

**Global Framework for Climate Services
(GFCS)**

IBCS MC3/INF. 4

IBCS MANAGEMENT COMMITTEE

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AGENDA ITEM 4: REVIEW OF PARTNERS' GOVERNING BODIES DECISIONS

Report of the 17th session of the World Meteorological Congress (Cg-17):

http://library.wmo.int/pmb_ged/wmo_1157_en.pdf

Report of the 67th Executive Council (EC-67):

http://library.wmo.int/pmb_ged/wmo_1158_en.pdf

Resolution 60 (Cg-17)**WMO POLICY FOR THE INTERNATIONAL EXCHANGE OF CLIMATE DATA AND PRODUCTS TO SUPPORT THE IMPLEMENTATION OF THE GLOBAL FRAMEWORK FOR CLIMATE SERVICES**

THE WORLD METEOROLOGICAL CONGRESS,

Noting:

- (1) Resolution 40 (Cg-XII) – WMO policy and practice for the exchange of meteorological and related data and products including guidelines on relationships in commercial meteorological activities,
- (2) Resolution 25 (Cg-XIII) – Exchange of hydrological data and products,
- (3) Resolution 16 (Cg-XVI) – Climate data requirements,
- (4) Resolution 48 (Cg-XVI) – Implementation of the Global Framework for Climate Services,
- (5) Resolution 1 (Cg-Ext.(2012)) – Implementation Plan of the Global Framework for Climate Services,
- (6) Resolution 2 (Cg-Ext.(2012)) – Establishment of the Intergovernmental Board on Climate Services,
- (7) Resolution XXII-6 – IOC Oceanographic Data Exchange Policy, adopted by the Assembly of the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization at its twenty-second session,
- (8) *The Abridged Final Report with Resolutions of the Sixty-fifth Session of the Executive Council* (WMO-No. 1118), Annex II – The role and operation of National Meteorological and Hydrological Services – A Statement by the World Meteorological Organization,

Recalling:

- (1) That the World Meteorological Congress at its extraordinary session in 2012 had adopted the Implementation Plan of the Global Framework for Climate Services (GFCS) for the subsequent consideration of the Intergovernmental Board on Climate Services,
- (2) That the vision of the Framework is to enable society to manage better the risks and opportunities arising from climate variability and change, especially for those who are most vulnerable to climate-related hazards,
- (3) That of the eight principles for the implementation of the Framework, principles 2, 4, 5 and 6 state that:
 - (a) The primary goal will be to ensure greater availability of, access to and use of enhanced climate services for all countries,
 - (b) Climate services must be operational and continuously updated,
 - (c) Climate information is primarily an international public good provided by governments, which will have a central role in its management,
 - (d) It will promote the free and open exchange of climate-relevant data, tools and scientifically based methods while respecting national and international policies,

- (4) That WMO, and its constituent bodies, play an essential role in the establishment and maintenance of systems for the rapid exchange of meteorological and related information,
- (5) That Resolution 1 (Cg-Ext.(2012)) urges governments to strengthen national, regional and global capabilities to collect, rescue and exchange data and products, to generate climate information and products, and to provide climate services to enhance decision-making through implementation of a framework for climate services at the national level,
- (6) That WMO Resolution 40 (Cg-XII) recognizes:
 - (a) The basic responsibility of Members and their National Meteorological or Hydrometeorological Services (NMSs) to provide universal services in support of safety, security and economic benefits for the peoples of their countries,
 - (b) The dependence of Members and their NMSs on the stable, cooperative international exchange of meteorological and related data and products for discharging their responsibilities,
 - (c) The continuing requirement for Governments to provide for the meteorological infrastructure of their countries,
 - (d) The continuing need for, and benefits from, strengthening the capabilities of NMSs, in particular in developing countries, to improve the provision of services,
 - (e) The dependence of the research and education communities on access to meteorological and related data and products,

Recalling further the terminology defined in Annex 4 to WMO Resolution 40 (Cg-XII):

- (1) “Free and unrestricted” means non-discriminatory and without charge,
- (2) “Without charge”, in the context of Resolution 40 (Cg-XII) means at no more than the cost of reproduction and delivery, without charge for the data and products themselves,
- (3) Products are developed from geophysical (meteorological, oceanographic and so forth) observational data acquired and produced by Members to support WMO programme requirements,

Considering:

- (1) That the present resolution will apply only to meteorological, hydrological and climatological data and products, including related environmental data and products, developed or acquired under WMO auspices and required to support the implementation of the Framework, hereinafter referred to as GFCS relevant data and products,
- (2) The fundamental importance of the free and unrestricted exchange of GFCS relevant data and products among Members to facilitate the implementation of the Framework and to enable society to manage better the risks and opportunities arising from climate variability and change, especially for those who are most vulnerable to climate-related hazards,
- (3) That the role of the WMO World Data Centres (WDCs), Global Producing Centres for Long-range Forecasts (GPCLRFs), Regional Climate Centres (RCCs), Regional Climate Outlook Forums (RCOFs) and the International Council for Science (ICSU) World Data System (WDS) in the provision of consolidated global and regional GFCS relevant data and products, as well as the framework of the Global Climate Observing System (GCOS) Essential Climate Variables (ECVs) (Atmospheric, Oceanic and Terrestrial), results in a substantial contribution of WMO to the Framework, in particular through the GFCS Climate Services Information System (CSIS),

- (4) The WMO Statement on the role and operation of National Meteorological and Hydrological Services (NMHSs) in relation to their role in the provision of national GFCS relevant data and products in furthering applications of meteorology, climatology and hydrology and water resources management to all human activities, and in their role in the Framework at the national, regional and, in some cases, global levels,
- (5) The importance of the contribution of other GFCS partner organizations and the role these organizations can play in support of the goals and objectives of the Framework,
- (6) The priority areas (health, disaster risk reduction, agriculture and food security, water and energy) for the implementation of the Framework and the GFCS relevant data related requirements of these priority areas as identified in the annexes to the Implementation Plan of the Global Framework for Climate Services,

Recognizing:

- (1) The need for increased access to different types of GFCS relevant data and products to support the GFCS Implementation Plan, in accordance with Resolution 1 (Cg-Ext. (2012)),
- (2) The importance of access to reliable, relevant and timely data and products in supporting resilience to climate variability and change and underpinning sustainable development as espoused at various international forums, such as the United Nations Conference on Sustainable Development (Rio +20), and the meetings of the Conference of the Parties of the United Nations Framework Convention on Climate Change, the Third United Nations World Conference on Disaster Risk Reduction and the planned General Assembly of the United Nations that will adopt the post-2015 sustainable development goals,
- (3) That increased availability of, and access to, GFCS relevant data, especially in data-sparse regions, can lead to better quality and will create a greater variety of products and services,
- (4) That increased use of reliable climate products and stronger collaboration between providers and users can lead to improved climate-smart decisions, including those decisions relevant to climate change issues,
- (5) The successful experience gained by Members in the development and implementation of Resolutions 40 (Cg-XII) and 25 (Cg-XIII),

Recognizing further:

- (1) The rights of governments to choose the manner by and the extent to which they make their GFCS relevant data and products available domestically and for international exchange, taking into consideration relevant international instruments and national policies and legislation,
- (2) The obligation of users of GFCS relevant data and products to respect the conditions of use set by the owners of the data and products, such as attribution or compensation, to facilitate access to the data and products,
- (3) That different NMHSs have different business models and that some of these are predicated on cost recovery from the users, including the private sector, of data and products as a means of supporting the costly infrastructure necessary for generating such data and products,
- (4) The significant and increasing levels of resources being allocated internationally for implementation of activities consistent with, and supportive of, the objectives of the GFCS,

Decides:

- (1) To adopt the policies and practices, including the guidelines, of Resolution 40 (Cg-XII) and Resolution 25 (Cg-XIII) for the exchange of GFCS relevant data and products to enable the achievement of the goals and objectives of the Framework;
- (2) That the climate data and products covered by Resolution 40 (Cg-XII) and the GFCS relevant data and products subsumed under Resolution 25 (Cg-XIII) will continue to be governed by these resolutions;
- (3) That the GFCS relevant data and products from the WMO WDCs, GPCLRFs, RCCs, RCOFs and the ICSU WDS, as well as from the framework of the GCOS ECVs (Atmospheric, Oceanic and Terrestrial), will constitute an essential contribution to the Framework and therefore should be made accessible among Members, in particular through the GFCS CSIS, on a free and unrestricted basis;

Urges Members:

- (1) To provide the additional GFCS relevant data and products that are required to support and sustain the operational climate services as the core element of the Framework and WMO initiatives at the global, regional and national levels and, further, as mutually agreed, to assist other Members to enhance access to GFCS relevant data and products and in the provision of climate services in their countries; such additional GFCS relevant data and products are listed in the annex to the present resolution and could have conditions associated with their use, such as restrictions on their use for commercial purposes, attribution of their source or licensing;
- (2) To establish funding mechanisms, including new investments, for sustaining the network of stations and sensors needed for the global observing systems for climate, and also the maintenance and operation of the data preparation and management systems necessary to support the implementation of the present resolution;

Further urges Members:

- (1) To strengthen their commitment to the free and unrestricted exchange of GFCS relevant data and products;
- (2) To increase the volume of GFCS relevant data and products accessible to meet the needs for implementation of the Framework and the requirements of GFCS partners;
- (3) To make use of the WMO Information System (WIS) for the exchange of GFCS relevant data and products among Members;
- (4) To promote the central role that NMHSs play at the national, regional and, in some cases, global levels in the provision of information, in particular to the WIS;
- (5) To provide the related metadata as defined by WIS and WMO Integrated Global Observing System standards;
- (6) To strengthen their support to the WMO WDCs, GPCLRFs, RCCs, RCOFs, the ICSU WDS, as well as the framework of the GCOS ECVs, in the collection and supply to and by these centres of GFCS relevant data and products on a free and unrestricted basis;
- (7) To implement the practice on the international exchange of GFCS relevant data and products, as described in Decides (1) to (3) above;

- (8) To inform all third parties of any terms and conditions associated with the additional GFCS relevant data and products, including their related metadata, such as ownership and attribution;
- (9) To make best efforts to ensure that users and subsequent users are aware of the conditions of use of the additional GFCS relevant data and products, particularly regarding their redistribution;

Requests the Intergovernmental Board on Climate Services:

- (1) To apply the present resolution in the context of the implementation of the Framework;
- (2) To consider the GFCS relevant data and products that are needed under the auspices of WMO to contribute to the Framework and make recommendations in this respect to the Executive Council for its consideration;
- (3) To strengthen effective coordination with GFCS partners, including the Food and Agriculture Organization of the United Nations, the World Food Programme, the World Health Organization, the United Nations Office for Disaster Risk Reduction, the United Nations Educational, Scientific and Cultural Organization including its International Oceanographic Commission, the United Nations Development Programme, the United Nations Environment Programme, and other relevant international organizations;
- (4) To encourage GFCS partners to adopt similar policies and practices concerning the free and unrestricted exchange of their relevant data and products in support of GFCS implementation;
- (5) To consider and recommend to the World Meteorological Congress how third-party data and products could be treated in the context of the implementation of the present resolution;

Requests the Executive Council:

- (1) To invite the president of the Commission for Climatology and the president of the Commission for Basic Systems, in collaboration with other technical commissions, to provide advice and assistance on the technical aspects of implementation of the present resolution and ensure that appropriate standards are identified, implemented and maintained;
- (2) To task the technical commissions, as appropriate, to regularly review and update the GFCS relevant data and products to be provided by the global and regional climate centres, with a view to increasing the access to and availability of GFCS relevant data and products;
- (3) To take into consideration the views of the Intergovernmental Board on Climate Services with respect to the issues that may arise with the implementation of the present resolution;
- (4) To monitor the implementation of policies and practices of the present resolution and, if necessary, make proposals in this respect to the Eighteenth World Meteorological Congress;
- (5) To take into consideration the recommendations by the Intergovernmental Board on Climate Services with regard to its needs for GFCS relevant data and products developed or acquired under WMO auspices and, if necessary, make proposals to the World Meteorological Congress for changes to the annex to the present resolution;

- (6) To foster initiatives:
- (a) That enhance the capabilities of Members, especially least developed countries and developing countries, to provide, deliver and improve access to GFCS relevant data and products to adequately respond to user needs and to enable their use in decision-making by all relevant societal sectors;
 - (b) That support Members in the implementation of the present resolution, especially those that are most vulnerable to climate-related hazards;

Requests the Secretary-General:

- (1) To undertake a global survey, to the extent possible within the resources available, and analysis of the various data policies and models of service provision of Members, for example, cost recovery and public services, identifying successful strategies and best practices that can assist NMHSs in making the case to their governments and partners for establishing funding mechanisms, including new investments, for sustaining the network of stations and sensors needed for the global observing systems for climate, and also the maintenance and operation of the data preparation and management systems, necessary to support the implementation of the present resolution;
- (2) To promote and fully disseminate this policy to all Members to facilitate the exchange of GFCS relevant data and products among related national institutions responsible for meteorological or hydrological activities to enhance the provision of climate services at the national level;
- (3) To bring the present resolution to the attention of Members, WMO WDCs, RCCs, GPCLRFs, the ICSU WDS, GFCS partners and other international organizations and entities involved in supporting and financing GFCS implementation;
- (4) To make known to all Members those GFCS relevant data and products that have conditions on their use;
- (5) To implement a process for monitoring the accessibility and exchange of GFCS relevant data and products under the present resolution.

Annex to Resolution 60 (Cg-17)

GLOBAL FRAMEWORK FOR CLIMATE SERVICES RELEVANT DATA AND PRODUCTS THAT SHOULD BE EXCHANGED AMONG MEMBERS TO SUPPORT THE IMPLEMENTATION OF THE FRAMEWORK

Purpose

The purpose of this listing of GFCS relevant data and products is to identify a set of data and products which Congress considers necessary to enable society to manage better the risks and opportunities arising from climate variability and change for all nations, especially for those who are most vulnerable to climate-related hazards.

Contents

In addition to the climate data and products provided under Annex 1 to Resolution 40 (Cg-XII), as well as the GFCS relevant data and products subsumed within the general designation of hydrological data and products in Resolution 25 (Cg-XIII), and in addition to all data and products that are already available on a free and unrestricted basis, the following types of data and products are considered necessary for the implementation of GFCS:

- (1) Historical climate time-series from the Regional Basic Climate Networks (RBCNs), the GCOS Upper-Air Network and GCOS Surface Network at a temporal and spatial resolution necessary to resolve the statistics of climate, including trends and extremes;
 - (2) Essential climate variables for the ocean (full depth) (as defined by the GCOS Implementation Plan);
 - (3) Climate relevant coastal interface data, in particular sea level, waves and storm surges;
 - (4) Data on the composition of the atmosphere including aerosols;
 - (5) Climate relevant satellite data and products;
 - (6) Climate relevant cryospheric data, in particular snow cover, snow depth, glacial monitoring, permafrost and lake and river ice.
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Resolution 61 (Cg-17)

GOVERNANCE OF THE GLOBAL FRAMEWORK FOR CLIMATE SERVICES

THE WORLD METEOROLOGICAL CONGRESS,

Noting:

- (1) *The Abridged Final Report with Resolutions of the First Session of the Intergovernmental Board on Climate Services* (WMO-No. 1124),
- (2) The Implementation Plan of the Global Framework for Climate Services (GFCS), approved by the Intergovernmental Board on Climate Services (IBCS) at its first session, along with its annexes and exemplars,
- (3) *The Abridged Final Report with Resolutions of the Second Session of the Intergovernmental Board on Climate Services* (WMO-No. 1149),
- (4) *The Abridged Final Report with Resolutions of the Extraordinary Session 2012 of the World Meteorological Congress* (WMO-No. 1102), Part I,
- (5) *The Abridged Final Report with Resolutions of the Sixteenth World Meteorological Congress* (WMO-No. 1077),

Recognizing:

- (1) The critical role of the Intergovernmental Board on Climate Services in guiding the work of the Framework,
- (2) The importance to ensure sustainability and continuity to the work of the Board,
- (3) The implications and risks of relying on extrabudgetary resources for the support to the sessions of the Board and its Management Committee,

Decides to hold ordinary plenary meetings of the Board only once in the intersessional period between sessions of the World Meteorological Congress, prior to each session, and that the Management Committee meet once a year to provide advice and oversight and to manage implementation of the Framework;

Requests the Secretary-General:

- (1) To make funding available, to the extent possible within available resources, for conference services for IBCS sessions from the WMO budget, in consideration of other GFCS activities;
- (2) To bring the present resolution to the attention of all concerned.

Resolution 62 (Cg-17)

RELATIONSHIP AND INTERACTION BETWEEN THE INTERGOVERNMENTAL BOARD ON CLIMATE SERVICES AND WMO CONSTITUENT BODIES

THE WORLD METEOROLOGICAL CONGRESS,

Noting:

- (1) *The Abridged Final Report with Resolutions of the First Session of the Intergovernmental Board on Climate Services (WMO-No. 1124),*
- (2) The Implementation Plan of the Global Framework for Climate Services (GFCS), approved by the Intergovernmental Board for Climate Services (IBCS) at its first session, along with its annexes and exemplars,
- (3) *The Abridged Final Report with Resolutions of the Second Session of the Intergovernmental Board on Climate Services (WMO-No. 1149),*
- (4) *The Abridged Final Report with Resolutions of the Extraordinary Session 2012 of the World Meteorological Congress (WMO-No. 1102), Part I,*
- (5) *The Abridged Final Report with Resolutions of the Sixteenth World Meteorological Congress (WMO-No. 1077),*

Recognizing the need to establish and maintain the relationship and interaction between the Intergovernmental Board on Climate Services and the constituent bodies of WMO as well as substructures of partner organizations,

Decides to adopt the following arrangements:

- (1) Executive Council: The IBCS Chairperson, with the Vice-Chairperson as alternate, unless they are Executive Council members themselves, shall be invited to inform the Executive Council at its sessions on progress and requirements and needs of the Board; the Executive Council shall designate a representative to attend IBCS sessions as well as IBCS Management Committee sessions;
- (2) Regional associations: Regional associations shall invite the IBCS designated representative to their sessions to inform the associations on progress, requirements and needs of the Board for the specific Regions as appropriate; the Board shall delegate the responsibility to a member of its Management Committee from that Region or to the Chairperson or Vice-Chairperson/Co-Vice-Chairpersons as appropriate;
- (3) Technical commissions: Technical commissions shall invite the IBCS designated representative to their sessions to inform the commissions on progress and requirements and needs of the Board as appropriate; the Board shall delegate the responsibility to a

member of its Management Committee or to the Chairperson or Vice-Chairperson/Co-Vice-Chairpersons as appropriate; the Chairperson of IBCS shall invite the presidents of technical commissions, as deemed appropriate, to attend IBCS as well as Management Committee sessions;

- (4) Technical commissions and Programmes: Relevant technical commissions and WMO Programmes should identify a GFCS liaison; these individuals can report through the technical commission Management Groups on ways to better align technical commission operating plans with GFCS activities and, conversely, inform the Board of relevant technical commission activities that support the Framework;
- (5) Secretary-General: WMO should reach out to the technical commissions, or equivalent, of GFCS partner organizations, as needed, for input into IBCS Partner Advisory Committee activities; the Secretary-General should also submit relevant activities as GFCS contributions via the existing processes established for other partners;

Requests the Secretary-General to bring the present resolution to the attention of all concerned.

Resolution 63 (Cg-17)

ENERGY AS AN ADDITIONAL PRIORITY AREA OF THE GLOBAL FRAMEWORK FOR CLIMATE SERVICES

THE WORLD METEOROLOGICAL CONGRESS,

Noting:

- (1) *The Abridged Final Report with Resolutions of the First Session of the Intergovernmental Board on Climate Services* (WMO-No. 1124),
- (2) The Implementation Plan of the Global Framework for Climate Services (GFCS) approved by the Intergovernmental Board on Climate Services at its first session, along with its annexes and exemplars,
- (3) *The Abridged Final Report with Resolutions of the Second Session of the Intergovernmental Board on Climate Services* (WMO-No. 1149),

Recognizing:

- (1) The demand and importance of sustainable energy for global sustainable development including in the four priority areas of the Framework,
- (2) The implications of international efforts to limit dangerous climate change for dramatically increased adoption of climate-sensitive renewable energy sources such as wind, solar power and hydropower,
- (3) That with increased climate variability and change, the sensitivity of the energy sector to weather and climate will increase, and thus the demand for climate services for the energy sector,

Recognizing also:

- (1) The potential for the Framework to contribute to improved energy-related outcomes, both in terms of promotion of renewable energy sources and energy saving as well as through

protection of energy infrastructure and delivery systems from weather and climate extremes,

- (2) That GFCS implementation has already started on four key climate-sensitive sectors, and that this experience can now be extended for addressing the energy sector,

Taking into account:

- (1) The current effort for the establishment of United Nations sustainable development goals, which may include a specific global goal and targets on energy,
- (2) The establishment of the Sustainable Energy for All initiative in 2011 by the Secretary-General of the United Nations, which is now a strong partnership involving more than 100 countries including 85 developing countries,
- (3) The United Nations Framework Convention on Climate Change Lima call for climate action and the prioritization of low-emission power generation as a key strategic result of the Green Climate Fund which is nearing operation,

Decides:

- (1) To adopt energy as the fifth priority of the Framework;
- (2) To develop the Energy Exemplar as a means of guiding the enhanced provision of climate services for the energy sector and engaging the relevant stakeholders;
- (3) To pilot interventions identified in selected countries with the support of Members and partners to inform the process of Exemplar development and implementation;

Encourages the IBCS Partner Advisory Committee to advise on how partners can contribute to the Exemplar and its conclusions and recommendations;

Encourages Members and the IBCS Partner Advisory Committee to support development of the Exemplar and the implementation of selected pilot activities by seconding experts on energy or financial resources to the GFCS Trust Fund;

Requests the Intergovernmental Board on Climate Services to provide oversight on the further development and implementation of the Energy Exemplar;

Requests the Secretary-General and the Board to ensure that resources and efforts directed towards the new GFCS priority area of energy will not hinder or compete with the early progress being made in the four initial priority areas;

Requests the Secretary-General:

- (1) To support the further development of the Exemplar and mobilize resources and expertise for its completion;
 - (2) To bring the present resolution to the attention of all concerned.
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Resolution 64 (Cg-17)**DEVELOPMENT OF A RESULTS-BASED FRAMEWORK FOR WMO SUPPORT TO THE IMPLEMENTATION OF THE GLOBAL FRAMEWORK FOR CLIMATE SERVICES**

THE WORLD METEOROLOGICAL CONGRESS,

Noting:

- (1) The *Abridged Final Report with Resolutions of the First Session of the Intergovernmental Board on Climate Services* (WMO-No. 1124),
- (2) The Implementation Plan of the Global Framework for Climate Services (GFCS) approved by the Intergovernmental Board on Climate Services at its first session, along with its annexes and exemplars,
- (3) The reports of the sessions of all regional associations and technical commissions held during the financial period 2012–2015,

Noting further:

- (1) The prominence of climate-related issues in the post-2015 policy dialogue and frameworks and the accompanying increased visibility of, and anticipated demand for, climate services,
- (2) The priority accorded to supporting GFCS implementation in the WMO Strategic Plan 2016–2019,
- (3) The significant investments being made in supporting climate services globally and the expected continued growth thereof,
- (4) The experience gained in supporting GFCS implementation by WMO and its partners to date,
- (5) The large volume of current and planned activities supporting GFCS implementation across technical commissions, regional associations and programmes, including co-sponsored programmes, and the need to further align them and to be able to document their combined GFCS-related outputs and results,

Requests the Secretary-General:

- (1) To develop a results-based framework identifying the specific WMO contributions to GFCS implementation and associated expected outputs over the seventeenth financial period in line with the WMO Strategic Plan 2016–2019;
- (2) To focus the framework on achieving coordination and synergies across the technical commissions, regional associations and programmes, including co-sponsored programmes, for supporting GFCS implementation at the regional and country levels;
- (3) To ensure that the framework is driven by country-level implementation support requirements including through a focus on specific illustrative countries as a means of making certain that the activities and outputs address particular identified needs in particular contexts while at the same time emphasizing measures with broad applicability;
- (4) To ensure that activities included in the framework are explicitly identified as contributions to GFCS implementation as requested by the Intergovernmental Board on Climate Services at its second session;

- (5) To bring the present resolution to the attention of GFCS partners and encourage them to similarly identify their contributions to GFCS implementation;

Requests the Executive Council to explore mechanisms, taking into account previous successes such as the Intercommission Coordination Group on the WMO Integrated Global Observing System, and implement and monitor, to the extent possible within available resources, a mechanism to advance WMO contributions to the Global Framework for Climate Services, in line with a results-based framework, with participation from relevant working groups of the technical commissions and regional associations, and co-sponsored programmes;

Requests the technical commissions, regional associations and programmes, including co-sponsored programmes:

- (1) To contribute to the development of the results framework;
 - (2) To report back on the outputs generated and results achieved in the context of the framework as part of their ongoing reporting processes.
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Resolution 6 (EC-67)

**A MECHANISM TO ADVANCE WMO CONTRIBUTION TO THE GLOBAL
FRAMEWORK FOR CLIMATE SERVICES**

THE EXECUTIVE COUNCIL,

Noting:

- (1) Resolution 3 (EC-66) – Coordination between regional associations and technical commissions,
- (2) Resolution 15 (Cg-17) – World Climate Programme,
- (3) Resolution 62 (Cg-17) – Relationship and interaction between the Intergovernmental Board on Climate Services and WMO constituent bodies,
- (4) Resolution 64 (Cg-17) – Development of a results-based framework for WMO support to the implementation of the Global Framework for Climate Services,

Considering the request of the Seventeenth World Meteorological Congress for the Executive Council to:

- (1) Ensure effective coordination among all the bodies responsible for the implementation of the World Climate Programme (WCP), including through setting up appropriate mechanisms therefor,
- (2) Explore, implement and monitor, within available resources, a mechanism to advance WMO contribution to the Global Framework for Climate Services (GFCS), taking into

account previous successes, such as the Intercommission Coordination Group on the WMO Integrated Global Observing System, in line with a results-based framework, with the participation of relevant technical commissions, regional association working groups and co-sponsored programmes,

Recognizing that Resolution 3 (EC-66) establishes various coordination mechanisms for strengthening the linkages and collaboration between regional associations and technical commissions in order to improve the implementation of WMO Programmes in the framework of the results-based management of the Organization, including through regular joint meetings of presidents of regional associations and presidents of technical commissions to be held at least annually,

Recognizing further:

- (1) That Resolution 62 (Cg-17) provides a series of mechanisms to establish and maintain the relationship and interaction between the Intergovernmental Board on Climate Services (IBCS) and the constituent bodies of WMO as well as substructures of partner organizations,
- (2) That the Seventeenth Congress specifically decided that the IBCS Chairperson, with a Vice-Chairperson as alternate, unless they are Executive Council members themselves, shall be invited to inform the Council at its sessions of progress, requirements and needs of the IBCS, and that the IBCS Chairperson shall extend an invitation to the Executive Council to designate a representative to attend sessions of the IBCS and of its Management Committee,

Decides:

- (1) To establish a mechanism to advance WMO contribution to the GFCS through the regular joint meetings of presidents of regional associations and presidents of technical commissions;
- (2) To invite additional participants to extended sessions of these joint meetings, including representatives from the Executive Council, co-sponsored constituent programmes of the WCP, namely the Global Climate Observing System, the World Climate Research Programme, and the Global Programme of Research on Climate Change Vulnerability, Impacts and Adaptation, and other parties whose participation may be required;

Requests the President, as chairperson of these joint meetings, to lead a review, to be carried out at the first meeting by the representatives of the relevant bodies and programmes, of the annex to the present resolution, to finalize the terms of reference for future work and make recommendations to the sixty-eighth session of the Executive Council;

Requests the Secretary-General to provide the necessary assistance and support to the functions described in the terms of reference, within the available budgetary resources.

Annex to Resolution 6 (EC-67)

INTERCOMMISSION COORDINATION GROUP FOR THE WMO CONTRIBUTION TO THE GLOBAL FRAMEWORK FOR CLIMATE SERVICES OR, ALTERNATIVELY, WMO COORDINATION GROUP FOR THE GLOBAL FRAMEWORK FOR CLIMATE SERVICES

INITIAL DRAFT TERMS OF REFERENCE

Noting that the technical commissions, technical programmes and regional associations can assist Members to develop and establish the key GFCS components (or pillars) through WIGOS/WIS,

seamless data processing and forecasting systems and the implementation of the WMO Strategy for Service Delivery,

Considering the need to:

- (1) Strengthen the specification of requirements and the efficient development and delivery of WMO contributions to valued GFCS services, products and outcomes,
- (2) Ensure that technical approaches at the core of seamless forecasting and data exchange that support the GFCS should be compatible with the work WMO does to support other cross-cutting priorities, including DRR, thus ensuring alignment and cohesion,
- (3) Improve the coordination of WMO activities across the priority GFCS sectors and, where appropriate, coordinate with technical activities in partner agencies through the GFCS Partner Advisory Committee,
- (4) Assist Members through improved alignment of projects and capacity development activities to reflect needs across all GFCS pillars and to support all related WMO and national priorities, and
- (5) Ensure that WMO contributions to GFCS are well aligned with the overall aims and objectives of GFCS, as guided and overseen by the IBCS.

Decides:

- (1) To establish the Inter-Commission Coordination Group for WMO's contribution to the GFCS (or alternatively the WMO Coordination Group for the GFCS (WCG-GFCS)) with Terms of Reference as follows:
 - (a) Align and coordinate work plans and schedules related to GFCS amongst technical commissions, regional associations, WMO Programmes and relevant co-sponsored activities (such as DRR, GCOS, WIGOS, WCRP, WWRP, etc.) in the context of a results-based framework for WMO's contribution to the GFCS;
 - (b) Collect and develop coordinated specifications of requirements for the development of well-targeted and, to the extent possible, integrated GFCS projects and ensure coordination of WMO contribution to the projects;
 - (c) Collect and develop coordinated specification of requirements for the development of GFCS information, underpinning research, products and services across the identified priority sectors and ensure coordination of WMO contribution to them;
 - (d) Develop relevant regulatory material and guidance to assist Members in the implementation of GFCS activities, taking into account the GFCS pillars and identified priority areas;
 - (e) Reflect through all aspects of its work, guidance from Executive Council in relation to the implementation of WMO's contribution to GFCS, including relative priorities for specific projects, products and services, and capacity development activities;
 - (f) Report regularly to the Executive Council and amend its terms of reference as required in accordance with EC directions; and
 - (g) Report regularly to the IBCS;
- (2) That ICG-GFCS (or WCG-GFCS) will consist of:
 - (a) The Chairperson of the IBCS or one of its delegates;

- (b) One representative of each regional association, designated by its president;
 - (c) One representative of each technical commission, designated by its president;
 - (d) One representative of governance/coordination mechanisms for each of the following Programmes and relevant co-sponsored activities: DRR, GCOS, WIGOS, WCRP, WWRP and others as relevant to GFCS pillars and priority areas;
- (3) That the Chairperson of the ICG-GFCS (or WCG-GFCS) may seek advice from experts, including from other relevant organizations, as and when required;
 - (4) That to the extent possible, the ICG-GFCS (or WCG-GFCS) should utilize existing technical collaboration mechanisms, such as Inter-programme and Inter-regional Expert Teams, to conduct specific tasks, but where needed and to the extent permitted by budgetary resources, task teams may be established to address specific tasks.
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Resolution 7 (EC-67)

EXECUTIVE COUNCIL TASK TEAM ON DATA POLICY AND EMERGING ISSUES

THE EXECUTIVE COUNCIL,

Noting:

- (1) Resolution 40 (Cg-XII) – WMO policy and practice for the exchange of meteorological and related data and products including guidelines on relationships in commercial meteorological activities,
- (2) Resolution 25 (Cg-XIII) – Exchange of hydrological data and products,
- (3) Resolution 48 (Cg-XVI) – Implementation of the Global Framework for Climate Services,
- (4) Resolution 60 (Cg-17) – WMO policy for the international exchange of climate data and products to support the implementation of the Global Framework for Climate Services,
- (5) Resolution 65 (Cg-17) – Towards a WMO approach to emerging data challenges,
- (6) Resolution 4 (EC-64) – Executive Council Task Team on the WMO policy for international exchange of climate data and products to support the implementation of the Global Framework for Climate Services,

Considering:

- (1) The concerns of many Members regarding the implications of commercializing data and services, the dual role of some NMHSs in providing public goods as well as commercial services, trends towards open data policies, and the emergence of 'Big Data', crowdsourced data and data from social media,
- (2) The request by the Seventeenth Congress for the Executive Council to oversee:
 - (a) Aspects of and contributions to the implementation of the WMO policy for international exchange of climate data and products to support the GFCS,

- (b) A review of the challenges and risks, opportunities and benefits related to 'Big Data', crowdsourced data, social media as well as emerging and future data sources, and their potential impact on Members,

Decides:

- (1) To establish an Executive Council Task Team on Data Policy and Emerging Issues;
- (2) To adopt the terms of reference of the Task Team as contained in the annex to the present resolution;
- (3) That the membership of the Task Team shall include one representative from each of the following:
 - (a) Every regional association, nominated by the president of each regional association;
 - (b) The Commission for Climatology, the Commission for Basic Systems, the Commission for Hydrology, the Commission for Agricultural Meteorology, the Commission for Atmospheric Sciences and the Commission for Aeronautical Meteorology, nominated by the presidents of these Commissions;
 - (c) The Joint WMO/IOC Technical Commission for Oceanography and Marine Meteorology, nominated by the co-presidents of the Commission;
 - (d) The Executive Council Panel of Experts on Polar and High-mountain Observations, Research and Services, nominated by the chairperson;
 - (e) The Joint Scientific Committee of the World Climate Research Programme, nominated by the chairperson;
 - (f) The Intercommission Coordination Group on the WMO Integrated Global Observing System, nominated by the chairperson;

Requests the Secretary-General:

- (1) To take action to support the activities of the Task Team;
- (2) To take action on the related issues and to keep Members and other pertinent international organizations informed on relevant developments.

Note: This resolution replaces Resolution 4 (EC-64), which is no longer in force.

Annex to Resolution 7 (EC-67)**EXECUTIVE COUNCIL TASK TEAM ON DATA POLICY AND EMERGING ISSUES****TERMS OF REFERENCE**

Taking into account the outcomes of the Seventeenth World Meteorological Congress, including adoption of the WMO policy for international exchange of climate data and products to support the implementation of the GFCS and the decision to undertake a review, by the Commission for Basic Systems (CBS), in coordination with other technical commissions, in particular the Commission for Hydrology, with Executive Council oversight, of the challenges and risks, opportunities and benefits related to 'Big Data', 'Crowd-Sourced Data', 'Social Media' as well as emerging and future

data sources, and their potential impact on Members (hereinafter “emerging data issues”), the Task Team shall undertake work in two areas, establishing sub-groups as necessary to complete these tasks:

- (1) Oversee a review of emerging data issues:
 - (a) Provide guidance to CBS and the other relevant technical commissions on developing the terms of reference for the review, taking into account the points raised concerning emerging data issues during the Seventeenth World Meteorological Congress;
 - (b) Provide input and guidance to CBS and the other relevant technical commissions during the implementation of the review;
 - (c) Refer the completed review to the Executive Council, providing advice to inform the Executive Council’s decisions concerning the outcomes of the review and making recommendations to the Executive Council to inform its subsequent report on the outcomes of the review to the Eighteenth World Meteorological Congress;

- (2) Monitor and contribute to implementation of the WMO policy for international exchange of climate data and products to support the implementation of the GFCS:
 - (a) Review emerging data requirements from GFCS implementation:
 1. Take into consideration the recommendations by the IBCS with regard to its needs for GFCS relevant data and products developed or acquired under WMO auspices and, if necessary, make recommendations to the Executive Council concerning proposals to Congress for changes to the Annex to Resolution 60 (Cg-17), taking into consideration the views of the IBCS with respect to the issues that may arise with the implementation of the Resolution;
 2. Make recommendations to the Executive Council with respect to tasking the technical commissions, as appropriate, to regularly review and update the GFCS relevant data and products to be provided by the global and regional climate centres, with a view to increasing the access to and availability of GFCS relevant data and products;

 - (b) Monitor the implementation of the policy and related practices:
 1. Make recommendations to the Executive Council concerning requirements from the Commission for Climatology and the Commission for Basic Systems, in collaboration with other technical commissions, for advice and assistance on the technical aspects of Resolution 60 (Cg-17) implementation and to ensure that appropriate standards are identified, implemented and maintained;
 2. Regularly consult with Members concerning the impacts of the policy and its implementation and make recommendations to the Executive Council as necessary concerning proposals in this respect to the Eighteenth World Meteorological Congress;
 3. Examine and reflect to the Executive Council the findings of the global survey and analysis of Members’ various data policies and models of service provision (e.g. cost recovery, public services), and associated successful strategies and best practices, as requested of the Secretary-General in Resolution 60 (Cg-17), and the implications of the findings for future implementation of the policy;
 4. Provide advice to the Executive Council with respect to changes and adjustments needed to shape WMO Programmes to enhance the capabilities of Members, especially least developed countries (LDCs), Small Island Developing States

(SIDS), developing countries, and countries vulnerable to climate-related hazards, to implement the policy and to provide, deliver and improve access to GFCS relevant data and products to adequately respond to user needs and to enable their use in decision-making by all relevant societal sectors;

- (3) Prepare a report to the Executive Council for consideration at its sixty-eighth session and subsequent sessions as necessary until all items in these terms of reference have been completed.
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