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The IAHR project CCHE-Climate Change impact on the Hydrological cycle, water management and Engineering: an overview and preliminary results

Roberto Ranzi (1), T. Kojiri (9), A. Mynett (2), S. Barontini (1), N. van de Giesen (2), E. Kolokytha (3), L. A. Ngo (4), R. Oreamuno (5), B. Renard (6), D. Sighomnou (7), and A. Vizina (8)

(1) Universita' di Brescia, DICATA-Dipartimento di Ingegneria Civile, Architettura, Territorio e Ambiente, Brescia, Italy (ranzi@ing.unibs.it, +39 030 3711312), (2) TU Delft, Delft, The Netherlands, (3) Aristotle University of Thessaloniki,Thessaloniki,Greece , (4) Water Resources University, Hanoi, Vietnam, (5) Universidad de Costa Rica, Costa Rica , (6) CEMAGREF, Lyon, France, (7) ABN, Niamey, Niger, (8) T.G.Masaryk Water Research Institute, Prague, Czech Republic, (9) Kyoto University, Kyoto, Japan

IAHR, the International Association for Hydro-Environment Engineering and Research launched a research Project called Climate Change impact on the Hydrological cycle, water management and Engineering (IAHR CCHE Project). It was motivated by the fact that, although it is now well accepted that, in the light of the recent IPCC reports the vast majority of members of the scientific community are convinced that the climate is changing or at least will experience a significant fluctuation already during the current century, it is perceived that some hydrologists, water experts and hydraulic engineers are not yet ready to incorporate climate change scenarios in their designs for such projects as:
- flood protection and river training,
- dam rehabilitation,
- water resources management under water scarcity and changes in the hydrological regimes.

The objective of the project is to encourage a close co-operation between the scientific and engineering communities in taking appropriate and timely action in response to the impact of climate change on the hydrological regime and on water resource projects.

The project aims at reporting on

(a) the current state of knowledge as regards the impact of projected climate change on the hydrological regime in different regions of the world, where these regions are defined not just in geographic terms but also on the basis of their level of economic and water resources development;

(b) the extent to which these impacts are recognized and taken into account by national water authorities, engineering organizations and other regulating bodies in setting their standard practices and procedures for the planning, design and operation of water works. These adaptation measures will include both "hard" responses, such as the construction or enlargement of engineering structures, and "soft" responses, such as changes in legislation or the operating rules of existing structures.

An overview of the project and preliminary results extracted from of an Inventory of existing studies and projects considering observed and projected trends in the hydrological regimes of riverbasins and adaptation measures of the structural and non-structural type in Europe, Africa, America, Asia and Oceania and are presented.