



How to develop the hydro-agricultural resources in West Africa?

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The Sudan-Sahelian region has a renewable annual supply of water which could cope with the needs of food and nutrition security, taking into account the population growth rate (FAO/AQUASTAT).

After the 2009 meeting in Ouagadougou, the United Nations Economic Commission for Africa (UNECA) established objectives for West Africa in terms of food production, on the basis of the FAO/AQUASTAT data.

The response to the future challenge of food and nutrition security in West Africa, and particularly in the Sahel lies in **the development of irrigated agriculture, of which the principal objectives are 1) an increase of the area irrigated and 2) an increased productivity of irrigated crops and of water.**

However, in West Africa water is still a largely under-exploited resource, in particular groundwater: indeed, the sub-region has around 358 km³ of annually renewable groundwater, of which less than 1% is used.

Groundwater is difficult to exploit due to the high cost and the lack of knowledge of the technology involved; moreover, some low efficiency irrigation systems contribute to saturation of the ground and constitute a huge pressure on wetlands.

Hence, the exploitation of groundwater resources offers a major opportunity to extend the irrigated surface area and to guarantee a growing food production.

If it were possible to use 10% of the groundwater, it would be equivalent to more than 2 million additional irrigated hectares, and it would also have the advantage that the new areas, instead of being confined to large irrigated systems in river basins, would be more widely distributed and accessible to more farmers, by responding to the new logic of Proximity Irrigation

Your opinion and advice on this subject would be greatly appreciated. We eagerly await your answers to the following questions:

- **Is the field of groundwater resources well understood? Where and how can relevant information be found?**
- **How can groundwater be extracted without appropriate technology and the necessary energy supply?**
- **Which forms of infrastructure management will guarantee the viability and sustainability of irrigation projects by the improvement of the productivity of crops and water?**
- **Is a call to action needed for the alignment and harmonization of different Initiatives, taking into account national objectives and priorities, with a view to a common implementation approach by those involved in the development of the irrigation in the Sahel?**

The objective of this online discussion is, on the one hand, to show the challenges and opportunities which arise from the development of groundwater resources with a view to the setting up of small-scale irrigation in the Sahel and, on the other hand, to appeal to all actors to improve the coordination of their actions in order to respond to these challenges.

Thank you in advance for your interest and participation!

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