

## **WMO Policy Framework for Public-Private Sector Engagement**

The relationship between the public and the private sectors of meteorology is currently undergoing very rapid change. The impact of these changes on the current institutional arrangements widely accepted by WMO Members for the collection, processing, and exchange of meteorological, hydrological, climatological and other environmental data, as well as for the generation and provision of respective information and services, could be far-reaching. While the potential exists to improve the efficacy and reach of forecasts and other services within societies around the world, concerns have been raised that these changes would erode the core observational assets usually managed by National Meteorological and Hydrological Services (NMHSs), as well as their status, funding and modes of operation. Such erosion would damage sustained long-term, national observing capabilities, and thereby harm national and global climate monitoring. There could be risks to the role of NMHSs as the single national authoritative voice for severe weather warnings and other core governmental purposes, all of which could have negative impacts on end users and other stakeholders of the weather enterprise.

Recognizing growing concerns among the NMHSs of the WMO Members about potential erosion of their national role and about national commitments to long-standing agreements on exchange of meteorological information, including observational data, the WMO Executive Council has decided to initiate the development of a Policy Framework for Public-Private Sector Engagement, with the aim of submitting it to the 18<sup>th</sup> World Meteorological Congress in 2019. The full text of the Council decision and the background for it are included in this Working Paper.

Action/Recommendation proposed: CGMS is invited to take note of development of WMO Policy Framework and to consider the implications for free and open international exchange of meteorological satellite observations



---

**AGENDA ITEM 12: PARTNERSHIPS**

**AGENDA ITEM 12.2: PUBLIC-PRIVATE ENGAGEMENT**

**A ROAD MAP TO THE EIGHTEENTH WORLD METEOROLOGICAL CONGRESS**

**1 SUMMARY**

**1.1.1 DECISIONS/ACTIONS REQUIRED:**

Adopt draft Decision [12.2/1](#) — *Public-Private Engagement: A Road Map to the Eighteenth World Meteorological Congress.*

**1.1.2 CONTENT OF DOCUMENT:**

The Table of Contents is available only electronically as a Document Map\*.

---

\* On a PC, in MS Word 2010 go to “**View**” and tick the “**Navigation Pane**” checkbox in the “**Show**” section. In MS Word 2007 or 2003, go to “**View**” > “**Document Map**”. On a Mac, go to “**View**” > “**Navigation Pane**” and select “**Document Map**” in the drop-down list on the left.

2

**2.1 DRAFT DECISION**

**2.2 Draft Decision 12.2/1 (EC-69)**

**2.2.1 PUBLIC-PRIVATE ENGAGEMENT: A ROAD MAP TO THE  
EIGHTEENTH WORLD METEOROLOGICAL CONGRESS**

THE EXECUTIVE COUNCIL,

**Recalls** Decision 73 (EC-68) – Cooperation between the public and private sector for the benefit of society;

**Notes** the progress made in pursuing the implementation of Decision 73 (EC-68) by: assessing experience, good practices, opportunities and risks associated with public-private sector engagement; considering short-, medium- and long-term perspectives and goals; developing draft principles for public-private-sector engagement; reviewing mechanisms and structures to foster dialogue and consultations; exploring options for guiding public-private engagement and directions for preparing WMO Members in the future; and engaging Permanent Representatives of Members in discussions and deliberations;

**Notes** with appreciation the preparation of the draft Policy Framework as provided by the President of WMO and the presidents of regional associations in [Annex 1](#);

**Recognizes** that progress to date has placed emphasis on public-private engagement in the context of the larger “global weather enterprise”;

**Recognizes** that growth of private sector involvement in all facets of meteorological and hydrological services are substantially expanding, making public-private engagement an urgent and important issue that will impact the future policies and strategies of WMO and its Members;

**Notes** the potential risks to NMHSs in the evolving relationship between public and private sectors, as well as the potential opportunities to better meet the needs of Members;

**Acknowledges** the important leadership role of WMO, through its Convention and through the authority of its Technical Regulations in helping to build a strong and strategic alliance between all of the parties contributing to a sustainable global weather enterprise for the benefit of society;

**Acknowledges also** that WMO can provide a neutral platform for fostering constructive dialogues among all the parties, taking into consideration the differences amongst its Members;

**Acknowledges further** that at a national level, the mechanisms, legal frameworks and regulations for engagement and partnership between NMHSs and private sectors organizations vary significantly, and that WMO can assist NMHSs through the development of a global policy framework, practical guidance material and tools, including the response to science and technological developments in the private sector, facilitation of dialogue at appropriate levels, and sharing of experiences;

**Agrees:**

- (1) That there is some urgency to better equipping NMHSs, through WMO, to engage actively and positively with private sector organizations, not least to ensure that essential national mandates, including the importance of a single authoritative voice in relation to safety of life and property are sustained;
- (2) That in accordance with the aims and purposes of the Convention of WMO, a policy framework on public-private engagement would be beneficial to the Organization and should be prepared for consideration and approval at the next World Meteorological Congress (Cg-18);
- (3) That early engagement between WMO and key representatives of the private sector, such as the HMEI, as well as other relevant stakeholders, including academia, to explore areas for collaboration and to obtain feedback on the evolving policy framework would be beneficial and would assist its further development and implementation for net public benefit;

**Emphasizes** the fundamental importance of free and open data and products exchange, support to public good infrastructure, including the global observing networks, and the value of reinforcing the regulatory environment afforded by the WMO Convention as priority areas within the policy framework that require early attention to ensure security, sustained performance and growth of the global weather enterprise, including opportunities for public-private dialogue, noting in particular the overarching strategic priority of safety of life and property;

**Endorses** the Work Plan on Public-Private Engagement (thereafter referred to as “PPE Work Plan”) as provided in [Annex 2](#);

**Requests** that the President and the presidents of regional associations:

- (1) To provide further oversight to the development of the Policy Framework and implementation of the work plan on Public Private Engagement as a guide to develop a more focused and active engagement plan;
- (2) Further review the principles of engagement and refinement of the roles and responsibilities outlined in the Policy Framework, with a special focus on the role that WMO can play in leading engagement on behalf of the global weather enterprise;
- (3) Continue to remain apprised of the evolving situation within the global weather enterprise, related trends, risks and the value for sustaining core public good services;

- (4) Prepare and submit a resolution framing the PPE Policy to EC-70 for further consideration and approval at Cg-18;
- (5) Solicit Members in providing relevant regional views, contribute to case studies and best practices to support the elaboration of the Compendium and inform the Secretary-General of events or opportunities for PPE in their respective Regions;
- (6) To nominate individuals to serve as focal points to support the development of the Policy Framework and other tasks;

**Requests** the presidents of technical commissions to continue to identify and address issues/opportunities around public-private engagement in their mandated areas of expertise, offer analyses and recommendations on these issues, and contribute to the preparation of the Policy and Compendium;

**Requests** Members to submit to the Secretary-General: (a) case studies of relevant good practices and lessons learned; and (b) other issues, opportunities and interests involving PPE;

**Requests** the Secretary-General:

- (1) To make appropriate arrangements to support the preparations of the PPE Policy framework and implementation of the PPE Work Plan;
- (2) To invite other relevant stakeholders from academia, the private sector and civil society to contribute case studies to the compendium;
- (3) To support Members and other stakeholders to take advantage of opportunities for public-private dialogue at global, regional and national levels;
- (4) To explore and report on the experiences of other UN organizations in relation to their partnerships with the private sector and how this has translated to beneficial outcomes for their Members at global and national levels; and
- (5) To conduct a survey among public and private sector actors to investigate the present status of Members and their future expectations vis-à-vis the public-private engagement.

---

Annexes: 2

### **2.3 Annex 1 to draft Decision 12.2/1 (EC-69)**

## **DRAFT POLICY FRAMEWORK FOR PUBLIC-PRIVATE ENGAGEMENT WORLD METEOROLOGICAL ORGANIZATION**

### **OBJECTIVES OF THE POLICY FRAMEWORK**

The Policy Framework for Public-Private Engagement guides global, regional and national action by the World Meteorological Organization and its Members to promote active engagement between the public and private sectors and all stakeholders to successfully manage and participate in the global weather enterprise. It outlines principles and guidelines aimed at maximizing the benefits of an inclusive weather-enterprise approach.

Developed in line with Resolution 67 (Cg-17) and Decision 73 (EC-68), the Policy Framework has been prepared for consideration by EC-69, outlining:

- (a) Draft principles for public-private sector engagement based on the key issues outlined in Decision 73 (EC-68);
- (b) Proposed mechanisms and structures to foster dialogue and consultations, taking into consideration global, regional and national contexts, with a focus on national circumstances;
- (c) Options for guiding public-private partnerships and directions for development of WMO guidance to Members.

This framework is intended to serve as a first step in on-going work to address these concerns and shape a robust way forward in a changing environment. It aims to build understanding and enhance cooperation among stakeholders to sustain and expand the weather enterprise and to maximize its benefits to societies around the globe in the short- and long-term. The framework seeks to strengthen and enhance opportunities for Members, their NMHSs and the private sector, on the basis of ethical behaviour to ensure a level playing field, enable efficiencies and innovation, and utilize an inclusive approach to funding fundamental infrastructure and research.

The framework supports and builds upon the WMO Convention, existing policies as outlined in the Geneva Declaration, in Resolutions 25 (Cg-XIII), 40 (Cg-XII) and 60 (Cg-17) and related regulations and guidance. The Convention has ensured the world's nations do cooperate to create and sustain an international system to observe and predict weather, climate and water; provide reliable information and services to support effective decision-making; reduce the loss of life and property; further sustainable development; and preserve the environment and the global climate for present and future generations of humankind.

### **CONTEXT**

Currently, the growth of private sector involvement in all aspects of meteorological and hydrological services are substantially expanding both opportunities and risks for all players,

especially the NMHSs, within the global weather enterprise. The impact of these changes on the current institutional arrangements widely accepted by WMO Members for the collection, processing, and exchange of meteorological, hydrological, climatological and other environmental data, as well as for the generation and provision of respective information and services, could be far-reaching. While the potential exists to improve the efficacy and reach of forecasts and other services within societies around the world, concerns have been raised that these changes would erode the core observational assets usually managed by National Meteorological and Hydrological Services (NMHSs), as well as their status, funding and modes of operation. Such erosion would damage sustained long-term, national observing capabilities, and thereby harm national and global climate monitoring. There could be risks to the role of NMHSs as the single national authoritative voice for severe weather warnings and other core governmental purposes, all of which could have negative impacts on end users and other stakeholders of the weather enterprise.

The “weather enterprise” is a name used to describe the multitude of systems and entities participating in the production and provision of meteorological, climatological, hydrological, marine and related environmental information and services. For brevity, the name only refers to “weather”; however, the enterprise encompasses all business areas of WMO, including weather, climate and water; and all core activities – observations, modelling, data-processing and forecasting, and other services and related research. The weather enterprise includes public-sector entities (NMHSs and other governmental agencies), private-sector entities (such as equipment manufacturers, service-provider companies and private media companies) and academia, as well as civil society (community-based entities, NGOs, national meteorological societies, scientific associations, etc.). The weather enterprise has global, regional, national and local dimensions.

Within the weather enterprise, national, regional and international institutions and business models vary greatly. All stakeholders, however, help contribute to the core mission of the enterprise to help protect life and property, to help foster economic growth, and to improve quality of life. Government, private sector, academia and civil society all play important roles. By its Convention, WMO plays a key role in understanding and facilitating the contributions of Members participating in the weather enterprise.

While change within the weather enterprise is evident across the globe, recognizing that its manifestations vary greatly by region and country, five primary factors are influencing change:

1. Scientific and technological innovation;
2. Growing demand for meteorological, climatological, hydrological, marine and related environmental products and services;
3. Climate change and the United Nations Sustainable Development Goals;
4. Public-sector institutional and resource constraints;
5. Private-sector increased involvement, consolidation and globalization.

Amidst this change, it remains in the interest of all parties to have a robust national and global meteorological and hydrological infrastructure, as this forms the backbone of the global weather enterprise.

The public sector historically has led development of such infrastructure, mostly because weather, climate and water services are considered as “public goods” – making it difficult for

providers to profit or offer them efficiently.<sup>1</sup> In the case of weather services, one of its distinguishing characteristics is its dependence on observational data from around the globe. No one nation could provide even basic services to its citizens without continuous, real-time access. While investments in obtaining these observations are made at the national level, the collective benefits only accrue if: (i) a sufficiently large number of nations decide to make these investments; and (ii) these nations share the resulting data with each other. Members have invested in public sector institutions because weather, climate and water services have proved essential to the safety and security of their citizens; a fundamental role of government.

At the same time, the private sector is also a valued contributor in well-being of nations and has been active in the weather enterprise for decades. It serves a number of very important roles, including as a source of investment, a driver of technological development and innovation, a partner in service development and delivery, and an engine for economic growth and employment.

## **PRINCIPLES OF ENGAGEMENT**

In moving forward, public-private engagement activities should be guided and informed by the following set of principles, which are derived from the UN Global Compact as well as from guidance in Decision 73 (EC-68).

**Advancing the over-arching goals articulated in the WMO Convention, namely:**

- (a) Protection of life and property;
- (b) Safeguarding the environment;
- (c) Contributing to sustainable development;
- (d) Promoting long-term observation, collection and sharing of meteorological, hydrological and climatological data, including related environmental data;
- (e) Promotion of endogenous capacity-building;
- (f) Meeting international commitments;
- (g) Contributing to international cooperation.

**Shared value:** Engagement between the public and private sectors should create shared value and seek “win-win” situations whereby both public entities and businesses can recognize the opportunities for innovation and growth in helping solve society’s challenges. Creating shared value can be done by leveraging private-sector expertise and supporting technology transfer, by accelerating uptake of research and technological developments into operations and

---

<sup>1</sup> Public goods, in economic terms, are those that exhibit the following two characteristics:

- Non-rivalry of consumption – one person’s consumption does not reduce the amount available to others; and
- Non-excludability – it is impossible or extremely expensive to exclude from benefit a person or organization that refuses to contribute to the cost.

These two characteristics mean that even in free-market economies, market processes do not provide them, or do not provide them at socially optimal levels.



stimulating the generation, translation and dissemination of valuable knowledge, and by investing in local research and developing human capacity through training, thereby supporting the sustainability of global weather enterprise.

**Sustainability:** Public and private sectors should seek opportunities for engagement where they can provide leadership on matters critical to sustainability of the weather enterprise and where joint action is needed to gain efficiencies and better serve society. Public and private sectors should seek to identify opportunities to assume complementary roles, minimizing overlap or competition where this would lead to inefficiencies or be detrimental to the sustainability of the weather enterprise.

**No country left behind:** WMO and Member agencies should seek engagements that support and further provide quality products and services to users in all countries based on need, including efforts that help bridge existing gaps and develop capacity of developing countries, LDCs and SIDS.

**Level playing field:** Public and private sector communities should both have the opportunity to propose cooperative arrangements or other forms of engagement. WMO and Member governmental agencies can engage with the private sector for the purposes of development and provision of products and services that explicitly support and accelerate achievement of the goals of WMO and those of Member governments. However, engagement should not provide exclusivity or imply endorsement or preference of a particular private-sector entity or its products or services.

**Integrity:** WMO and the public agencies established by its Members should seek to engage in mutually beneficial relationships and partnerships with the private sector so as to benefit society. Engagement should maintain the integrity of the WMO and the agencies established by its Members, as well as their independence and impartiality.

**Sovereignty:** WMO and its Members and their agencies should not engage with private-sector entities that have no regard for the rights of sovereign nations or that undermine the global weather enterprise.

**Transparency:** Engagement with the private sector should be transparent. Information on the nature and scope of major arrangements should be available within the concerned entities and to the public at large.

## **GLOBAL, REGIONAL AND NATIONAL ROLES**

Promoting better public-private engagement would require on-going consultation and action at global, regional and national levels.

### Global level - The World Meteorological Organization

The World Meteorological Organization facilitates worldwide activity and cooperation around weather, climate and water for the benefit of all nations and humankind overall. The WMO role supporting effective public-private engagement includes:

1. *Promulgating standards and recommended practices*

WMO is a recognized standard-setting organization and its standards and recommended practices are developed for products and processes in the meteorology value chain. These regulations shall be respected by all providers in all Member countries of WMO. WMO should also play a key role in shaping effective engagement between public and private actors in the weather enterprise and in providing guidance for Members to ensure, to the extent possible, that proposed engagement activities are based on good national practices and provide appropriate incentives and structures to encourage private sector investment while at the same time ensuring a fair and equitable cost- and benefit-sharing scheme for NMHSs and other public entities. WMO in particular could provide guidance to Members on:

- (a) Development of national legislation to determine Authoritative Voice through recommended best practices (with pros and cons);
- (b) Data- and service-licensing models on national and global levels;
- (c) Promotion of a culture of compliance with standards and regulations among all stakeholders;
- (d) Potential impact of various new business models for the acquisition, dissemination and processing of meteorological data and for service delivery;
- (e) Other strategies to help maintain a national authoritative voice on meteorological and hydrological matters for public safety warnings and promotion of economic growth.

## 2. *Encouraging free and unrestricted exchange of data*

Governments who signed the WMO Convention have committed to following its regulations, including standards and practices related to the collection and sharing of data and products between stakeholders to support the global infrastructure as outlined in Resolutions 25 (Cg-XIII), 40 (Cg-XII) and 60 (Cg-17) and relevant technical regulations. WMO will develop and adapt guidance for NMHSs and other stakeholders as needed on free and unrestricted exchange of data as it applies to the current environment, in which private-sector entities may assume larger roles in data provision.

## 3. *Facilitating dialogue between all stakeholders*

WMO should, together with its Members, formulate strategies to better communicate the value of public meteorological and hydrological services. Furthermore, WMO should proactively set up and participate in on-going global dialogue between public and private stakeholders, engaging players and tracking developments and trends. Over time, and seeking to adopt existing forums, it should lead development of a formal structure to support regular, on-going dialogue, providing a forum for exploration and resolution of issues. The governance structures of other international organizations may provide useful models. Technical commissions should actively seek to engage in the dialogue.

## 4. *Investigate emerging issues as well as new roles, and implementing such roles as appropriate*

As the weather enterprise evolves, WMO should both monitor issues emerging around public-private engagement that could significantly affect either its Members or the sustainability of

the global weather enterprise, and also investigate the desirability of taking on new roles to help ensure quality in data and services. For example, to help ensure quality in increasingly crowded marketplaces, WMO could potentially gather, analyse and publish electronically its conclusions on the comparative quality of elements such as instruments, data and services. The WMO Secretariat also needs to continue to expand dedicated expertise in “meteorology as a business”.

In addition, WMO may wish to expand its activities directed at maintaining, enhancing and publicizing the scientific credibility of the WMO community, from the fundamental importance of measurement and predictive science in delivering traceable observations and advanced predictive tools, to the transition of new research findings into innovative and high impact weather and climate services. It is well positioned to provide leadership in enhancing performance of global and regional models. Its activities may also be directed toward assisting countries to downscale data to serve national and local needs.

#### Regional level – regional associations

WMO regional associations interface with their Members, liaise with other stakeholders, designate and support regional centres for delivery of regional services to Members. To support engagement with private sector and other stakeholders, regional associations are urged to take on roles including:

1. *Gathering and disseminating information and guidance*

Regional associations are urged to facilitate change management and advocate for inclusive consultations, including knowledge and experience sharing, in order to enable Members to learn from each other and provide support as needed for effective public-private engagement. Knowledge can be shared globally through the WMO Secretariat to regional and national levels, as well as directly by regional associations with Members and other stakeholders.

2. *Providing training to Member agencies such as NMHSs*

Regional associations are urged to provide capacity-building training to agency staff and leadership in practices needed for effective public-private engagement.

3. *Exploring regionalization of services as necessary*

In anticipation of competition, regional entities may wish to consider with Members whether regionalization of certain services may allow them to improve competitiveness and services and to reduce costs.

4. *Coordinating regional engagement in regional and/or cross-regional multi-stakeholder initiatives*

#### National level – Members and NMHSs

Given the increasing participation of the private sector, Members and their designated agencies such as NMHSs are urged to take action to maintain and improve agency engagement with the private sector to strengthen the weather enterprise with the aim of maximizing benefits to the Members in the short- and long-term. Effective engagement also

offers opportunities to strengthen NMHSs and all entities involved in the weather enterprise. Roles include:

1. *Fostering structured dialogue with the private sector*

Members and their designated agencies such as NMHSs are urged to reach out proactively to set up structured dialogue between public- and private sector stakeholders on issues of common interest. Regular dialogue would be more effective to improve mutual understanding and foster relationships. In this, Members and NMHSs may benefit from recognizing the opportunities where national objectives converge with those of the private sector.

2. *Encouraging appropriate legislation, performing change management and building on core strengths*

In an environment where private sector engagement in meteorological and hydrological services is likely to continue in the decades ahead, NMHSs should strongly consider building expertise, to develop their research and development capability, and to continuously enhance the quality and dissemination of their products and services to allow them to thrive in an increasingly competitive environment. They may also wish to undertake initiatives in order to understand and adapt to on-going changes in their business models, including potential initiatives involving national legislation.

3. *Promoting uptake of WMO standards and guidance*

On an on-going basis, Members' governments are urged to ensure that all national players providing meteorological or hydrological functions comply with WMO technical regulations (standards and recommended practices, procedures and specifications) that are designed to ensure global standardization and quality of data and products. WMO will also issue guidance for effective engagement between public and private actors in the weather enterprise and to provide some 'rules of engagement' for Members and other stakeholders. Members also are urged to promote awareness of and compliance with these standards and guidance among other stakeholders.

4. *Fostering partnerships between public and civil society entities*

In an evolving world, with societal vulnerabilities to weather and climate risks growing, designated Member agencies such as NMHSs are strongly encouraged to consider the needs and resources of public sector and civil society weather, climate, hydrological, marine and other related service consumers, and where opportunities exist to improve services for vulnerable end users, to seek to provide data and other information at cost-recovery rates or less.

5. *Exploring regionalization of services as necessary*

In anticipation of competition, Members may wish to consider whether regionalization of certain services may allow them to improve competitiveness and services and to reduce costs.

## **GLOSSARY**

*NMHSs:* organizations (typically agencies) established by governments that undertake activities directed at improving our understanding of the weather, climate, and the hydrological cycle over both land and sea, undertake monitoring of weather-, climate- and water-related phenomena, provide forecasts, and provide operational weather, climate, water and related environmental services to a range of users to respond to relevant national, regional and global needs. In some countries, more than one agency deals with different aspects of such services.<sup>2</sup>

*Private sector:* The part of the economy run by private individuals or groups, usually as a means of enterprise for profit, that is not under direct state control. Areas of the economy directly controlled by the state are referred to as the ‘public sector’.

*Public-private engagement:* Engagement by NMHSs (and/or other public agents) with the private sector in various modes in the production and delivery of weather, climate, water, marine and related environmental information and services while respecting the public interest and the mandates of NMHSs and keeping in mind budgetary constraints.

*Weather Enterprise:* A name used to describe the multitude of systems and entities participating in the production and provision of meteorological, climatological, hydrological, marine and related environmental information and services. For brevity, the name only refers to “weather”; however, the enterprise encompasses all business areas of WMO, including weather, climate and water; and all core activities – observations, modelling, data-processing and forecasting, and other services and related research. The weather enterprise includes public-sector entities (NMHSs and other governmental agencies), private-sector entities (such as equipment manufacturers, service-provider companies and private media companies) and academia, as well as civil society (community-based entities, NGOs, national meteorological societies, scientific associations, etc.). The weather enterprise has global, regional, national and local dimensions.

---

<sup>2</sup> WMO, “National Meteorological and Hydrological Services: A Statement by the World Meteorological Organization for Directors of NMHSs”, accessed at:  
[https://www.wmo.int/pages/about/documents/WMOStatement\\_for\\_Directors\\_of\\_NMHSs\\_en.pdf](https://www.wmo.int/pages/about/documents/WMOStatement_for_Directors_of_NMHSs_en.pdf)

2.4 Annex 2 to draft Decision 12.2/1 (EC-69)

2.4.1

2.4.2 PROPOSED WORK PLAN ON PUBLIC-PRIVATE ENGAGEMENT 2017-2019

