BACKGROUND: UNESCO International Hydrological Programme (IHP) initiated the GRAPHIC (Groundwater Resources Assessment under the Pressures of Humanity and Climate Change) project in 2004 to better understand the effects of climate change on global groundwater resources. GRAPHIC has provided a platform for exchange of information through case studies, thematic working groups, scientific research, and communication. It serves the global community through providing scientifically based and policy-relevant recommendations, and use regional and global networks to improve the capacity to manage groundwater resources.

Through GRAPHIC, UNESCO – IHP will take the opportunity of COP21 to present a Position Paper that highlights the important role groundwater has in meeting the demands for drinking water, agricultural and industrial activities, and sustaining ecosystems, particularly in the context of adaptation to and mitigation of the impacts of climate change. This paper is a call to action and outlines several key recommendations that are particularly relevant for future international climate negotiations.

### AGENDA

**12:55 – 13:05**  
Welcome and opening remarks  
(*Alice Aureli, UNESCO-IHP*)

- Objectives of the workshop,  
- Short explanations on the role of groundwater resources in climate change adaptation and mitigation,  
- Presentation of the UNESCO-IHP GRAPHIC (Groundwater Resources Assessment under the Pressures of Humanity and Climate Change) Project

**13:05 – 13:20**  
The planet’s groundwater resources: status, trends and challenges  
(*Marc Leblanc, University of Avignon, France*)

- Presentation followed by Q&A

**13:20 – 13:35**  
Innovative groundwater resources evaluation for water management decision and policies: application of satellite observations  
(*Laurent Longuevergne, University of Rennes, France*)

- Presentation of NASA’s Gravity Recovery and Climate Experiment (GRACE) observations applied to water resources followed by Q&A

**13:35 – 13:40**  
Launch of the GRAPHIC Position Paper: a call to action for mitigating the global groundwater crisis and adapting to climate change  
(*Tales Carvalho Resende, UNESCO-IHP*)