



Joint event MEDFRIEND/FRIEND-AOC

"Hydrological Changes: rainfall/runoff relationships, extreme events and the impact on hydrological design norms".

According to the Niger Basin Authority in Niamey, the 2012 flood of the middle Niger at Niamey (700 000 km²), and of the lower Niger at Lokoja (1 089 000 km²), is the highest flood recorded ever since the start of these gauging stations in 1923 and 1914. In 2009, an exceptional rainfall event was observed in Ouagadougou in Burkina-Faso (263 mm in 10 hours, with a return period 10 000 years). It is not only the Sahel that records exceptional rainfall and floods. Recent floods in southern Italy and France also recall that the Mediterranean and semi-arid areas share the same climatic variability, with intense rainfall events, and hot spells. The ongoing climate change in these regions will bring more extreme events. How will the hydrological system respond to these changes? The hydrological norms used for designing hydraulic structures, roads and bridges, are based on previous time series, from which the amplitude seems to have increased today. Should we change the hydrological standards in these regions and propose new design norms? What will be the situation for the coming decades? What are the key factors of these hydrological changes?

In the Sahel, but also in North Africa, more and more studies show that the runoff coefficients of many rivers are increasing, despite the rainfall decrease. This means that the rainfall/runoff processes have changed, under climatic and anthropogenic pressures. Both climatic and anthropogenic changes impact on the environment by modifying the vegetation cover and the soil properties. Hydrological modeling must better take into account all these environmental changes associated to hydrological changes.

In order to set the state of the art in these regions (North and South of Sahara, and Mediterranean) and also enhance the relationships between the research communities, the UNESCO MEDFRIEND and FRIEND-AOC regional groups would like to invite researchers from the two regions to submit papers to participate to a special workshop, hosted by the International Institute for Water and Environmental Engineering (2IE) in Ouagadougou, during the 7th edition of its Scientific Week, 1-5 April 2013.

Deadline for abstract submission is 15th January

Please fill the registration form and see the instructions to authors when writing your abstract on the following link:

http://www.2ie-edu.org/index.php?option=com_phocadownload&view=category&id=40:journees-scientifiques-2ie-2013&lang=fr

specify that it is for the joint event meeting.

and send your abstract to friend.ouaga@yahoo.com

Some grants will be available to join the meeting, from UNESCO. Please indicate if you need such a grant, and for what expense. Co-funding will be prioritized for help.

Gil Mahe MEDFRIEND Regional Coordinator
Bamory Kamagate FRIEND AOC Regional Coordinator
Harouna Karambiri 2IE Institution