

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 – Resilient Water Futures: Climate Adaptation Tools and Practices in the Mediterranean

Describe the work and how your suggested working group will contribute to the goal(s): This working group will develop resources and frameworks to enable stakeholders to make informed decisions and build a more climate resilient and equitable water future. Activities will focus on creating interdisciplinary spaces, frameworks, tools, and research products that support climate adaptation to water-related risks and extremes. Specifically, group members will identify, categorize, and critically examine existing climate adaptation methods, tools and practices. Additionally, the working group will use relevant case studies from both the Mediterranean and other areas to identify lesson learned and effective adaptation and maladaptation practices. Lastly, the group will foster knowledge exchange among practitioners, researchers, and policymakers across the world. Our contributions will include:

- Mapping the landscape of climate adaptation methods, tools, and practices, critically assessing their access, effectiveness, usability, and adaptability across different users, regions and climates.
- Synthesizing insights from case studies to build a repository of best practices and lessons learned that enhance local resilience.
- Providing stakeholders with information on available resources for climate adaptation.
- Building a collaborative network that connects diverse stakeholders, enabling the continuous co-creation of climate adaptation and water resilience resources.
- Facilitating interdisciplinary knowledge exchange to support practitioners, policymakers, and researchers in implementing sustainable and equitable water resilience strategies.

Describe the methods you will use to achieve the goal(s): To fulfil these objectives, the working group will implement a multi-faceted methodological approach:

- Systematic Inventory Compilation: Conducting an extensive review of existing climate adaptation methods, tools and practices, cataloguing attributes such as geographic scale, sector focus, and user accessibility to create a comprehensive, dynamic resource.
- Framework Development: Developing a typology framework to categorize climate adaptation methods, tools and practices to support decision-making, ensuring accessibility, adaptability, and applicability across diverse users, water systems, and socio-economic contexts.
- Case Study Analysis and Knowledge Exchange: Conducting critical and interdisciplinary analysis of case studies where climate adaptation tools have been used or implemented to identify practices that lead to success or maladaptation, as well as gaps and areas for improvement.

Describe the (a) short-term, (b) the long-term and (c) the ultimate results you hope to achieve: Our working group's aim is to deliver a collection of globally accessible, evidence-based resources that support water system resilience and contribute to broader water security goals through applied hydrological science. Expected results include: (a) A publicly available inventory and typology of climate adaptation methods, tools and practices designed for use by scientists, practitioners, and other stakeholders. (b) Long-Term: A globally adaptable framework to classify and critically assess climate adaptation methods, tools and practices guiding the development of sustainable and equitable climate adaptation and water resilience strategies. (c) Ultimate Vision: A collaborative platform for researchers and stakeholders, offering tools, frameworks, and transdisciplinary knowledge to address pressing climate adaptation challenges and advance IAHS's mission of fostering socio-hydrological resilience in a changing climate.

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