

UN WATER World Water Day 2013 International Year of Water Cooperation



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What is water cooperation?

Every action involving water management requires effective cooperation between multiple actors whether at the local or international scale. Building a village water pump in sub-Saharan Africa requires local actors to cooperate. Bringing water from a river to irrigate farmland requires regional cooperation.

Rivers cross political boundaries and international cooperation is necessary to share the water resources of a transboundary river basin between upstream and downstream users with different and sometimes conflicting needs, claims and cultures. Countries also need to cooperate on the sharing of transboundary groundwater, an important and increasing source of freshwater. In all, there are 276 international basins. These cover around 45% of the Earth's land surface, host about 40% of the world's population in 148 nations and account for approximately 60% of global river flow.

If any of the people involved in water management do not cooperate, the 'cooperation chain' is broken and water resources will not be managed in the most effective way, with adverse effects on human lives and the economy. When water resources are cooperatively shared and managed, peace, prosperity and sustainable development are more likely to be achieved.



Examples of water cooperation

The Water Tribunal in Valencia, Spain



In the fertile region of Valencia, a century-old water tribunal settles disputes between irrigators. The region is famous for its network of irrigation canals which was built by the Romans two thousand years ago. Field owners who derive their water from the same canal form communities with their own statutes. Violations of these statutes are adjudicated by the Water Tribunal. The eight administrators of the Tribunal are elected every two years by a total of 11,691 members, and gather once a week to decide on matters of irrigation. The Tribunal has existed for more than a thousand years and has been recognized by UNESCO as an outstanding example of Intangible Cultural Heritage since 2009.

Sources: [UNESCO](#) and [Tribunal de las aguas](#).

Transboundary water cooperation in Latin America

UNESCO's Potential Conflict Cooperation Potential (PCCP) programme facilitates multi-level and interdisciplinary dialogue to foster peace, cooperation and development by building capacity to manage transboundary water resources. For example, research on Lake Titicaca involved stakeholders from both Bolivia and Peru. A joint document was prepared outlining the status of conflict and cooperation in this transboundary water body. In 1992, Bolivia and Peru created the Bi-national Autonomous Authority of Lake Titicaca recognizing the importance of the joint management of the lake. The PCCP programme worked to build on this cooperative will and to facilitate a joint vision common to all stakeholders through a joint case study providing a forum for cooperative action, and a joint management strategy while at the same time increasing knowledge of the shared water body.



Source: [UNESCO PCCP](#)

HOPE to access free engineering software to manage water resources in Africa



Software to support engineering education in the field of hydrology in Africa is often not affordable for low-income and middle income countries. UNESCO is contributing to the Hydro Free and/or Open-source software Platform of Experts (HOPE) which provides an alternative to the specialized commercial engineering software in the field of hydrology to deal with data for the management of water resources, rivers and groundwater; water modeling and wastewater treatment. This is in response to the urgent need for action in Africa stressed by the 4th Annual International Conference on ICT for

Africa (2012), the 23rd Annual Teaching and Learning Innovations Conference (2010), the Software Industry and Developing Countries 2012 UNCTAD report and the fact that all these conferences/reports stressed the need for Africa to adopt open software to make ICT accessible to all to help build a sustainable future.

Source: [HOPE Initiative](#)

Multidisciplinary cooperation on water education for sustainable development

UNESCO has prepared a publication *Learning about Water-Multiple-Perspective Approaches* to focus on applying multiple and interdisciplinary perspectives to freshwater issues in the context of education for sustainable development. It contains lesson plans, questions, lists of teaching resources including online videos and case studies. Students are guided through eight unique, but overlapping, perspectives (scientific, historical, geographic, human rights, gender equality, values, cultural diversity, and sustainability) to understand the relationships within and between natural systems and human society.

Read more: [Learning about Water - Multiple-Perspective Approaches](#)



Water cooperation in the Arab and Western Asian Regions



Arab countries are cooperating on the management of shared water resources through various inter-governmental fora. These include the Arab Ministerial Water Council, which adopted the Arab Strategy for Water Security in the Arab Region to meet the challenges and the future needs of sustainable development (2010-2030), highlighting the importance of regional cooperation among Arab States for the management of shared water resources, the protection of Arab water rights, and the improvement of access to water supply and sanitation services. Regional cooperation at the basin level is also being pursued to improve the management of shared surface and groundwater resources by adopting a common vision and the establishment of an inventory of shared surface and groundwater resources in the Western Asia sub-region, which is being prepared by the United Nations Economic and Social Commission for Western Asia (UN-ESCWA).

The UNECE Water Convention - a unique legal framework for transboundary cooperation - is going global

The - UNECE - United Nations Economic Commission for Europe's Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) facilitates water cooperation to protect and ensure the quantity, quality and sustainable use of transboundary water resources. Since 1992, the Convention has provided a legal and institutional framework, and a programme of work involving knowledge exchange, capacity building, projects on the ground, policy advice, soft-law instruments and regular assessments. In 2013 the Convention is expected to 'go global' contributing to the International Year of Water Cooperation. The Protocol on Water and Health jointly serviced by UNECE and the World Health Organization aims to protect human health and well-being through the sustainable management of water resources and the provision of safe drinking water and adequate sanitation.



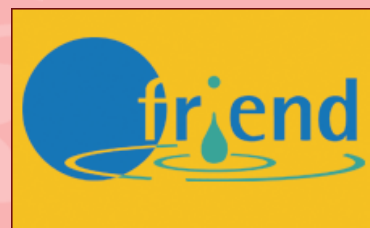
Water cooperation to manage floods



The International Flood Initiative (IFI) aims to persuade policy-makers to change from a model of defense against floods towards the integrated management of floods to maximize the long-term benefits and to minimize the hardship, loss of life and damage to goods. Its guiding principles are living with floods, equity for all stakeholders, empowered participation, inter-disciplinarity and trans-sectorality, and international and regional cooperation. UNESCO's International Hydrological Programme (IHP), WMO, UNU, UN-ISDR and IAHS cooperate on the International Flood Initiative (IFI). The secretariat of the IFI is based at the International Centre for Water Hazard and Risk Management (ICHARM) a UNESCO center, hosted by the Public Works Research Institute in Tsukuba, Japan.

FRIENDs of water cooperation: sharing scientific data across borders

In order to understand hydrological processes at a regional or global scale, in particular concerning shared water resources and in the context of climate change, it is vital that nations collaborate on analyzing and sharing hydrological data and knowledge. Flow Regimes from International and Experimental Network Data (FRIEND), an international network supported by UNESCO's International Hydrological Programme (IHP) aims to foster and consolidate cross-disciplinary networks that facilitate cooperation for research and capacity building, development of analytical tools and data sharing. FRIEND has eight regional groupings and over 162 participating countries.



Safe Use of Wastewater in Agriculture



Population growth and rapid urbanization intensify pressure on freshwater resources in many regions around the globe. The high level of local water demand leads to increasing water scarcity and stress and is consequently driving the use of nonconventional waters, such as (treated) urban wastewater, particularly in agriculture. To maximize opportunities and minimize risks, safe practices have to be promoted where wastewater is used in agriculture, and robust policy and institutional frameworks have to be implemented. The UN-Water Decade Programme on Capacity Development (UNW-DPC) has brought together, in a multi-year project under UN-Water, the Food and Agriculture Organization of the United Nations (FAO), the World Health Organization (WHO), the United Nations Environment Programme (UNEP), the United Nations University Institute on Water, Environment and Health (UNU-INWEH), the International Commission on Irrigation and Drainage (ICID), and the **International Water Management Institute (IWMI)** to address this topic with developing countries and countries in transition, focusing on multi-disciplinary and trans-ministerial approaches. So far, over 150 participants from more than 75 countries have participated in the Safe Use of Wastewater in Agriculture workshops.

Interstate cooperation on water quality in Central Asia

The establishment of common principles for measurement, exchange of information and joint assessment

of the status of shared waters is key to advancing transboundary water cooperation. In Central Asia, the water quality monitoring has seriously deteriorated since the early 1990s, and exchange of information on water quality is very limited. The UNECE Water Convention's project "Water Quality in Central Asia" focused on the development of more efficient national policies, including the standards and principles applied in the permitting of environmentally harmful activities, as well as the establishment of regional cooperation frameworks for exchange of information on water quality. An Action Plan on water quality endorsed by all Central Asian countries in 2012 provides for a comprehensive step-by-step development of cooperation in this area.

