



# SAHARA AND SAHEL OBSERVATORY

## OSS

7<sup>th</sup> World Water Forum  
(12-17 April 2015, Republic of Korea)



## Invitation to the OSS Side-event

### **“MANAGING TRANSBOUNDARY AQUIFERS IN AFRICA - THE OSS EXPERIENCE”**

**Date: Wednesday, 15 April 2015**

**Time: 1:30 pm - 2:30 pm**

**Venue: GHH\_B107, GYEONGJU - Hotel Hyundai B1F Crystal**

**Session Code: SE-0078**

For more information

[www.oss-online.org](http://www.oss-online.org)

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# MANAGING TRANSBOUNDARY AQUIFERS IN AFRICA

## The OSS experience

**The Sahara and Sahel Observatory (OSS)** is promoting since more than 20 years the sustainable management of transboundary groundwater resources in the Sahara-Sahel region. In this arid and semi-arid region of Africa groundwater is often the only source of water available. OSS supports the management of this scarce resource through programmes in North Africa (*Système Aquifère du Sahara Septentrional –SASS*), West Africa (lullemeden-Taouédeni-Tanezdrouft aquifer) and East Africa in the IGAD sub-region.

The organisation's flagship project on the **Northwestern Sahara Aquifer System (SASS)** spurred an unprecedented level of technical collaboration among Algeria, Libya and Tunisia, the three "riparian" countries sharing the groundwater resources. The project was implemented in several phases. During the first phase (1999-2002) the project enabled researchers and water management institutions in the three countries to work together to establish a common database and a hydrological model going beyond national boundaries to cover the natural limits of the aquifer. This collaboration continued in the second phase (2003-2006) and culminated in 2007 in the formal creation of a tripartite Consultation Mechanism overseeing the joint management of the SASS at the technical and policy levels. The third phase of the project (2007-2013) entitled "Operational recommendations for sustainable water resources management of the North-western Sahara Aquifer System" probed the socio-economic aspects of water demand in the SASS basin and showcased sustainable water and land management practices at six demonstration pilots representing recurrent issues faced by farmers in the Saharan region.

In **West Africa**, a project entitled "**Management of the hydrogeological risks in the lullemeden Aquifer System (IAS)**" (2004-2009) built on the experience and know-how accumulated on the SASS basin in North Africa to initiate a similar cooperation process among Mali, Niger and Nigeria, the three countries sharing IAS. The ensuing improvement in the shared knowledge of this transboundary aquifer and the characterization of degradation risks encouraged the countries to commit to further studies on the linkages existing between IAS and the neighboring Taoudeni-Tanezrouft basin on the one hand, and the Niger River on the other hand. In 2011, four more countries joined this endeavor to launch the GICRESAIT project : "Integrated and Joint Management of the Shared Water Resources of the lullemeden-Taouédeni-Tanezrouft Aquifer Systems and the Niger River". A new chapter of regional cooperation on transboundary waters began in March 2014 when the seven countries agreed to set up a formal framework for the joint management of their shared water resources.

A similar process is underway in **East Africa**, where a regional survey and assessment of the region's shared water resources was launched in 2007 as part of collaboration between OSS and the Inter-governmental Authority on Development (IGAD). This has significantly enhanced the body of knowledge on the transboundary aquifers and surface water resources of the IGAD sub-region.

In **Central Africa**, OSS has recently partnered with the Lake Chad Basin Commission for the implementation of its Five-year programme (2013-2017) for the safeguard of the water resources and ecosystems of the lake.

Over the last two decades, the scope of the Sahara and Sahel Observatory's Water Programme has evolved from its initial focus on the hydrogeology of aquifers to integrate a wide array of themes, including linkages between surface and groundwater resources, the socio-economics of water demand, climate-smart agriculture and resilience in water-stressed regions. A number of ongoing OSS collaborations with regional and international partners also seek to strengthen integrated water resources management (IWRM) in member countries. Activities in this field include the use of remote-sensing applications to assess withdrawals and the recharge of aquifers; water modeling tools; and the creation of knowledge management platforms to strengthen regional cooperation.

**Based on the OSS experience, the side-event aims to stimulate the debate on the present situation of transboundary water resources in Africa and to identify options for the strengthening of their sustainable management.**