

## Title: Using Water in Gaya (Niger): strong constraints and major potentials

---

### **Structure :**

- 354 pages
- 93 captions
- 8 tables
- 37 pictures

### **Keywords :**

Sahel, Niger, Gaya, dallols, Maouri, Fogha, water ressource, surface water, groundwater, subsurface water table, artesian water table, drinking water, irrigation, spatial analysis

The department of Gaya, in which this study was done, is located in the SW area of the Republic of Niger. It has an important hydrological potential composed of surface water (approximately 100 permanent ponds, 106 km of the Niger River) and 7 bodies of underground water sources including sub-surface and artesian wells.

This study of the exploitation of water in Gaya has been carried out employing several parameters based on: the estimation and spatial distribution of water resources, the juridic and institutional rules governing their utilisation and the various constraints affecting this exploitation. The use of mapping when treating and analysing data, coupled with ten years personal field

experience, resulted in a richly illustrated synthesis of this data. This, in turn, led to a better comprehension of all the factors related to problems of water utilisation in this particular region of Niger.

Contrary to the generally accepted view that the lack of water resources is a major contributing factor to the lack of development in the Sahel, in Gaya the local conditions contradict this statement. In this region, and at the local level, the proper use of water is based on the elaboration of an appropriate policy which takes into account not only the local specifics of water resources but the various types of water utilisation as well. Local use of water and water resources are dependant on established rules. Water policy in Niger is defined by the General Schema based on an important institutional and judiciary arsenal of rules and regulations. However, after a ten-year trial period, this system was shown to have its limitations. In Gaya, neither the State nor the development agencies took into consideration local characteristics nor the socio-economic context of the region. This, in turn, resulted in putting in place infrastructures that were not adapted to local hydrogeological realities as well as inappropriate choices in land planning and development.

In spite of the abundance of water resources, access to them remains difficult for most of the rural population. The various difficulties encountered are the result of incoherent water policies on a national level as well as the lack of practical application in this area. This is due to a double judiciary system where two regulatory systems co-exist: traditional laws and modern legislation.

the different elements brought out by this study could serve as a basis for a better utilisation of water resources on a larger scale in which land planning and development policies would take into consideration all the physical as well as the socio-economical factors of this region.