



SUMMARY AND CONCLUSIONS OF THE HYDROLOGICAL ASSEMBLY

Hydrology for sustainable development and peace

The Hydrological Assembly, which met as an open committee of Cg-18, was held from 6 to 8 June 2019. It was attended by 99 participants from 53 countries and 10 organizations.

The Hydrological Assembly was opened by the President of WMO, Mr D. Grimes, who recalled the pivotal role of water for sustaining life and ensuring sustainable development, and the impacts of climate change on its availability and its distribution in space and time. He also recalled that water underpins almost every SDG. Mr Grimes briefly summarized several recent events organized by WMO (the HydroConference in April 2018, the special dialogue on water during EC-70 in June 2018, and the extraordinary session of CHy in February 2019). These led to the formulation of eight long-term ambitions that will inform the development of WMO activities relevant to water. They are aimed at increasing the involvement and participation of the broad hydrological community in WMO activities to enable better informed decision making. He invited the Hydrological Assembly to provide its views to Congress on the process or approach that should be employed to engage a wider community for developing and strengthening collaboration with partners. He also requested advice on how to better organize hydrological activities and on how hydrological experts could make their contributions within the new WMO governance structure.

The Secretary-General of WMO, Prof. Petteri Taalas, in his welcome address, recalled that one of the objectives of the proposed reform process is to elevate the status of hydrology in WMO and raise the hydrological community's role within WMO, possibly by being represented at the highest level of relevant national institutions. He made reference to the wide ranging impacts the water crisis has on societies and the exacerbating effect of climate change on water. He called for integrated, Earth-system focused efforts from global to national level to tackle this challenge, including the involvement of the private sector and academia.

The Hon M. Abdel Aty, Minister of Water Resources and Irrigation of Egypt, mentioned the main challenges faced by the water sector: increasing demand for freshwater; pollution; climate change; population increase; droughts; and floods. This calls for strengthened cooperation along the whole value chain, and therefore he expressed his support for the WMO move towards addressing meteorological, climatological, hydrological and related environmental activities under an integrated Earth-system approach. He noted that this would call for a more prominent role of hydrologists within the WMO structure, and the need to establish partnerships with local and regional centres of expertise. Drawing from the example of the Nile river basin, he underlined the key role that scientific knowledge plays in contributing to the solution of transboundary water management issues and pointed to the need to reinforce international collaboration in order to share, among riparian countries, the benefits from improved water resources management. He expressed the hope that the recommendations emerging from the Hydrological Assembly will be adopted by Congress and that WMO will continue supporting the global hydrological community given its unique specific expertise.

The President of WMO regretted that due to health reasons the president of CHy had not been able to attend the meeting and requested the vice-president Silvano Pecora to chair the

session. He also asked him to conduct a consultation process to select a chairperson and vice-chairperson of the Assembly, in order to adhere to the working modalities proposed in Annex 2 to draft Resolution 5.3(1)/2 (Cg-18).

A discussion panel was held on "Hydrology for sustainable development and peace". Panellists included Hon M. Abdel Aty, H.E. Ms Sally Mansfield, Ambassador and Permanent Representative of Australia to the United Nations Office in Geneva, H.E. Freiherr von Ungern-Sternberg, Ambassador of Germany to the UN and other International Organizations in Geneva, Prof. Danilo Türk, Chair of the Global High-Level Panel on Water and Peace and Former President of Slovenia, Mr Johan Gély, Swiss Agency for Development and Cooperation and Chair of the WMO HydroConference, and Dr Monika Weber-Fahr, Executive Secretary of the Global Water Partnership. It was moderated by Mr Alan Jenkins, Deputy Director, Centre for Ecology and Hydrology, United Kingdom.

The key points emerging from the panel discussion were:

1. Water is a key factor for life, environmental protection and sustainable development.
2. Several stressors are affecting the water cycle, its resulting water resources distribution and availability. Special emphasis was given to climate change, population growth and water quality.
3. There is a lack of a single strong political voice for water within the UN system, and WMO should take a more proactive coordination and leadership role, focussing on its mandate in Operational Hydrology.
4. There is a market potential for expanding hydrological data and services. WMO could contribute to striking a balance between particular and general societal interest.
5. Collecting, managing and sharing data are fundamental for developing appropriate water solutions.
6. Data and knowledge are of fundamental importance for informing the decision-making process, particularly in international and transboundary basins.
7. Water quality and quantity issues should be addressed in a holistic way.
8. It is necessary to open a dialogue with all users in order to take their needs into account.

WMO Vision and Strategy for Hydrology and shaping the Plan of Action of WMO water-related activities

The main work of the Assembly focused on considering further development of the WMO Vision and Strategy for Hydrology, in particular on initiating the process of developing the Plan of Action to be submitted to the extraordinary session of Congress in 2021. The Action Plan, according to Resolution 5.3(1)/1 (Cg-18), will be informed by the Long-term Ambitions proposed by CHy-Ext (2019). In this respect, the Assembly:

- discussed and proposed an initial set of actions in eight breakout sessions;
- agreed on an outline of the Plan of Action contained in the Annex.

As regards the development of a draft Declaration to be prepared by the Hydrological Coordination Panel, also according to Resolution 5.3(1)/1 (Cg-18), the Assembly decided that it was preferable to let the Panel advance in the preparation of the Action Plan as a basis for evaluating appropriate content of a potential WMO Declaration on Hydrology.

The Assembly also discussed the definition of operational hydrology, starting from the consideration of the two versions presented in Annex 2 to draft Resolution 5.3(1)/1 (Cg-18). The Hydrological Assembly decided to recommend to Congress the version included in Cg-18/Doc. 5.3(1), Draft 2.

Recommended modifications on Cg-18/Doc. 5.3(1) and Cg-18/Doc. 5.3(2) made by the Hydrological Assembly were included in the respective Draft 2.

Overall, the Assembly expressed strong support for the proposed resolutions 5.3(1)/1 and 5.3.(2)/1 and made amendments included in the respective Draft 2 versions of the documents.

Next steps

The vice-president of CHy organized a consultation process to select the chairperson and vice-chairperson by requesting the Regional Hydrological Advisers, all of which were in attendance, to consult with the president of their Regional Association and with the delegations of their region attending the Hydrological Assembly. As a result of the consultation, the Hydrological Assembly proposes to Congress that Jan Danhelka (Czech Republic) be appointed as chairperson and José Alberto Zuñiga Mora (Costa Rica) as vice chairperson of the Hydrological Assembly until the next session of the Hydrological Assembly is held.

Annex 1

Plan of Action

Draft outline

PART I: Vision and Ambition

- (a) Vision Statement
- (b) Long-term Ambitions/Societal Benefits
 - (i) No one is surprised by a flood;
 - (ii) Everyone is prepared for drought;
 - (iii) Hydro-climate and meteorological data support the food security agenda;
 - (iv) High-quality data supports science;
 - (v) Science provides a sound basis for operational hydrology;
 - (vi) We have a thorough knowledge of the water resources of our world;
 - (vii) Sustainable development is supported by hydrological information;
 - (viii) Water quality is known;
- (c) Challenges and Gaps: The Impetus for Change
 - (i) Growing Water Challenges;
 - Population growth and economic development are stressing water supplies and increasing vulnerability;
 - A changing climate is impacting water availability and quality, increasing uncertainty;
 - A deteriorating infrastructure is forcing critical, expensive decisions;
 - Socioeconomic risks of floods and droughts are escalating;
 - (ii) Associated Service Gaps (based upon stakeholder feedback).

PART II: Goals, Objectives, Milestones

- (d) Relationship to WMO Strategic Plan
- (e) Goals and Objectives
 - (i) Services and Applications;
 - (ii) Observation, Infrastructure, and Information Systems;

- (f) Approach and Activities
 - (i) Applied Research and Research to Operations;
 - (ii) Capacity Building;
 - (iii) Standards/Guidelines;
 - (iv) Institutions/Partnerships;
 - (v) Resource Mobilization;
 - (vi) Advocacy/Outreach;
 - (g) Milestones, Timeline, and Resources.
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Annex 2**LIST OF PARTICIPANTS**

The following Delegations and invited experts were represented at the Hydrological Assembly:

Countries	Observers and invited experts
Argentina	African Union Commission
Australia	CICOS
Bangladesh	FAO
British Caribbean Territories	GWP
Brazil	Geneva Water Hub
Bulgaria	High Level Panel on Water and Peace
Cameroon	IAHS
Canada	IUGG
China	OIT
Comoros	UNEP
Cook Islands	
Costa Rica	
Côte d'Ivoire	
Czech Republic	
Democratic Republic of Congo	
Denmark	
Egypt	
Finland	
France	
Germany	
Guatemala	
Hungary	

Iceland	
India	
Iran, Islamic Republic of	
Italy	
Jamaica	
Japan	
Mexico	
Mongolia	
Nauru	
New Zealand	
Nigeria	
Norway	
Paraguay	
Poland	
Republic of Korea	
Russian Federation	
Slovakia	
Slovenia	
Spain	
Sweden	
Switzerland	
Tonga	
Tunisia	
Turkey	
Uganda	
Ukraine	
United Kingdom of Great Britain and Northern Ireland	

United Republic of Tanzania	
United States of America	
Uruguay	
Uzbekistan	
