

# WASTE DATA DICTIONARIES (DRAFT)

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September 13, 2018  
Rev: 11.01.2019  
Version 1.3

## DRAFT DATA DESCRIPTION DOCUMENT

Version 1.3  
Date : 13.09.2018  
Revision 11.01.2019

### 1. Introduction

This document provides a description of the data sets required for calculating the selected Horizon 2020 Waste Management Indicators (see Annex 1), thereby referred to as “Data Description Document”. It will feed into the Data Dictionary of the Info-RAC system - a central service for storing technical specifications for information requested in reporting, with the purpose of supporting countries in reporting good quality data.

### 2. Overview of H2020/NAP Waste Management Indicators

No.	Title of indicator	Sub-indicators
IND 1	<b>Municipal Waste Generation</b>	IND 1.A Municipal waste composition; IND 1.B Plastic waste generation per capita; IND 1.C % of population living in Coastal Areas; IND 1.D % of Tourists in Coastal Areas / Population in Coastal Areas
IND 2	<b>“Hardware” of waste management</b>	IND 2.A Waste Collection IND 2.A.1 Waste Collection Coverage IND 2.A.2 Waste Captured by the formal waste sector. IND 2.B Environmental Control IND 2.B.1 % of waste to uncontrolled dumpsites IND 2.B.2 Uncontrolled dumpsites in Coastal Areas IND 2.B.3 Waste going to dumpsites in Coastal Areas IND 2.C Resource Recovery IND 2.C.1 % of plastic waste generated that is recycled.

<p><b>IND Q<sup>1</sup></b></p>	<p><b>“Software” of waste management</b></p>	<p><b>3.Q.A MARINE LITTER &amp; WASTE MANAGEMENT FRAMEWORK</b></p> <p>IND Q.A.1 Is there a National Assessment for ML and its impacts?</p> <p>IND Q.A.2 Is there a National Plan or Strategy for ML?</p> <p>IND Q.A.3 Is there a National Plan or Strategy for Waste Management?</p> <p>IND Q.A.4 Is there a National Law on Waste?</p> <p>IND Q.A.5 Is there a national plan or target to close the dumpsites before 2030?</p> <p>IND Q.A.6 Is there a National Information system for waste management in place?</p> <p><b>Q.B RESOURCE RECOVERY</b></p> <p>IND Q.B.1 Is there a National Plan or Strategy for Waste Prevention?</p> <p>IND Q.B.2 Are there mandatory targets for recycling - recovery of packaging waste?</p> <p>IND Q.B.3 Are there EPR or Deposit- Return schemes for packaging waste?</p> <p>IND Q.B.4 Are there national policies to eliminate or reduce single-use plastics?</p> <p>IND Q.B.5 Are there financial incentives for reuse – resource recovery activities?</p> <p><b>Q.C SUSTAINABLE CONSUMPTION AND PRODUCTION</b></p> <p>IND Q.C.1 Are there Sustainable Consumption and Production plans or strategies?</p> <p>IND Q.C.2 Are there green procurement rules for the public sector in place?</p> <p>IND Q.C.3 Are there policies to support sustainable tourism?</p> <p>IND Q.C.4 Are there policies to support eco-labelling and eco-design?</p>
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<sup>1</sup> The meeting decided to change the name of this indicator as IND Q(uestion) due to identical name with Indicator 3 (Assess to Sanitation). For further details please refer to the Report of the Meeting (1<sup>st</sup> Workshop on Data and Infrastructure, 04-05 October 2018, Rome)

### 3. Description of Indicators

#### IND 1: Municipal Waste Generation Dataset definition

Sub-indicators	IND 1.A Municipal waste composition; IND 1.B Plastic waste generation per capita; IND 1.B Plastic waste generation per capita; IND 1.C % of population living in Coastal Areas; IND 1.C % of population living in Coastal Areas; IND 1.C % of population living in Coastal Areas;
Key words	Solid waste, municipal solid waste, plastic waste,
Spatial coverage	National level and coastal administrative regions of Mediterranean Sea watershed as defined in section 3.1 of the “Updated guidelines to assess national budget of pollutants (NBB)” [UNEP(DEPI)/MED WG. 404/4].
Dataset relevance	This indicator and its sub-indicators are describing the pressure and the drivers for ML. The indicator was already in use in H2020, as well as in several other relevant documents. More specifically, the waste quantity on a national level is somehow representative of the pressure on a national level.
Parameters	Tons per year (on the geographical scale defined) Kg/cap/year (on the geographical scale defined)
Methodology for obtaining data	Delivered by country
Planned update frequency	Every 1 years

#### Overview of data tables

Data table	Name	Definition	Short description
1.	<b>Municipal Waste Generation</b>	Municipal Solid Waste (MSW) generated per year. MSW is generated by households, and wastes of a similar nature generated by commercial and industrial premises, by institutions such as schools, hospitals, care homes and prisons, and from public spaces such as streets, markets, slaughter houses,	Tons/year or Kg/cap/year  <u>Country level</u> Total population Total MSW

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		public toilets, bus stops, parks, and gardens' (see UN-Habitat2)	
1.A	<b>Municipal Solid Waste Composition</b>	Summary w/w% composition of MSW as generated. Data points used for 5 key fractions – all as % wt. of total MSW generated as follows: Organic, Plastic, Paper, Metal, Rest	w/w % on wet basis  <u>Country-level</u> Organic % Plastic % Paper % Metal % Rest %
1.B	<b>Plastic waste generation per capita</b>	Average annual plastic waste generation per capita. The plastic waste fraction includes mostly packaging wastes, such as PET, PVC, polypropylene, high and low density polyethylene (HDPE/LDPE) and polystyrene.	Kg/cap/year  <u>Country level</u> Total population Total MSW (IND 1) Plastic % (IND 1.A)
1.C	<b>% of population in Coastal Areas / Total Population</b>	Percentage of population living in coastal areas to total population	% of population  <u>Country level</u> Total Population Population in Coastal Area
1.D	<b>% of Tourists in Coastal Areas / Population in Coastal Areas</b>	Percentage of Tourists in Coastal Areas to Population in Coastal Areas	% of population in Coastal Area;  Population in coastal area; Tourists in Coastal Area.

<sup>2</sup> [http://www.waste.nl/sites/waste.nl/files/product/files/swm\\_in\\_world\\_cities\\_2010.pdf](http://www.waste.nl/sites/waste.nl/files/product/files/swm_in_world_cities_2010.pdf). (page 6).

Data table 1: Total municipal solid waste (MSW) generation on a specific geographical level

	Column name	Column definition	Methodology	Data specifications	Remark/ Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-alpha-2, Codes elements as defined in Codelist i	Type of element: common Datatype: string Size: 2	
2	Administrative _Region	The indicator will be reported at national level (optionally all administrative regions).	Calculated in national level. List of regions from NBB info system given in Codelist iv	Type of element: common Datatype: string Min. size: 3 Max. size: 4	<b>Optional</b> , it is advised to calculate in national level
3	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: current year	
4.	MSW_Gen	Quantity of municipal solid waste generated (tonnes/year)	Calculated by aggregating the waste generated in Administrative _Region  Calculated in national level	Type of element: common Datatype: decimal Decimal precision: 2 Unit: metric tonnes per year Min. size: 3 Max. size: 10	Optional: Option 1

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				Min. value: 0.01 Max. value: 10,000,000.00	
		Quantity of municipal solid waste generated (tonnes/year)	Estimated by kg per capita per reference Year_H2020 optionally per reference Administrative _Region	Type of element: common Datatype: decimal Decimal precision: 2 Unit: metric tonnes per year Min. size: 3 Max. size: 10 Min. value: 0.01 Max. value: 10,000,000.00	Optional: Option 2
5.	Data_Collection_Method	Method of data collection	Codes elements as defined in Codelist ii	Type of element: common Datatype: string Size: 1	Assessments from the waste collection system in regional or and national level; Records from the local/national waste transfers, treatment and disposal facilities; (landfills) Assessments

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					based on the population using <b>proper waste generation rates</b>
6.	Remarks	Remarks, comments or explanatory notes (free text)		Type of element: common Datatype: string Min. size: 0 Max. size: 4096	



Data table 1A: Municipal Solid Waste Composition

	Column name	Column definition	Methodology	Data specifications	Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-alpha-2, Codes elements as defined in Codelist i	Type of element: common Datatype: string Size: 2	
2.	Administrative_Region	The indicator will be reported at national level (optionally all administrative regions).	Calculated in national level. List of regions from NBB info system given in Codelist iv	Type of element: common Datatype: string Min. size: 3 Max. size: 4	<b>Optional</b> , it is advised to calculate in national level
3.	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: current year	
4.	Frc_ID_MSW	Summery composition of MSW as generated.	Municipal waste composition fractions in percentage (w/w % on wet basis) according to Codelist iii Calculated in national level	Type of element: common Datatype: decimal Decimal precision: 2 Unit: percentage of ratio metric tonnes per year Min. size: 3 Max. size: 5	

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				Min. value: 0.01 Max. value: 100.00	
5.	Data_Collection_Method	Method of data collection	Codes elements as defined in Codelist ii	Type of element: common Datatype: string Size: 1	Assessments from the waste collection system in regional or and national level; Records from the local/national waste transfers, treatment and disposal facilities; (landfills) Country ; for calculation, Option 1 or for estimation Option 2
6.	Remarks	Remarks, comments or explanatory notes (free text)		Type of element: common Datatype: string Max. size: 4096	

Data table 1B: Plastic waste generation per capita

Column name	Column definition	Methodology	Data specifications	Equivalent in
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					WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-alpha-2, Codes elements as defined in Codelist i	Type of element: common Datatype: string Size: 2	
2.	Administrative_Region	The indicator will be reported at national level (optionally all administrative regions).	Calculated in national level. List of regions from NBB info system given in Codelist iv	Type of element: common Datatype: string Min. size: 3 Max. size: 4	<b>Optional</b> , it is advised to calculate in national level
3.	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: current year	
4.	Frc_Plastic_MSW	Plastic fraction generated per capita Refer to Frc_ID:2 Codelist III.	Two way of calculation methods, 1- if the waste quantities (w/w % of plastic and the population (N) are known and calculated. $Frc\_Plastic\_MSW/Capita=1000*(W \times P)/N$ (in kg/year) 2- If the waste has been calculated using special waste generation rates per capita (SR in kg/year) and composition is known (P the w/w % of plastics)	Type of element: common Datatype: decimal Decimal precision: 2 Unit: percentage of ratio metric tonnes per year Min. size: 3 Max. size: 5 Min. value: 0.01 Max. value: 100.00	Two options for calculation.

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			<p>then  <math>Frc\_Plastic\_MSW/Capita=SR*P</math>  (in kg/year)</p> <p>For plastic definition please refer to Codelist iii</p> <p>Calculated in national level</p>		
5.	Data_Collection_Method	Method of data collection	Codes elements as defined in Codelist ii	Type of element: common Datatype: string Size: 1	
6.	Remarks	Remarks, comments or explanatory notes (free text)		Type of element: common Datatype: string Max. size: 4096	

Data table 1.C: % of population in Coastal Areas / Total Population

	Column name	Column definition	Methodology	Data specifications	Remark/ Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-alpha-2, Codes elements as defined in Codelist i	Type of element: common Datatype: string Size: 2	
2.	Administrative_Region_Coastal	Administrative regions which are adjacent to coastline.	List of regions from NBB info system given in Codelist iv  Select the administrative regions, which are within 100 km buffer zone.	Type of element: common Datatype: string Min. size: 3 Max. size: 4	
3.	Total_Pop_Coast_Buffer_Zone	Population in coastal areas, according the recent UN work on SDGs, is the population living within 100 km of the coastline <sup>3</sup> .	Select the urban and rural populations, which are within 100 km buffer zone in the coastal region in Codelist iv.	Type of element: non-common Datatype: integer Unit: inhabitants Min. size: 1 Max. size: 10 Min. value: 1 Max. value: 1000 000 000	The minimum requirement should be all cities within the buffer zone (100 km). This needs to be indicated in the remarks (Row 7)
5.	Total_Population	Total population	The population as of the reference year (Year_H2020)	Type of element: non-common Datatype: integer	

<sup>3</sup> [http://www.un.org/esa/sustdev/natlinfo/indicators/methodology\\_sheets/oceans\\_seas\\_coasts/pop\\_coastal\\_areas.pdf](http://www.un.org/esa/sustdev/natlinfo/indicators/methodology_sheets/oceans_seas_coasts/pop_coastal_areas.pdf)

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				Unit: inhabitants Min. size: 1 Max. size: 10 Min. value: 1 Max. value: 1000 000 000	
5.	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: current year	
6.	Data_Collection_Method	Method of data collection	Codes elements as defined in Codelist ii	Type of element: common Datatype: string Size: 1	UNSD or national data
7.	Remarks	Remarks, comments or explanatory notes (free text)		Type of element: common Datatype: string Max. size: 4096	

Data table 1.D: % of Tourists in Coastal Areas / Population in Coastal Areas

	Column name	Column definition	Methodology	Data specifications	Remark/ Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-alpha-2, Codes elements as defined in Codelist i	Type of element: common Datatype: string Size: 2	
2.	Administrative_Region_Coastal	Administrative regions which are adjacent to the coastline.	List of regions from NBB info system given in Codelist iv	Type of element: common Datatype: string Min. size: 3 Max. size: 4	
3.	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003	

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				Max. value: current year	
4.	Tourist_Costal area	Number of tourist visiting the administrative regions per Year_H2020	<p>Tourists and visitors are defined according the UN World Tourism Organization<sup>4</sup> "Tourism comprises the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes not related to the exercise of an activity remunerated from within the place visited."</p> <p>Equivalent of a single permanent resident: The residential population has been thought to stay the whole year within the area, 365 days (the number of days taken for holiday by the residential population assumes covers up the seasonal population who is not included in the overnight stays statistics). Thus, the equivalent of one permanent</p>	<p>Type of element: common Datatype: integer Unit: person per year Min. size: 1 Max. size: 8 Min. value: 1 Max. value: 99,999,999</p>	

<sup>4</sup> See UN, Department of Economic and Social Affairs Statistics Division International Recommendations for Tourism Statistics 2008, [https://unstats.un.org/unsd/publication/Seriesm/SeriesM\\_83rev1e.pdf#page=21](https://unstats.un.org/unsd/publication/Seriesm/SeriesM_83rev1e.pdf#page=21)



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			resident is equal with 365 overnight stays <sup>5</sup>		
5.	Data_Collection_Method	Method of data collection	Codes elements as defined in Codelist ii	Type of element: common Datatype: string Size: 1	National statistical data. The visiting tourist number can be obtained by ministry of tourism, local municipalities, hotels and statistical offices
6.	Remarks	Remarks, comments or explanatory notes (free text)		Type of element: common Datatype: string Max. size: 4096	

<sup>5</sup> EU, EUROSTAT, Methodological work of measuring the sustainable development of tourism, Part 2: Manual of sustainable development indicators of tourism, 2006. <https://ec.europa.eu/eurostat/documents/3888793/5834249/KS-DE-06-002-EN.PDF/178f8c9a-4a03-409c-b020-70ff7ef6803a>

## IND 2: “HARDWARE” OF WASTE MANAGEMENT

### Dataset definition

Sub-indicators	IND 2.A Waste Collection IND 2.A.1 Waste Collection Coverage IND 2.A.2 Waste Captured by the formal waste sector IND 2.B Environmental Control IND 2.B.1 % of waste to uncontrolled dumpsites IND 2.B.2 Uncontrolled dumpsites in Coastal Areas IND 2.B.3 Waste going to dumpsites in Coastal Areas IND 2.C Resource Recovery IND 2.C.1 % of plastic waste generated that is recycled
Key words	Municipal Solid waste, waste collection, landfills, recycling
Spatial coverage	National level and coastal administrative regions of Mediterranean Sea watershed as defined in section 3.1 of the “Updated guidelines to assess national budget of pollutants (NBB)” [UNEP(DEPI)/MED WG. 404/4].
Dataset relevance	This indicator and its sub-indicators are describing the pressure and the drivers for ML. The indicator was already in use in H2020, as well as in several other relevant documents. More specifically, the waste quantity on a national level is somehow representative of the pressure on a national level.
Parameters	Tons per year (on the geographical scale defined) Kg/cap/year (on the geographical scale defined)
Methodology for obtaining data	Delivered by country
Planned update frequency	Every 2 years

### Overview of data tables

Data table	Name	Definition	Short description
IND 2.A.	<b>Waste Collection</b>	A ‘collection service’ may be ‘door to door’ or by deposit into a community container. ‘Collection’ includes collection for recycling as well as for treatment and disposal (so includes e.g. collection of recyclables by itinerant waste buyers). ‘Reliable’ means regular - frequency will	Population Population covered by regular collection services (Wcc)

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Data table	Name	Definition	Short description
		<p>depend on local conditions and on any preparation of the waste. For example, both mixed waste and organic waste are often collected daily in tropical climates for public health reasons, and generally at least weekly; source-separated dry recyclables may be collected less frequently.</p> <p><b>2.A.1: Waste Collection Coverage:</b> Percentage of the population of the country that is covered by a regular collection service organized either by public authorities or private companies. The indicator includes both formal municipal and informal sector services.</p> <p><b>2.A.2: Waste captured by the system:</b> Percentage of waste generated that is actually handled completely by the formal waste management and recycling system, thus the waste that is not lost through illegal burning, burying or dumping in unofficial areas.</p>	<p>Wf = Waste captured by the formal waste sector</p> <p>W = Total waste generated (IND1)</p>
IND 2. B.	<b>Environmental Control</b>	<p>Percentage of the total municipal solid waste destined for treatment or disposal in either a state- of-the-art, engineered facility or a 'controlled' treatment or disposal site.</p> <p><b>2.B.1: Waste that goes to dumpsites</b> Percentage of waste that goes to dumpsites.</p> <p><b>2.B.2: Dumpsites in Coastal Areas</b> Number of dumpsites in Coastal Areas</p> <p><b>2.B.3: Waste that goes to dumpsites in Coastal Areas.</b></p>	<p>Wf = Waste captured by the formal waste sectors (Wf=Wr+Wu).</p> <p>W = Total waste generated</p> <p>Wr = Recycled and reused waste</p> <p>Wu = Waste delivered to dumpsites.</p>

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<b>Data table</b>	<b>Name</b>	<b>Definition</b>	<b>Short description</b>
		Percentage of waste that goes to dumpsites in Coastal Areas	
<b>IND 2.C</b>	<b>Resource Recovery</b>	<p>Percentage of total municipal solid waste generated that is recycled. It includes both materials recycling and organics valorisation/recycling (composting, animal feed, anaerobic digestion).</p> <p><b>2.C.1: Plastic waste that is recycled</b></p> <p>Percentage of total plastic municipal solid waste generated that is recycled. It includes materials recycling only.</p>	<p>Wf = Waste captured by the formal waste sector W = Total waste generated (IND1)</p>

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**Data table 2A: Waste Collection**

**2.A.1. Waste Collection Coverage (Wcc on population)**

	Column name	Column definition	Methodology	Data specifications	Remark/ Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-alpha-2, Codes elements as defined in Codelist i	Type of element: common Datatype: string Size: 2	
2.	Administrative_Region	This indicator will be reported at national level (optionally all administrative regions).	List of regions from NBB info system given in Codelist iv	Type of element: common Datatype: string Min. size: 3 Max. size: 4	
3.	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: current year	
4.	Waste_ _Cc	The percentage of waste captured by formal system.(% on <b>total population of the country</b> ).	Waste collection covered at national level by system. (public and private)	Type of element: common Datatype: decimal Decimal precision: 2 Unit: percentage of ratio metric tonnes per year Min. size: 3 Max. size: 5 Min. value: 0.01	Percentage on population of the country.

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				Max. value: 100.00	
5.	P_covered_collection	Number of Population covered by waste collection system	Waste collection covered at national level by collection system. (public and private)	Type of element: common Datatype: integer Unit: person per year Min. size: 1 Max. size: 8 Min. value: 1 Max. value: 99,999,999	
6.	Data_Collection_Method	Method of data collection	Codes elements as defined in Codelist ii	Type of element: common Datatype: string Size: 1	
6.	Remarks	Remarks, comments or explanatory notes (free text)		Type of element: common Datatype: string Max. size: 4096	

**Data table 2A: Waste Collection**

**2.A.2. Waste captured by the system (Ws)**

	Column name	Column definition	Methodology	Data specifications	Remark/ Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-alpha-2, Codes elements as defined in Codelist i	Type of element: common Datatype: string Size: 2	
2.	Administrative_Region	The indicator will be reported at national level (optionally all	List of regions from NBB info system given in Codelist iv	Type of element: common Datatype: string	

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		administrative regions).		Min. size: 3 Max. size: 4	
3.	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: current year	
4.	Waste_Captured_Ws	The percentage of waste captured by formal system, including landfills, recycling and compost <b>(w/w % on total waste generated)</b>	Formal Waste Sector: Solid waste system, solid waste authorities, government, materials recovery facility; Solid waste management activities planned, sponsored, financed, carried out or, regulated and/or recognized by the formal local authorities or their agents, usually through contracts, licenses or concessions.	Type of element: common Datatype: decimal Decimal precision: 2 Unit: percentage of ratio Min. size: 3 Max. size: 5 Min. value: 0.01 Max. value: 100.00	<b>Percentage on total waste generated.</b>
	Waste_Captured_Wf	The amount of waste captured by formal system per reference year (tonnes/year)	Formal Waste Sector: Solid waste system, solid waste authorities, government, materials recovery facility; Solid waste management activities planned, sponsored, financed, carried out or, regulated and/or recognized by the formal local authorities or their agents, usually through contracts, licenses or concessions.	Type of element: common Datatype: integer Decimal precision: 2 Unit: tonnes per year Min. size: 3 Max. size: 7 Min. value: 1 Max. value: 1,000,000	<b>Tonnes/year at national level</b>

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5.	Data_Collection_Method	Method of data collection	Codes elements as defined in Codelist ii	Type of element: common Datatype: string Size: 1	
6.	Remarks	Remarks, comments or explanatory notes (free text)		Type of element: common Datatype: string Max. size: 4096	

**Data table 2B: Environmental Control**

	Column name	Column definition	Methodology	Data specifications	Remark/ Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-alpha-2, Codes elements as defined in Codelist i	Type of element: common Datatype: string Size: 2	
2.	Administrative _Region	The indicator will be reported at national level (optionally all administrative regions).	List of regions from NBB info system given in Codelist iv	Type of element: common Datatype: integer Min. size: 3 Max. size: 4	
3.	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: current year	



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4.	Number_of_Dumpsites_Coastal Administrative_Regions	Administrative regions located in coastal administrative regions	Number of dumpsites which are Administrative regions within 100 km zone of the coast.	Type of element: common Datatype: decimal Decimal precision: 0 Unit: number Min. size: 1 Max. size: 100 Min. value: 1 Max. value: 100	
5.	Waste_recycled_and_reused_Wr	The amount of waste which is recycled, reused (incl.compost)	The quantity of waste which is recycled, sent for compost and are incinerated (if any)	Type of element: common Datatype: decimal Decimal precision: 2 Unit: kg per year Min. size: 3 Max. size: 7 Min. value: 1 Max. value: 1,000,000	
	Waste_recycled_and_reused_We	This indicator provides the % of waste generated that is actually handled completely by the formal waste management and recycling system, thus the waste that is not lost through illegal burning, burying or dumping in unofficial areas. (w/w	$We\% = Wf / (W - Wr)$	Type of element: common Datatype: decimal Decimal precision: 2 Unit: percentage of ratio metric tonnes per year Min. size: 3 Max. size: 5 Min. value: 0.01 Max. value: 100.00	

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		%)			
	Waste_uncontrolled_Wd	Percentage of waste that is going to uncontrolled. (w/w %).	This indicator provides the % of the waste that goes to the dumpsites, thus it is a measure of the pressure for leakages related to ML and water pollution. In addition, it shows the maturity of the national waste management system. (%Wd=100%-We%)	Type of element: common Datatype: decimal Decimal precision: 2 Unit: percentage of ratio metric tonnes per year Min. size: 3 Max. size: 5 Min. value: 0.01 Max. value: 100.00	
6.	Waste_Dumpsite_Wu	The amount of waste which is send to uncontrolled dumpsites.	Dumpsite: Dump, open dump, uncontrolled waste disposal site; A designated or undesignated site where any kinds of wastes are deposited on land, or burned, or buried, without supervision ad without precautions regarding human health or environment.	Type of element: common Datatype: decimal Decimal precision: 2 Unit: kg per year Min. size: 3 Max. size: 9 Min. value: 1 Max. value: 1,000,000	
7.	Data_Collection_Method	Method of data collection	Codes elements as defined in Codelist ii	Type of element: common Datatype: string Size: 1	
8.	Remarks	Remarks, comments or explanatory notes (free text)		Type of element: common Datatype: string Max. size: 4096	

**2.B.1: % of waste that goes to uncontrolled dumpsites (Wd)**

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	Column name	Column definition	Methodology	Data specifications	Remark/ Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-alpha-2, Codes elements as defined in Codelist i	Type of element: common Datatype: string Size: 2	
2.	Administrative _Region	The indicator will be reported at national level (optionally all administrative regions).	List of regions from NBB info system given in Codelist iv	Type of element: common Datatype: integer Min. size: 3 Max. size: 4	
3.	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: current year	
4.	Waste_uncontrolled_Wd	Percentage of waste that is going to uncontrolled. (w/w % ).	This indicator provides the % of the waste that goes to the dumpsites, thus it is a measure of the pressure for leakages related to ML and water pollution. In addition, it shows the maturity of the national waste management system. (%Wd=100%-We%), where We% is Indicator 2B.	Type of element: common Datatype: decimal Decimal precision: 2 Unit: percentage of ratio metric tonnes per year Min. size: 3 Max. size: 5 Min. value: 0.01 Max. value: 100.00	
5.	Waste_Dumpsite_Wu	The amount of waste which is send to	Dumpsite: Dump, open dump, uncontrolled waste disposal	Type of element: common	

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		uncontrolled dumpsites.	site; A designated or undesignated site where any kinds of wastes are deposited on land, or burned, or buried, without supervision and without precautions regarding human health or environment.	Datatype: decimal Decimal precision: 2 Unit: kg per year Min. size: 3 Max. size: 9 Min. value: 1 Max. value: 1,000,000	
6.	Data_Collection_Method	Method of data collection	Codes elements as defined in Codelist ii	Type of element: common Datatype: string Size: 1	
7.	Remarks	Remarks, comments or explanatory notes (free text)		Type of element: common Datatype: string Max. size: 4096	

**2.B.2: Number of Dumpsites in Coastal Areas (NdC)**

	Column name	Column definition	Methodology	Data specifications	Remark/ Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-alpha-2, Codes elements as defined in Codelist i	Type of element: common Datatype: string Size: 2	
2.	Administrative_Region	Only Coastal Administrative regions (optionally all administrative regions).	List of regions from NBB info system given in Codelist iv	Type of element: common Datatype: integer Min. size: 3 Max. size: 4	
3.	Year_H2020	Year for which data is	Use the format YYYY	Type of element:	

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		available		common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: current year	
4.	Number_of_Dumpsites_Coastal_Administrative_Regions	-Dumpsite located in coastal administrative regions	Number of dumpsites which are in Administrative regions within 100 km zone of the coast.	Type of element: common Datatype: decimal Decimal precision: 0 Unit: number Min. size: 1 Max. size: 100 Min. value: 1 Max. value: 100	
5.	Remarks	Remarks, comments or explanatory notes (free text)		Type of element: common Datatype: string Max. size: 4096	

**IND 2.B.3: Waste going to dumpsites in the Coastal Areas (WdC)**

	Column name	Column definition	Methodology	Data specifications	Remark/ Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-alpha-2, Codes elements as defined in Codelist i	Type of element: common Datatype: string Size: 2	
2.	Administrative_Region	Only Coastal Administrative	List of regions from NBB info system given in Codelist iv	Type of element: common	

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		regions (optionally all administrative regions).		Datatype: integer Min. size: 3 Max. size: 4	
3.	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: current year	
4.	Waste_uncontrolled_WdC	Percentage of waste that is going to uncontrolled dumpsites in the coastal administrative region. (w/w %).	This indicator provides the % of the waste that goes to the dumpsites located in the coastal administrative regions. (This indicator is the same indicators <b>2.B.1 in coastal geographical scale</b> ).	Type of element: common Datatype: decimal Decimal precision: 2 Unit: percentage of ratio metric tonnes per year Min. size: 3 Max. size: 5 Min. value: 0.01 Max. value: 100.00	
5.	Remarks	Remarks, comments or explanatory notes (free text)		Type of element: common Datatype: string Max. size: 4096	

**Data table 2C: Resource Recovery and 2.C.1 % of plastic waste generated that is recycled**

Column name	Column definition	Methodology	Data specifications	Remark/ Equivalent in WISE if exist
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1.	Country_Code	Country codes as defined in the codelist	ISO 3166-alpha-2, Codes elements as defined in Codelist i	Type of element: common Datatype: string Size: 2	
2.	Administrative_Region	Only Coastal Administrative regions (optionally all administrative regions).	List of regions from NBB info system given in Codelist iv	Type of element: common Datatype:-integer Min. size: 3 Max. size: 4	
3.	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: current year	
4.	Resource_Recovery_RR	Percentage of the total waste recycled and reused. (w/w %).	Percentage of the waste that is recycled or reused out of the waste generated.	Type of element: common Datatype: decimal Decimal precision: 2 Unit: percentage of ratio metric tonnes per year Min. size: 3 Max. size: 5 Min. value: 0.01 Max. value: 100.00	
5.	Waste_recycled_and_reused_Wr	This is reported already for indicator 2B.			
6.	Amount_Recycled_Plastics	The amount of plastics which is recycled, reused	The quantity of waste which is recycled and reused (compost)(if any)	Type of element: common Datatype: decimal	

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				<p>Decimal precision: 2  Unit: kg per year  Min. size: 3  Max. size: 7  Min. value: 1  Max. value: 1,000,000</p>	
7.	Percentage_recycled_plastics_	The indicator shows the percentage of total plastic municipal solid waste generated that is recycled. It includes materials recycling only.	The amount of recycled plastic divided by total plastic waste generated. Which is calculated in percentage	<p>Type of element: common  Datatype: decimal  Decimal precision: 2  Unit: percentage of ratio metric tonnes per year  Min. size: 3  Max. size: 5  Min. value: 0.01  Max. value: 100.00</p>	
8.	Data_Collection_Method	Method of data collection		<p>Type of element: common  Datatype: integer  Size: 3</p>	For this calculation, since IND1 has been already calculated, it is necessary to recover data from both the formal and the informal sector. The recyclables from the formal sector are always registered and



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					usually there are invoices or other receipts for their quantities.
9.	Remarks	Remarks, comments or explanatory notes (free text)		Type of element: common Datatype: string Max. size: 4096	

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<b>IND Q: “SOFTWARE” OF WASTE MANAGEMENT</b>					
<b>IND Q.A Marine Litter &amp; waste management framework</b>					
<b>Column name</b>	<b>Column name</b>	<b>Geographic Coverage</b>	<b>Indicator parameters</b>	<b>Indicator units</b>	<b>Remarks</b>
<b>Q.A.1 Is there a National Assessment for ML and its impacts?</b>	The answer “yes” is given either if the relevant documents are officially approved or if they are under elaboration and they are going to be completed before the end of 2019.	National	YES or NO	Each “yes” counts 6.66%	
<b>Q.A.2 Is there a National Plan or Strategy for ML?</b>	The answer “yes” is given either if the relevant documents are officially approved or if they are under elaboration and they are going to be completed before the end of 2019.	National	YES or NO	Each “yes” counts 6.66%	
<b>Q.A.3 Is there a National Plan or Strategy for Waste Management?</b>	The answer “yes” is given only if the relevant documents are officially approved.	National	YES or NO	Each “yes” counts 6.66%	
<b>Q.A.4 Is there a National Law on Waste?</b>	The answer “yes” is given only if the relevant documents are officially approved.	National	YES or NO	Each “yes” counts 6.66%	
<b>Q.A.5 Is there a specific plan or a specific target to close the dumpsites before 2030?</b>	The answer “yes” is given only if there is such a specific target in the National Plan or Strategy or if there is a specific plan for the closure of dumpsites.	National	YES or NO	Each “yes” counts 6.66%	

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Q.A.6 Is there a National Information System for waste management in place?	The answer “yes” is given only if there is an existing, operational National Information System for waste management or if waste management consists a sub-system of a broader Environmental Information System.	National	YES or NO	Each “yes” counts 6.66%	
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IND Q: “SOFTWARE” OF WASTE MANAGEMENT					
IND Q.B - Resource recovery					
Column name	Column name	Geographical Coverage	Indicator parameters	Indicator units	Remarks
Q.B.1 Is there a National Plan or Strategy for Waste Prevention?		National	YES or NO	Each “yes” counts 6.66%	
Q.B.2 Are there mandatory targets for recycling - recovery of packaging waste?		National	YES or NO	Each “yes” counts 6.66%	
Q.B.3 Are there EPR or Deposit- Return schemes for packaging waste?		National	YES or NO	Each “yes” counts 6.66%	
Q.B.4 Are there		National	YES or NO	Each “yes” counts	

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national policies to eliminate or reduce single-use plastics?				6.66%	
Q.B.5 Are there financial incentives for reuse – resource recovery activities?		National	YES or NO	Each “yes” counts 6.66%	

IND Q: “SOFTWARE” OF WASTE MANAGEMENT					
IND Q.C - SUSTAINABLE CONSUMPTION AND PRODUCTION					
Column name	Column name	Geographical Coverage	Indicator parameters	Indicator units	Remarks
Q.C.1 Are there Sustainable Consumption and Production plans or strategies?			YES or NO	Each “yes” counts 6.66%	
Q.C.2 Are there green procurement rules for the public sector in place?			YES or NO	Each “yes” counts 6.66%	
Q.C.3 Are there policies to support sustainable			YES or NO	Each “yes” counts 6.66%	

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<b>tourism?</b>					
<b>Q.C.4 Are there policies to support eco-labelling and eco-design?</b>			YES or NO	Each “yes” counts 6.66%	
			YES or NO	Each “yes” counts 6.66%	

## Annex 1: Codelists

### i. Codelist of country

ISO 3166-1-alpha-2 code

[http://www.iso.org/iso/home/standards/country\\_codes/country\\_names\\_and\\_code\\_elements.htm](http://www.iso.org/iso/home/standards/country_codes/country_names_and_code_elements.htm)

Name	ISO 2 Code
Albania	AL
Algeria	DZ
Bosnia and Herzegovina	BA
Egypt	EG
Israel	IL
Jordan	JO
Lebanon	LB
Libya	LY
Montenegro	ME
Morocco	MA
Palestine, State of	PS
Tunisia	TN
Turkey	TR

### ii. Codelist of data collection method

Value	Definition	Short description
M	Field measurement method	Measurement
E	Waste generation rates estimation	Estimation
I	National inventories for management of municipal solid waste compiled by official public agencies	Inventory
R	Official reports compiled by sanitary landfills	Report

**iii. Codelist of MSW Fractions**

Frc_ID	Name	
1	Organic fraction % w/w	The 'organic' fraction is defined primarily as kitchen and food waste from households and restaurants; market wastes; green, garden or yard waste, including wood from pruning trees in public parks and/or along roads; and similar. It excludes paper, cardboard, textiles, leather, and wood from packaging or furniture. Please note whether some organic waste is likely to have been reported as part of another fraction – e.g. if MSW is routinely mixed with sand or soil during collection (so that the 'fine fraction' is likely to include a portion of the organics), and/or if the 'other' fraction is high.
2	Plastic fraction %	The plastic fraction includes mostly packaging wastes, such as PET, PVC, polypropylene, high and low density polyethylene (HDPE/LDPE) and polystyrene.
3	Paper fraction %	The paper fraction includes cardboard, but excludes laminated materials such as drink cartons.
4	Metal fraction %	The metal fraction includes ferrous (iron and steel) and non-ferrous (e.g. aluminium, copper, lead, zinc, tin) metals and alloys.
5	Rest %	100% - [4] - [3] - [2] - [1]

#### iv. Codelist of Administrative Mediterranean Regions

<b>Country</b>	<b>Region</b>
Albania	Peqini
Albania	Vlora
Albania	Saranda
Albania	Delvina
Albania	Kavaja
Albania	Fieri
Albania	Kruja
Albania	Durres
Albania	Kurbini
Albania	Lushnja
Albania	Mallakastra
Albania	Elbasan
Albania	Shkodra
Albania	Lezha
Albania	Tirana
Algeria	El Tarf
Algeria	Tlemcen
Algeria	Ain Temouchent
Algeria	Oran
Algeria	Mostaganem
Algeria	Chlef
Algeria	Tipaza
Algeria	Alger
Algeria	Boumerdes
Algeria	Tizi Ouzou
Algeria	Bejaia
Algeria	Jijel
Algeria	Skikda
Algeria	Annaba
Bosnia Herzegovina	Costal Area - Neum
Bosnia Herzegovina	Trebisnjica
Bosnia Herzegovina	Cetina
Bosnia Herzegovina	Neretva
Croatia	Primorsko-Goranska
Croatia	Zadarska
Croatia	Licko-Senjska
Croatia	Sibensko-Kninska
Croatia	Istarska
Croatia	Dubrovačko-Neretvanska
Croatia	Splitsko-Dalmatinska
Cyprus	Cyprus
Egypt	Alexandria
France	Champagne-Ardenne
France	Franche-Comte
France	Herault
France	Alpes maritimes
France	Pyrenees orientales
France	Aude
France	Bourgogne
France	Provence-Alpes-Cote d'Azur
France	Gard
France	Corse
France	Bouches du Rhone
France	Rhone-Alpes
Greece	Aegean Islands
Greece	West Macedonia
Greece	West Continental Greece
Greece	West Peloponnes
Greece	North Peloponnes
Greece	Attica
Greece	East Peloponnes
Greece	Epirus
Greece	Thrace
Greece	East Macedonia
Greece	East Continental Greece



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Greece	Crete
Greece	Central Macedonia
Greece	Thessalia
Israel	Israel
Italy	Puglia
Italy	Umbria
Italy	Veneto
Italy	Toscana
Italy	Lombardia
Italy	Valle d Aosta
Italy	Liguria
Italy	Friuli
Italy	Molise
Italy	Marche
Italy	Sardegna
Italy	Trentino
Italy	Emilia Romagna
Italy	Abruzzo
Italy	Calabria
Italy	Piemonte
Italy	Basilicata
Italy	Lazio
Italy	Sicilia
Italy	Campania
Lebanon	Lebanon
Libya	Alnigat Alkhams
Libya	Sirt
Libya	Ajdabiya
Libya	Tripoli
Libya	Dernah
Libya	Azzawiya
Libya	Al jifarah
Libya	Al batnan
Libya	Misratah
Libya	Al Khums
Libya	Benghazi
Libya	Alnigat ilkamse
Malta	Malta

Montenegro	Budva
Montenegro	Ulcinj
Montenegro	Tivat
Montenegro	Kotor
Montenegro	Herceg Novi
Montenegro	Bar
Morocco	Nador
Morocco	Tanger
Morocco	Tetouan
Palestine	Wadi Gaza
Slovenia	Slovenia
Spain	Barcelona
Spain	Alava
Spain	Cuenca
Spain	Huesca
Spain	Alicante
Spain	Albacete
Spain	Burgos
Spain	Granada
Spain	Valencia
Spain	Lleida
Spain	Girona
Spain	Malaga
Spain	Tarragona
Spain	Baleares
Spain	Navarra
Spain	Murcia
Spain	Zaragoza
Spain	Melilla
Spain	Rioja
Spain	Teruel
Spain	Soria
Spain	Cantabria
Spain	Cadiz
Spain	Almeria
Spain	Castellon
Syria	Tartous
Syria	Lattakia

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Tunisia	Gabes	Turkey	Kahramanma
Tunisia	Sfax	Turkey	Isparta
Tunisia	Bizerte	Turkey	Manisa
Tunisia	Mahdia	Turkey	Mugla
Tunisia	Sousse	Turkey	Usak
Tunisia	Ariana	Turkey	Icel
Tunisia	Nabeul	Turkey	Kutahya
Tunisia	Ben Arous	Turkey	Osmaniye
Tunisia	Monastir	Turkey	Afyon
Tunisia	Medenine	Turkey	Izmir
Tunisia	Tunis	Turkey	Balikesir
Turkey	Denizli	Turkey	Canakkale
Turkey	Hatay	Turkey	Aydin
Turkey	Antalya	Turkey	Adana

**Table D**

<b>Methodology</b>	<b>Data specifications</b>	<b>Equivalent in WISE if exist</b>
The population as of the reference year (Year_H2020)	Type of element: non-common Datatype: integer Unit: inhabitants Min. size: 1 Max. size: 10 Min. value: 1 Max. value: 1000 000 000	