



AGENDA ITEM 5: WEATHER, CLIMATE, HYDROLOGICAL AND RELATED ENVIRONMENTAL SERVICES

AGENDA ITEM 5.3: Hydrological services and support of sustainable water management

DRAFT RESOLUTION

Draft Resolution 5.3(1)/1 (Cg-18)

VISION, STRATEGY AND ORGANIZATIONAL ARRANGEMENTS FOR HYDROLOGY AND WATER RESOURCES IN WMO

THE WORLD METEOROLOGICAL CONGRESS,

Recalling:

- (1) Resolution 18 (EC-70) - Outcomes of the special dialogue on water,
- (2) Commission for Hydrology – [Abridged Final Report of the Extraordinary Session of the Commission for Hydrology \(2019\) \(WMO-No. 1230\)](#);

Noting:

- (1) The work carried out by the members of the Commission for Hydrology in the successful pre-session discussion and during its Extraordinary Session 2019, as documented in the Abridged Final Report, which constituted the basis of its recommendations to Congress,
- (2) Draft Resolution 4(4)/1 (Cg-18) - Establishment of WMO technical commissions for the eighteenth financial period,
- (3) Draft Resolution 9.3(1)/1 (Cg-18) – Amendments to the General Regulations of the World Meteorological Organization,
- (4) Draft Resolution 11/1 (Cg-18) – Extraordinary session of Congress in 2021, that will be convened to strengthen institutional arrangements to deliver on the WMO mandate related to the provision of information and services for sustainable management of water resources;

Noting further that the considerations of Recommendation 25 (EC-70) “that the specific conditions under which the national hydrological services currently operate and the new direction WMO will take with regard to strengthening its hydrological profile may require specific organizational structures and working mechanisms to enable WMO to effectively promote and integrate activities in operational hydrology, and contribute effectively to, and benefit from, the integrated Earth system approach embraced by WMO in the new Strategic Plan” were aimed at achieving:

- (1) A broader participation in WMO activities and an enhanced sense of ownership of and commitment to the Organization’s Long-term Goals by hydrologists worldwide,

- (2) A greater recognition of WMO as the trusted voice in its three main domains weather, climate and water, in the implementation of Agenda 2030 and in particular in the achievement of the Sustainable Development Goals, the Sendai Framework for Disaster Risk Reduction, the Paris Agreement,
- (3) A better reflection of the needs of NMHSs and more effective support of their operations at national and regional levels,
- (4) A tighter alignment with NMHSs' challenges and an increased flexibility to respond to their evolving requirements,

Having examined Recommendation 1 (CHy-Ext.(2019) - WMO Vision and Strategy for Hydrology, and Recommendation 2 (CHy-Ext.(2019)) – Integration of hydrological activities into the new WMO structure, and decision criteria included therein,

Having also examined the recommendations by the open committee on hydrology, contained in INF. 5.3, and noting the support for the proposed resolutions 5.3(1)/1 and 5.3.(2)/1 expressed therein,

Decides:

- (1) That a Plan of Action should be prepared better to strengthen operational National Hydrological Services and the capabilities of national service providers that will support Member states' efforts to fulfil the following Long-term Ambitions (see Requests the Executive Council (2) below):
 - (a) No one is surprised by a flood;
 - (b) Everyone is prepared for drought;
 - (c) Hydro-climate and meteorological data support the food security agenda;
 - (d) High-quality data supports science;
 - (e) Science provides a sound basis for operational hydrology;
 - (f) We have a thorough knowledge of the water resources of our world;
 - (g) Sustainable development is supported by information covering the full hydrological cycle;
 - (h) Water quality is known;
- (2) To approve the definition of operational hydrology as provided in [Annex 1](#) to this Resolution;
- (3) To amend General Regulation 6(b) as follows:

Each Member shall appoint, in consultation with the Permanent Representative, a Hydrological Adviser who preferably should be the Director of the respective National Hydrological Service or other national hydrological agency. The Member shall notify the Secretary-General of such an appointment. The Hydrological Adviser should be consulted by, and advise the Permanent Representative with respect to WMO activities in operational hydrology and its application to water management;

[This text was recommended by EC WG-SOP. The recommendation from CHy-Ext.(2019) read: "Each Member shall appoint a Hydrological Adviser who preferably should be the Director of the respective National Hydrological Service, or other national hydrological agency, and should advise the Permanent Representative with respect to WMO activities in operational hydrology and its application to water management. The Member shall notify the Secretary-General of such appointments. The Hydrological Adviser will serve as

the focal point for technical matters relating to operational hydrology and its application to water management”.]

- (4) To amend General Regulation 30(b) as follows:

In each session of Congress an open committee of Congress, entitled the WMO Hydrological Assembly, shall be convened. It should be attended as a rule by the Hydrological Advisers of Members (in accordance with Regulation 6 (b)) and by other representatives of National Hydrological Services or other national hydrological agencies as designated by Members;

[This text was recommended by EC WG-SOP. The recommendation from CHy-Ext. (2019) read: “In each session of Congress, an open committee of Congress shall be convened, entitled the WMO Hydrological Assembly, attended as a rule by the Hydrological Adviser as designated by the Member (in accordance with Regulation 6(b), amended...) and representatives of National Hydrological Services or other national hydrological agencies as designated by the Members”.]

- (5) To adopt the Terms of Reference of the WMO Hydrological Assembly provided in [Annex 2](#) to this Resolution;
- (6) To establish a Hydrological Coordination Panel to support an integrated delivery of WMO water-related activities and undertake preparatory work for the Hydrological Assembly;

[The proposed arrangement recommended by the EC WG-SOP maintains the spirit of CH-Ext.(2019) recommendation while ensuring consistency with the WMO Reform. The recommendation from CHy-Ext. (2019) read: “WMO hydrological activities should be integrated by constituting a joint Hydrological Working Group of Congress and the Executive Council (in accordance with General Regulation 38) to support the integrated delivery of WMO water-related activities between sessions of Congress and to undertake preparatory work for future meetings of the WMO Hydrological Assembly, as well as to support and advise the Executive Council Technical Coordination Committee (EC/TCC) and regional associations...”]

Requests the Executive Council:

- (1) To approve the Terms of Reference of the Hydrological Coordination Panel as provided in [Draft Resolution 3\(2\)/1 \(EC-71\)](#);
- (2) To develop, with the support of the Hydrological Coordination Panel a Plan of Action and draft Declaration for consideration of an extraordinary session of Congress in 2021 taking into consideration, the reinforcement of the importance of operational hydrology in addressing global water challenges, opportunities in the future in the broader WMO interdisciplinary context and the recommendation of the Hydrology Assembly;
- (3) To explore mechanisms that improve effective engagement and enable a stronger presence of the hydrological community in WMO activities;

Invites Members to continue supporting WMO initiatives focused on operational hydrology and its application to water resources management by encouraging their national hydrological and water resources management experts and managers to participate actively and contribute their experience and knowledge to the Organization’s activities in the area;

Urges Members to enable relevant experts in all aspects of operational hydrology to contribute to WMO programmes and governance.

Annex 1 to draft Resolution 5.3(1)/1 (Cg-18)

DEFINITION OF OPERATIONAL HYDROLOGY

Operational Hydrology is the real-time and regular measurement, collection, processing, archiving and distribution of hydrological, hydrometeorological and cryospheric data, and the generation of analyses, models, forecasts and warnings which inform water resources management and support water-related decisions, across a spectrum of temporal and spatial scales. Operational hydrology requires capacity building and scientific and technical advancement and innovation in the areas of observation, data standards and services, modelling, prediction, hydro-informatics and decision support, communications, training, and outreach.

Annotation:

These data include, but are not limited to, precipitation; air temperature and humidity; water level of streams, lakes, deltas and estuaries; streamflow; snow and ice cover, depth and water equivalent; river and lake ice; glacier mass balance; reservoir storage; soil moisture; groundwater and ground frost; evaporation and evapotranspiration; water temperature; sediment dynamics; water and sediment quality and other related variables, including within the context of global change.

Global change is expressed through different aspects, such as land use changes, socioeconomic dynamics, climate variability and climate change.

Annex 2 to draft Resolution 5.3(1)/2 (Cg-18)

TERMS OF REFERENCE OF THE OPEN COMMITTEE OF CONGRESS ENTITLED THE WMO HYDROLOGICAL ASSEMBLY

[Amendments to the text originally recommended by CHy-Ext.(2019) have been made on the basis of comments from EC WG-SOP. The text originally recommended by CHy-Ext.(2019) is available in the [final report](#) of the session.]

General mandate

The WMO Hydrological Assembly (hereafter referred to as Hydrological Assembly) is convened as an open Committee of Congress (in accordance with Regulation 30(b)) to make recommendations to Congress and relevant constituent bodies on matters related to hydrology including but not limited to Article 2(e) of the Convention,

To promote activities in operational hydrology and to further close cooperation between Meteorological and Hydrological Services.

The activities of the Hydrological Assembly shall be guided by the WMO Strategic Plan and the agenda of Congress and shall focus on:

- (a) Contributing to the integration of hydrology in working programmes of WMO;
- (b) Mobilising the operational hydrological community to participate in WMO governing bodies at all levels;
- (c) Advising the heads of Congress delegations on emerging hydrological issues as well as on their consideration within the governing structures of WMO;
- (d) Motivating Governments to improve the integration of weather, water and climate topics on national and regional levels.

Specific terms of reference

The Hydrological Assembly shall:

- (a) Advise Congress on current and emerging scientific and technical water-related challenges so as to better reflect them in Congress decisions and in further development of the WMO Strategic Plan;
- (b) Encourage hydrologists to stand for election for officers' positions in the technical commissions, and propose candidates for the chairs of hydrology-related standing committees and study groups of technical commissions. The final selection is the responsibility of the commissions concerned;
- (c) Advise Congress on representation of hydrological expertise in the technical commissions and the Research Board;
- (d) Evaluate the representation of hydrology and water resources management specialists in the WMO Expert Network and propose remedial measures should gaps in professional, geographical or gender representation be found;
- (e) Promote a culture of compliance with WMO regulatory material regarding hydrology in NMHSs;
- (f) Encourage among Members the implementation of WMO directives related to hydrology;
- (g) Advise regional associations, technical commissions, the Research Board, and other relevant bodies, as appropriate;
- (h) Facilitate, together with Regional Associations, the exchange and uptake of experience, technology, research, education and training to meet the needs of Members regarding operational hydrology and its application to water resources management.

Composition

The core members of the Hydrological Assembly should be Hydrological Advisers as designated by Members in accordance with Regulation 6(b) and representatives of National Hydrological Services or other national hydrological agencies as designated by Members.

Other delegates at Congress and observers from relevant organizations, including UN, international and regional organizations, private partners, academia and NGOs attending Congress, may participate in sessions of the Hydrological Assembly.

Working procedures

The Hydrological Assembly shall:

- (a) Elect a chairperson and vice-chairperson, who will represent the Hydrological Assembly between sessions of Congress;
 - (b) Convene meetings during the sessions of Congress.
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