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| WEATHER CLIMATE WATER | **World Meteorological Organization**  **WORLD METEOROLOGICAL CONGRESS**  **Nineteenth Session** 22 May to 2 June 2023, Geneva | **Cg-19/Doc. 4.1(8)** |
| Submitted by: Chair of the Plenary  23.V.2023  **APPROVED** |

**AGENDA ITEM 4: TECHNICAL STRATEGIES SUPPORTING LONG-TERM GOALS**

**AGENDA ITEM 4.1: Services for societal needs**

# Integrated Health services



# GENERAL CONSIDERATIONS

1. This resolution consolidates previously approved Congress and Executive Council resolutions pertaining to WMO activities on integrated health services.

### Climate variability and change drive loss of life and ill health

2. Weather, climate, water and environmental phenomena strongly influence human health outcomes. Weather and climate events such as extreme temperatures, drought, flooding, and storms, can result in injury and death, disease outbreaks, food, water, and nutritional insecurity, destruction of critical health infrastructure and services, and the exacerbation of mental health, communicable and non-communicable diseases. Exposures to environmental pollutants and carcinogens in ultraviolet (UV) radiation, air pollution, including sand and dust and environmentally transported chemicals lead to global excess mortality.

3. The sixth Assessment Report (AR6) of the Intergovernmental Panel on Climate Change (IPCC) recently found with *very high confidence* that climate-related illnesses, premature deaths, malnutrition in all its forms, and threats to mental health and well-being are increasing.

4. As the likelihood of dangerous risks to human health rise, the IPCC AR6 states with *very* *high confidence* there is greater need for transformational changes to health and other systems considering the many dimensions of vulnerability. Recognizing the value of cross-sectoral collaboration, the IPCC indicates with *very high confidence* that proactive, timely and effective adaptation can reduce and potentially avoid many risks for human health and well-being.

### Global collaboration is indispensable for addressing increasing climate risks to health

5. Under the Collaborative Framework, signed by the World Health Organization (WHO) and WMO in 2018, both agencies agreed to work jointly to better protect human health from climate and environmental risks.

6. The WHO-WMO Joint Office for Climate and Health, established in 2014, continues to be a key coordination and implementation mechanism between WHO and WMO to strengthen interagency working mechanisms and cross-sectoral coordination at global, regional, and national levels. Additional mechanisms for implementing scientific, governmental, and civil society collaboration on climate and health at multiple levels is critically needed.

7. Climate science and services are indispensable for the health sector to become more climate resilient and environmentally sustainable. [Resolution 33 (Cg-18)](https://library.wmo.int/doc_num.php?explnum_id=9827#page=115) on Advancing Integrated Health Services set forth technical and strategic priorities in the 2019–2023 WHO-WMO Health Environment and Climate Science to Services Master Plan (see progress report 2019–2022 ([SERCOM-2/INF. 5.10(3c)](https://library.wmo.int/doc_num.php?explnum_id=11502#page=448)). The Commission for Weather, Climate, Water and Related Environmental Services and Applications (SERCOM) Joint WHO-WMO Study Group on Integrated Health Services further refined and enhanced the Masterplan by establishing its implementation requirements (see [Resolution 16 (EC-76)](https://meetings.wmo.int/EC-76/_layouts/15/WopiFrame.aspx?sourcedoc=/EC-76/English/2.%20PROVISIONAL%20REPORT%20(Approved%20documents)/EC-76-d03-1(15)-INTEGRATED-CLIMATE-AND-HEALTH-SCIENCE-AND-SERVICES-2023-2033-approved_en.docx&action=default), calling for expanded WMO focus on heat and health (Resolution 17 (EC-76); and developing an Integrated Health Science and Services Conceptual Framework to highlight good practices necessary for implementation success [(SERCOM-2/INF. 5.10(3b)](https://library.wmo.int/doc_num.php?explnum_id=11502#page=433)).

### Implementing innovative mechanisms and actions for better health and well-being

8. The 2023–2033 Implementation Plan for Advancing Climate, Environment and Health Science and Services, proposes innovative approaches, sustained mechanisms, and engagement opportunities for “better health and well-being for people facing existing and emerging extreme weather events, climate change, and environmental risks through the effective integration of climate, environment and health science and services across the world”. The implementation of the catalytic actions within this plan will help WMO Members to better serve societal needs, by delivering, authoritative, accessible, user-oriented and fit-for-purpose information and services.

**Expected action**

9. Based on the above, Congress is invited to adopt the draft Resolution 4.1(8)/1 (Cg‑19).

# DRAFT RESOLUTION

## Draft Resolution 4.1(8)/1 (Cg-19)

## Implementation of Integrated Health Science and Services

THE WORLD METEOROLOGICAL CONGRESS,

**Recalling:**

(1) [Resolution 1 (Cg-Ext.(2012))](https://library.wmo.int/doc_num.php?explnum_id=5204#page=13) – *Implementation of the Global Framework for Climate Services*, whereby health was deemed a priority sector,

(2) [Resolution 47 (Cg-17)](https://library.wmo.int/doc_num.php?explnum_id=3138#page=525) – Global Atmosphere Watch Programme,

(3) Resolution 4.3(2)/1 (Cg-19) – Science and Implementation Plan of the Global Atmosphere Watch Programme for the period 2024–2027,

(4) [Resolution 33 (Cg-18)](https://library.wmo.int/doc_num.php?explnum_id=9827#page=115) – Advancing Integrated Health Services, and its annex - Summary of the WHO-WMO Health, Environment, and Climate Science to Services Master Plan,

(5) [Resolution 3 (EC-70)](https://library.wmo.int/doc_num.php?explnum_id=4981#page=17) – Integrated Health Services,

(6) [Resolution 1(SERCOM-1)](https://library.wmo.int/doc_num.php?explnum_id=10767) to establish a Study Group for Integrated Health Services

(7) [Resolution 8 (EC-73)](https://library.wmo.int/doc_num.php?explnum_id=11008#page=34) – Integrated Health Services.

**Having examined**:

(1) [Resolution 16](https://meetings.wmo.int/EC-76/_layouts/15/WopiFrame.aspx?sourcedoc=/EC-76/English/2.%20PROVISIONAL%20REPORT%20(Approved%20documents)/EC-76-d03-1(15)-INTEGRATED-CLIMATE-AND-HEALTH-SCIENCE-AND-SERVICES-2023-2033-approved_en.docx&action=default) (EC-76) - Implementation plan for Integrated Health Science and Services 2023–2033,

(2) [Resolution 17](https://meetings.wmo.int/EC-76/_layouts/15/WopiFrame.aspx?sourcedoc=/EC-76/English/2.%20PROVISIONAL%20REPORT%20(Approved%20documents)/EC-76-d03-1(16)-WMO-ACTIVITIES-EXTREME-HEAT-AND-HEALTH-approved_en.docx&action=default) (EC-76) – WMO Activities of Extreme Heat and Health,

**Considering** the experience gained and lessons learned over time in implementing WMO

activities addressing weather, water, climate and environmental services within the health sector by Members’ National Meteorological and Hydrological Services (NMHSs),

**Welcomes** the progress and partnerships established through the Global Heat Health Information Network, and the establishment of the WHO-led Alliance for Transformative Action on Climate and Health,

**Agrees** that accelerated implementation of life-saving preparedness and early warnings of extreme heat, biological, and other risks to human health, should occur in coordination with the Early Warnings for All Initiative, relevant national health authorities, and relevant WMO research and programmes,

**Notes** that the issues of health will be directly addressed by Strategic Objectives 1.1, 1.2 and 1.4 of the WMO Strategic Plan and that requires enhanced collaboration between the climate and health sectors at regional and national levels, as well as addressing additional needs and gaps, that will be identified in the forthcoming 2023 WMO State of Climate Services Report on Health,

**Decides** to further strengthen WMO efforts as regards health research and service delivery through the Implementation Plan for Advancing Integrated Climate, Environment, and Health Science and Services (2023–2033) representing part three of the WHO-WMO Health, Environment, and Climate Science to Services Master Plan as summarized in the [annex](#_Annex_to_draft),

**Recognizes** the Implementation Plan embraces an integrated system approach to build integrated information services that enhance urban resilience extending to climate-related health risks including the intersection of urban planning, heat and air quality, climate sensitive diseases, food availability and quality, and water-related illnesses, as well as enhancing low-carbon and sustainable health systems,

**Endorses** the maintenance or establishment of the identified mechanisms for the effective implementation of health-related science and services, *inter alia*:

 WHO-WMO Joint Office and *[USA]* Programme of Work for Climate, Health, and Environment

 NMHS Health Focal points to lead and coordinate health engagements and form a health community of practice

 Climate and Health Literacy and Skills programme

 Technical Support Teams/Centres of Excellence in Climate and Health

 Expert Teams to address specific requirements, guidance, and topics

 National and Regional Climate and Health Plans and Coordination mechanisms

 Climate and Health Fellowship and Secondment programme

 Climate and Health science communication toolkit

 ClimaHealth.info online platform

 Global Heat Health Information Network

 Demonstration projects and technical and good practice guidance,

**Requests:**

(1) The technical commissions, the Research Board and the Executive Council to establish appropriate mechanisms for the effective support of the WMO-WHO Joint Climate and Health Office and implementation of Integrated Health Services;

(2) The technical commissions and the Research Board to responsively co-design with the research and health community, products and services required to effectively support public health by all Members, and to assist in strengthening the capacities of the National Meteorological and Hydrological Services (NMHSs), Regional Specialized Meteorological Centres (RSMCs) and Regional Climate Centres (RCCs) and other providers and users of health-tailored information services;

(3) NMHSs, RSMCs, and RCCs to enhance support to *[Russian Federation]* the health sector and continue to nominate and support the work of health sector focal points for health-related research and services;

(4) The Secretary-General to provide the necessary support to maintain and/or establish the mechanisms outlined as necessary for implementation, including the establishment of a joint technical oversight mechanism with WHO and the revision of the WHO-WMO Joint Office terms of reference in accordance with any new mandate, as appropriate;

**Invites** Members to contribute to the implementation of integrated health science and services by sharing current capacities, expertise and experience; to strengthen research and operational mechanisms, including open sharing of meteorological and health data; to facilitate coordination and cooperation of their NMHSs and other relevant actors with the health community on matters of climate, weather, water and environmental health risks; and to nominate health experts to the WMO Expert Network;

**Invites also** the World Health Organization, Members and development and research partners to co-fund *[United Republic of Tanzania]* such arrangements;

**Invites further** the World Health Organization to nominate experts to the WMO Expert Network to work in relevant bodies established by technical commissions.

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[Annex: 1](#_Annex_to_draft)

[Cg-19/INF. 4.1(8)](https://meetings.wmo.int/Cg-19/InformationDocuments/Forms/AllItems.aspx) for more information

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Note: This resolution replaces [Resolution 33 (Cg-18)](https://library.wmo.int/doc_num.php?explnum_id=9827#page=115), [Resolution 3 (EC-70)](https://library.wmo.int/doc_num.php?explnum_id=4981#page=17) and [Resolution 8 (EC-73)](https://library.wmo.int/doc_num.php?explnum_id=11008#page=34), which are no longer in force.

## Annex to draft Resolution 4.1(8)/1 (Cg-19)

## SUMMARY OF THE WHO-WMO HEALTH, ENVIRONMENT, AND CLIMATE SCIENCE TO SERVICES MASTER PLAN

(1) The Health, Environment, and Climate Science to Services Master Plan assists WMO and the World Health Organization (WHO) in implementing a Framework Collaboration Agreement signed in 2018. The objective of the Master Plan is *to improve health outcomes and enhance the assessment and management of weather, climate, water, and atmospheric related risks to human health*. The Master Plan itself serves as a process and instrument to help WHO and WMO enhance dialogue, develop common strategic and technical agendas, and identify and establish the required mechanisms to accelerate cooperation in priority areas at global, regional, and national levels. It aims to provide for high-level alignment and synergies and builds on and complements existing mechanisms and initiatives.

(2) The scope of the Master Plan includes actions to enhance the understanding and management of health risks associated with extreme weather, water and climate events and long-term climate change (including improved access and use of weather, water and climate data for risk assessment and reduction, generation of evidence, adaptation planning, and application of tailored science and services); as well as enhancing the monitoring, forecasting, warning and management of environmental health risks, such as ultraviolet (UV) radiation, hazardous air quality, and water. It seeks opportunities to promote health co-benefits of climate change mitigation and adaptation and to address the needs of populations highly vulnerable to environmental and climatic changes, such as those in urban areas, Low- and Middle-Income Countries, and Small Island Developing States (SIDS).

(3) WMO and WHO have agreed to work collaboratively and where appropriate, jointly, to:

(a) Promote the alignment of relevant policies and raise awareness of environmental and climate related risks and solutions to protect human health;

(b) Promote the generation and application of scientific evidence;

(c) Establish appropriate technical mechanisms and partnerships to facilitate the development, delivery, access to and use of data and tailored information products on weather, climate, and environmental hazards to health;

(d) Develop and disseminate technical and normative guidance, scientific publications and tools, and other actions to support capacity development; and,

(e) Monitor progress on the access and use of reliable and relevant weather, climate, and environmental and health information.

(4) The Master Plan reflects the above scope of the Framework Collaboration Agreement and includes three parts: (1) Overview; (2) Interagency Work Plan (see [(Cg-18)/INF. 5.5](https://library.wmo.int/doc_num.php?explnum_id=9797#page=489)); and (3) a 10-year Implementation Plan developed in 2021–2022 by the WHO and SERCOM joint study group on Integrated Health Services (see [Resolution 16](https://meetings.wmo.int/EC-76/_layouts/15/WopiFrame.aspx?sourcedoc=/EC-76/English/2.%20PROVISIONAL%20REPORT%20(Approved%20documents)/EC-76-d03-1(15)-INTEGRATED-CLIMATE-AND-HEALTH-SCIENCE-AND-SERVICES-2023-2033-approved_en.docx&action=default) (EC-76)) responding to the request of [Resolution 33 (Cg-18)](https://library.wmo.int/doc_num.php?explnum_id=9827#page=115).

(5) The Interagency Work Plan presents four joint high-level goals during 2019–2023:

(a) **Climate and Health:** Enhance health system resilience to climate variability and climate change through improved evidence, capacity, provision and application of climate information products and services to health policy and programming;

(b) **Weather, Climate, Hydrological Extreme events, and Health Emergencies:** Enhance Health Emergency and Disaster Risk Management to better understand, anticipate, and manage health risks of extreme weather, climate, and hydrological events, and benefit from Multi-hazard Early Warning Systems;

(c) **Atmosphere and Environment:** Strengthen and harmonize air quality and radiation-related monitoring, modelling, and use of atmospheric and environmental science in public health, including in environmental emergencies;

(d) **Water and Health:** Enhance water sanitation and hygiene (WASH) sector climate risk management capacity to maintain and improve access to and quality of water and sanitation through improved availability and use of climate and hydrological information products and services;

(6) Details of individual and joint activities planned for implementation are provided and biannually updated and reported on to both organizations.

(7) The SERCOM-WHO Joint Study Group on Integrated Health Services (2020–2024) developed the conceptual framework and Implementation Plan for the 2023–2033 period to reflect a more integrated approach and prioritization of previous goals, objectives, and activities (See [Resolution 16](https://meetings.wmo.int/EC-76/_layouts/15/WopiFrame.aspx?sourcedoc=/EC-76/English/2.%20PROVISIONAL%20REPORT%20(Approved%20documents)/EC-76-d03-1(15)-INTEGRATED-CLIMATE-AND-HEALTH-SCIENCE-AND-SERVICES-2023-2033-approved_en.docx&action=default) (EC-76)). The implementation plan presents strategic actions and mechanisms to be addressed in six cross cutting areas and four grand challenge areas, responding to health risks related to the Urban Climate Health Nexus, Infectious Diseases, Climate and Nutrition Nexus, and Low-carbon and resilient health systems.

(8) The interagency workplan also prioritized activities to maintain momentum and visibility, strengthen partnerships, identify needs, and deliver key products that will help expand future work, during the development of the 2023–2033 Implementation Plan. These include:

(a) **The WHO/WMO Joint Office for Climate and Health** provides interagency coordination, partner engagement, resource mobilization, and technical support for strategic and technical activities, including the WMO response to emerging needs such as COVID-19 and extreme heat risks;

(b) The **WHO-WMO Climate and Health Science Portal** [**www.climahealth.info**](http://www.climahealth.info)launched in 2022 supports the Master Plan aims and provides an online platform for sharing reliable information and resources on climate, health, and environment;

(c) **WMO Integrated Health Service Focal Points, Capacities Mapping and Profiles.** Nominated focal points for health in around 70 NMHSs have helped create “Service Provider profiles” featuring resources and case studies describing the integrated information services for health provided by WMO Members;

(d) **Guidance for operationalizing climate-informed health products and services** to identify appropriate mechanisms and guidance, including good practices in sharing arrangements of meteorological and health data, data integration and information management, co-production of health sector-specific climate products and services;

(e) The WHO-led **Global Air Pollution and Health - Technical Advisory Group** **(GAPH-TAG)** is an existing mechanism for WHO and WMO collaboration. The Scientific Steering Committee (SSC) and several Scientific Advisory Groups of the WMO Global Atmosphere Watch (GAW) Programme contribute to the activities of the GAPH-TAG, and health-related collaboration on dust issues occurs through the WMO-led Sand and Dust Storms Warning and Advisory System;

(f) **The Global Heat Health Information Network (GHHIN)** to enhance capacity to address the health risks of extreme heat through global and regional partnerships, dialogues and publications for learning, synthesis, and awareness raising;

(g) **Health in multi-hazard early warning systems (MHEWS)**: WHO and WMO scoped opportunities to strategically improve the health sector’s involvement in MHEWS and strengthen hydrometeorological service provision (warnings, advisories, updates) to the UN system and international actors for emergency preparedness and response;

(h) **Strengthen interdisciplinary research** for integrated assessments, impact and social science research, and co-production of products and services, through agenda setting and engagement with research bodies and strategic projects;

(i) **Climate services for health country projects:** WHO and WMO together implement the Global Framework for Climate Services (GFCS) Adaptation for Africa Project in Malawi and Tanzania. WHO is scaling up climate service applications in additional countries, notably testing the climate service readiness assessment tool and building integrated climate and health surveillance systems;

(j) **Rejuvenation of the INTERSUN Project**: Revitalization of the partnership between WHO, WMO and UN Environment (Est. 1995) to expand membership and account for recent advances and work to develop guidance on standards to support Member States with UV protection of the public and of workers, co-develop new tools to share relevant UV information;

(k) **WMO COVID-19 response:** a TT was launched by the Research Board to evaluate the evolving state of understanding of meteorological and air quality (MAQ) factors affecting SARS-COV-2 transmission and COVID-19 severity, and technical guidance provided through the GHHIN.

(9) For more information refer to **Interim Progress on the Health, Environment, and Climate Science to Services Master Plan 2019-2022** ([(SERCOM-2/INF. 5.10(3c))](https://library.wmo.int/doc_num.php?explnum_id=11502#page=448) and [Cg-19/INF. 4.1(8)](https://meetings.wmo.int/Cg-19/InformationDocuments/Forms/AllItems.aspx)).

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