Network consolidation and collaboration schemes recommend establishing a consultation process to address issues relating to the establishment of this centre, with the view to assessing:

- Ways and means of cooperation among different stakeholders involved in this field, including definition of areas of collaboration between members and added value of networking;
- Scope of the centre, which would include research, technical assistance, information dissemination, education, training activities and field programmes;
- Objectives and functions, which would include advise to intergovernmental environmental treaties, primarily UNCCD, and national governments with the view of having impact on national legislations and global policies;
- Status and membership, which should allow for wide scientific autonomy and international relevance, under the rules and regulations applying to bodies with international status;

Such consultation process should be undertaken through the ITK network, be as wide as possible and include not only UNCCD country Parties but all stakeholders, governments, institutions, individuals and civil society.

The participants also recommended that the UNCCD secretariat facilitate this process, including consolidating and ensuring the required facilities for the ITK network to operate, giving the required institutional advice, with the support of the Government of Italy and the Regional Government of Tuscany, in cooperation with IPOGEA.