

INTEGRATED APPROACH FOR IMPACT ASSESSMENT OF WATER
HARVESTING TECHNIQUES IN DRY AREAS:
THE CASE OF OUED OUM ZESSAR WATERSHED (TUNISIA)

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ABSTRACT

In dry Mediterranean regions water is often the most limiting factor, not only in agricultural production but also in rural livelihood strategies. In Maghreb countries various types of water harvesting techniques have already been developed for centuries ago to make the land productive irrespective of its geographical location. Considerable investments are being made in maintaining the old techniques and introducing new ones to capture the scarce amount of rainwater (150 mm to 300 mm annually) for agricultural and domestic purposes. However, no detailed assessment of the multiple effects and the costs and benefits of these techniques have been made so far. It is in this framework that an EU financed project "WAHIA", subject of this paper, has been launched with the following objectives:

- inventory of water harvesting techniques in selected dry Mediterranean zones;
- identify and quantify the physical effects of selected traditional and modern water harvesting techniques;
- screen existing and develop new modules and models for assessing the economic impact of water harvesting methods;
- undertake an impact assessment of these techniques;
- make an assessment of the potential role of water harvesting techniques with regard to the mobilisation and management of water resources in dry Mediterranean zones.

The application is being undertaken in Tunisia (the Oued Oum Zessar watershed; 367 km²) and in Morocco (the Talekjounte sub-catchment of the Souss watershed; 292 km²). Only the results of the Tunisian reference area will be presented.

The project is developing a tool for decision-makers to be able to assess under which agro-ecological and socio-economic conditions, investment in water harvesting measures could be a viable undertaking in dry Mediterranean areas.

INTERESTING 8
INFORMATIVE 7
PRACTICAL/REALISTIC 7
USEFUL

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The Desertification2002 will be a unique opportunity for me to learn a lot of lessons at two levels:

For my research work, I'll have the opportunity to interact and exchange ideas and views with other colleagues and specialists from around the world on many scientific issues related to solving the desertification induced problems by linking scientific knowledge with community aspirations and local know how. These lessons will be shared afterwards with my colleagues at the Institute to refine our research programs and activities.

For my NGO work, in addition to the interactions with other NGOs, this forum will provide me with a unique opportunity to see local experiences in combating desertification in another African dry areas with different local traditions. It an enrichment to my practical experience with local communities.