

Irrigation System of the Oasis of Béni Abbès in South Western of Algeria

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One of the topics which touch the field of the environment is undoubtedly the traditional systems for the capture and the sharing of water in the oasis. The ancestral techniques such as wells at shadoof, quanat, Khettara and foggara have protected the oasis and the man in the past. These techniques have been used in an arid environment by oasis dwellers and have resisted a hostile climate for centuries.

In spite of the low rainfall recorded in Saharan areas, the oasis dwellers of Béni Abbès through their intelligence, they were able to cultivate their land without disrupting a fragile ecosystem by the exploitation of groundwater through the use of foggaras.

But the intervention of modern water catchment systems such as

the deep boreholes that are overexploiting nonrenewable groundwater and uncontrolled invasion of the use of large capacity pumps, man has completely destroyed a clean environment. Today, thanks to the pumping, the groundwater level has dropped considerably; the soil salinity is remarkable on all the parcels of the old palm grove and the oued. We try in this article to study the history of traditional technical catchments of water in the oasis of Béni Abbès, to make a comparison between aboriginal systems used in other oasis in this oasis, to study the impact of pumps on the degradation of traditional systems and adverse effects (salinity of soil and phenomenon of groundwater drawdown) after the use of modern water harvesting techniques.

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