



RÉSEAU ASSOCIATIF DE DÉVELOPPEMENT DURABLE DES OASIS OASES ASSOCIATIONS NETWORK

OASES, A SOLUTION FOR FOOD SECURITY IN THE MAGRHEB



The Maghreb is today facing a turning point in its history. Maghreb States are finding it increasingly difficult to provide for their populations' needs, as their agricultural sectors are crippled by severe inequalities and an arid climate. Each year, undernourishment increases¹, compelling Maghreb States to increase importations, thereby increasing their debt as well as their vulnerability in the face of price volatility. Furthermore, climate change predictions announce severe natural resources degradation and agricultural productivity degradation. In addition, the Maghreb must face other challenges, as the region's socio-demographic context is also set to evolve, forcing Maghreb agriculture to adapt to its mutations.²

It is within this alarming food security context, that the imperative of working with other agricultural models is becoming clear. As the Maghreb becomes increasingly arid (over 75% of the territory³), oases stand out as **resilient and sustainable agricultural systems**, whose ability to adapt themselves perfectly to the region's specific current and future stresses could be a major asset for food security in coming years.

Advantages of Oases for Maghreb Food Security

- Family Scale Farming

This type of agricultural model is increasingly recommended by international organizations in their actions for **rural development** and in **combating poverty**. This is because, unlike speculative agriculture, family scale farming ensures sufficient production for local populations thanks to proven and adapted techniques, creates employment whilst also helping populations to stay put, and ensures sustainable resource management in order to minimize farm and land vulnerability to climatic events (flooding, long periods of drought...). This type of agriculture predominates in oases.

- Resilience Capacity

The oasis agrosystem is designed to absorb brutal climatic shocks and to **return to a state of equilibrium rapidly**. This absorption capacity can be attributed mainly to the **scarcity management that underlies oasis processes (and has done over the last 2000 years in some cases)**, the type of **agricultural and social organizations** (family farming) in place and the **environment** in which they develop.

- Arable Surface Optimization

Oasis cultures are **traditionally layered cultural systems**. On one plot of land, will often coexist date palm cultivation, arboriculture, market gardening or fodder crop cultures, and animal husbandry activities. Not only does this system allow the farmer to create the environmental conditions favorable to agricultural activity (oasis effect), it also enables production diversification, thereby improving resilience capacity, touching a larger market, as well as **optimizing plot production** in an environment where arable land is limited.

- Employment Creation

Not only do oases provide significant employment, thanks to their agricultural activity, oases also have **strong employment creation potential**. Annex activities to the agricultural sector are still only slightly developed. In most cases, the oasis is simply a producer. **Transformation and sales activities are delocalized**. What is more, other sectors, such as sustainable tourism or crafts, are also set aside.

- Nutritional Advantages

The diversity of cultivated produce and the **biodiversity** present in oases allow populations to benefit from a **balanced nutritional diet**. The multiple intakes that this allows are necessary for physiological well being.

¹ FAO, Addressing food insecurity in protracted crises, *The State of Food Insecurity in the World*, 2010, 66 pages

² Raddo, *Oases and Food Security*, 2012

³ LE HOUÉROU H.-N. , Problèmes et potentialités des terres arides de l'Afrique du Nord, In *L'aménagement des zones arides*, Paris : CIHEAM, 1975, p. 17-35, Options Méditerranéennes, n°26





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Above all, it is critical that, in coming years, **oasis specificity** be taken into consideration and its importance be recognized for arid regions. It is important that there be an awakening to the fact that the **know-how and ingenuity of oasis dwellers** provide a model that has been time-tested across the centuries. A shift in mentalities in this regard is already underway, but this shift must accelerate within public authorities if the region is to face the coming challenges.

Public Policies to Foster Oasis Development

Reinforce the Role of Oases within the Production System

- By recognizing the importance of family scale agriculture in oasis development.
- By paying attention to land transaction mechanisms to counter land fragmentation. For example, through the **creation of public land holding trusts**, with pre-emption rights, or by working with traditional management structures.
- By developing the bank system and **facilitating access to credit**, as credits remain out of reach for many farmers, limiting both investment capacity and productivity improvement.

Improve Access to Food

- By encouraging an increase in oasis population incomes, via support to family farming and the **development of trade outlets**, be it in the agricultural sector or in other sectors such as crafts or sustainable tourism.
- By **improving oasis infrastructures**, as oases are still often isolated.

Oasis Integration into National Agricultural Policies

Draw upon Oasis Specificity

- By developing **collective resource management** methodologies in order to encourage **sound management**.
- By developing arid zone agriculture via **agroforestry** and the layered cultural systems that create the oasis effect and its microclimate.
- By promoting **plantation diversity and biodiversity** for improved **resilience** and **nutritionally balanced dietary intakes**.

Improve the Development of Responsible Organizations and Institutions

- By continued development of responsible institutions, in particular in remote regions, by **giving them greater power** so that they may be more **reactive and efficient**.
- By **reaffirming** the roles and responsibilities of the institutions involved and improving the **collaboration** and **coordination** between them.

Foster Research and Development

- To evolve **ancestral skills** thanks to **technical innovations** (waste waters reuse, reduction of hydraulic network losses, soil fertilization and improvement, ecological agriculture...).
- To assist and accompany public authorities in **decision-making processes**, in phase with the reality of the situation.



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