

Minutes of Meeting of the IAHR Working Group on Climate Change (WGCC)

Held: Thuyloi University, Hanoi, Wednesday 24 September 2014, 12:30

Present: Professor Roberto Ranzi, (in chair)

Dr Gregory de Costa

Dr Guinevere Nalder, (nominated Secretary of the WGCC)

Professor James Ball,

Professor Van-Thanh-Van Nguyen,

Professor Young-Oh Kim,

Professor Sang-Il Lee

Dr Christopher George

Dr Arthur Mynett

Dr Maximo Peviani

Dr Hoang Than Tung.

Professor Ranzi gave a power point presentation which covered the following points:

1. The **WG has a page** on the IAHR website with the address

<http://www.iahr.org/site/cms/contentviewarticle.asp?article=777>

The webpage was set up after the new leadership structure was agreed at the meeting of the WG at the IAHR Congress in Chengdu, September 2013 and following contacts.

2. The meeting was reminded that the **objectives of the WG** were:

The IAHR Working Group on Climate Change (WGCC) aims at coordinating initiatives in IAHR dealing with the study of the impact of climate change on the hydro-environment and monitoring adaptation measures being taken in the water engineering sector, both of the structural and non structural type. It works in collaboration with other interested Technical Committees of IAHR especially with the Water Resources Management Committee

3. The **leadership team** (WGCC LT) established following the Chengdu meeting consists of the following:

Chair: Roberto Ranzi, U Brescia, Italy

Prof. Eiichi Nakakita, DPRI, Kyoto University, Japan

Prof. Young-Oh-Kim, Seoul National University, Korea

Prof. Van-Thanh-Van Nguyen, McGill University, Montreal, Canada

Prof. Premal Patel, S V National Institute of Technology, Surat, India

Prof. Yangwen Jia, Dept. of Water Resources, Institute of Water Resources & Hydropower Research, Beijing, China

Prof. Sang il Lee, Dongguk University Seoul, Korea

Prof. Dalila Loudyi, Environmental Water Engineering, University Hassan II Mohammedia-Casablanca, Morocco

Prof. Dr. Abdalla Abdelsalam Ahmed, UNESCO Chair in Water Resources, Khartoum, Sudan

Prof. André Paquier, IRSTEA, France

Prof. Carlos de Oliveira Galvão, Dept. Civil Engineering, Universidade Federal de Campina Grande, Brazil

Dr. Elpida Kolokytha, Dept. of Civil Engineering - Aristotle University of Thessaloniki, Greece

Dr. Gregory De Costa, Dept. Civil Engineering, Unitec-Institute of Technology, Auckland, New Zealand

4. Recent and Near Future Climate Change Workshops:

Workshop organized at the IAHR-ED Congress in Oporto (Organizer Ranzi)

Workshop organized at the IAHR-APD Congress in Hanoi (Organizer Van-Thanh-Van Nguyen)

Next event, Workshop Brussels 14 October 2014, (Organizer. Kobe University)

5. Proposed Activities relating to IPCC AR5

The relevant sections of IPCC AR5 are

SPM WGII (Impact, Vulnerability, and Adaption.) ,and

SPM WGIII (Mitigation).

The full WGI report consists of 1500 pages and analyses runoff patterns, but not with the spatial detail required for hydrological applications at the riverbasin scale.

It was proposed that a study of the IPCC AR5 documents, especially Scientific Basis, Adaptation and Mitigation measures be carried out and a document developed with comments and some contribution from the point of view of the IAHR Water Engineering community on those topics in which we are expert.

The outcome was to be a document of approximately 20 pages consisting of a Summary for Policymakers “Structural and non structural adaptation measures to Climate Change in the water sector”.

In the following discussion it was decided to proceed with the development of the 20 page summary and a 2 page super-summary. It was also decided that the document would be peer-reviewed by experts from outside IAHR.

The following areas (**in bold**) of expertise had been agreed at the time of the meeting. Other expertise areas will be decided in the next weeks:

Prof. Roberto Ranzi -**impact on mountain hydrology, snow and glaciers**

Prof. Young-Oh-Kim, Seoul National University, Korea - **adaptation strategies**

Prof. Van-Thanh-Van Nguyen, McGill University, Montreal, Canada-**downscaling to urban hydrology scale**

Prof. Yangwen Jia, Dept. of Water Resources, Institute of Water Resources & Hydropower Research, Beijing, China **-water resources management**
Prof. Sang il Lee, Dongguk University Seoul, Korea **-groundwater**
Prof. Dr. Abdalla Abdelsalam Ahmed, UNESCO Chair in WR, Khartoum, Sudan **-transboundary watersheds and CC pressures**
Prof. Carlos de Oliveira Galvão, Dept. Civil Engineering, Universidade Federal de Campina Grande, Brazil **-adaptation to droughts**
Dr. Elpida Kolokytha, Dept. of Civil Engineering - Aristotle U of Thessaloniki, Greece **-transboundary watersheds and CC pressures**
Dr. Gregory De Costa, Dept. Civil Engineering, Unitec, Institute of Technology, Auckland, NZ **- coastal engineering**
Dr James Ball, Sydney University of Technology, Australia – **rainfall and runoff**

Professor Ranzi agreed to approach other members of the WG for their contribution. Dr Guinevere Nalder volunteered to act as editor of the document, receiving contributions from members of the WG and editing them into a single document.

Time frame: It was agreed that the short 'super summary' document should be available for release at the 2015 IAHR Congress. The 20 pages document by 2015. The meeting was reminded by Dr Christopher George that the 'super summary' document would have to be available for approval by the Executive Committee at their April meeting. It was felt that this deadline could be met.

6. IAHR CCHE Project

The meeting was reminded that the objective of the project was to encourage a closer 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. It was expected that the project would result in

- An Inventory of climate change *impact studies* and the engineering feedback for the *adaptation* to climate change impact on the hydrological cycle, and
- A Scientific Report.
- Invitation to a Special Section or a Special Issue of a peer-reviewed journal.

The current members of the WG are

- Roberto Ranzi, University of Brescia, DICATA, Italy,
- Prof. Eiichi Nakakita, DPRI, Kyoto University, Japan, and
- Arthur Mynett, IHE Unesco, Delft, Chair of the IAHR Standing Committee “Global Water Issues”.

The project is being carried out by requesting interested parties to answer a questionnaire found at www.sii-ihs.it/iahr-questionnaire. To date, 25 case studies have been collated. Contributions have come from 24 experts and 18 institutions. It was agreed that the project would continue.

The meeting concluded at 13:15.

Drafted by Guinevere Nalder, Secretary of the IAHR WGCC

Approved on 12th October 2014 by Roberto Ranzi, Chair of the IAHR WGCC