

Foggara - Inventory, analysis and valorization of traditional water techniques of European and Saharan drainage tunnels

FP5 – ICA3-CT2002-10029

<http://www.ipogea.org/foggara/foggaraing.htm>

1. What has been communicated (and how) to diverse stakeholders about integrated water resources management and associated concepts integrating knowledge in interdisciplinary ways?

Because of its nature the project is an integrated approach to the water resources issue over a selected area. Its taking into account archaic techniques both for their practical use as water supply and their aesthetic value denotes a holistic vision of the issues. As a matter of fact, every single technique is always studied in its relationship with the ecosystem, the possibility of extracting resources which can be locally produced and renewed in the environment and the socio-economic situation. Thus, the resources shortage becomes not a natural problem but rather a cultural problem due to their inappropriate use. This holistic vision of the project has been passed on to experts, administrative officers and local stakeholders through the project meetings carried out in every country involved and during the field visits to the drainage tunnels. The study seminars realized and the visit of outstanding world experts to those water systems considered as scarcely important have signified in every occasion a cultural shock which has attracted both the press and the political and cultural world.

2. How have the ideas, skills and tools developed through the project enhanced the development or implementation of locally consistent IWRM?

In the Saharan countries, where the drainage tunnels are an important water source, the project has stimulated the interest in an integrated management of the water resources. As a matter of fact, from the research activity it has emerged that the crisis of this system depends on environmental, cultural, social and economic conditions. In the European countries, the project has enabled to focus attention on the water resource value and has encouraged solutions relevant to the water saving and the water integrated management.

3. Has your project been able to make connections between traditional and culturally embedded knowledge and technological research findings and if so, which?

The specific objective of the project is the maintenance, the restoration and the re-proposition of the ancient technique of the drainage tunnels through innovative solutions and techniques. That is why it is impossible to re-propose today the hard work of excavation as in the past. The project has demonstrated the unfeasibility of the proposal of using concrete and heavy and invasive excavation techniques to dig out tunnels. Low cost technologies that can be locally managed, such as small mechanical excavation tools, small capstans and systems on rails, have been experimented. Expedients for the workers safety, such as metallic grids and new techniques of lightening and of positioning into the channels, have been proposed. The local materials have been re-used in an innovative way in order to be an example of good restoration practice.

4. Have such ideas been taken up by managers, policy makers, educators? If so, please explain.

The proposals have positively been accepted in every country involved. In Spain, the drainage tunnels technique will be shown in Saragoza at the Universal Exhibition in 2008. In Italy, the region of Basilicata means to experiment with the excavation of drainage tunnels as an alternative to the

wells. Diverse municipalities are referring to the project to notify the drainage tunnels existing over their area. In the Saharan countries (Morocco, Algeria and Tunisia), the attention to the appropriate management technologies is very high.

5. Has the project contributed to capacity building legacy? If so, how?

In each country, new skills about the study and the management of these water techniques are being experimented. In particular in Algeria the Sud Timmi Society, one of the partners of the project has elaborated appropriate techniques of work and is today invited in the Asiatic countries (Oman, Iran, etc.) to re-propose this experience.

6. Has the project resulted in longer-term institutional cooperation?

Starting from the project, a steady partnership of cooperation between European and Mediterranean countries has been created and new projects and cooperation experiences have been started up. In particular, the Shaduf project's partners have joined with the Foggara project's partners and the consortium is drawing the attention of the Asiatic countries and of the Latin America which are asking for participating to the activities. For this reason, UNESCO has promoted a more extensive activity on traditional knowledge which will lead to a Traditional Knowledge World Bank. The Italian Government will illustrate the proposal at the Nairobi 7th Session Conference of the Parties of the United Nations Convention to Combat Desertification (UNCCD). The Province and the Municipality of Florence have decided to support the initiative. The Legambiente Italian association will promote the proposal through its 150 national offices in Italy as well as the Federparchi association will introduce it in the 750 Italian protected areas.

7. What do you think is the most enduring legacy of the project (political, social, economic, scientific, connections to traditional knowledge)?

The strongest impact of the project is its relationship with traditional knowledge and their integrated approach to the problems solution. As a matter of fact, they take into account the whole aspects of technical use, ecosystem management, social organisation and economic development and of safeguard of the aesthetic and cultural values.

8. Do you have any specific local, 'grass-root' experience that would be valuable as case material for the WWF4 discussions?

The experience of the Algerian Sud Timmi Society is especially interesting. It is a small private structure located in Adrar, in the Southern Algeria. Its associates have Saharan drainage tunnels manufacturers among their ancestors and they are themselves strongly involved in the local production context. Sud Timmi Society has developed through the project important research skills and has also had the opportunity of increasing experiences and relationships at an international level. On the base of its local knowledge Sud Timmi Society has developed innovative appropriate techniques which can be locally managed. Moreover, thanks to the international support of the project Sud Timmi Society has promoted its ideas on a local level and has implemented its proposal of creating an Oases Safeguard Association recognized by the Algerian government as the official body controlling the works in the Sahara desert.

9. Would you like to recommend any specific type of approach arising from the experience of having (or not) impact on discourse and action outside science to be taken into account for future research (e.g. FP7)?

The project has an appropriate approach, although it starts from a specific technique. It has demonstrated the need to assess works according to their respect of ecosystems and to involve local partners and experiences in the research consortiums of the institutional scientific community. The next calls should have very specific objectives which are ever able to deal with global problems and should give the opportunity of financing pilot projects and experiences.