



Science for Solutions decade: **HELPING**  
**Hydrology Engaging Local People IN** one **Global** world  
IAHS Scientific Decade 2023-2032  
[IAHS Scientific Decade](#)

**Details of the Working Group – WATER & HEALTH: Integrated water pollution solutions to tackle the water and health nexus**

**Describe the work and how your suggested working group will contribute to the goal(s):** We have assembled an interdisciplinary network of scientists with backgrounds ranging from hydrology, environmental pollution, public health, water sanitation and hygiene (WASH), global health and policy across the Global South and North with the ambition to contribute to **HELPING** goals by identifying pathways to local solutions to global health risks caused by hydrological extremes and water pollution, creating a platform for sharing opportunities in the development of solution pilots and best practice guidance.

**Describe the methods you will use to achieve the goal(s):** We will use a multi-tiered interdisciplinary approach to co-create local solutions that address hydrological and pollution risks to public health and well-being by:

1. Creating a knowledge sharing platform for local teams of scientists, public and private sector practitioners to share their experiences, successes, challenges, and failures in developing and implementing integrated hydrological pollution solutions,
2. Developing data analysis and model-based approaches to understanding and quantifying the local to global changes to hydrological and environmental pollution risks to the provision of public health services,
3. Organisation of “solution hackathons” bringing together hydrologists, environmental pollution scientists and (public) health practitioners to synthesize local experiences and co-create best practice guidance of integrated approaches to hydrological and pollution challenges to the provision of sustainable and resilient public health solutions.

**Describe the (a) short-term, (b) the long-term and (c) the ultimate results you hope to achieve:**

- (a) short-term: Build WP network and ensure equitable membership through inputs from diverse cohort of participants. Launch knowledge co-creation and sharing platform,
- (b) long-term: Self-containing network that pushes the frontiers of interdisciplinary water and health science nexus. Growing base of successful “demonstrators” of water pollution solutions that support public health challenges locally,
- (c) ultimately: Comprehensive understanding of the local drivers of successful water pollution solutions to public health risks in a global context, including growing ability to adapt and transform solutions to different local contexts. Ever improving best practice guidance that helps translating emerging hydrological science innovations and understanding into viable public health solutions.

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