

# **Water Management in Saharan Environments; Changes and Challenges**

## **Case of study: The Great south of Algeria**

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**Key words:** GNSS/GPS; History; Hydrography; Implementation of plans; Land distribution; Land management; Professional practice; Risk management; Spatial planning; /

### **SUMMARY**

#### **Astract**

The complex and multifaceted relationships that the territories maintain with the hydraulic problem take on a very particular dimension in the Sahara. The territorial changes of the 20th century that characterized it, modern urbanization, population growth, have challenged the fragile balance that had been founded for centuries between man and his environment. Apart from the fact that these complex changes have raised many questions about the current and future management of the hydraulic issue in the Saharan territories. We propose here to highlight some of the elements that can help to address this issue.

For this reason and given the complexity of the subject, we have preferred to take the Oasis as an ulistrative model that will be able to answer the question of water management in Saharan arid environments, more particularly in Algeria, by determining the ecological consequences of unsustainable agricultural water management in oases; knowing that the latter with their traditional irrigation system called "FOGGARA" remains as a good logic of water management and distribution within this beautiful agricultural structure subordinated by a geometric reflection related to multiple social, cultural and cultural factors at the same time.

**Keywords:** Hydrolic Problem ,Sahara, territorial changes, Environment, hydrological issue, Saharan territories, oasis, water management, arid environments, Algeria, foggara.

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