

Groundwater in the Sahel region: Enabling integrated management of water resources in thirteen African countries



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In Africa, the International Atomic Energy Agency (IAEA) is undertaking a large scope technical cooperation project to enable and promote the integrated management and sustainable development of the shared groundwater resources in the Sahel region.

The project will apply isotope hydrology techniques for the characterization of major aquifer systems in the Sahel. The detailed hydrological studies will cover five (5) trans-boundary aquifer systems: the **Iullemeden Aquifer System**, the **Liptako-Gourma-Upper Volta System**, the **Senegalo-Mauritanian Basin**, the **Chad Basin** and the **Taoudeni Basin**.

Project Aim: To contribute to regional socio-economic development through the application of isotope hydrology techniques and the establishment of regional frameworks on agreed collective management actions for the rational use of shared groundwater resources in the Sahel region.

- **Capacity Building:** Scientists from countries participating in the project will be trained in relevant isotopic methodologies, and national analytical capabilities will be upgraded to support the use of isotope hydrology techniques in the assessment of groundwater resources. International experts will support national activities, including sampling campaigns, analysis of water samples, interpretation of isotopic data, etc.
- **Shared Aquifer Diagnostic Analysis (SADA):** National counterparts sharing the same aquifer system will jointly prepare a SADA report. The SADA findings will be the basis for developing a Strategic Action Programme (SAP) for each aquifer system.

Sahel

5 aquifers /river basins shared by Algeria, Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Ghana, Mali, Mauritania, Niger, Nigeria, Senegal and Togo



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- **Data Gaps and Methodology:** The project will address key gaps in the methodology, data and capacity required to achieve project outcomes and gain understanding of the selected aquifer systems.
- **Raising Public Awareness:** The Sahel project will raise public and stakeholder awareness through its outreach programme, in collaboration with its partners. The outreach programme will share knowledge on the integrated use of groundwater resources and the role that isotope technology plays in supporting the management of groundwater resources.
- **Budget and Contributions:** The overall estimated project budget is €5 770 000. So far, financial contributions have been received from Japan, Sweden and the United States of America, and in-kind contributions from Australia.



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