Groundwater Solutions Initiative for Policy and Practice (GRIPP) Value proposition



Our planet's predominant freshwater resources (about 95% of all unfrozen water) are held underground - as groundwater in aquifers. Rapidly increasing exploitation of this vast resource in recent decades has awarded huge social and economic benefits to global society, reinforcing food and water security, while also enhancing human health and climate resilience, especially in semi-arid and arid regions.

Yet, in many countries, groundwater use has spiralled out of control – rising by 300% globally since the 1950s. The main driver is massive expansion of unregulated irrigation in agriculture and of urban water supplies. Widespread changes in land use have also had significant effects on groundwater resources.

These trends have created serious concerns about groundwater sustainability, decline in water quantity and quality as well as impacts on the ecosystems and habitats that depend on or support this resource. Clearly, groundwater is widely misunderstood, seriously undervalued, often poorly managed and, in most cases, inadequately protected.

Meanwhile, in many parts of the world, groundwater remains underdeveloped and holds much promise for contributing to sustainable social and economic development.



In response to the multiple pressures on this vital resource, the Groundwater Solutions Initiative for Policy and Practice (GRIPP) draws on expert knowledge and collaboration to achieve the overarching objective of:

Sustainable groundwater management for livelihoods, food security, climate resilience and economic growth

GRIPP aims to strengthen, expand and connect current groundwater-related initiatives by forging new partnerships, sharing solutions, scaling-up successes and filling knowledge gaps. The initiative is targeted at the groundwater-dependent, food-producing regions of the world, particularly in low-income and emerging economies. Through dynamic partnerships, GRIPP informs, promotes and adapts tested technologies, and innovative policy and institutional approaches, in order to achieve the Sustainable Development Goals (SDGs) related to climate resilience, food security, livelihoods and sustainable water management.

Building stronger links with surface water management is especially important for deriving greater benefits from groundwater. As water scarcity worsens in many parts of the world, better use of both groundwater and surface water will be essential to minimize social conflicts and migration, reverse land degradation, and contribute to food security.

Recent success stories, while inspiring confidence in our ability to manage groundwater resources, remain somewhat isolated. The time has come for major investment and concerted action aimed at bringing these successes to scale. Only through such efforts, do we stand a good chance of achieving the United Nations Sustainable Development Goals (SDGs)

by 2030. GRIPP supports effective institutional partnerships and practices involving agencies at local, river basin, aquifer, national and regional levels.

GRIPP is:

- 1. An independent, global consortium of partners subscribing to the GRIPP objectives of sustainable groundwater management
- 2. A timely and appropriate mechanism for giving increased attention to groundwater in the implementation of the 2030 Agenda for Sustainable Development, the Paris Agreement on Climate Change, the Framework for Action on Groundwater Governance, and the Sendai Framework for Disaster Risk Reduction
- 3. A coordinating and convening platform for transdisciplinary organizations that offer state-of-the-art advice in response to emerging groundwater-related risks
- 4. An active knowledge hub that supports the development of strategic plans and programs; collates and shares information and experiences on integrated groundwater management; and promotes sustainable groundwater management in the water-energy-food nexus
- 5. A responsive partnership that helps ensure agile and effective implementation of cooperative activities

GRIPP is a global network of transdisciplinary partners who possess valuable theoretical and applied experience in groundwater management. Focussing on hot spots of groundwater use in many countries, GRIPP works with stakeholders to implement demand-driven action research as well as evidence-based practices to groundwater management and adaptation to the multiple risks that threaten this resource.

Partners of GRIPP currently include the following (in alphabetical order):

- Africa Groundwater Network (http://www.agw-net.org)
- American Ground Water Trust (AGWT) (https://agwt.org/)
- American Water Resources Association (AWRA) (http://www.awra.org)
- Association of Water Well Drilling Rig Owners and Practitioners (AWDROP), Nigeria (http://awdrop.org/)
- British Geological Survey (BGS) (http://www.bgs.ac.uk/)
- Center for Advanced Water Research (CAWR), Germany (https://www.ufz.de/cawr/)
- Federal Institute for Geosciences and Natural Resources (BGR), Germany (http://www.bgr.bund.de/)

- Global Environment Facility (GEF) (https://www.thegef.org/)
- Institute for Global Environmental Strategies (IGES) (http://www.iges.or.jp/en/)
- International Association of Hydrogeologists (IAH) (https://iah.org/)
- International Groundwater Resources Assessment Centre (IGRAC) under the auspices of the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the World Meteorological Organization (WMO) (http://www.un-igrac.org/)
- International Rainwater Harvesting Alliance (IRHA) (http://www.irha-h2o.org)
- International Union for Conservation of Nature (IUCN) (http://www.iucn.org/)
- KickStart International (http://kickstart.org)
- MetaMeta (http://metameta.nl/)
- National Centre for Groundwater Research and Training (NCGRT), Australia (http://www.groundwater.com.au/)
- National Ground Water Association (NGWA), USA (http://www.ngwa.org/)
- Robert B. Daugherty Water for Food Global Institute, University of Nebraska (http://waterforfood.nebraska.edu)
- Skat Consulting Ltd. (Skat) (http://www.skat.ch)
- Smart Water Metering Inc. (http://smart-water-metering.com)
- Sun Yat-Sen University (SYSU), Department of Water Resources and Environment, School of Geography and Planning, China (http://www.sysu.edu.cn/2012/en/)
- The Nature Conservancy (TNC) (http://www.nature.org/)
- The World Bank (WB) (http://www.worldbank.org/)
- United Nations Educational, Scientific and Cultural Organization International Hydrological Programme (UNESCO-IHP) (http://en.unesco.org/themes/water-security/hydrology)
- United Nations University Institute for Water, Environment and Health (UNU-INWEH) (http://inweh.unu.edu/)
- University of Strathclyde (US), Civil and Environmental Engineering, Scotland (https://www.strath.ac.uk/engineering/civilenvironmentalengineering/)

GRIPP currently receives financial support from:

- International Water Management Institute (IWMI) (http://www.iwmi.org/)
- CGIAR Research Program on Water, Land and Ecosystems (WLE) (https://wle.cgiar.org/)
- CGIAR Research Program on Polices, Institutions and Markets (PIM) (http://pim.cgiar.org/)

Signed by GRIPP Core Group:

Callist Tindimugaya AGW-Net Commissioner, Ministry of Water & Environment (Uganda)





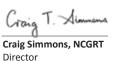
Jeremy Bird, IWMI Director General





António Chambel, IAH President







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Neno Kukurić, IGRAC Director



James Dalton, IUCN Director, IUCN Water Programme







Further information

IAH Strategic Overview Series: https://iah.org/knowledge/learning-resources IWMI resources on groundwater: http://www.iwmi.cgiar.org/issues/groundwater/overview/key-facts/ Groundwater Governance – A Global Framework for Action: http://www.groundwatergovernance.org/ SPRING – Managing groundwater sustainably: https://portals.iucn.org/library/node/46216

Institutional Setup of the Governance of the Groundwater Solutions Initiative for Policy and Practice (GRIPP)

GRIPP is convened by the International Water Management Institute (IWMI) (http://www.iwmi.org/), which has proven capacity in applied research and stakeholder and policy processes on groundwater in emerging economies. IWMI provides the GRIPP Coordinator and hosts the Implementation Unit for the network. GRIPP is governed by a Core Group of partners.

International Water Management Institute (IWMI)

The International Water Management Institute (IWMI) is a non-profit, scientific research organization focusing on the sustainable use of water and land resources in developing countries. IWMI works in partnership with governments, civil society and the private sector to develop scalable agricultural water management solutions that have a real impact on poverty reduction, food security and ecosystem health. Headquartered in Colombo, Sri Lanka, with regional offices across Asia and Africa, IWMI is a CGIAR Research Center and leads the CGIAR Research Program on Water, Land and Ecosystems (WLE). www.iwmi.org



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