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Agenda item 6: MAP Data Policy

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Preamble

Based on what is described and defined in the "Data Management Policy" document approved at the Conference of Contracting of Parties (COP21) held in Naples in 2019 (UNEP/MED IG.24/22, Annex II), the following document describes the general Data Policy of the data acquired or processed in the framework of the Barcelona Convention.

INFO/RAC is the centre responsible of data management for the "MAP-Barcelona Convention system" and in accordance with its mandate is responsible for:

- Ensuring high standards of maintenance, validation, dissemination and review / deletion of data held in its custody.
- Producing data security and sustainable management plans, including adequate IT investments.
- Assuring the right network for the reporting of the seven protocols of the Barcelona Convention acquired through the BCRS Reporting System, IMAP Info System as well as data that are useful for direct or indirect policies on the environment of the Mediterranean Sea.
- Establishing the rights of ownership and use of each data set and putting in place the necessary permissions and appropriate conditions for the use of these data sets by third parties, as well as assigning the appropriate licenses endorsed by the Contracting Parties.

This policy provides guidelines about MAP-Barcelona Convention system's handling of data. The policy will ensure that **data is handled in a consistent and transparent manner**.

UNEP/MAP aspires to promote the sharing of environmental data. In agreeing to share, data providers need to have assurance that their data are properly handled, disseminated and acknowledged following similar principles and rules across countries and stakeholders.

As a standard approach, **the present data policy applies for each data flow of UNEP/MAP and its Components**. The general principles suit independently from the nature and the topic of the data flows. General restrictions have been foreseen for all the data flows.

Operational and specific aspects will be defined in the data metric policy (data management plan), as in the annex III, developed for each of the following data flows: IMAP, BCRS, NBB, etc. included in the InfoMAP Platform (the Information System of UNEP/MAP managed by INFO/RAC).

A reference document will be developed for each data flow including a summary of data management aspects and the data metric policy (data management plan) that describes the access rights of users and layers.

UNEP/MAP ADOPTS THE BASIC DATA POLICY PRINCIPLES FOR THE EXCHANGE OF DATA RELATED TO THE ENVIRONMENT OF MEDITERRANEAN SEA IN THE FRAMEWORK OF BARCELONA CONVENTION AND ITS PROTOCOLS.

Assessment of the general principles

The data policy aims to ensure that data are managed transparently, properly disseminated and recognized, in compliance with principles and rules across Countries and stakeholders.

As a general assumption, data and information should be managed **as close as possible to its source**, **collected once** and **shared with others for many purposes** and **readily available to easily fulfil the UNEP/MAP mandates**.

Data and environmental information should be accessible to enable comparisons of the state of the environment at the appropriate geographic scale, fully available to the general public and to facilitate citizen participation using the appropriate level of aggregation where needed.

Supported through common, free and open software standards and proprietary action based on an interoperable Infrastructure for Spatial Information in the Mediterranean area.

The policy will cover environmental data and information collected, acquired, processed and disseminated by UN Environment Programme/Mediterranean Action Plan through the InfoMAP Platform.

RECOGNISING:
The Shared Environmental Information System (SEIS) principles and the benefits of a regular SEIS-based reporting process for environmental assessment to improve and optimise existing information systems and processes.

The European Neighborhood Instrument (ENI)-SEIS initiative adopted by European Environmental Agency (EEA), which extends the principles of SEIS, also to the neighbouring countries, to ensure coherence and harmonization of environmental reporting at the regional level in support of a more efficient policymaking.

The importance of data sharing in achieving the Global Earth Observation System of Systems (GEOSS) vision, its interconnected societal benefits and the GEOSS Data Sharing Principles with the work of the Group on Earth Observations (GEO).

The importance of the six principles of the International Open Data Charter, in which states undertake to provide open data policies that make data accessible and freely available while protecting the rights of individuals and communities.

The INSPIRE Directive (INfrastructure for SPatial Information in the European) that establishes harmonised conditions of access to spatial data sets and services and facilitates the sharing of spatial data sets and services between public authorities in Member States and between Member States, the institutions and bodies of the Community.

In developing this (MAP-Barcelona Convention data sharing policy), due consideration was given to existing regional and global policy and regulatory frameworks where appropriate as:

1. Directive 2019/1024/EU of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information
2. Regulation (EU) No 377/2014 of the European Parliament and of the Council of 3 April 2014 establishing the Copernicus Programme and repealing Regulation (EU) No 911/2010
3. Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) and related Implementing Rules,
4. Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC,
5. The UN Convention of 1998 on the access to information, public participation in decision-making and access to justice in environmental matters (the Aarhus-

Convention) and Regulation (EC) No 1376/2006 of the European Parliament and of the Council of 6 September 2006 on the application of the provisions of the Aarhus Convention on access to information, participation in decision-making and access to justice in environmental matters to Community institutions and bodies,

6. Directive 1996/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases,

7. Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC

GENERAL DEFINITIONS

FULLY, OPENLY AND FREELY AVAILABLE: complete, non-discriminatory and without charge.

AT NO COST: in the context of this document means at no more than the cost of reproduction and delivery, without charge for the data.

ENVIRONMENTAL DATA: individual items or records (both digital and analogue) usually obtained by measurement, observation or modelling of the natural world and the impact of humans upon it. This includes data generated through complex systems, such as information retrieval algorithms, data assimilation techniques and the application of models.

USERS: users accessing UNEP/MAP data through INFO/RAC and other MAP Components dissemination platforms.

PRODUCTS AND SERVICES: all information that results from the transformation or processing of data in the form of assessments, web services, pictures, charts, text, or data files embodying substantial know-how. Usually associated with value adding

RE-DISTRIBUTION: distribution to a third party other than the originator of the data and products.

RE-USE: the use by persons or legal entities of data and documents held by public sector bodies, for commercial or non-commercial purposes other than the initial purpose within the public task for which the data and documents were produced. Exchange of data and documents between public sector bodies purely in pursuit of their public tasks does not constitute re-use.

SECTION 1: Subject Matter

This policy covers direct and indirect environmental data, including the geospatial ones, collected, acquired, processed and disseminated by UNEP/MAP CU, INFO/RAC, and other MAP Components, including data flows within the framework of the Barcelona Convention and its Protocols.

As such, this policy covers data which is owned by UNEP/MAP as well as data which is owned by the Contracting Parties to the Barcelona Convention and its Protocols or third parties that produce data that are of interest to environmental policies in the Mediterranean Sea and Coast.

Much of the source data made available to INFO/RAC falls into the category of being owned by other Organizations and in particular by Contracting Parties.

From these source data, added value data products are created as part of "UNEP/MAP-Barcelona Convention mandate". This process can also add value for other Organizations or processes to whom these data can be disseminated as sources of input to their work.

SECTION 2: Objectives

Within the framework of the Barcelona Convention the main objectives of the MAP data policy are to support, promote and enable:

- the continuing availability of latest data and the maintenance of long-term series of observations,
- wider exploitation, re-use and re-combination of data from different sources in different frameworks and media than those for which they were originally commissioned,
- full, free and open access to all kinds of data, where possible, whilst recognizing and respecting the variety of business models and data ownerships that enable these data to be created,
- 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 European or international 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.

SECTION 3: Data Provision

Data providers (Contracting Parties to the Barcelona Convention and its Protocols, and the UNEP/MAP-Barcelona Convention System) are expected to follow the principle that all data and products, financed with public means should be fully available for use by public bodies, and that these data should be made available for others to use with as few restrictions as possible (see following section 4).

Location, such as latitude/longitude coordinates, should be collected and documented with environmental and related data, without precluding access to basic information needed by other data that may be needed to meet the activity required by UNEP and MAP Components' actions.

The data provider shall clearly specify intellectual property rights, use or re-use conditions, including statistical confidentiality, and quality statements in metadata information for each type of data (metadata, raster/image data etc.).

Data classified by the provider as "restricted" will be treated with appropriate levels of security and confidentiality, enabling access only to the profiles of authorized users.

The UNEP/MAP-Barcelona Convention system accepts and encourages data provided from crowd sourcing and citizen science. UNEP/MAP, through INFO/RAC, will make use of this type of data in its products and services where it judges that it is appropriate to do so and taking into account the available information on the quality of data.

SECTION 4: Access To and Redistribution

The data made available by the UNEP/MAP platforms are accompanied by a data license.

The data made available, as collected and coming from a third party may have agreements and licenses different from those defined and approved by the Contracting Parties to the Barcelona Convention and its Protocols, with license conditions agreed by INFO/RAC with the producers in order to guarantee the access limits and how to make the data available to others.

Possible reclassifications of the data to less detailed scales can be made by UNEP/MAP, through INFO/RAC, in agreement with the data provider or the Contracting Parties, in order to make the dataset open or free of limitations of use.

Access to data covers both technical access and the policies that govern access.

Products created by UNEP/MAP, INFO/RAC and other MAP Components are considered a public good and where possible, they will be made fully, freely and openly available for others to use.

As a standard approach, all data held by UNEP/MAP shall be made available with minimum time delay and at no cost.

Exception to this general rule include:

- Restriction apply resulting from binding rules,
- Restriction apply resulting from international treaties,
- Restriction apply resulting from national legislations,
- Restriction apply resulting from the protection of personal data,
- Restriction apply resulting from statistical confidentiality,
- Restriction apply resulting from the protection of intellectual property rights,
- Restriction apply resulting from the protection of national security (i.e. State security),
- Restriction apply resulting from defense,
- Restriction apply resulting from public security,
- Restriction apply resulting from embargo (limited period)

Other exceptions:

- Data is accompanied by a data license. Data originally made available to the UNEP/MAP-Barcelona Convention system by a third-party may have their own data access agreements and

license conditions agreed upon with INFO/RAC, which restricts how or when data can be available to others,

- Limit in the availability of data can be determined also by when the data access request exceeds INFO/RAC handling capacities.

INFO/RAC will endeavor to provide access to the source data that underpins MAP-Barcelona Convention system products and services and UNEP/MAP ones, for:

- data held by UNEP/MAP-Barcelona Convention system and managed by INFO/RAC that are owned by others,
- data held by INFO/RAC which have been adapted, combined or harmonized (for instance to cover pan-Mediterranean extent),
- data located, managed and publicly accessible in other bodies or distributed, for instance in national administrations in accordance with SEIS principles,
- data where INFO/RAC has been requested to arrange access, for instance to act as a data provider for third parties (e.g. UNEP/MAP CU, MAP Components, Copernicus services, R&D projects, other public authorities).

Data will be provided through discovery, view and, as far as possible, through download services which are compliant with established standards from ISO, OGC, INSPIRE and other relevant standardization bodies.
UNEP/MAP, through INFO/RAC, will hold the data where it seems fit and will aim to provide meta-information for all data.

As a standard approach, datasets will be distributed under **License CC-BY 4.0** or similar.

SECTION 5: Embargo data case

The data produced in the context of international activities by Contracting Parties, UNEP/MAP Coordinating Unit and MAP Components can be subject to an embargo period.

The embargo is a limited period of time during which only the producer could analyse or publish the data.

The embargo can be indicated in the consortium contract, lender contract, patent, etc. and associated to specific data or requested in specific periods.

The reasons of the request have to be motivated and have to be accompanied by metadata in which the embargo period is explicitly stated.

The confidentiality, ensured for a limited period of time, does not preclude their processing for flagship publications and other main MAP purposes for which the data will be aggregated.

The embargo can be removed at any time by the data providers and official communication should be provided to UNEP/MAP, through INFO/RAC.

As a standard approach, a 24 months period is the minimum embargo period.

Limit of time for the embargo have not been established. The embargo ceases when the reasons for its request are no more present.

SECTION 6: Recognition of Data Sources

UNEP/MAP, though INFO/RAC will take rigorous measures to ensure that data contributors are properly attributed, and the integrity of their contribution preserved. Data providers will normally include stable and unique identifiers in the data they provide so that the owner of the data is known and for other necessary purposes.

As a standard approach UNEP/MAP, though INFO/RAC will cite the source of data, and may offer opportunities for branding through inclusion of data provider logos, etc. All instances of use of data from crowd-sourcing or citizen science shall be clearly labeled as such by INFO/RAC.

UNEP/MAP, though INFO/RAC may undertake and publish benchmarking exercises on data provision in terms of performance and quality.

SECTION 7: Warranty

UNEP/MAP data, produced by Contracting Parties and MAP Components and managed by INFO/RAC, are provided 'as is' to users without warranty of any kind, either express or implied, including quality and suitability for any purpose.

SECTION 8: Quality

Data providers shall retain the primary responsibility for the quality of the data they produce and distribute.

For data produced by UNEP/MAP, INFO/RAC in close cooperation with the other MAP Components and under coordination by the Coordinating Unit, shall strive to publish quality metadata including, where appropriate, information on transparency, accuracy, relevance, timeliness, consistency and comparability.

SECTION 9: Update

Technological shifts in Information and Communication Technologies are impacting data collection, processing and use in innovative ways. This data policy is designed to enable these opportunities to be explored and used. To enable the benefits of these developments to be fully achieved, this policy will be reviewed at regular intervals (on biennial basis, if necessary).

SECTION 10: License applied

Recalling the license definition and description made in previous sections, the data policy is based on the concept of open sharing, and considers the EU PSI Directive[1], as applicable, and relevant policies and guidelines used by geospatial communities to ensure use and re-use of data and products.

The licenses, taken into consideration, were those provided by the Creative Commons Licenses (CCL – http://creativecommons.org) which are the most common and used licenses available for digital material.

In this framework the main license for data, as mentioned in the section 4, is the CC-BY 4.0, although other possible solutions can be adopted according to ANNEX I.

ANNEX I - DATA LICENCES DESCRIPTION

Type of license	Name	Main description
	CC BY Attribution International	*This license lets others distribute, remix, tweak, and build upon your work, even commercially, as long as they credit you for the original creation. Recommended for maximum dissemination and use of licensed data and products.*
	CC BY-SA Attribution-ShareAlike International	*This license lets others remix, tweak, and build upon your work even for commercial purposes, as long as they credit you and license their new creations under the identical terms.* *All new works based on yours will carry the same license, so any derivatives will also allow commercial use.*
	CC BY-NC Attribution-NonCommercial International	*This license lets others remix, tweak, and build upon your work but not for commercial purposes, as long as they credit you for the original creation.*
	RESTRICTED	*UNEP/MAP can collect data containing individually identifiable information that are confidential and protected by law of one or more countries of Mediterranean area. This information is not publicly released, and the term "restricted- data" is used to refer to data of this type. This is a license for making more detailed data available to qualified users, only UNEP/MAP expert can operate elaboration to produce derived products.*

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ANNEX II – MINIMUM DATASET LIST

For the following list of data sets the proposed licence is binding:

Thematic dataset	Licence
Basemap layer	
Administrative Unit	CC-BY 4.0
Hydrography	CC-BY 4.0
Coastline	CC-BY 4.0
Environmental data	
Protected Sites/area	CC-BY 4.0
Habitat	CC-BY 4.0
Species Distribution	CC-BY 4.0
Monitoring station	CC-BY 4.0
Monitoring programme parameter	CC-BY 4.0
Monitoring measurement	CC-BY 4.0 to Restricted
Land cover	CC-BY 4.0
Land use	CC-BY 4.0
Population distribution	CC-BY 4.0
Coastline urbanization	CC-BY 4.0
Industrial sites	CC-BY 4.0 to Restricted
Landfill sites	CC-BY 4.0 to Restricted
Flood maps	CC-BY 4.0
Surface temperature	CC-BY 4.0
Water salinity	CC-BY 4.0
Beach litter dump	CC-BY 4.0

ANNEX III – METRIC TABLE TEMPLATE

For each data flow a detailed table will be built, following consultation with Contracting Parties. The metric table will include the data the access rights for each available layer. The table will be part of the reference document resuming the data management rules for each data flow.

		Data Production				Data Aggregation		Map and document products
		Contracting Parties Data		MAP Components data	Third Party data	Minimum Common layer	Aggregation layer	
		Base Layer data	Environmental data					
Contracting Party users	National Focal Point user							
	National Expert user							
	Reporter user							
MAP Component users	CU							
	INFO/RAC							
	MEDPOL							
	REMPEC							
	PB/RAC							
	PAP/RAC							
	SCP/RAC							
	SPA/RAC							
MAP Partners								
Anonymous users								

Legend	
	All right to view, download and edit/manage data
	All right to view, download and edit/manage National data
	Right to view and download data
	Right to view and download national data
	Right to view only data
	No right