

Minutes IGUR annual meeting 2009

At 8th Workshop on Precipitation in Urban Areas, St.Moritz,
December 12th, 2009, 8 – 9 p.m.

Participants: Patrick Willems (Chairman), Thomas Einfalt (Secretary), Van T.V. Nguyen, Baxter Vieux, James Lau, Christian Onof, Jovan Despotovic, Karsten Arnbjerg, Peter-Steen Mikkelsen, Simon Beecham, Marek Sowinski

1. Welcome

The chairman Patrick Willems welcomed the participants of the annual IGUR meeting.

2. Minutes of the previous annual IGUR meeting in Edinburgh, September 2008

The minutes of the last IGUR meeting were approved without any addition.

3. IGUR activities or supported by IGUR since previous IGUR meeting

- Review of abstracts for the 8th Workshop on Precipitation in Urban Areas, 10-13 December, St.Moritz. In total, 33 abstracts were accepted for oral presentation, 25 abstracts for poster presentation. Every abstract was reviewed by 2-3 persons. The Chairman thanked all IGUR members who contributed to this review. The IGUR confirmed that the Workshop was a success and congratulated the Organizing Committee for the excellent organization.
- IGUR Working Group reports have been prepared and submitted to the JCUD in August 2009 (before the JCUD meeting at the UDM09 Conference) and in November 2009 (for incorporation in the annual JCUD Newsletter).
- A short review paper on climate change & urban drainage has been prepared for oral presentation at the 8th Workshop on Precipitation in Urban Areas: "Willems P., Arnbjerg-Nielsen K., Olsson J., Nguyen V.T.V., Climate change impact assessment on urban rainfall extremes and urban drainage: methodologies and difficulties".
- A more extensive review report on climate change & urban rainfall will be prepared during the next year 2010. The following draft outline for this report has been proposed by Van Nguyen, based on an earlier version of outline prepared by Patrick Willems and Karsten Arnbjerg-Nielsen:
 1. Needs for assessing climate change impacts on urban drainage:
 - 1.1. Importance of urban areas (urbanization, population growth, socio-economic factors)

- 1.2. Issues related to climate change impact assessment for urban drainage: Limitations of existing tools, lack of information of relevant time and spatial scales for urban areas, combined effects of climate change and environmental change (e.g., land use change)
2. Climate change simulations
 - 2.1. Available climate model (GCM/RCM) simulations
 - 2.2. The mismatch of scales between large scales information given by climate models and small local scales required for impact assessment studies in urban areas
 - 2.3. Reliability of climate simulations by GCMs and RCMs
 - 2.4. Uncertainty in climate impact projections by different GCMs and RCMs
3. Trend analyses of hydrologic processes in urban areas
 - 3.1. Trend in rainfall processes and rainfall extremes
 - 3.2. Trend in urban runoffs: change due to climate and change due to urbanization
 - 3.3. Statistical trend tests and limitations
4. Downscaling methods
 - 4.1. Critical review of different downscaling methods: dynamic downscaling, statistical downscaling, and other methods (neural networks, etc.)
 - 4.2. Applications of downscaling methods for different regions
5. Derivation of IDF relations with and without consideration of climate change
 - 5.1. Modeling of urban rainfall extremes in stationary and nonstationary contexts
 - 5.2. Review of different IDF estimation methods without climate change
 - 5.3. Review of different IDF estimation methods with climate change
6. Examples of studies related to climate change impacts on urban drainage
7. Concluding remarks

The meeting decided that the preparation of such review report would be very good; it would increase the visibility of the IGUR. It is decided that first a report will be prepared, that could be published by IWA Publishing in cooperation with IAHR and WMO. Patrick Willems will contact WMO to check their interest. The review report can be summarized in one or few papers, for submission to an international peer-reviewed journal and international conferences.

The meeting discussed the content of the review report:

- Chris Onof stated that the content of the report depends on the readers aimed for. This could be academic people (i.e., review and training material for PhD researchers) and design engineers (i.e., to support consulting or water management activities). Jovan Despotovic said that a review report with such a focus would be very useful for the urban drainage design, management and planning community. Karsten Arnbjerg-Nielsen stated we should avoid duplication of material already written by IPCC. Therefore, we should focus on the technical aspects of statistical downscaling, trend analysis, etc.
- Simon Beecham proposed to widen the scope of the report from the technical aspects of climate change impact analysis to include management aspects, such as climate adaptation guidelines (i.e. including focus on water sensitive urban design, for which very good experiences from Australia exist; water harvesting; etc.). Peter-Steen Mikkelsen indicated that we

should limit ourselves to the core focus of the IGUR (to avoid overlaps with other working groups). Baxter Vieux proposed therefore to limit the focus to "urban rainfall". Patrick Willems also was in favour of limiting the focus; a next report then could cover additional aspects.

- The review report should not only consider urban flooding but also water supply as applications. This means that the report has to address not only the impact of climate change on high rainfall extremes but also on dry spells and low rainfall periods.
- For the trend analysis chapter of the report, the issue was raised about how far we can/should go back in time; taking into account the instrumental quality, etc.
- Revision of the title from "climate change" to "climate variability" was proposed.
- The question was raised whether there is overlap with the activities of the new working group on Climate Change. It was concluded that the overlap is limited, given that the working group on Climate Change mainly focuses on policy issues, while IGUR has a more technical focus.

Patrick Willems will prepare – based on all the comments received – and based on an existing draft of the review report by Patrick Willems, Karsten Arnbjerg-Nielsen and Jonas Olsson (in preparation of the review paper for this workshop) a first draft of the review report by end of December 2009. This report will be send to members of the IGUR and few external experts, for review and additions (by the end of January 2010). After few more iterations, the report should be ready before summer 2010, such that it can be ready for publication by the second half of 2010. Preparation of the review papers depends on the initiatives taken by the co-authors.

- The IGUR took note of the speech of Peter-Steen Mikkelsen (Chairman of the JCUD) during the workshop, stating that the IGUR is very active and that this is appreciated by the JCUD. The IGUR is of course very happy with these kind words, which gives energy to continue and further increase the number of activities, at the same time strengthening the visibility of the IGUR.

4. News from the JCUD

Patrick Willems, supported by the Chairman of the JCUD, Peter Steen Mikkelsen, took reading of the most relevant items in the meeting of the JCUD meeting this year in Tokyo:

- place of the 2014 ICUD conference has not been decided yet
- a new working group on Urban Streams has been set up
- Manfred Schuetze reported that the Urban Drainage discussion list has been very quiet recently. More active use of this discussion list in encouraged.
- New JCUD awards are being discussed, including an award to a person who made a significant contribution to the science or practice of urban drainage.
- The Urban Water journal is now included in the ISI Science Citation Index. The first impact factor will be known by July 2011. The journal will be publishing now 6 issues per year.
- Water Science and Technology is looking for more reviewers. Most recent impact factors are 1.005 in 2008 and 1.24 in 2007.

5. Other reports by IGUR members

The following other reports on activities by IGUR members were presented:

- Thomas Einfalt reported on the national working group in Germany about rainfall measurement by radar hosted by the Association of the German Engineers: VDI 3786
- Brief feedback was given on the urban rainfall related contributions during the following recent conferences:
 - o 1st Int. Conference On Urban Drainage and Road Salt Management in Cold Climates, Ontario/Canada, 25-29 May 2009
 - o International Workshop on the impact of climate changes on urban flooding, Ho Chi Minh City/Vietnam, 24-25 June 2009
 - o International Workshop on Data and Modelling (UDM '09), Tokyo, 2009
- Chris Onof and James Lau reported about efforts to setup radar data use in Malaysia – with some difficulties.

6. Future IGUR activities

- Review report on climate change & urban rainfall will be finalized in 2010 (see above; lead: Patrick Willems)
- Contact with WMO on the above will be made (Patrick Willems)
- The organization of a "Radar workshop" during NOVATECH 2010 was discussed, but got a negative feedback.
- The organizers of Novatech 2010 requested the IGUR to contribute to the review of papers. IGUR expressed their willingness to review papers on rainfall and climate change.
- Future conferences and workshops of importance
 - o Novatech 2010, 27 June – 1 July 2010 at Lyon, France (<http://www.novatech.graie.org>)
 - o ICUD 2011 Porto Alegre, Brasil (<http://www.acquacon.com.br/icud2011>). Here, the IGUR might suggest to run a workshop on climate change.
 - o Belgrade precipitation workshop in October 2010. Jovan Despotovic intends to run a workshop with participation from all Balkan states – he has already the support from UNESCO and the Serbian Academy of Science and Arts.
 - o ERAD2010 conference, 6-10 September 2010 at Sibiu, Romania (<http://www.erad2010.org>)
 - o IWA World Water Congress and Exhibition 19-24 September 2010 at Montréal (<http://www.iwa2010montreal.org/>)
- Patrick Willems proposed to consider the organization of a workshop on "climate change impact assessment on urban rainfall and urban drainage" during future conferences (e.g. 12ICUD). The meeting liked this idea.
- Thomas Einfalt and other IGUR members got a request to contribute to Wikipedia. The meeting considered such contribution as very valuable, as it would further increase visibility of the IGUR.
- In Denmark (at DTU ?) the Danish Climate Centre will be established which will run a summer school on downscaling of climate models in summer 2010.

7. Update of IGUR members list and website

Update of the members list was discussed. Patrick Willems reported that he got a request from Jonas Olsson of the Swedish Meteorological and Hydrological Institute to become a member of the IGUR.

The IGUR welcomed Jonas Olsson. Peter-Steen Mikkelsen proposed he could be replaced by Karsten Arnbjerg-Nielsen as both are from the same university and research group and because Karsten is most active in the urban rainfall fields. The IGUR will also check with Michael Rasmussen from Denmark has interest to join the working group.

The website will be updated with this annual meeting report, the IGUR reports to JCUD, the news on future conferences and workshops, and list of members (Patrick Willems).

8. Next annual IGUR meetings

The next annual IGUR meetings will be:

- 2010 in Montreal during the IWA World Water Congress and Exhibition, 19–24 September 2010
- 2011 in Porto Alegre, Brasil during 12th ICUD in September