Science for Solutions decade: HELPING
Hydrology Engaging Local People IN one Global world
IAHS Scientific Decade 2023-2032

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Details of the Working Group – Urban Water: urbanization phenomenon and adequate water management strategies

Describe the work and how your suggested working group will contribute to the goal(s): Today, urbanization phenomenon through population growth and land uses dynamics are affecting freshwater resources. Some authors even reveal that the effects of demographic boom and uncontrolled urbanization can be more dangerous than climate changes without a holistic understanding of the phenomenon. Under the HELPING umbrella, this working group (WG) on urban areas all over the world, on the potential and the challenges of freshwater in these zones to contribute for a better management of the resource and to avoid or reduce water crises. The WG will be organized in five themes:
1) water quality and protection of hydro systems
2) status of contaminants of emerging concerns
3) preparing urban systems for extremes
4) trends in global south (comparative and synthesis studies)
5) enhancement of citizen science

Describe the methods you will use to achieve the goal(s): Hydrochemistry, Isotope Hydrology, Hydrological and hydrogeological monitoring, Remote sensing, Machine learning, Modelling.

Describe the (a) short-term, (b) the long-term and (c) the ultimate results you hope to achieve:
Short-term: create a database of hydrological, hydrogeological and chemical data of the most representative urban areas in the world,
Long-term: engage local people in the urban water management,
Ultimate result: provide guidelines for sustainable cities in term of water resources.

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