UN environment programme

Mediterranean Action Plan
Barcelona Convention

info RAC
INFORMATION AND COMMUNICATION REGIONAL ACTIVITY CENTER

INFO/RAC National Focal Points Meeting

Rome, Italy **7-8 June 2023**

The MAP Data Policy: implications for Contracting Parties

UN environment programme | Mediterranean Action Plan Barcelona Convention | info RAC

INFO/RAC
National Focal Points Meeting
Rome, Italy 7-8 June 2023

Presentation Outline

- The approved MAP Data Policy: document, actors, objectives
- Principles behind prescriptions
- Implications for Contracting Parties

Data Policy: actors

The decision (UNEP/MED IG.25/27, Decision IG.25/10) is about:

1. Adopt the United Nations Environment Programme/Mediterranean Action Plan (UNEP/MAP) Data Policy as set out in Annex I to the present Decision;

2. Request the Secretariat (INFO/RAC) to provide the necessary technical support to Contracting Parties and to address any needs identified to fully implement the UNEP/MAP Data Policy;

3. Call upon the Contracting Parties to take effective measures to implement the UNEP/MAP Data Policy.

Data Policy: actors

The decision (UNEP/MED IG.25/27, Decision IG.25/10) is about:

1. Adopt the United Nations Environment Programme/Mediterranean Action Plan (UNEP/MAP) Data Policy as set out in Annex I to the present Decision;

2. Request the Secretariat (INFO/RAC) to provide the necessary technical support to Contracting Parties and to address any needs identified to fully implement the UNEP/MAP Data Policy;

3. Call upon the Contracting Parties to take effective measures to implement the UNEP/MAP Data Policy.

What we are doing, as INFO/RAC

Data Policy: actors

The decision (UNEP/MED IG.25/27, Decision IG.25/10) is about:

1. Adopt the United Nations Environment Programme/Mediterranean Action Plan (UNEP/MAP) Data Policy as set out in Annex I to the present Decision;

2. Request the Secretariat (INFO/RAC) to provide the necessary technical support to Contracting Parties and to address any needs identified to fully implement the UNEP/MAP Data Policy;

3. Call upon the Contracting Parties to take effective measures to implement the UNEP/MAP Data Policy.

What the CP are supposed to do, with the help of INFO/RAC

Data Policy: objectives

Support – Promote – Enable
(p. 358)

- **availability** of latest data and **maintenance** of long-term series
- exploitation, **re-use** and re-combination of data from different sources in different frameworks and media
- full, free and **open access** to all kinds of data, where possible, whilst recognizing and respecting the variety of business models and data ownerships
- protection of **integrity**, **transparency**, and **traceability** in environmental data, analysis and forecasts
- recognition of data providers and of their **intellectual property** rights through citation and data licenses
- meeting relevant national **legislations** and government guidance on the management and distribution of environmental information
- implementation of **INSPIRE**, **SEIS** principles, **Copernicus** and **GEOSS** data sharing principles
- **interoperability** and use of **standards**
- use of crowd sourced and **citizen science** data
- recognition of the quality of data through quality assurance and quality control procedures
- publication of relevant **metadata**
- **stewardship** and sharing of data from research projects.

UN environment programme | Mediterranean Action Plan Barcelona Convention | info RAC

Data Policy: objectives

availability of latest data and **maintenance** of long-term series

quality assurance and quality control procedures

meeting relevant national **legislations**

recognition of **intellectual property** rights

protection of **integrity**, **transparency**, and **traceability** of environmental data

Support
Promote
Enable

interoperability and use of **standards**

publication of **metadata**

research data **stewardship**

citizen science data

full, free and **open access**

re-use of data from different sources

implementation of **INSPIRE**, **SEIS** principles, **Copernicus** and **GEOSS** data sharing principles

UN environment programme | Mediterranean Action Plan Barcelona Convention | info RAC

INFO/RAC
National Focal Points Meeting
Rome, Italy **7-8 June 2023**

Data Policy: objectives

availability of latest data and **maintenance** of long-term series

quality assurance and quality control procedures

meeting relevant national **legislations**

recognition of **intellectual property** rights

protection of **integrity**, **transparency**, and **traceability** of environmental data

Support
Promote
Enable

interoperability and use of **standards**

full, free and **open access**

re-use of data from different sources

implementation of **INSPIRE**, **SEIS** principles, **Copernicus** and **GEOSS** data sharing principles

publication of **metadata**

research data **stewardship**

citizen science data

Elements involved

UN environment programme | Mediterranean Action Plan Barcelona Convention | info RAC

INFO/RAC
National Focal Points Meeting
Rome, Italy **7-8 June 2023**

Data Policy: objectives

availability of latest data and **maintenance** of long-term series

quality assurance and quality control procedures

protection of **integrity**, **transparency**, and **traceability** of environmental data

Qualities of the elements

meeting relevant national **legislations**

recognition of **intellectual property** rights

Support
Promote
Enable

interoperability and use of **standards**

full, free and **open access**

re-use of data from different sources

publication of **metadata**

research data **stewardship**

citizen science data

implementation of **INSPIRE**, **SEIS** principles, **Copernicus** and **GEOSS** data sharing principles

UN environment programme | Mediterranean Action Plan Barcelona Convention | info RAC

INFO/RAC
National Focal Points Meeting
Rome, Italy **7-8 June 2023**

Data Policy: objectives

availability of latest data and **maintenance** of long-term series

quality assurance and quality control procedures

protection of **integrity**, **transparency**, and **traceability** of environmental data

Support
Promote
Enable

meeting relevant national **legislations**

recognition of **intellectual property** rights

Constraints

interoperability and use of **standards**

full, free and **open access**

re-use of data from different sources

implementation of **INSPIRE**, **SEIS** principles, **Copernicus** and **GEOSS** data sharing principles

publication of **metadata**

research data **stewardship**

citizen science data

UN environment programme | Mediterranean Action Plan Barcelona Convention | info RAC

INFO/RAC
National Focal Points Meeting
Rome, Italy **7-8 June 2023**

Data Policy: objectives

availability of latest data and **maintenance** of long-term series

quality assurance and quality control procedures

meeting relevant national **legislations**

recognition of **intellectual property** rights

protection of **integrity**, **transparency**, and **traceability** of environmental data

Support
Promote
Enable

interoperability and use of **standards**

Principles

full, free and **open access**

re-use of data from different sources

implementation of **INSPIRE**, **SEIS** principles, **Copernicus** and **GEOSS** data sharing principles

publication of **metadata**

research data **stewardship**

citizen science data

UN environment programme | Mediterranean Action Plan Barcelona Convention | info RAC

INFO/RAC
National Focal Points Meeting
Rome, Italy **7-8 June 2023**

Principles behind prescriptions

GENERAL: Data should be managed as close as possible to its source, collected once, shared with others, readily available to fulfil UNEP-MAP mandate. (p.356)

❌ NO data duplication

✅ YES fair and FAIR organization

Findable
Accessible
Interoperable
Reusable

Principles behind prescriptions

GENERAL: Data should be managed as close as possible to its source, collected once, shared with others, readily available to fulfil UNEP-MAP mandate. (p.356)

✗	NO	duplication of efforts
✓	YES	exploitation of others' work (where available)

Principles behind prescriptions

GENERAL: Data should be managed as close as possible to its source, collected once, shared with others, readily available to fulfil UNEP-MAP mandate. (p.356)

from «Data is MINE and I preserve it on my PC»

to «Data is a PUBLIC GOOD, I understand its usefulness for everyone, I will do anything I can to promote progress»

✗ NO data ownership

✓ YES data stewardship

Principles behind prescriptions

A. Interoperability and use of Standards

Interoperability means that any piece of information can be shared among multiple actors with the same quality level (quality of instruments, quality of information, quality of elaboration)

This is possible only by means of **Standards**: «universally» recognised rules to share information (protocols)

Principles behind prescriptions

B. Open Access

Data must be as open as possible, respecting the constraints imposed by local legislation, sensitivity of data, and copyrights

Open Access means ensuring the possibility for less rich Countries to access knowledge

We don't want a Two-speed world, we want a Unique world

Fallout of data collected by means of public funds should be available for the wide public

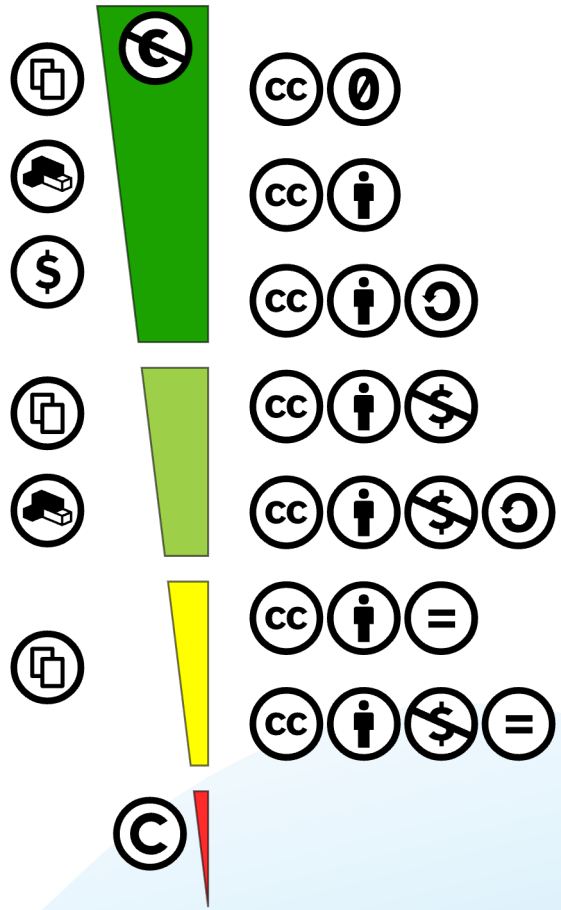
Principles behind prescriptions

B. Open Access

Data must be as open as possible, respecting the constraints imposed by local legislation, sensitivity of data, and copyrights

To formalize Open Access we need **Open Data licenses**:

- Public Domain (CC-0)
- Creative Commons Attribution (CC-BY)



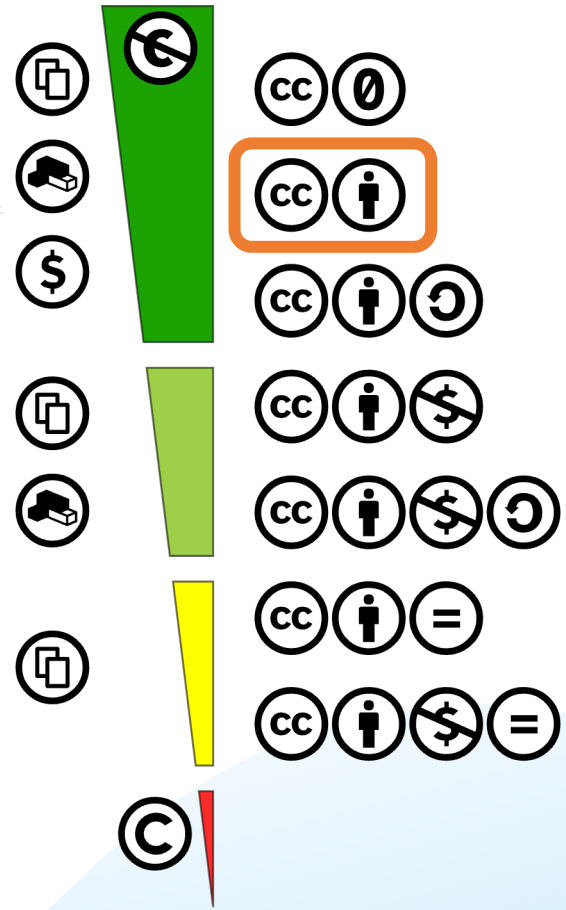
Principles behind prescriptions

B. Open Access

Data must be as open as possible, respecting the constraints imposed by local legislation, sensitivity of data, and copyrights

To formalize Open Access we need **Open Data licenses**:

- Public Domain (CC-0)
- Creative Commons Attribution (CC-BY)



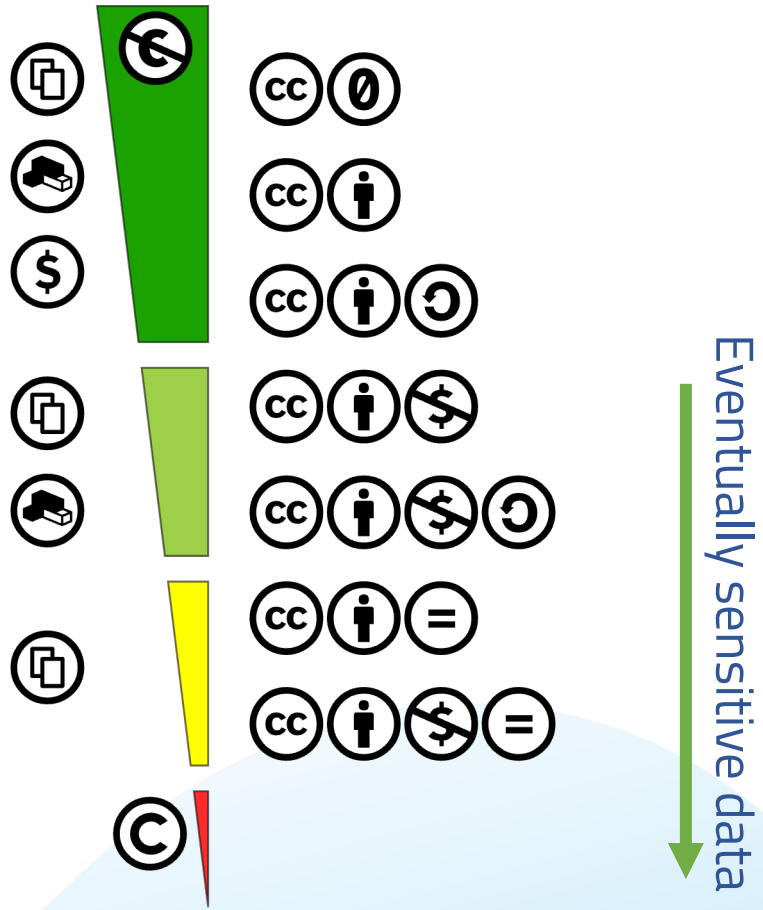
Principles behind prescriptions

B. Open Access

Data must be as open as possible, respecting the constraints imposed by local legislation, sensitivity of data, and copyrights

To formalize Open Access we need **Open Data licenses**:

- Public Domain (CC-0)
- Creative Commons Attribution (CC-BY)



Principles behind prescriptions

C. Re-use of data

Since we don't want to duplicate efforts, data must be enabled to be reused, exploited and recombined from different sources to different frameworks and media

To be Reusable:

- meta(data) are richly described with a plurality of accurate and relevant attributes
- (meta)data are released with a clear and accessible data usage license
- (meta)data are associated with detailed provenance
- (meta)data meet domain-relevant community standards

relevant attributes

license

provenance

standards

Principles behind prescriptions

C. Re-use of data

Since we don't want to duplicate efforts, data must be enabled to be reused, exploited and recombined from different sources to different frameworks and media

<u>To be Reusable:</u>

- meta(data) are richly described with a plurality of accurate and relevant attributes
- (meta)data are released with a clear and accessible data usage license
- (meta)data are associated with detailed provenance
- (meta)data meet domain-relevant community standards

provenance

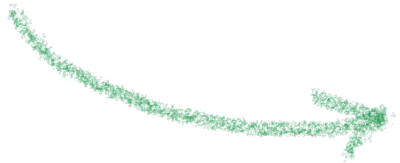
The provenance of data must be clear and stated in the **metadata: owner**, **contact person** and **responsible** for data must be clearly identified

Principles behind prescriptions

C. Re-use of data

Since we don't want to duplicate efforts, data must be enabled to be reused, exploited and recombined from different sources to different frameworks and media

relevant attributes



To be Reusable:

- meta(data) are richly described with a plurality of accurate and relevant attributes
- (meta)data are released with a clear and accessible data usage license
- (meta)data are associated with detailed provenance
- (meta)data meet domain-relevant community standards

The choice of attributes is codified and often stated in **vocaboulary** or **standards**. Relevant attributes **increase the value** of data.

Principles behind prescriptions

D. INSPIRE, SEIS, Copernicus and GEOSS principles

Infrastructure for Standard Information in Europe (INSPIRE)

- Data should be **collected only once** and kept where it can be maintained most effectively.
- It should be possible to **combine** seamless spatial information from **different sources** across Europe and share it with many users and applications.
- It should be possible for information collected at one **level/scale** to be shared with all levels/scales; detailed for thorough investigations, general for strategic purposes.
- Geographic information needed for good governance at all levels should be **readily and transparently available**.
- Easy to find what geographic information is available, how it can be used to meet a particular need, and under which conditions it can be acquired and used.

Principles behind prescriptions

D. INSPIRE, SEIS, Copernicus and GEOSS principles

Shared Environmental Information System (SEIS)

- Data should be managed **as close as possible** to its source.
- **Collected once** and shared with others for many purposes.
- **Readily available** to easily fulfil reporting obligations.
- **Easily accessible** to all users.
- Accessible to enable comparisons at the **appropriate geographical scale** and the participation of citizens.
- Fully available to the general public and at national level in the relevant national **language(s)**.
- Supported through **common, free, open software standards**.

Principles behind prescriptions

D. INSPIRE, SEIS, Copernicus and GEOSS principles

Copernicus

The vast majority of data/information delivered by Copernicus is made available and accessible to **any citizen**, and any organisation around the world on a **free, full, and open basis**.

Principles behind prescriptions

D. INSPIRE, SEIS, Copernicus and GEOSS principles

Group on Earth Observation System of Systems (GEOSS)

- data, metadata and products will be shared as **Open Data by default**, by making them available as part of the GEOSS Data Collection of Open Resources for Everyone (Data-CORE) without charge or restrictions on reuse, subject to the conditions of registration and attribution when the data are reused;
- where international instruments, national policies or legislation preclude the sharing of data as Open Data, data should be made available with **minimal restrictions** on use and at **no more than the cost of reproduction and distribution**;
- all shared data, products and metadata will be made available with **minimum time delay**.

Principles behind prescriptions

Common implications for all the data:

- If there are adequate competencies, data must be handled **as close as possible to its source**, following the principle to do not duplicate data.
- Data shall be made available with the **minimum time** delay at **no cost**.
- Data created by UNEP-MAP, Regional Activity Centers, and MAP components should be as open as possible (fully available to the general public), where for "open" we intend **free, accessible without further barriers and covered by an open license**.
- Data should be given **with location** (or Latitude/Longitude coordinates) whenever possible for environmental data.

Principles behind prescriptions

Particular implications for sensitive data:

- In the case of data owned by the Contracting Parties or third parties, **eventual barriers** or **limitations to data sharing** must be verified to assess their compliance with the data policy **before** any action to be pursued on data. Also, intellectual property rights, use or reuse conditions, confidentiality, and data quality statement must be verified.
- If data is "restricted" or **strategic** for the Contracting Party it will be not opened to the large public but it will be shared only among appropriate (authorized) users.
- When necessary, confidential, or sensitive data could be **reclassified** or **aggregated** by cooperating with INFO/RAC in order to open the dataset.
- If data is matter of scientific publication or it is involved in consortium contract or patent registration, it could be subjected to **embargo**. To formalize the embargo (which should not last less than **24 months**, ideally) the partner must motivate the request (for embargo) and in the metadata embargo duration should be explicitly stated.

Principles behind prescriptions

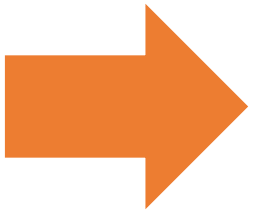
Particular implications for sensitive data:

- In particular, restrictions to put attention on are:
  - Binding rules
  - International treaties
  - National legislation
  - Personal data (protection of)
  - Statistical confidentiality
  - Protection of intellectual property rights
  - Protection of national security
  - Defense purposes
  - Public security

Principles behind prescriptions

Particular implications for sensitive data:

- In particular, restrictions to put attention on are:
  - Binding rules
  - International treaties
  - National legislation
  - Personal data (protection of)
  - Statistical confidentiality
  - Protection of intellectual property rights
  - Protection of national security
  - Defense purposes
  - Public security



Data policy in brief

Implications for the Contracting Parties

Common implications for all the data:

- If there are adequate competencies, data must be handled as close as possible to its source, following the principle to do not duplicate data.
- Data created by UNEP-MAP, Regional Activity Centers, and MAP components should be as open as possible (fully available to the general public), where for "open" we intend free, accessible without further barriers and covered by an open license (CC-BY, preferably[1]).
- Spatial data should also be in standard format (ISO, OGC and INSPIRE) to be available via an interoperable infrastructure for spatial information.
- Data shall be made available with the minimum time delay at no cost.
- If data has an unique identifier (URI or DOI, for example) this must be cited when providing or declaring data.
- Data should be given with location (or Latitude/Longitude coordinates) whenever possible for environmental data.

Particular implications for sensitive data:

- In the case of data owned by the Contracting Parties or third parties, eventual barriers or limitations to data sharing must be verified to assess their compliance with the data policy

Thanks for the Attention

Questions

?

annalisa.minelli@info-rac-org

UN environment programme | Mediterranean Action Plan Barcelona Convention | info RAC

INFO/RAC
National Focal Points Meeting
Rome, Italy 7-8 June 2023