



STRENGTHENING FRESHWATER SECURITY FOR PEACE AND SUSTAINABLE DEVELOPMENT

CONSULTATION MEETING WITH MEMBER STATES

22 January 2013

Water: a vital resource

Freshwater is a vital resource for human health, prosperity and security, with crucial importance for sustainable development, including poverty eradication, gender equality, food security and the preservation of ecosystems, among other critical issues. Given its vital role, water has a specific target under the Millennium Development Goals, is a thematic area under consultation for the post-2015 Sustainable Development Goals and is recognized as a human right. While water is a distinctive feature of our planet, allowing life to flourish, freshwater is a limited resource and is unevenly distributed in space and time. Billions of people are affected by water challenges, including scarcity, water supply and sanitation. Most of the burden caused by the water crisis is suffered by women, children and those living under conditions of poverty. All regions – in particular Africa – are confronted with serious freshwater challenges, albeit in different contexts. Water resources are under increasingly severe pressures from climate change and other global changes, which in combination with the current economic and financial crisis endanger the significant progress achieved over the last decades.

Facts and Figures

- 85% of the world's human population live in the drier half of the Earth.
- Groundwater is critical for the livelihoods of nearly 1.5 billion rural households in the poorer regions of Africa and Asia, and for domestic supplies of a large share of the world's population elsewhere.
- There are 0.8 billion people without access to safe water and near 2.5 billion without access to adequate sanitation.
- 6 to 8 million human beings are killed each year from water-related disasters and diseases. Climate change is aggravating this situation.
- Almost 85% of the world's total wastewater is discharged without adequate or any treatment.
- 145 nations have territories within at least one transboundary river basin.
- The adaptation costs to climate change impacts on water are estimated to be around US\$12 billion/year by 2050, with 83-90% in developing countries.

Water Security: a key challenge for the 21st century

Around 80% of the world's population is exposed to high levels of threat to water security, in terms of water availability, demand and hazards among other factors. **Water security** is defined as “the capacity of a population to safeguard access to adequate quantities of water of acceptable quality for sustaining human and ecosystem health on a watershed basis, and to ensure efficient protection of life and property against water related hazards – floods, landslides, land subsidence, and droughts”. UNESCO's strategic plan to achieve **water security in response to local, regional, and global challenges** was prepared through a 3-year comprehensive consultation process with Member States. This plan, corresponding to the 8th phase of the International Hydrological Programme (IHP-VIII), covers the same period as the medium-term strategy of UNESCO (2014-2021) and was adopted at the 20th session (June 2012) of the IHP Intergovernmental Council in resolution IHP-IGC/XX-5. This resolution recommended that the General Conference of UNESCO integrates the main elements of IHP-VIII into the 37 C/4 and 37 C/5 documents.

Our own fate is intrinsically bound to the fate of our water resources. To build **the future we want**, we need to strive for water security by fostering the contributions of the sciences and innovation. UNESCO is ready to support this process and undertake a major action to **strengthen water security for peace and sustainable development**.

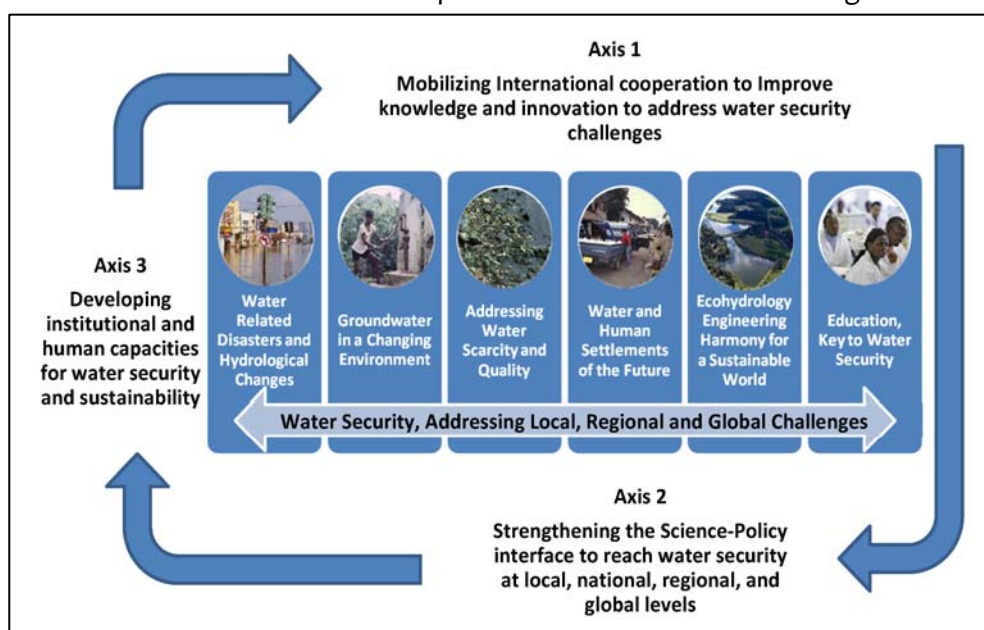
Based on the priorities and needs of Member States, IHP-VIII (IHP/2012/IHP-VIII/1) focuses on six knowledge areas to assist them in their challenging endeavour to properly manage and secure water and to ensure the required human and institutional capacities. In order to achieve this strategic plan, the focus will be placed on the following strategic axes:

• **Axis 1: Mobilizing international cooperation to improve knowledge and innovation to address water security challenges** – History shows that cooperation at the international, regional and national levels takes full expression in the context of freshwater. Such cooperation is needed not only to avoid potential conflicts, but for the adequate management of the transboundary basins and aquifers, for the advancement of knowledge and for the development of human and institutional capacities.

In the outcome document of the UN Conference on Sustainable Development, Member States declared: *"We recognize that water is at the core of sustainable development as it is closely linked to a number of key global challenges. We therefore reiterate the importance of integrating water in sustainable development. ... In order to achieve this end we stress the need for international assistance and cooperation."* (Rio+20: *The Future We Want*, §119 and §124). UNESCO will endeavour to strengthen international and regional cooperation in the field of water by fostering alliances, building intellectual exchange, encouraging knowledge sharing and operational partnerships for water security. This will be achieved in particular through joint activities of the broad network of IHP National Committees, category 1 and 2 institutes and centres, UNESCO Chairs and UNITWIN networks. UNESCO's benchmarking activities are key to this axis and include comprehensive assessments of the world's

freshwater resources and the provision of updated information for its management. They will be continued and enhanced through an improved annual World Water Development Report dedicated to specific topics of global importance on water issues.

• **Axis 2: Strengthening the science-policy interface to reach water security at local, national, regional and global levels** – Water security can only be attained via the development of suitable policies, based on the sound knowledge of water and of its interactions. UNESCO is uniquely positioned to assist Member States in addressing the global challenges of sustainable freshwater governance. The comprehensive mandate of the Organization



allows an integrated, multi-sectoral and interdisciplinary approach, including the mobilization of science, innovation and engineering. The inter-governmental nature of its freshwater programme, the International Hydrological Programme (IHP), which is unique within the UN system and elsewhere, places the Organization at the forefront of the science-policy interface. UNESCO will aim at reinforcing its role in providing advice to Member States in freshwater governance. To this end, UNESCO will reinforce the cooperation with existing institutions and national partners within its water family. Moreover, the Organization will mobilize the scientific community, including local experts in developing countries, to build scientific consensus and provide guidance to policy makers for informed decision-making. In this process, specific attention will be given to traditional and indigenous knowledge, gender-equality, social inclusion, and poverty eradication. In this endeavour, UNESCO will

strengthen its work with the water components of TWAS (The World Academy of Science) and of other institutions, including ICSU (International Council for Science) and the IAP (InterAcademy Panel). UNESCO will also continue to support the development and implementation of international norms and standards, the Law of Transboundary Aquifers (UNGA A/RES/63/124), and the provision of guidance for the integrated management of water resources, among other issues.

• **Axis 3: Developing institutional and human capacities for water security and sustainability** – Water security cannot be reached without the development of adequate human and institutional capacities, both within and outside of the water sector. UNESCO will pursue the strengthening of water education at all levels, including aspects related to knowledge, skills and values. This includes the provision of formal and informal education, guidance on the development and evaluation of water education curricula, assistance on educational policies and the development of educational materials. The Organization's efforts in this field are multisectoral, and involve a broad series of partners as well as programmes, such as IHP, UNESCO-IHE, ESD, ASPnet, UNITIWN, Teacher Training, UNESCO-UNEVOC, Youth initiatives, UNESCO chairs and category 2 centres, among others. In terms of institutional capacities, UNESCO will continue to support the establishment and strengthening of national, regional and international water-related bodies and their networking.

These three axes have strong interlinkages and mutually reinforce each other. The complexity and multidimensional nature of water-related challenges will continue to be addressed through an **interdisciplinary approach**, on topics such as **climate change** and coastal zones (IOC and intersectoral), glaciers (MAB), groundwater (IGCP), disasters, youth, water as a human right, water education including contributions to the UN DESD, physical aspects of hydrology (ICTP), training of media professionals on water issues, water-related cultural and natural heritage and the cultural aspects of water, among other examples.

In each axis, specific attention will be given to global **priorities Africa and Gender Equality**. Moreover, **Youth and SIDS** will also receive particular attention. In this process, UNESCO will continue to **foster South/South, North/South, North/North and triangular cooperation** at the regional and global

levels. UNESCO will reinforce existing partnerships with both public and private partners, as well as build new strategic partnerships to successfully address the complex challenges at stake related to water security. Among strategic partners, cooperation with the Global Environment Facility (GEF) will be strengthened. UNESCO centres and chairs also have an important role to play in this process and an improvement of their geographical and thematic scope will be sought after.

UNESCO Global Priorities: Africa and Gender Equality

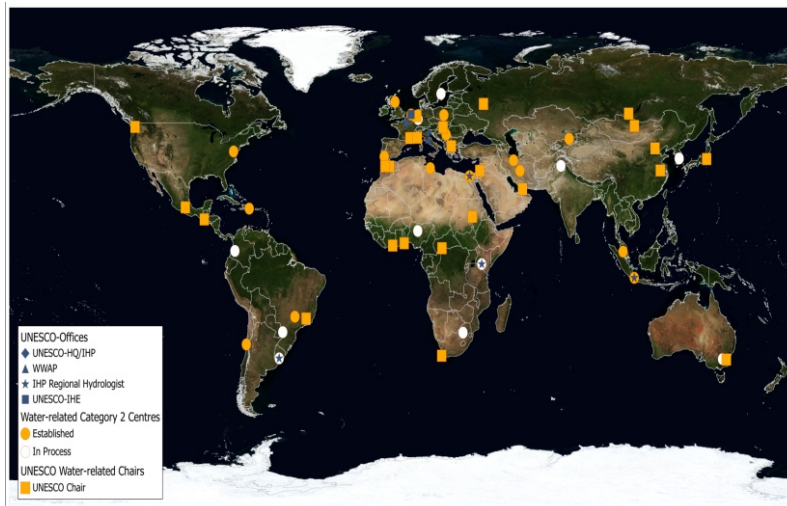
Africa – Due to global changes, high demographic pressure and the lack of effective surface and groundwater resources governance and management, many regions in Africa are vulnerable to droughts and floods. UNESCO will continue to support African countries in further developing the scientific understanding of the role of water as a source of socio-economic and political stability. Special focus will be given to water, peace and security; building resilience on water related disasters; capacity building; and on the role that groundwater resources play in rural areas for agriculture and in urban areas for regional development, notably in water scarce areas and in the context of climate change.

Gender equality – Access to freshwater resources directly influences women's lives. Women represent the majority of people affected by unsafe water and sanitation; they are most often the collectors, users and managers of water in households and are heavily engaged in agricultural activities for food production. Conversely, women play a crucial role in sustainable use and management of water resources due to their responsibility in using, providing and managing water for household and livelihoods. UNESCO will continue to promote gender mainstreaming in water resources management, water governance and in the water sector; and to develop capacities on water-related issues and women's empowerment. UNESCO's gender equality efforts will also be reinforced by the expanded network of UNESCO water-related chairs on Water and Gender.

Youth – Youth are among the most vulnerable to water hazards and will be the most affected by the impacts of global changes. They are also the next generation of water users and managers. **Education** remains a critical tool for the preparation and adaptation to current and future water challenges.

Small Islands Developing States (SIDS) – SIDS are drastically affected by water scarcity and hazards. Many SIDS are particularly dependent on groundwater, often as the only available freshwater source. Climate change will exacerbate the vulnerability of water resources in SIDS as well as the frequency of extreme weather events. UNESCO is actively involved in the implementation of the Mauritius Strategy and the IHP approach includes establishing an enabling environment for sustainable water resources management, water governance and policy reform.

UNESCO will reinforce its **leading role within the UN system** on various freshwater issues, such as (1) interagency initiatives and other joint projects on water; (2) the post-2015 development agenda, including the thematic consultations on water; (3) global water assessments; and (4) the coordination of internationally designated observances, such as the International Year of Water Cooperation 2013 and the World Water Day.



The UNESCO Water Family

“It is the leading United Nations agency for water” (testimonial in The Independent External Evaluation of UNESCO, IOS/EVS/PI/107).

The **International Hydrological Programme (IHP)** is UNESCO’s intergovernmental scientific cooperation program on water. It was created in 1975, becoming the first and only intergovernmental freshwater initiative institutionalized in the UN system. IHP is governed by an Intergovernmental Council, which constitutes a subsidiary body of UNESCO’s General Conference. IHP is implemented in phases developed through a comprehensive consultative process with its 168 IHP National Committees, international scientific associations and other UN bodies, ensuring IHP’s continuous relevance and its overall institutional coordination.

UNESCO-IHE Institute for Water Education, located in Delft, The Netherlands, is formally part of UNESCO since 2003. UNESCO-IHE is the largest postgraduate water education facility in the world. The Institute confers fully accredited master degrees and promotes PhDs. It has enhanced the capacities of 14,500 water professionals from over 160 countries. Based on the decisions of the governing boards of UNESCO, the Institute may expand its service to Member States via the establishment of a Global Campus of Water and Development and the potential acquisition of PhD granting rights in connection with host countries and universities.

The **World Water Assessment Programme (WWAP)**, located in Perugia, Italy, is a flagship programme of UN-Water, which brings together 30 UN agencies. It is housed, administered and led by UNESCO. Starting in 2014, WWAP will produce the periodic World Water Development Reports on an annual basis, and on specific topics (e.g. Water and Energy) with a five-year global synthesis report.

The network of 18 established **water-related centres** under the auspices of UNESCO (category 2 institutes and centres) contributes to the implementation of the IHP at the international and regional level. Eight additional centers were approved by the General Conference and are in the process of being established.

The 29 water-related **UNESCO Chairs and UNITWIN networks** promote intellectual cooperation through twinning and other linking arrangements among institutions and academics to foster access to and sharing of knowledge.

Since its early focus on water, initiated in 1956, UNESCO has developed a comprehensive water family, comprising the International Hydrological Programme (IHP) and its 168 National Committees, the UNESCO-IHE Institute for Water Education, the network of water-related centres under the auspices of UNESCO, UNESCO Chairs and the World Water Assessment Programme (WWAP). These structures involve a global workforce of approximately 1,000 water experts and graduate researchers at the service of Member States, of which less than 20 professionals are UNESCO staff members, both in headquarters and in the field. Regarding financial resources, over the last biennium the Organization has mobilized around 8 USD of extrabudgetary contributions per each dollar of the regular budget originally approved for water. As a result of the continued support received by UNESCO from countries and partners, the Member States have available for their present and future needs an Organization regarded as the leading agency for freshwater sciences and policy, governance, and management advice.

The implementation of the IHP will continue to be supported by **cross-cutting programmes and initiatives**, some of them conducted jointly with other UN agencies (e.g. WMO, UN-ISDR and UNU) and organizations (e.g. IAHS, IHA): Hydrology for the Environment, Life and Policy programme (HELP), Flow Regimes from International Experimental and Network Data programme (FRIEND), International Flood Initiative (IFI), International Drought Initiative (IDI), International Sediment Initiative (ISI), From Potential Conflict to Cooperation Potential (PCCP), Joint International Isotope Hydrology Programme (JIIHP), Internationally Shared Aquifer Resources Management (ISARM), Global Network on Water and Development Information in Arid Lands (G-WADI), Urban Water Management Programme (UWMP), International Initiative on Water Quality, World Hydrogeological Map (WHYMAP) and Groundwater Resources Assessment under the Pressures of Humanity and Climate Change (GRAPHIC).