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# Good practices of legal frameworks underpinning meteorological service

4 November 2022

Public-Private Engagement (PPE) Office

WMO Secretariat

***“We CALL on all Governments to give due consideration to the statements expressed in this Declaration to:”***

***“- Endeavour to put in place appropriate legislative and/or institutional arrangements to enable effective cross-sector partnerships and remove barriers to mutually beneficial cooperation and collaboration;”***

*Geneva Declaration – 2019*

# 1. Outline

- Presented in the following slides are
  - ✓ Quick review on Public-Private Engagement (PPE) policy & guidelines,
  - ✓ Possible key enablers for PPE,
  - ✓ Rationale for the sound national frameworks for PPE and
  - ✓ Concrete examples of provisions that will enable PPE taken from WMO Members' (and EU's) legislative instruments as good practices, making reference to relevant items of the Geneva Declaration 2019 adopted at the Eighteenth World Meteorological Congress).
- Shown here are only a part of good practices. There are many other good practices available and other areas that should/can be covered by a legal framework, such as outsourcing, data acquisition, dissemination and mission.

## 2. Why Public-Private Engagement (PPE)?

### --- Quick Review on Relevant Documents on PPE ---

- **Policy: Geneva Declaration – 2019: Building Community for Weather, Climate and Water Actions** was adopted at Cg-18\* in 2019. The Geneva Declaration – 2019, the policy act for Public-Private Engagement (PPE), will guide future **actions** and change management at all levels.
- Congress urges Members to consider and **act** upon this policy, in particular in capacity building through legislation and pertinent national and regional actions, policies and strategies.



- **Guidance and recommendations: WMO Guidelines for Public-Private Engagement (edition 2020)** was endorsed at EC-72\*\* in October 2020. This Guideline will facilitate those **actions**.



- These two will assist Members in PPE **activities** at the national and regional levels.

\* Cg-18: the Eighteenth World Meteorological Congress

\*\* EC-72: the Seventy-second session of the Executive Council of WMO

### 3. What are Key Enablers of Successful Public-Private Engagement (PPE)? (1 / 3)

#### → One of the Key Enablers: **Putting in Place Appropriate Legislation**

**Suggested required consultation and action in the latest Guidelines for Public-Private Engagement (2021 edition) to promote better PPE at each level are:**

- **Global Level**

- A. Modernized and clearly articulated standards and recommended practices
- B. Encouraging free and unrestricted exchange of data
- C. Facilitating dialogue between all stakeholders
- D. Investigate emerging issues as well as new roles, and implementing such roles as appropriate

- **Regional Level**

- A. Gathering and disseminating information and guidance
- B. Raising awareness and capacity-development to Members
- C. Exploring further cooperation in service provision at regional and sub-regional level

- **National Level**

- A. **Fostering structured dialogue with the private sector**
- B. **Putting in place appropriate legislation, business models, performing change management and building on core strengths**
- C. **Promoting uptake of WMO standards and guidance**
- D. **Fostering partnerships with civil society entities**
- E. **Exploring new partnerships at national and cross-border nature**

✓ Can guarantee relevant activities  
✓ All stakeholders understand clearly their rights and their obligations in the country.



### 3. What are Key Enablers of Successful Public-Private Engagement (PPE)? (2/3) Why Legislative Framework? (1/2) – In Other Words...

#### Rationales:

- The rapid growth of needs, speed of progress in ICT, insufficient financial/human resources, and so forth sometimes make it difficult for a National Meteorological and Hydrological Service (NMHS) to meet the needs and improve its service.
  - NMHSs should continuously **enhance the quality and dissemination of their products and services** to allow them to thrive in an increasingly competitive environment.
  - NMHSs need to adapt to ongoing changes in their business models, including through **an enhanced national legislation that enables effective public-private engagement to leverage resources and build upon the strengths of the sectors.**

#### Possible Action and Expected Outcome:

- **Relevant national legislation** should **enable effective and equitable public-private engagement and foster 'win-win' solutions** that meet the societal needs, **including maintaining and enhance the authoritative role of NMHSs** in the provision of services mandated by governments.

### 3. What are Key Enablers of Successful Public-Private Engagement (PPE)? (3/3) Why Legislative Framework? (2/2) – Comparison with Statistical Domain

#### Statistical System

- ✓ “A High quality legislation is critical to the effective performance of a national statistical system. Irrespective of whether a statistical system is highly centralised or decentralised, all agencies or institutions belonging to that system, should have their activities supported by clear national legislation.”
- ✓ “Activities like collecting private personal information, commercially sensitive business data or accessing confidential administrative or secondary microdata cannot be left to the vagaries of personal understandings or ad-hoc solutions.”
- ✓ “Equally, there can be no ambiguity regarding the safeguarding of confidentiality or the professional independence and impartiality of official statistics.”
- ✓ “Guarantees regarding such activities must be enshrined in national law so that all stakeholders understand clearly their rights and their obligations vis-a-vis the statistical system.”



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(MacFeely, S., N. Barnat, 2017)

Comparison

#### Meteorological Service

- ✓ “A High quality legislation is critical to the effective performance of meteorological service in a country. Irrespective of whether meteorological service is conducted by public, private and/or academic sectors, all agencies or institutions conducting meteorological service, should have their activities supported by clear national legislation.”
- ✓ “Activities like collecting private-sector observation data, handling their meta data and other information that may be of confidential nature or accessing public or private data cannot be left to the vagaries of personal understandings or ad-hoc solutions.”
- ✓ “Equally, there can be no ambiguity regarding the safeguarding of data-owners’ data policy and confidentiality or the authoritative voice of the NMHS.”
- ✓ “Guarantees regarding such activities must be enshrined in national law so that all stakeholders understand clearly their rights and their obligations vis-a-vis the meteorological service in the country.”

(transformed from the left to meteorological domain)

## 4. Principal Elements of National Legislation Relevant to PPE (1/2)

- A. Ensuring **authoritative voice** of NMHSs, as well as **acknowledgment** of the relevant NMHS **as a source of information**
- B. Ensuring the fulfilment of **international commitments**, including **free and unrestricted international exchange of data and products** and **observation standards**, toward possible national and international data sharing with all stakeholders
- C. Ensuring functions **as a promoter and a regulator** of weather enterprise (weather industry): **separation of roles**; provision of **supports**, such as **data provision**, consultation and training; **licensing** for quality assurance for users' sake
- D. Making possible **further collaboration** with the private and academic sectors, users and civil society, through structured **dialogue**, and in areas such as **capacity development**.



## 4. Principal Elements of National Legislation Relevant to PPE (3/3)

### --- Legal Instruments collected ---

- **The number of legal instruments collected and where they come from:**

| RA*             | I  | II | III | IV  | V  | VI | Total |
|-----------------|----|----|-----|-----|----|----|-------|
| # of Countries  | 32 | 20 | 9   | 13  | 16 | 32 | 122   |
| law/act/decrees | 37 | 25 | 19  | 24+ | 19 | 46 | 170+  |

\* RA: Regional Association of WMO

- **Sources:**

- A WMO Members survey on National Strategic Plan (NSP) and Legislation in 2018 – 2019
- Websites of Members and international organizations, etc.
- Written contribution to WMO Open Consultative Platform White Paper #2

# A. Safeguarding and Strengthening the Authoritative Voice of NMHSs (1/2)

*“We CALL on all Governments to give due consideration to the statements expressed in this Declaration to:”*

*“- Safeguard and strengthen the authoritative voice of NMHSs for the issuance of warnings and relevant information to support critical decisions related to natural hazards and disaster risks, in collaboration with national disaster management authorities”*  
(Geneva Declaration – 2019 (hereafter, GD2019))

## **Good Practice A-1 (authoritative voice)**

### ➤ Meteorological Service Act (Japan)

*“Article 23 No person other than the Japan Meteorological Agency may give warnings of meteorological phenomena, earthquake ground motions, volcanic phenomena, tsunamis, storm surges, high waves, or floods ...”*

## **Good Practice A-2 (acknowledgment as a source)**

### ➤ Tanzania Meteorological Authority Act, 2019 (United Republic of Tanzania)

*“31. (2) ... any use of contents by way of publication through media shall acknowledge the Authority as a source of such contents.”*

# A. Safeguarding and Strengthening the Authoritative Voice of NMHSs

## (2/2)

### **Good Practice A-3 (authoritative voice)**

#### ➤ Meteorology, Geological Hazards and Climate Change Act (Vanuatu)

“17. Functions of the Director

(1) (e) to issue a warning and alert of flood, gale, storm, drought and any other weather condition ...”

“32. Offences

(2) A person who issues or disseminates a warning or alert of gale, storm or any other weather condition likely to endanger life or property, ..., which:  
(a) has not been issued by the Department or the Director; or  
(b) is issued without the authorization of the Director  
commits an offence punishable on conviction ...”

### **Good Practice A-4 (acknowledgment as a source)**

#### ➤ Weather Act (Republic of Korea)

“Article 36-2 (3) Where weather information received under paragraph (1) is provided to a third person, the source of information shall be disclosed.”

## B. International Commitments

### B-1. Ensuring the Fulfilment of International Commitments

*“We CALL on all Governments to give due consideration to the statements expressed in this Declaration to:”*

*“- Ensure the fulfilment of international commitments, including those stemming from the WMO Convention, for sustainable operation of the international infrastructure and exchange of required data;”* (GD2019)

#### **Good Practice B-1 (international commitments)**

##### ➤ Deutscher Wetterdienst Act (DWD Act)(Germany)

“Section 4: Duties

(3) DWD shall be the National Meteorological Service of the Federal Republic of Germany. It shall participate in the international co-operation in the field of meteorology and climatology and shall meet the obligations resulting there from.”

## B-2. Broadening and Enhancing the Free and Unrestricted Exchange of Data and Products

“We REAFFIRM”

“- The commitment of Members to broaden and enhance the free and unrestricted exchange of meteorological, hydrological and climatological data and products as articulated in Resolutions 40 (Cg-12), 25 (Cg-13) and 60 (Cg-17) of the World Meteorological Congress, and to enable access to the international infrastructure and facilities coordinated by WMO through its programmes;” (GD2019)

### **Good Practice B-2 (fulfilment of int’l commitments including Resolution 40 (Cg-12))**

➤ Weather Research and Forecasting Innovation Act of 2017 (USA)

“SEC. 302. COMMERCIAL WEATHER DATA.

(e) DATA SHARING PRACTICES.—The Under Secretary shall continue to meet the international meteorological agreements into which the Under Secretary has entered, including practices set forth through WMO Resolution 40.”

## B-3. Enhancing Interoperability and the Quality of Data and Products; Making all sectors' data available as needed for essential public purposes (1 / 2)

*“We CALL on all Governments to give due consideration to the statements expressed in this Declaration to:”*

*“- Promote uptake of and compliance with WMO standards and guidance by all stakeholders to enhance interoperability and the quality of data and products” and (in relation to our efforts to)*

*“- Encourage stakeholders from all sectors to facilitate international data sharing and make their data available as needed for essential public purposes, such as disaster risk reduction”* (GD2019)

### **Good Practice B-3-1 (enhancing interoperability and the quality of data and products)**

➤ Decreto 206/2008 (Decree 206/2008) (**Argentina**)

*“Management of Data Collection*

- 4. Maintain and calibrate the instruments of the National Network of Observation Stations and of the countries that they make up Regional III according to the commitments contracted with the World Meteorological Organization.” (By Google Translate)*

## B-3. Enhancing Interoperability and the Quality of Data and Products; Making all sectors' data available as needed for essential public purposes (2/2)

### **Good Practice B-3-2 (observation standards for observation authorities)**

#### ➤ Weather Observation Standardization Act (**Republic of Korea**)

“Article 4 (1) The Administrator of KMA shall prepare and promote a policy on the standardization of weather observations, ..., so that the authorities that conduct weather observations (hereinafter referred to as "observational authorities") ... can collect accurate data ....”

“Article 4 (2) The standards specified in the following subparagraphs for weather observations shall be prescribed ..., taking into consideration the standards established by WMO for the standardization of weather observations ....”

“Article 12 (1) The Administrator of KMA shall prepare and implement a policy necessary for the data from weather observations by each observational authority to be mutually exchanged and jointly utilized

# C. As a Promoter and a Regulator

## C-1. Data Provision (1/3)

*“We URGE all stakeholders from public, private and academic sectors to adhere to the UN Global Compact and WMO established principles for successful partnerships, by:”*

*“Fostering and maintaining fair and transparent arrangements, adhere to quality and service standards, to advance collective objectives in delivering public goods, and take into account specific stakeholder needs, such as:*

- Ensuring that access to commercial data with use restrictions is treated equally by and between public and private sector entities; and*
  - Committing to comply with relevant national and international legislation and policies with respect to both data provision and avoidance of anti-competitive behaviour;”*
- (GD2019)*

*(Continued to the next slide)*



# C-1. Data Provision (2/3)

## Good Practice C-1-1 (data provision)

### ➤ Regeling Taken Meteorologie en Seismologie (Meteorology and Seismology Tasks Act) (Netherlands)

#### “Article 3

1. Our Minister shall be responsible for: ...

- i. making meteorological, seismological and other geophysical data or research results, or the design thereof, available for reuse as referred to in the Government Information (Public Access) Act, without a request being made on the basis of that law, insofar as intellectual property rights of does not limit others, whereby additional services can be provided on the basis of an agreement;”

# C-1. Data Provision (3/3)

## Good Practice C-1-2 (data provision)

- Open Data Directive (Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information (or the Open Data and Public Sector Information Directive)
  - ✓ This Directive provides a common legal framework for a European market for government-held data (public sector information).
  - ✓ The new rules will limit the exceptions which currently allow public bodies to charge more than the marginal costs of dissemination for the re-use of their data.
  - ✓ The Commission will adopt in 2021 a list of high-value datasets (to be provided free of charge), of which thematic categories are: Geospatial, Earth observation and environment, Meteorological, Statistics, Companies and company ownership, and Mobility.
  - ✓ EU Member States have to transpose this Directive by 16 July 2021.

(For details, see [the European Commission website](#))

## C-2. Supports & Licensing for Quality Assurance

### Good Practice C-2 (supports and licensing)

#### ➤ Meteorological Service Act (Japan)

- ✓ To “**ensure the sound development of meteorological services**”, which is the mandate of the Japanese Meteorological Agency, the Act provides for
  - (i) licensing for forecasting services (Article 17 (1)),
  - (ii) Mandatory staffing of Certified Weather Forecasters (Articles 19-2 and 19-3),
  - (iii) exam to become a Certified Weather Forecaster (Article 24-2) and
  - (iv) supports, provided by a designated foundation, including data provision, consultation, training and other services necessary “to support the sound development of meteorological services in the private sector and to ensure the promotion of the use of meteorological information in social activities” (Articles 24-28 and 24-29).

## C-3. Dialogue (1 / 2)

*“We CALL on all Governments to give due consideration to the statements expressed in this Declaration to:”*

*“- Foster structured dialogue between public, private and academic sectors at both national and international level;”* (GD2019)

(Continued to the next slide)

## C-3. Dialogue (2/2)

### Good Practice C-3 (dialogue)

#### ➤ Weather Research and Forecasting Innovation Act of 2017 (USA)

“SEC. 412. WEATHER ENTERPRISE OUTREACH.

(a) IN GENERAL.—The Under Secretary may establish mechanisms for outreach to the weather enterprise—

(1) to assess the weather forecasts and forecast products provided by NOAA; and

(2) to determine the highest priority weather forecast needs of the community described in subsection (b).

(b) OUTREACH COMMUNITY.—In conducting outreach under subsection (a), the Under Secretary shall contact leading experts and innovators from relevant stakeholders, including the representatives from the following: ...

(5) The private earth observing industry.

(6) The operational forecasting community.

(7) The academic community. ...”

## D. Further Collaboration

### D-1. Collaboration including Capacity Development

*“WE CALL ON partner organizations and development agencies to work closely with WMO to:”*

*“- Increase the impact of capacity development initiatives through strategic multistakeholder partnerships leveraging the investments, expertise and knowledge of all sectors;”* (GD2019)

#### **Good Practice D-1 (collaboration including capacity development)**

➤ **Dicreto 1432/2007 de creación del Servicio Meteorológico Nacional\* (Argentina)**

*“Art. 3° - The functions of the NATIONAL METEOROLOGICAL SERVICE are: ...*

*h) Agree and develop plans and programs with official or private, national, international or foreigners who carry out observations, studies, investigations and developments related to meteorology or its applications; signing agreements and covenants that promote mutual collaboration or multidisciplinary action. ...*

*i) Coordinate with universities and / or national or international research centers the training and staff development. ... ”*

## D-2. Engaging with Civil Society

*“We CALL on all Governments to give due consideration to the statements expressed in this Declaration to:”*

*“- Engage with civil society to extend the outreach to communities and citizens in particular to enhance public understanding and response to warnings of natural hazards;” (GD2019)*

### **Good Practice D-2 (engaging with civil society)**

#### ➤ Weather Research and Forecasting Innovation Act of 2017 (**USA**)

*“SEC. 407. NOAA Weather Ready All Hazards Award Program.*

*(a) PROGRAM.—The Director of the National Weather Service is authorized to establish the NOAA Weather Ready All Hazards Award Program. This award program shall provide annual awards to honor individuals or organizations that use or provide NOAA Weather Radio All Hazards receivers or transmitters to save lives and protect property. Individuals or organizations that utilize other early warning tools or applications also qualify for this award.*

*(b) GOAL.—This award program draws attention to the life-saving work of the NOAA Weather Ready All Hazards Program, as well as emerging tools and applications, that provide real-time warning to individuals and communities of severe weather or other hazardous conditions.”*

## 6. Materials?

### In General

- There exists a WMO publication that covers aspects that could be included in a national legal instrument for meteorological service in general:  
*Guidelines on the Role, Operation and Management of National Meteorological and Hydrological Services (2017 edition, WMO-No. 1195)*

### For PPE

- The WMO Secretariat is currently preparing a material on legislative framework from PPE perspective in order to assist NMHSs that intend to enhance or to put in place national legislation for PPE to enable effective cross-sector partnerships and remove barriers to mutually beneficial cooperation and collaboration.



## 7. References

- [Geneva Declaration – 2019: Building Community for Weather, Climate and Water Actions](#)
- [Guidelines for Public-Private Engagement](#) (2021 edition)
- [Guidelines on the Role, Operation and Management of National Meteorological and Hydrological Services](#) (2017 edition, WMO-No. 1195)
- [Open Data Directive](#) (European Commission Website)
- MacFeely, S., N. Barnat, 2017; Statistical capacity building for sustainable development: Developing the fundamental pillars necessary for modern national statistical systems, Statistical Journal of the IAOS 33 (2017) 895-909  
DOI 10.3233/SJI-160331 IOS Press



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Your feedback and contribution are welcome to [\*\*ppe@wmo.int\*\*](mailto:ppe@wmo.int)