

Journal of Hydrology

SPECIAL ISSUE

Water in megacities: new risks, new solutions

CALL FOR PAPERS

For the first time in history, the world's population now mostly inhabits urban centres. In 2025, more than one billion people will be living in about one hundred megacities and megacities in waiting, that is, urban areas of more than 10 and 5 million people, respectively.

Economic and demographic pressures on megacities -- including rapid urban population growth and evolving welfare distribution -- are further exacerbated by climate change. Megacities need to develop adaptation strategies to cope with the projected increases in flooding, water scarcity, water quality deterioration and other impacts of climate change on the water cycle.

At the same time, megacities concentrate scientific and technical potential, operational skills, services, economic capacity and human resources. Hence, they can be the leading force in the design and implementation of sustainable, climate-resilient water systems.

The Special Issue on *Water in megacities: new risks, new solutions*, will include scholarly contributions that (1) analyze the consequences for water resources and water management of urban growth and climate change, and (2) propose innovative solutions for urban water systems in a globally changing environment.

Submission of interdisciplinary research and review papers within the broad theme of water and megacities (e.g., hydrology and health, urban water governance, socio-ecological trajectories, peri-urban development, other) is particularly encouraged.

The special issue is prepared in connection with the international conference on Water, Megacities and Global Change to be held in Paris, December 1-4, 2015, during the COP21 summit (<http://eaumeqa2015.sciencesconf.org/>). However, we welcome contributions other than those resulting directly from the Paris meeting. Submission deadline, December 31, 2015.

If you are interested in contributing a paper to the **Special Issue**, contact one of the guest editors:

- Professor Bruno Tassin (bruno.tassin@enpc.fr)
- Professor Nilo Nascimento (niloon@ehr.ufmg.br)
- Professor Philippe Van Cappellen (pvc@uwaterloo.ca)
- Laurent Charlet (charlet38@gmail.com)



The following is a non-exhaustive list of topics relevant to the special issue:

RISKS

- Resiliency of megacities toward water-related risks
- Effects of climate change on urban water systems
- Climate change mitigation and adaptation of large metropolitan centres
- New risks and natural hazards facing megacities
- Management of sanitation and drinking water
- Water in megacities: how is urbanization modifying the water cycle and water dependant ecosystems
- Consequences of existing infrastructures and institutional organization on present and future water management in megacities
- Life at the fringe: water issues in peri-urban areas

SOLUTIONS

- Ecohydrological engineering innovation: how to develop sustainable water management systems from a better knowledge of natural processes
- Innovation in water governance, including economic, political and institutional aspects
- Human actors and technology: benefits and limitations of smart tools
- Stakeholder engagement and bottom-up solutions
- Paradoxes of sustainable development: incompatible objectives, constraints and defining priorities

