

# CONSERVATION, DOMESTICATION AND VALORIZATION OF SPONTANEOUS PLANTS OF THE DESERT ZONE IN TUNISIA

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The present report is a succinct summary of our research and development activities at the *Institut des Régions Arides* of Medenine, Tunisia. The main focus of our program is to conserve and characterize multiple-use spontaneous plant of the arid and desert regions of Tunisia and to benefit the community from our research activities by developing sustainable uses for as many of these species as possible.

We presented our main achievements in collecting seeds and target species and exchange of plant material during the last fifty years.

Replicability of the project, its economic and ecological impact, its future perspectives and the lessons learned from this experience were discussed.

- Improving the genetic potential of plant material and exploring traditional and novel uses  
for it can not guaranty economic profitability of conservation efforts at least in the short and medium terms. Integration of this activity into the larger agriculture production systems and sustainable use of resources have to be supplemented by other measures:
  - ◆ strengthening research structures
  - ◆ diversification of sources of revenues (other than agricultural) in marginal areas.
  - ◆ mastering of distribution networks of agricultural products
  - ◆ raising the level of awareness of the local population
- Conservation and domestication of spontaneous plants and land reclamation in arid zones  
is a long term endeavor due to the harsh environment and specificity of target species. In order to conserve these plants and to develop new uses within a reasonable time frame, we need to prioritize both the species and aspects to study,
- Characterization and evaluation of plants for pastoral use or land reclamation in arid zones, should lead to the selection of population or synthetic varieties with a high intraspecific genetic diversity that would be better adapted to unpredictable constraints and disturbances
- For seed handling and regardless how good are the machines available on the market we found it necessary to develop locally machines suitable for the type of seeds we have to handle,
- The large expansion area of some species and the need to develop a plant improvement program with a large genetic basis indicate clearly the importance of the regional scope of any conservation and breeding program.

A specialized national unit for the conservation and domestication of the spontaneous plants of the arid and desert zones was already established. This unit could serve as a model for countries facing similar ecological problems.