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Joint Meeting of the Ecosystem Approach Correspondence Group on Marine Litter Monitoring
and ENI SEIS II Assessment of Horizon 2020/National Action Plans of Waste Indicators

Podgorica, Montenegro, 4-5 April 2019

Agenda item 4: Data Dictionaries and Data Standards for IMAP Common Indicators on Marine Litter

Data Standards and Data Dictionaries for IMAP Common Indicators on Marine Litter

The meeting has been organized in collaboration with the European Union funded Project ENI SEIS II South Implementation of the Shared Environmental Information System (SEIS) principles and practices in the ENP South region – SEIS Support Mechanism

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Note by the Secretariat

In the framework of the Programme of Work and Budget for 2018–2019 of UN Environment/MAP (Decision IG.23/14), INFO/RAC is leading the work on the development of the “*Info/MAP platform and platform for the implementation of IMAP fully operative and further developed, connected to MAP components' information systems and other relevant regional knowledge platforms, to facilitate access to knowledge for managers and decision-makers, as well as stakeholders and the general public*” (PoW 2018-2019 Output 1.5.1).

Delivery of the Pilot IMAP Info System by INFO/RAC in close consultations with UN Environment/MAP Components is one of the most important outputs of the EU-Funded ECAP MED II Project. The Pilot IMAP Info System will be able to receive data according to the proposed Data Standards and Data Dictionaries (DDs and DSs) that set the basic information on data reporting within IMAP. It will be fully effective after the Monitoring Correspondence Groups (CorMon's) agreement on Data Standards and Data Dictionaries after which additional work will be needed to align the system with the changes of the standards.

INFO/RAC has prepared proposal of the DSs and DDs for 10 selected Common Indicators out of 27 IMAP Common Indicators in Excel file spreadsheets format. Common Indicators: 1, 2, 6, 13, 14, 15, 16, 17, 22 and 23, were selected with the aim to cover all clusters of IMAP (Biodiversity and NIS, Pollution and Litter, Coast and Hydrography). The following criteria were used for selecting these Common Indicators as part of the Pilot IMAP Info System:

- a) Maturity of Common Indicators as of 2017, in terms of monitoring experiences and best practices;
- b) Existing data collection and availability representing all IMAP Clusters;
- c) Availability of Common Indicators Guidance Factsheets and/or metadata templates.

INFO/RAC has further improved the initial version of DSs and DDs based on the preliminary discussion by the Regional Meeting on IMAP Implementation: Best Practices, Gaps and Common Challenges (IMAP Best Practices Meeting), Rome, Italy, 10-12 July 2018. The present document presents updated proposal of Data Standards and Data Dictionaries for IMAP Common Indicators 22 and 23.

The proposed DSs and DDs for IMAP Common Indicators 22 and 23 related to marine litter (EO10) were developed considering IMAP Guidance Factsheets for Marine Litter Common Indicators and existing Metadata Templates, as approved by the Meeting of the MED POL Focal Points, Rome, Italy, 29-31 May 2017 (UNEP(DEPI)/MED WG.439/20).

The proposed DSs and DDs also build on respective relevant experience of INFO/RAC, as well as the experience gained in building other relevant databases such as EMODnet Chemistry platform, SeaDataNet and WISE Data Dictionary maintained by the European Environment Agency (EEA) and available in EIONET. The proposed DSs and DDs provide broader data sets and associated dictionaries than requested as mandatory by the related IMAP Guidance Factsheets and Metadata Templates.

In the Data Standards the **mandatory** data are represented in **black** and the **non-mandatory** ones in **red**. The possibility to fill in also non-mandatory fields is given to allow the Contracting Parties that already have monitoring systems collecting a wider set of data to also report them as the additional data. It is at the discretion of the Contracting Parties to decide on reporting on non-mandatory data sets. For easy of reference, this document presents updated proposal of Excel spreadsheets of DSs and DDs for Common Indicators 22 and 23 in a Word File format.

Table of Contents

1. Introduction.....	1
2. DATA STANDARDS AND DATA DICTIONARIES FOR IMAP EO10 COMMON INDICATORS 22 AND 23	1
2.1 IMAP EO10 Common Indicator 22	2
2.2 IMAP EO10 Common Indicator 23	11
2.2.1 Seafloor Marine Litter	11
2.2.2 Floating Microplastics.....	14

List of Abbreviations / Acronyms

CI	Common Indicator
CORMON	Correspondence Group on Monitoring
DDs	Data Dictionaries
DSs	Data Standards
EcAp	Ecosystem Approach
EEA	European Environmental Agency
EO	Ecological Objective
IMAP	Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria
INFO/RAC	Regional Activity Centre for Information and Communication
MAP	Mediterranean Action Plan
MED POL	Programme for the Assessment and Control of Marine Pollution in the Mediterranean Sea
PoW	Programme of Work

1. Introduction

1. The draft Data Standards (DSs) and Data Dictionaries (DDs) for Marine Litter IMAP EO10 Common Indicators 22 and 23 were developed on the basis of the *IMAP Guidance Factsheets* and the *Metadata Templates for Beach and Seafloor Marine Litter* as approved during the Meeting of the MED POL Focal Points, Rome, Italy, 29-31 May 2017. (UNEP(DEPI)/MED WG.439/20). The new IMAP Metadata Templates, to be provided once DSs and DDs are agreed, will offer enlarged possibilities for the Contracting Parties that are measuring additional parameters to report those to the IMAP (Pilot) Info System, as well.

2. DSs and DDs for beach marine litter (IMAP EO10 CI22) include elements about general country information, the different characteristics of the selected beaches based on the MED POL Beach ID Form, and a number of information collected during conducting the surveys while on the beach based on the MED POL Beach Survey Form. The different list of beach marine litter items is also included based on the IMAP list for beach marine litter as revised by the Informal Online Working Group on Marine Litter. The list of the IMAP beach marine litter items is subject to revision and corresponding update, pending on the approval of the updated IMAP beach marine litter items, as presented during the Meeting of the Ecosystem Approach Correspondence Group on Marine Litter Monitoring (Podgorica, Montenegro, 4-5 April 2019), under Annex I of the Working Document UNEP/MED WG.464/3.

3. DSs and DDs for seafloor marine litter (IMAP EO10 CI23) include elements about general country information, information about the different sampling stations and relevant characteristics, including a list of seafloor marine litter items. DSs and DDs for seafloor marine litter were based on the MED POL Metadata Templates for Seafloor Marine Litter as approved by the MED POL Focal Points Meeting in 2017.

4. In line with the Guidance Factsheets for IMAP Common Indicators related to the Marine Litter and in the absence of a correspondent template for floating microplastics; INFO/RAC in consultation with MED POL has elaborated on a new Data Standards and Data Dictionaries for the floating microplastics, supported by relevant methodological elements for monitoring floating microplastics as presented in the working document “*State of Play of IMAP Implementation related to Marine Litter (EO10) and its further developments*” (UNEP/MED WG.464/3).

5. The field “Station” is included in all DSs and DDs, hereunder presented, as a useful element for the identification of the corresponding sampling areas/stations. Station is meant to be a reference geographical location to ensure consistency of the sampling throughout the years.

6. DSs and DDs, also include additional, non-mandatory, parameters which are not specifically related to the monitoring of the corresponding IMAP Common Indicators for marine litter but aiming to better characterize sampling areas and ensure interlinkages towards integrated monitoring with other IMAP Ecological Objectives.

2. DATA STANDARDS AND DATA DICTIONARIES FOR IMAP EO10 COMMON INDICATORS 22 AND 23

7. The characteristics of the proposed DSs and DDs are hereunder presented which will create a basis for new Metadata templates structure for the reporting on the two IMAP Common Indicators for Marine Litter.

2.1 IMAP EO10 Common Indicator 22

Table 1: Data Standards (stations information) for IMAP Common Indicator 22

Field	Description	List of values
Country Code	Enter country (contracting Party) code as ISO two digits, for example "IT" for Italy.	-
National Station ID	Station code	-
National Station Name	Station Name	-
Region	First level administrative subdivision to which the station belongs to	-
Latitude	Latitude of the station in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx).	-
Longitude	Longitude of the station in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx). Use negative values for coordinates west of the Greenwich Meridian (0°).	-
Remarks	Note	-

Table 2: Data Standards (Beach ID Form) for IMAP Common Indicator 22

Field	Description	List of values
Country Code	Enter country (contracting Party) code as ISO two digits, for example "IT" for Italy.	
National Station ID	Station code	
Beach National ID	Beach Code	
Beach Name	Beach Name	
Municipality	Indicate the township which the beach belongs to	
Beach Width	Average beach width (m)	
Beach Width Low Tide	Beach width at mean low spring tide (m)	
Beach Width High Tide	Beach width at mean high spring tide (m)	
Beach Length	Total length of the beach (m)	
Back of Beach	What kind/type exists at the back of the beach? e.g. sand dune	
Latitude Start 100m	Latitude of the beach in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx).	
Longitude Start 100m	Longitude of the beach in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx). Use negative values for coordinates west of the Greenwich Meridian (0°).	
Latitude End 100m	Latitude of the beach in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx).	
Longitude End 100m	Longitude of the beach in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx). Use negative values for coordinates west of the Greenwich Meridian (0°).	

Field	Description	List of values
Prevailing Currents	Prevailing currents off the beach	N = North E = East S = South W = West
Prevailing Winds	Prevailing winds	N = North E = East S = South W = West
Beach Orientation	When you look from the beach to the sea, what direction is the beach facing?	N = North E = East S = South W = West
Sand	Percentage of beach coverage with sand (0-100)	
Pebbles	Percentage of beach coverage with pebbles (0-100)	
Rocky Coast	Percentage of beach coverage with rocky coastline (0-100)	
Slope	Slope of the beach in percentage (0-100)	
Currents Influencer	Are there any objects in the sea (e.g. a pier) that influence the currents ?	Y =Yes N = No
Currents Influencer Spec	In case Currents Influence = Y, specify which currents influencer	
Local People Use	Is it used by local people?	Y =Yes N = No
Local People Use Season	In case of Yes, enter one value of the list	S = Seasonal WY= Whole Year Round
Sun Bathing Use	Is it used by local people?	Y =Yes N = No
Sun Bathing Use Season	In case of Yes, enter one value of the list	S = Seasonal WY= Whole Year Round
Fishing Use	Is it used for fishing?	Y =Yes N = No
Fishing Use Season	In case of Yes, enter one value of the list	S = Seasonal WY= Whole Year Round
Surfing Use	Is it used for surfing?	Y =Yes N = No
Surfing Use Season	In case of Yes, enter one value of the list	S = Seasonal WY= Whole Year Round
Sailing Use	Is it used for sailing?	Y =Yes N = No
Sailing Use Season	In case of Yes, enter one value of the list	S = Seasonal WY= Whole Year Round
Other Use	Specify which other use	
Other Use Season	In case of Yes, enter one value of the list	S = Seasonal WY= Whole Year Round
Pedestrian Access	Beach accessible to pedestrians (Yes / No), enter one of the values in the list	Y = Yes N = No

Field	Description	List of values
Boat Access	Beach accessible by boat (Yes / No), enter one of the values in the list	Y =Yes N = No
Vehicle Access	Beach accessible by vehicle (Yes / No), enter one of the values in the list	Y =Yes N = No
Nearest Town	Beach adjacent to urban areas (Yes / No), enter one of the values in the list	Y = Yes N = No
Nearest Town Name	Enter the name of the nearest town or village	
Nearest Town Distance	Distance of the nearest town from the beach (km)	
Nearest Town Population	Population of the nearest urbanized area	
Developments Behind Beach	Is there any development behind the beach?	Y =Yes N = No
Developments Behind Beach Spec		
Outlets Beach	Are there food and/or drink outlets on the beach?	Y = Yes N = No
Outlets Distance	Distance of the outlets from the survey area (m)	
Outlets Year Presence	Number of months during food and drink outlets are on the beach	
Outlets Position	Position of food and drink outlets in relation to the survey area	N = North E = East S = South W = West
Shipping Lane Distance	Distance of the beach to the nearest shipping lane in km	
Shipping Lane Position	Position of the shipping line in relation to survey area	N = North E = East S = South W = West
Harbour	Is the beach located near a harbour (Yes/NO), enter one of the values in the list	Y = Yes N = No
Harbour Name	Enter the name of the nearest harbour	
Harbour Distance	Distance between the sampling area and the harbours in km	
Harbour Entrance	Is the harbour entrance facing the survey area?	Y = Yes N = No
Harbour Position	Position of harbour in relation to survey area	N = North E = East S = South W = West
Harbour Type	What is the main type of vessels using the harbour? e.g. passenger ships, merchant/cargo ships, fishing vessels?	
Harbour Size	number of ships	

Field	Description	List of values
River Mouth	Beach adjacent to river mouths or drains of water (Yes / No), enter one of the values in the list	Y = Yes N = No
River Mouth Name	Enter the name of the nearest rivers / drains	
River Mouth Distance	Distance between the sampling area and nearest river mouths / drains of water in km	
River Mouth Position	What is the position of nearest river mouth in relation to survey area?	N = North E = East S = South W = West
Waste Water Discharge Distance	Distance between sampling area and industrial sites / landfills in km	
Waste Water Discharge Position	Position of discharge points in relation to survey area	N = North E = East S = South W = West
Last Cleaning Date	Last beach cleaning date in DD / MM / YYYY format	
Clean Up Frequency	Cleaning frequency during all year round	D = Daily W = Weekly M = Monthly O = Other
Clean Up Seasonal	Seasonal Cleaning: please specify in months	
Clean Up Method	Main method that was used for Clean-up	Manual Mechanical
Clean Up Responsible	Who is responsible for the cleaning	
Traffic Density	What is the estimated traffic density: number of ships/year	
Traffic Type	Is it mainly used from which type of vessels?	merchant ships fishing vessels all kinds
Amendment	Is this an amendment of an existing Beach ID form already submitted in the system?	Y = Yes N = No
Year	Year of sampling in YYYY format (Indicate the year that the present Beach ID is formed is submitted)	
Month	Month of sampling in 1-12 format (Indicate the month that the present Beach ID is formed is submitted)	
Day	Day of sampling in 1-31 format (Indicate the day that the present Beach ID is formed is submitted)	
Survey or Contact Info	Please indicate the name and contact details of the surveyor	
Additional Comments	Please include any additional comments that you find important and of relevance	
Beach Map ID	Naming the shapefile associated with the map, eg. "12202005.shp". Specify the following information in the map: Nearest town	

Field	Description	List of values
	Nearest harbour Nearest river mouth Nearest shipping lane Food/drink outlets Discharge or waste water Discharges	
Regional Map ID	Naming the shapefile associated with the map, e.g. "12202005.shp"	

Table 3: Data Standards (Beach Survey Form) for IMAP Common Indicator 22

Field	Description	List of values
Country Code	Enter country (contracting Party) code as ISO two digits, for example "IT" for Italy.	
Beach National ID	Beach Code	
Beach Name	Beach Name	
ID Survey	Survey code	
Latitude Start 100m ¹	Latitude of the station in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx). Put new value if you diverted from the predetermined 100 m.	
Longitude Start 100m ¹	Longitude of the station in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx). Use negative values for coordinates west of the Greenwich Meridian (0°).	
Latitude End 100m ¹	Latitude of the station in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx).	
Longitude End 100m ¹	Longitude of the station in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx). Use negative values for coordinates west of the Greenwich Meridian (0°).	
Year	Year of sampling in YYYY format	
Month	Month of sampling in 1-12 format	
Day	Day of sampling in 1-31 format	
Time	Time of sampling in HH:MM:SS format	
Surveyors Num	Number of surveyors	
Weather Conditions	Did any of the following weather conditions affect the data of the survey?	Wind Rain Sand storm Fog Snow Exceptionally high tide
Animals	Did you find stranded or dead animals?	Y = Yes N = No
Animals Species	If Animal = Yes, describe the animals, or note the species name if known	
Animals Number	If Animals is = Yes put the number of animals for each species	
Animals State	If Animal = Yes, Describe the stranded animal state, enter a value of the list	Dead Alive

¹ Put new value if you diverted from the predetermined 100 m

Field	Description	List of values
Entangled Animals	Is the animal entangled in litter?	Y = Yes N = No
Entangled Animals Litter	If Yes enter one value of the List_Beach_Litter_Categories	
Special Circumstances	Were there any circumstances that influenced the survey? For example, tracks on the beach, recent replenishment of the beach or other	Y = Yes N = No
Special Circumstances Type	If no, enter a value of the list	tracks on the beach, recent replenishment of the beach description of the new circumstance
Unusual Items	Were there any unusual marine litter items and/or marine litter loads?	Y = Yes N = No
Unusual Items Description	If Yes enter description of the unusual item	-
Photo ID	Naming the file associated with the photo, e.g. "12202005.jpg"	

Table 4: Data Standards (Beach Litter Items Introductory Elements) for IMAP Common Indicator 22

Field	Description	List of values
Country Code	Enter country (contracting Party) code as ISO two digits, for example "IT" for Italy.	-
Beach National ID	Beach Code	-
ID Survey	Survey code	-
Litter Category ID	Identification code of the litter category, enter one of the list values in the "List Beach Litter Categories"	-
Number Items	Number of items in the category expressed as number of objects / 100m	-

Table 5: Data Standards (Beach Litter Items) for IMAP Common Indicator 22²

Value	Description	MacroCategory
G1	4/6-pack yokes, six-pack rings	Plastic/Polystyrene
G3	Shopping bags incl. pieces	Plastic/Polystyrene
G4	Small plastic bags, e.g. freezer bags incl. pieces	Plastic/Polystyrene
G5	Plastic bag collective role; what remains from rip-off plastic bags	Plastic/Polystyrene
G7/G8	Drink bottles	Plastic/Polystyrene
G9	Cleaner bottles & containers	Plastic/Polystyrene
G10	Food containers incl. fast food containers	Plastic/Polystyrene
G11	Beach use related cosmetic bottles and containers, e.g. Sunblocks	Plastic/Polystyrene
G14	Engine oil bottles & containers <50 cm	Plastic/Polystyrene
G15	Engine oil bottles & containers >50 cm	Plastic/Polystyrene

² The list of the IMAP beach marine litter items is subject to revision and corresponding update, pending on the approval of the updated IMAP beach marine litter items, as presented during the Meeting of the Ecosystem Approach Correspondence Group on Marine Litter Monitoring (Podgorica, Montenegro, 4-5 April 2019), under Annex I of the Working Document UNEP/MED WG.464/3.

G16	Jerry cans (square plastic containers with handle)	Plastic/Polystyrene
G17	Injection gun containers (including nozzles)	Plastic/Polystyrene
G13	Other bottles & containers	Plastic/Polystyrene
G18	Crates and containers / baskets	Plastic/Polystyrene
G19	Car parts	Plastic/Polystyrene
G21/24	Plastic caps and lids (including rings from bottle caps/lids)	Plastic/Polystyrene
G26	Cigarette lighters	Plastic/Polystyrene
G28	Pens and pen lids	Plastic/Polystyrene
G29	Combs/hair brushes/sunglasses	Plastic/Polystyrene
G30/31	Crisps packets/sweets wrappers/ Lolly sticks	Plastic/Polystyrene
G32	Toys and party poppers	Plastic/Polystyrene
G33	Cups and cup lids	Plastic/Polystyrene
G34/35	Cutlery and trays/Straws and stirrers	Plastic/Polystyrene
G36	Fertiliser/animal feed bags	Plastic/Polystyrene
G37	Mesh vegetable bags	Plastic/Polystyrene
G40	Gloves (washing up)	Plastic/Polystyrene
G41	Gloves (industrial/professional rubber gloves)	Plastic/Polystyrene
G42	Crab/lobster pots and tops	Plastic/Polystyrene
G43	Tags (fishing and industry)	Plastic/Polystyrene
G44	Octopus pots	Plastic/Polystyrene
G45	Mussels nets, Oyster nets including plastic stoppers	Plastic/Polystyrene
G46	Oyster trays (round from oyster cultures)	Plastic/Polystyrene
G47	Plastic sheeting from mussel culture (Tahitians)	Plastic/Polystyrene
G49	Rope (diameter more than 1cm)	Plastic/Polystyrene
G50	String and cord (diameter less than 1 cm)	Plastic/Polystyrene
G53	Nets and pieces of net < 50 cm	Plastic/Polystyrene
G54	Nets and pieces of net > 50 cm	Plastic/Polystyrene
G56	Tangled nets/cord	Plastic/Polystyrene
G57/G58	Fish boxes - plastic or polystyrene	Plastic/Polystyrene
G59	Fishing line/monofilament (angling)	Plastic/Polystyrene
G60	Light sticks (tubes with fluid) incl. Packaging	Plastic/Polystyrene
G62/G63	Floats for fishing nets/ Buoys	Plastic/Polystyrene
G65	Buckets	Plastic/Polystyrene
G66	Strapping bands	Plastic/Polystyrene
G67	Sheets, industrial packaging, plastic sheeting	Plastic/Polystyrene
G68	Fibre glass/fragments	Plastic/Polystyrene
G69	Hard hats/Helmets	Plastic/Polystyrene
G70	Shotgun cartridges	Plastic/Polystyrene
G71	Shoes/sandals	Plastic/Polystyrene
G73	Foam sponge	Plastic/Polystyrene
G75	Plastic/polystyrene pieces 0 - 2.5 cm	Plastic/Polystyrene
G76	Plastic/polystyrene pieces 2.5 cm - 50 cm	Plastic/Polystyrene
G77	Plastic/polystyrene pieces > 50 cm	Plastic/Polystyrene
G91	Biomass holder from sewage treatment plants	Plastic/Polystyrene
G124	Other plastic/polystyrene items (identifiable) including fragments	Plastic/Polystyrene
	Please specify the items included in G124	Plastic/Polystyrene
G125	Balloons and balloon sticks	Rubber
G127	Rubber boots	Rubber
G128	Tyres and belts	Rubber
G134	Other rubber pieces	Rubber
	Please specify the items included in G134	Rubber
G137	Clothing / rags (clothing, hats, towels)	Cloth

G138	Shoes and sandals (e.g. Leather, cloth)	Cloth
G141	Carpet & Furnishing	Cloth
G140	Sacking (hessian)	Cloth
G145	Other textiles (incl. rags)	Cloth
	<i>Please specify the items included in G145</i>	Cloth
G147	Paper bags	Paper/Cardboard
G148	Cardboard (boxes & fragments)	Paper/Cardboard
G150	Cartons/Tetrapack Milk	Paper/Cardboard
G151	Cartons/Tetrapack (others)	Paper/Cardboard
G152	Cigarette packets	Paper/Cardboard
G27	Cigarette butts and filters	Paper/Cardboard
G153	Cups, food trays, food wrappers, drink containers	Paper/Cardboard
G154	Newspapers & magazines	Paper/Cardboard
G158	Other paper items, including fragments	Paper/Cardboard
	<i>Please specify the items included in G158</i>	Paper/Cardboard
G159	Corks	Paper/Cardboard
G160/161	Pallets / Processed timber	Processed/Worked Wood
G162	Crates	Processed/Worked Wood
G163	Crab/lobster pots	Processed/Worked Wood
G164	Fish boxes	Processed/Worked Wood
G165	Ice-cream sticks, chip forks, chopsticks, toothpicks	Processed/Worked Wood
G166	Paint brushes	Processed/Worked Wood
G171	Other wood < 50 cm	Processed/Worked Wood
	<i>Please specify the items included in G171</i>	Processed/Worked Wood
G172	Other wood > 50 cm	Processed/Worked Wood
	<i>Please specify the items included in G172</i>	Processed/Worked Wood
G174	Aerosol/Spray cans industry	Metal
G175	Cans (beverage)	Metal
G176	Cans (food)	Metal
G177	Foil wrappers, aluminium foil	Metal
G178	Bottle caps, lids & pull tabs	Metal
G179	Disposable BBQ's	Metal
G180	Appliances (refrigerators, washers, etc.)	Metal
G182	Fishing related (weights, sinkers, lures, hooks)	Metal
G184	Lobster/crab pots	Metal
G186	Industrial scrap	Metal
G187	Drums, e.g. oil	Metal
G190	Paint tins	Metal
G191	Wire, wire mesh, barbed wire	Metal
G198	Other metal pieces < 50 cm	Metal
	<i>Please specify the items included in G198</i>	Metal
G199	Other metal pieces > 50 cm	Metal
	<i>Please specify the items included in G199</i>	Metal
G200	Bottles incl. pieces	Glass

G202	Light bulbs	Glass
G208	Glass fragments >2.5cm	Glass
G210a	Other glass items	Glass
	<i>Please specify the items included in G210a</i>	Glass
G204	Construction material (brick, cement, pipes)	Ceramics
G207	Octopus pots	Ceramics
G208	Ceramic fragments >2.5cm	Ceramics
G210b	Other ceramics items	Ceramics
	<i>Please specify the items included in G210b</i>	Ceramics
G95	Cotton bud sticks	Sanitary Waste
G96	Sanitary towels/panty liners/backing strips	Sanitary Waste
G97	Toilet fresheners	Sanitary Waste
G98	Diapers/nappies	Sanitary Waste
G133	Condoms (incl. packaging)	Sanitary Waste
G144	Tampons and tampon applicators	Sanitary Waste
G--	Other sanitary waste	Sanitary Waste
	<i>Please specify the other sanitary items</i>	Sanitary Waste
G99	Syringes/needles	Medical Waste
G100	Medical/Pharmaceuticals containers/tubes	Medical Waste
G211	Other medical items (swabs, bandaging, adhesive plaster etc.)	Medical Waste
	<i>Please specify the items included in G211</i>	Medical Waste
G101	Dog faeces bag	Faeces
G213	Paraffin/Wax	Paraffin/Wax
Presence of pellets	Please say Y or N	
Presence of oil tars	Please say Y or N	

2.2 IMAP EO10 Common Indicator 23

2.2.1 Seafloor Marine Litter

Table 6: Data Standards (Station Information) for IMAP Common Indicator 23 (Seafloor Marine Litter)

Field	Description	List of values
Country Code	Enter member country code as ISO two digits, for example "IT" for Italy.	
National Station ID	Station Code	
National Station Name	Station Name	
Area	Administrative subdivision/sea compartment where the sampling station is located and also reference to EcAp Subdivision Code"	
Closest Coast	Distance station from the coast in km	
Additional Comments	Please include any additional comments that you find important and of relevance	

Table 7: Data Standards (Sampled Seafloor) for IMAP Common Indicator 23 (Seafloor Marine Litter)

Field	Description	List of values
Country Code	Enter member country code as ISO two digits, for example "IT" for Italy.	-
National Station ID	Station code	
Year	Year of sampling in YYYY format	
Month	Month of sampling in 1-12 format	
Day	Day of sampling in 1-31 format	
Time	Hours-minutes-seconds of sampling in HH:MM:SS format	
Haul Number ID	Sample Code if multiple replies are made with the same value as Year, Month, Day and Time	
Sampled Surface	Sampled surface of seafloor (km2)	
Latitude Start	Latitude of the Seafloor area in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx).	
Longitude Start	Longitude of the Seafloor area in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx). Use negative values for coordinates west of the Greenwich Meridian (0°).	
Latitude End	Latitude of the Seafloor area in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx).	
Longitude End	Longitude of the Seafloor area in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx). Use negative values for coordinates west of the Greenwich Meridian (0°).	
Depth Start	Depth in metres (m)	
Depth End	Depth in metres (m)	

Field	Description	List of values
Haul Duration	Indicate the total duration of the haul (start till end) in minutes	
Covered Distance	Indicate the total length of the haul in km	
Objects Number	Indicate the number of objects per square meter of seafloor. See Seafloor_ML_List	
Object Weight	indicate the weight for each object per square meter of seafloor. See Seafloor_ML_List	
Gear	Type of gear (e.g. bottom trawl, etc.9	
Speed	Indicate the constant speed of the vessel during the haul duration in knots	
Net Opening	Opening of the net in metres or use the figure obtained from the trawl sensors (e.g. SCANMAR, SIMRAD) if available	
Cod-end mesh size	Cod-end mesh size (mm)	
Surveyor Contact Info	Add surveyor's name and contact details (name, e-mail, etc.)	Non-Mandatory
Campaign Name	Add the name of the mission/cruise/project with which the survey is linked to	Non-Mandatory
Vessel Name	Add the name of the vessel	Non-Mandatory
Additional Comments	Please include any additional comments that you find important and of relevance	

Table 7: Data Standards (Sampled Seafloor) for IMAP Common Indicator 23 (Seafloor Marine Litter)

Value	Description	Macro Category
L0	No Litter	Yes, no litter found No, go to other items)
L1a	Plastic bags	Plastic
L1b	Plastic bottles	Plastic
L1c	Plastic food wrappers	Plastic
L1d	Plastic sheets	Plastic
L1e	Hard plastic objects	Plastic
L1f	Fishing nets (polymers)	Plastic
L1g	Fishing lines (polymers)	Plastic
L1h	Other synthetic fishing related	Plastic
L1i	Synthetic ropes/strapping bands	Plastic
L1j	Other plastic	Plastic
L1	Total Plastic	Plastic
L2a	Tyres	Rubber
L2b	Other Rubber (gloves, floats, etc.)	Rubber

Value	Description	Macro Category
L2	Total Rubber	Rubber
L3a	Beverage cans (metal)	Metal
L3b	Other food cans/wrappers	Metal
L3c	Middle size containers (paint, etc.)	Metal
L3d	Large metallic objects	Metal
L3e	Cables	Metal
L3f	Fishing related (hooks, spears, etc.)	Metal
L3g	Remnants from war	Metal
L3	Total metal	Metal
L4a	Glass/ceramic bottles	Glass/Ceramic
L4b	Piece of glass	Glass/Ceramic
L4c	Ceramic jars	Glass/Ceramic
L4d	Large objects	Glass/Ceramic
L4	Total Glass/Ceramic	Glass/Ceramic
L5a	Clothing (other than polymers)	Textils / Natural fibers
L5b	Large pieces (carpets, etc.)	Textils / Natural fibers
L5c	Natural fishing ropes	Textils / Natural fibers
L5d	Sanitaries (non-polymers)	Textils / Natural fibers
L5	Total textils / Natural fibers	Textils / Natural fibers
L6	Total processed wood	Processed wood
L7	Total paper and cardboard	Paper and cardboard
L8	Total other	Other
L9	Total unspecified	Unspecified
	Total litter	Total litter
	Total fishing gears (sum of L1f to L1i, L3f, L5c)	Fishing gears

2.2.2 Floating Microplastics

8. All tables and relevant information which are presented hereunder are presented to the Contracting Parties to the Barcelona Convention for first time and thus should be considered as totally new.

Table 8: Data Standards (Station Information) for IMAP Common Indicator 23 (Floating Microplastics) (Fields in red are not mandatory).

Field	Description	List of values	Remarks
Country Code	Enter member country code as ISO two digits, for example "IT" for Italy.		
National Station ID	Station Code		
National Station Name	Station Name		
Region	Administrative subdivision after country which the station belongs to		
Data Owner	Name of Institution carrying out the monitoring surveys		
Latitude	Latitude of the station in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx).		Latitude of the station is essential for the GIS representation and joined to the monitoring network. It is independent from the sampling point.
Longitude	Longitude of the station in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx). Use negative values for coordinates west of the Greenwich Meridian (0°).		Longitude of the station is essential for the GIS representation and joined to the monitoring network. It is independent from the sampling point.
Closest Coast	Distance station from the coast in km		
TCM Matrix	Floating microplastics with the use of Manta Net are only referred to water column (W). If other measures of other environmental matrix are performed in the same station enter one of the values in the list (information not related to floating microplastic monitoring but useful to characterize the station)	B = Biota BS = Biota and sediment BSW = Biota, sediment and water column BW = Biota and water column S = Sediment SW = Sediment and water column W = Water column	Values in the list in red are not mandatory
Sea Depth	Sea depth of the station in meters (information not related to floating microplastic monitoring but useful to characterize the station)		Not mandatory

Mixing	Mixing property of the water column at the station point, enter one of the values in the list	FM = Fully mixed PM = Partially mixed VS = Vertically stratified	Not mandatory Reference method to be added
Area Typology	Typology of the monitored area enter one of the values in the list	RP = River Plume PF = Port Facility US = Urban Settlement IS = Industrial Settlement	RP = Turbid freshwater flowing from land and generally in the distal part of a river (mouth) outside the bounds of an estuary or river channel.
Remarks	Notes		

Table 8: Data Standards (Microplastic Mesh) for IMAP Common Indicator 23 (Floating Microplastics) (Fields in red are not mandatory).

Field	Description	List of values	Remarks
National Station ID	Station code		
Year	Year of sampling in YYYY format		
Month	Month of sampling in 1-12 format		
Day	Day of sampling in 1-31 format		
Time	Hours-minutes-seconds of sampling in HH:MM:SS format		Start time of sampling (duration not less than 20 minutes)
Sample ID	Sample Code if multiple replies are made with the same value as Year, Month, Day and Time		
Latitude START	Latitude of the station in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx).		
Longitude START	Longitude of the station in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx). Use negative values for coordinates west of the Greenwich Meridian (0°).		
Latitude END	Latitude of the station in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx).		
Longitude END	Longitude of the station in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx). Use negative values for coordinates west of the Greenwich Meridian (0°).		
Sea Depth	Sea depth of the station in meters		
Temp	Temperature (°C)		Not Mandatory
Salinity	Salinity (psu)		Not Mandatory

Field	Description	List of values	Remarks
Transparency	Indicate the depth of shallows in meters (m)		Not Mandatory
DO	Dissolved oxygen - percentage of saturation (%)		Not Mandatory
pH	pH		Not Mandatory
Sea State	State of the sea according to Douglas scale (from 0 to 9 degrees)		
Wind Intensity	Intensity of the wind according to Beaufort scale (from 0 to 12 degrees)		
Wind Direction	Wind direction measured in degrees (angle unit) regard to the magnetic north, as reported on the compass		
Boat Speed	Average speed held by the boat during the sampling operations expressed in nodes		
Length Way	Length of the sampled linear way (m)		
Width Manta Trawl	Width of manta trawl (m)		
Surface Sampled	Surface sampled of seawater (m2)		
Remarks	Note		

Table 8: Data Standards (Sampled Microplastics) for IMAP Common Indicator 23 (Floating Microplastics) (Fields in red are not mandatory).

Field	Description	List of values
National Station ID	Station code	
Year	Year of sampling in YYYY format	
Month	Month of sampling in 1-12 format	
Day	Day of sampling in 1-31 format	
Time	Hours-minutes-seconds of sampling in HH:MM:SS format	
Sample ID	Sample Code if multiple replies are made with the same value as Year, Month, Day and Time	
Microplastic Morph Type	Indicate the type of morphology of the microplastics, enter one of the values in the list	Foam Filament Fragment Granule Pellet Sheet

Field	Description	List of values
Color	Indicate the color of microplastics, enter one value of the list	White Black Red Blue Green Other colors
Transparency	Indicate if the object is transparent or opaque, enter one value of the list	T = Transparent O = Opaque
Number of objects	Indicate the number of objects (sampled according to color and form indicated) per square meter of seawater	
Remarks	Notes	