

Mini Review

The oasis of Ouargla (Southeast Algeria): a millennial heritage in decline

Authors:

Salah Zenkhri¹,
Mokhtar Karabi² and
Louiza Zenkhri³

Institution:

1. Ecosystem Protection in
Arid and Semi- Arid
laboratory, Kasdi Merbah
University, BP 511, 30000
Ouargla, Algeria.

2. Bio-Geochemistry
Environments desert
Laboratory, Kasdi Merbah
University, BP 511, 30000
Ouargla, Algeria.

3. University Kasdi Merbah,
BP 511, 30000 Ouargla,
Algeria.

Corresponding author:

Salah Zenkhri

ABSTRACT:

The present study focuses on the oasis of Ouargla, regarded as one of the main oasis of the Algerian Sahara. This oasis is today in decline under the effects of its fragmentation and the fragmentation of its plots, of urbanization, and the fires on its palm groves and of climate change. There is also a threat disappearance of this oasis, torn from the aridity and the desert at the price of that would happen on its sacrifice. The results we have achieved indicated that the oasis of Ouargla undergoes a phase progress followed by a period of stagnation and regression. The State programs of development and local initiatives to restore, have engaged in recent years as a new resumption and rollover to the agricultural activity of Oasienne.

Keywords:

Oasis, Ouargla, Agriculture, Environment, Development.

Article Citation:

Salah Zenkhri, Mokhtar Karabi and Louiza Zenkhri

The oasis of Ouargla (Southeast Algeria): a millennial heritage in decline

Journal of Research in Ecology (2018) 6(2): 1832-1837

Dates:

Received: 03 July 2018

Accepted: 30 July 2018

Published: 14 August 2018

Web Address:

[http://ecologyresearch.info/
documents/EC0596.pdf](http://ecologyresearch.info/documents/EC0596.pdf)

This article is governed by the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which gives permission for unrestricted use, non-commercial, distribution and reproduction in all medium, provided the original work is properly cited.

INTRODUCTION

The promotion of the population and the revitalization of the oasis of Ouargla past inevitably by the contribution and the joint work of the community. This option of mutual assistance has in most cases is in the establishment of books of general interest and of lasting impact without which the objective of stabilization of the community unit cannot be reached. It is for that reason that the inhabitant of the oasis of Ouargla have always compounds with this community or water remains the most privileged and the fundamental element around which have converged all the sacrifices and efforts.

Also, the dynamic landscape and the extension of the material base in the soil cannot be designed where the water resource does not exist and the mobilization of the water remains the crucial step and the most appropriate means for the revival and the growth of cultivated land, a goal which the public authorities have success and fully adhered. In effect, a situation of decline of the oasis of Ouargla triggered on the eve of 1970, as a result of the option of this time chosen for the promotion of the peasant life, the development in peri-urban val-

ue company these past few years has proved conclusive, and triggered a real recovery and real rollover.

It is as well as the rollover to the Palmeraie is emerged. The Ouargli animated by the desire and the motivation to return to her ancestral landscape, and to resume its former activities and once again become owner to new of its earth made fertile at the price of efforts, investment and the organization has fully acceded.

Context

The oasis of Ouargla, extends to 623 ha, with a number of palm trees that reached 112,815 and with 1954 farm plots at in 2004 (SEDAT, 2004). The oasis of Ouargla (Figure 1) is located in the center of the commune of Ouargla. It surrounds the Ksar of Ouargla. This oasis is formed of two parts.

Part I: This is the area of Beni Ouagguine which covers an area of 172.25 ha.

Part II: Western part is formed of two zones. The Beni area Brahim which is the largest, it covers an area of 301.1 ha. The other area is that of Beni Sissine which covers an area of 145.81 ha. (SEDAT, 2004).

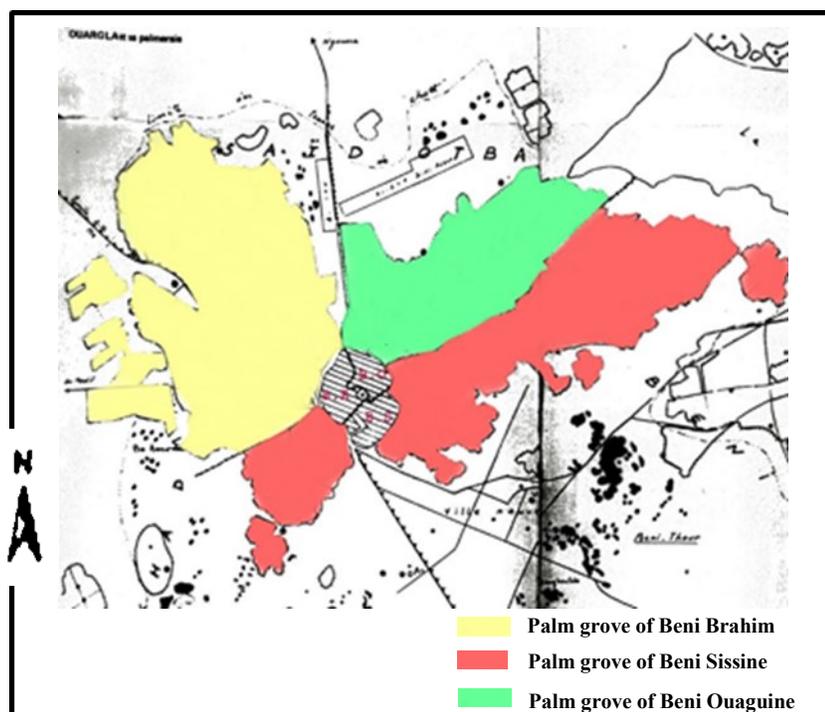


Figure 1. The limits of the land oasis of Ouargla (Rouvilleis-Brigol, 1973)

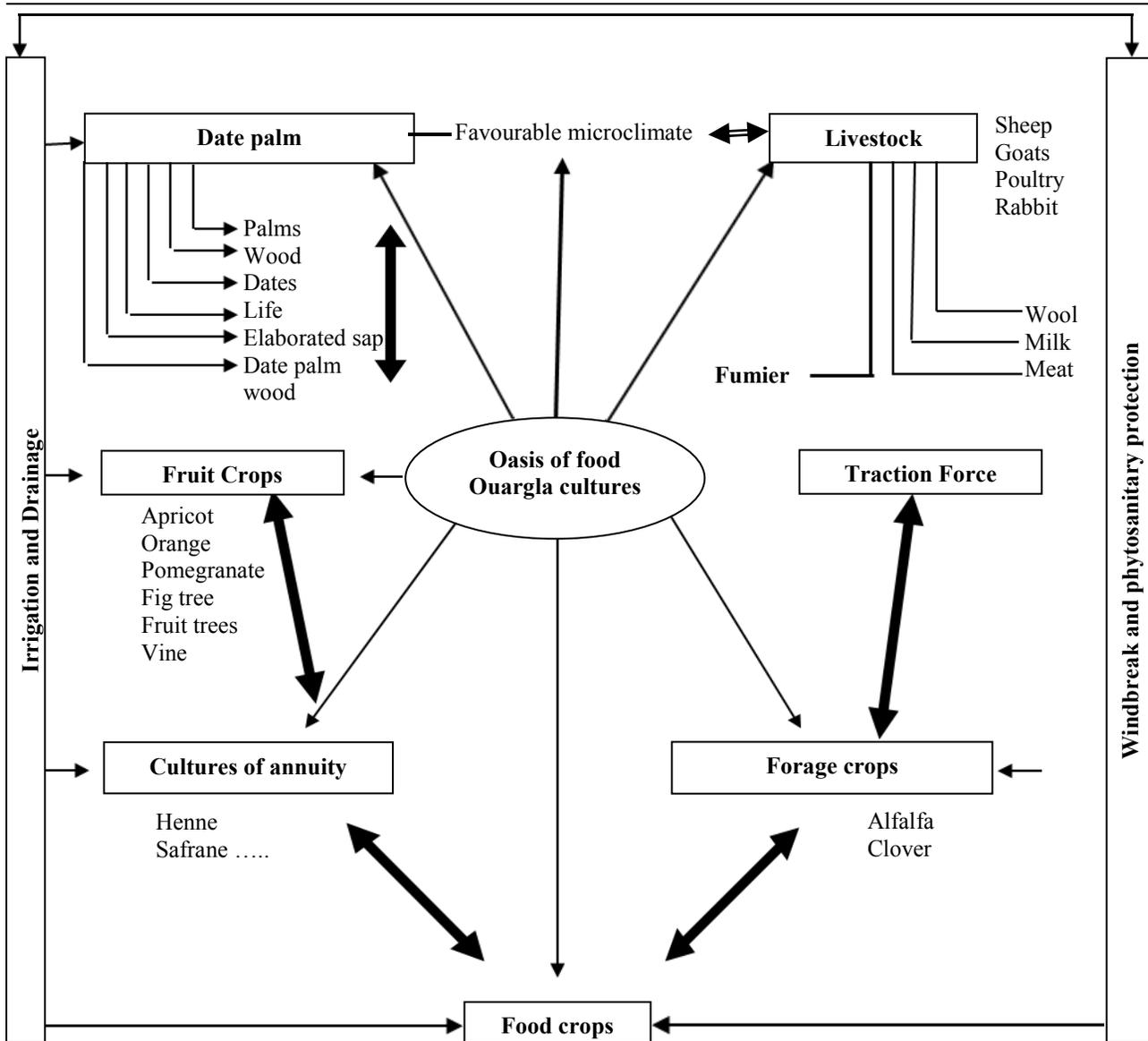


Figure 2. General diagram of the functioning of the oasis of Ouargla

The production system oasis traditionally widespread in the palmerais of Ouargla is presented in the form of a grouping of family farms of small sizes. The palm trees are planted to an uneven distance, 160 to 300 feet per hectare. The population of the oasis of Ouargla had experienced a gradual evolution, it is increased from 2134 persons 1891 to 8587 persons in 1966 to wait for 10, 397 people in 1977 from 1977 onwards, the population has experienced a sharp decline, either declined by an estimated 2333 people less in 1998. This decay of the population is mainly explained by the fast pace of the degradation of the constructions (ANAT, 2003).

Characteristics of the ecosystem of the palmeraie the oasis of Ouargla

The landscape of the oasis of Ouargla, is composed of the Ksar and the palmeraie to three floors. The stratum tree is the most important and represented by the date palm: *Phoenix dactylifera*. The leafy stratum composed of fruit trees (fig, pomegranate, etc.). The herbaceous stratum constitute by the vegetable crops, forage, and grain condiments etc. (DPAT, 2004). In addition, and in this same environment, we can also distinguish other biological media: the drains more far the lakes corresponding to the areas of an outlet of

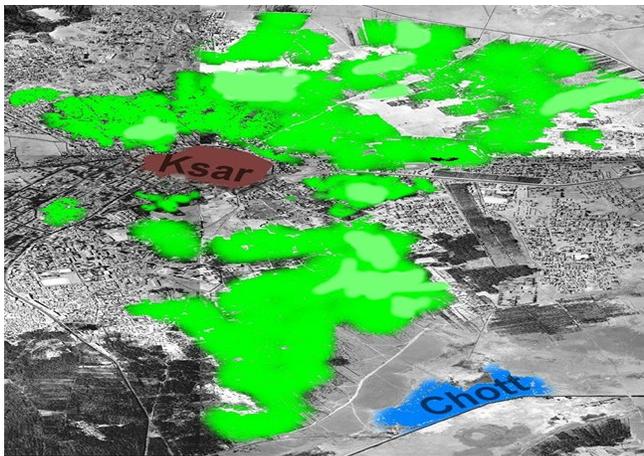


Figure 3. Photograph of the oasis of Ouargla 2004
drainage water and in last place the underground environment.

The palmeraie ecosystem to three floors, adapted to the conditions of life of the Nubians of the Ksar of Ouargla, (Figure 2) is at the origin of the fixing of the population of the Ksar because of relations are constantly developed as well with the middle and the evolution of consumption needs, that with the pace of efforts. This situation, which has reached a stage of non-return of the living in harmony of the population of the Ksar, it is translated by a dynamic stable landscape and ecological balance with conditioning the development of life and the prosperity of Ouarglis.

In the regular progression of the ecological balance of the palmeraie of the Ksar of Ouargla, there has been in fact that the result of the combination and the setting in motion of a set of actions thoughtful, with as tangible impacts. The provision over time of a sufficient production and the achievement of basic infrastructure essential for the domestication of a nature with many difficult (Delheur, 1988).

This eternal struggle for the maintenance which affects the life of the Nubians of Ouargla, has imposed itself and the rights in place aware of the stakes, has up to a time not too distant to standby and backup its palmeraie and its maintenance (SEIS, 1960). Obviously, the agricultural activity is no longer the essential resource of the population of the Ksar of Ouargla. The palmeraie in its current state, is in an advanced stage of degradation (Figure 3).

All of the palm groves of the oasis of Ouargla are similar in their structures and their characteristics. It is a question of palm groves to plant dense without alignment, and of dense palm groves on plantation aligned, in other words, the palm groves to the inside of the Ksar are all to dense planting whatever their type of planting, with an average of 160 palms per hectare alto-

Table 1. The actions carried out in the framework of the National Plan for Agricultural Development at advantage of the oasis of Ouargla

S. No	Actions carried out in the framework of the NADP	Designation of actions performed
1	Grubbing up of old palm trees (feet)	805 • Grubbing up to key the dead, sick, old and unproductive palm trees
2	New plantations of date palms (ha)	13 • New peri-urban plantation, more 1300 palm trees were planted.
3	Tree planting (ha)	06 • Establishment of six hectares of olive trees in tree planting
4	The market gardening: Plasticultures (Shelters - greenhouses) (Unit)	31 • 31 Plastic greenhouse have been distributed to farmers
5	Irrigation network does drop by drop (ha)	19 • 19 Ha of networks of dripping have been installed at the disposal of farmers.
6	Drilling (Unit)	2 • 02 Boreholes and 19 wells have been made in the framework of support to farmers.
7	Wells (Unit)	11 • The achievement of basins of accumulation for the benefit of farmers to reach 600 m ³ This action is the most requested by the farmers who have wider interests.
8	Basin of water accumulation (m ³)	600
9	Opening of Drains (linear meter)	3578 • The opening of drain is the action the more impotent in the eyes of farmers.

gether (Rouvillois-Brigol, 1973).

This finding showed the evidence that the research objective since the domestication of nature, and the establishment of an ecosystem has proved to minimize evaporation. Prerequisite of any culture in the desert environments. Currently the oasis of Ksar of Ouargla account more than 1954 plots divided between an area of 623 ha, of which:

- 43% have a surface area less than 300 m
- 37% have an area ranging between 300-500 m
- 15% of the parcels have an area between 0.5-1 ha
- 4% of the parcels have an area of 1ha and more

The fragmentation is due in large part to the law of inheritance which continues to cause the fragmentation and the fragmentation of the land heritage of this oasis. The process governing the whole current societal illustrate the vagaries of a long urban history punctuated by eras of greatness and decline, of discontinuities and ruptures. During these troubled times, the cities of the South (Ksour) if exceptent passing through the centuries with a remarkable sustainability (Zenkhrri, 2002).

State programs of development

The National Agriculture Development Plan, (Table 1) implemented in September 2000, aims to give a boost to the agricultural landscape since this time the subsidies, supports and accompanying measures are granted directly to the farmers in the lands of the public domain as the owner operators to concretize projects of extensions, and put in place equipment to ensure better yields (SDA, 2004).

CONCLUSION

The oasis of Ouargla with its complexity and its fragility is threatened with extinction. The constraints are of all kinds: urbanization and the swamping of the concrete, the fires of the palmerais, the rise of the groundwater table etc. The oasis loses, over the course of time, these characteristic peasant and agro-rural were

made to become more and more urban under the effect of socio-economic transformations with the influence of the petrochemical industry and oil discoveries.

Agricultural activity is the origin of the fixing of the population of the oasis of Ouargla. This activity has expanded steadily, since the independence to our days thanks to the setting in motion of actions supported or the physical effort and financial and material is conjugate. The realization of basic infrastructure over time have allowed the domestication of a thankless nature.

The contribution and the joint work of the community in this oasis as far away as we can remember was the essential element that prevailed in the peasant dynamic for the development and improvement of living conditions. The mutual or collective interest is considered as the only way to overcome difficult conditions of the oasis that has resided in most of the cases and more often in the establishment of books of general interest and of lasting impact without which the objective of stabilization of the community unit cannot be reached.

Indeed, in such a workplace also conditioned and even fragile, it is obvious that any element that can disrupt the risk of cause there is no doubt a real break with this symbiosis with adverse consequences or the beginning of the decline of the environment on which rests this building which has taken a long time to establish itself will lead to complex problems which will only overcome the cost of great sacrifice, selflessness for the avoidance of risk of dislocation of social reports. The oasis of Ouargla has been torn from the aridity at the price of cause inconsistencies of sacrifice, it must not be retrieved to term by the desert in a state of degradation advance after its abiotisation.

REFERENCES

[ANAT] **National Agency for Territorial Development. 2003.** Study of modernization of the agglomeration of Ouargla, (December). ANAT, 16 p.

Delheur J. 1988. Live and die to Ouargla. Tamedderout t-temettanetwerrgren. Ed. University of Provence, Laboratory of Anthropology and Prehistory of the Western Mediterranean Countries (LAPMO), France. 160-217. Available from: <http://id.loc.gov/authorities/names/n82085344.html>

[DPAT] Direction of planning and territorial development. 2004. Statistical Yearbook 2004 of the wilaya of Ouargla. 34-99.

[GSEIS] General Saharan Infrastructure Equipment Company. 1960. Study of development of Ouargla. GSEIS, 8-9 p.

[SDA] Agricultural Services Branch. 2004. Statistics of the commune of Ouargla. Annual Report Agricultural (oasis palms and perimeters rehabilitated), June. 6-7.

[SEDAT] Society of Different Studies and Technical Assistance. 2004. Studies for the approximation and the development of the production center. SEDAT, 6-7 p.

Rouvillos-Brigol M, Nesson INC and Vallet J. 1973. Study of photo-interpretation No.06 Oasis of the Algerian Sahara. Ed. National Geographic Institute, Paris, 73p.

Zenkri S. 2002. Agriculture saharan Africa: current situation and prospects: International Seminar, University Biska. 98p. Available from: <http://www.crstra.dz/bibliotheque/proceedings.php>

Submit your articles online at ecologyresearch.info

Advantages

- **Easy online submission**
- **Complete Peer review**
- **Affordable Charges**
- **Quick processing**
- **Extensive indexing**
- **You retain your copyright**

submit@ecologyresearch.info
www.ecologyresearch.info/Submit.php