

Plasteax<sup>co</sup>

# Generic dataset

For consumer packaging

Model version 2.0 | 2023



## PLASTEAX WASTE MANAGEMENT DATA

Plasteax database provides a comprehensive snapshot of the plastic situation, offering specific information on **various indicators** such as :

- Managed Waste (including incineration and sanitary landfill)
- Recycling
- Mismanaged Waste (including uncollected, dumped and littered)
- Leakage (direct) into ocean and waterways

Plasteax data offers highly specific data that can be tailored to individual countries, polymer types, applications, or any combination of these factors for different **scopes**:

- Sectors (Packaging, Textile)
- Polymer
- Category

## DEFINITIONS

### ADDED STOCK

Plastic put on the market on a given year that is not becoming waste within the same year. This part of the plastic input is considered as plastic stock for the given year as it will become waste in another year (e.g. plastic used in construction or automotive). Similarly, though, there will be plastic that was put on the market in previous year and that will become waste in the chosen year. The difference between these two quantities is the added stock.

### EXPORT

Export of any plastic by the country, in any form, be it primary polymer, plastic product, or plastic embedded in a product (plastic share in cars or phones). It does not include export of plastic waste.

### IMPORT

Import of any plastic in the country, in any form, be it primary polymer, plastic product, or plastic embedded in a product (plastic share in cars or phones). It does not include import of plastic waste.

## DEFINITIONS

### PRODUCTION

Polymer production either from primary virgin source or secondary source (recycled plastic from previous year). It does not include the manufacturing of final products in the country, as this would lead to double counting.

### WASTE EXPORT

Plastic waste collected in the country and exported abroad. It does not include the re-export of imported waste.

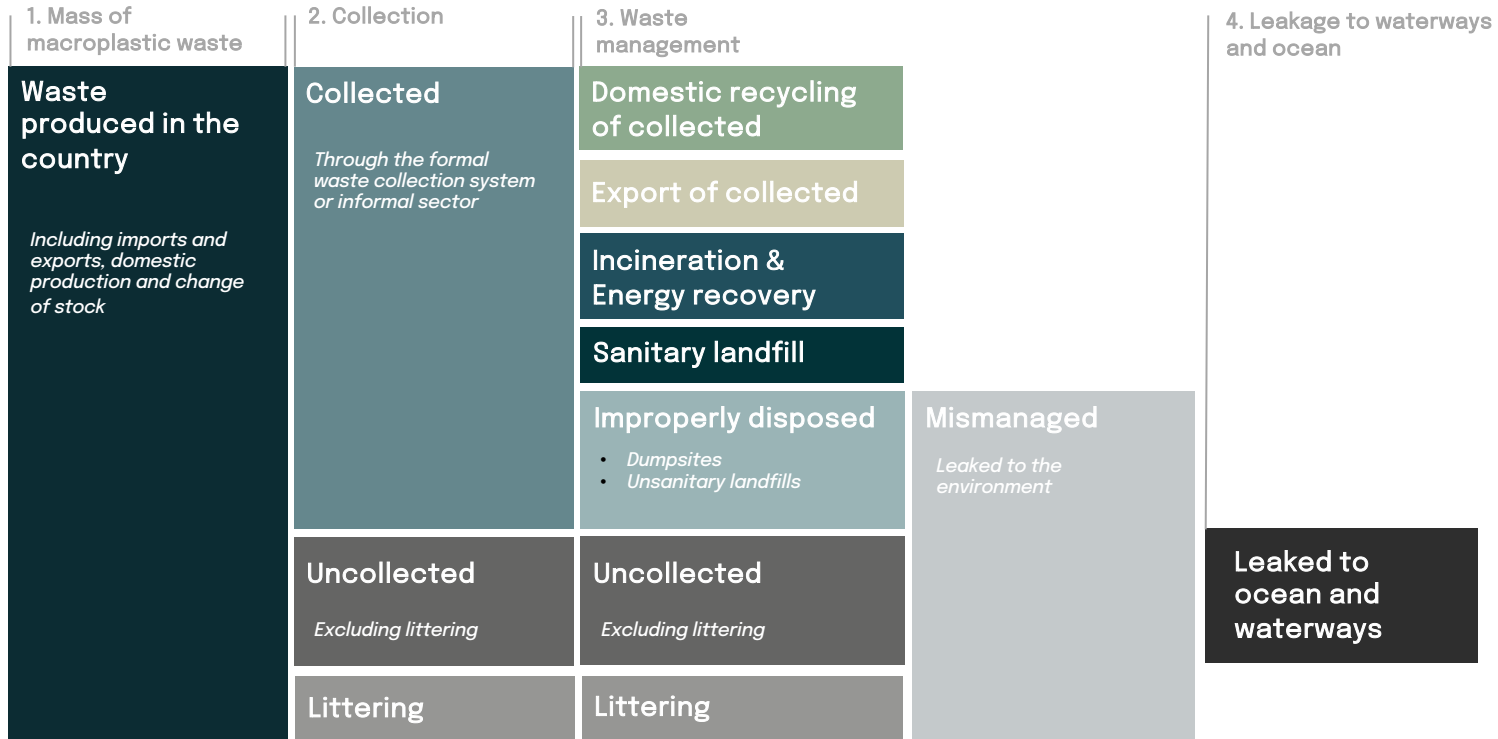
### WASTE GENERATED

Country domestic plastic waste generation computed as:  $\text{Production} + \text{Import} - \text{Export} - \text{Added stock}$ .

### WASTE IMPORT

Import of plastic waste from other countries.

# DEFINITIONS – LEAKAGE PATHWAY



# DEFINITIONS

Collected	Waste fraction that is not collected, either by the formal or the informal sector. It includes behavioural littering
Collection rate	Ratio between the plastic waste collected and generated. Waste Collected includes Waste export, Recycling, Properly disposed and Improperly disposed.
Uncollected	Waste fraction that is not collected, either by the formal or the informal sector. It includes behavioural littering.
Recycling	Domestic recycling of waste generated in the country. It does not include recycling of imported waste nor waste collected for recycling in the country that is exported abroad.
Properly disposed	Waste fraction that is disposed in a waste management system where no leakage is expected to occur, such as an incineration facility or a sanitary landfill. We define a sanitary landfill as a particular area where large quantities of waste are deliberately disposed in a controlled manner (e.g. waste being covered on a daily basis, as well as the bottom of the landfill designed in a way to prevent waste from leaching out).
Sanitary landfill	The sanitary landfill is a method of disposing waste on land without disturbing the environment and public health
Incineration & Energy recovery	Incineration with energy recovery refers to incineration processes where the energy created in the combustion process is harnessed for re-use, for example for power generation. Incineration without energy recovery means the heat generated by combustion is dissipated in the environment.
Improperly disposed	Waste fraction that is disposed in a waste management system where leakage is expected to occur, such as a dumpsite or an unsanitary landfill. A dumpsite is a particular area where large quantities of waste are deliberately disposed in an uncontrolled manner and can be the result of both the formal and informal sectors. A landfill is considered as unsanitary when waste management quality standards are not met, thus entailing a potential for leakage.
Mismanaged	It is defined as the sum of uncollected and improperly managed waste.
Mismanaged Waste Index (MWI)	It is defined as the sum of uncollected and improperly managed waste, divided by the waste generated.
Leakage	Plastic that is released to rivers, lakes and oceans.

Country	Sector	Waste produced in the country (Kt)	Domestic recycling of collected	Export of collected	Incineration & Energy recovery	Sanitary landfill	Improperly disposed	Littering	Uncollected	Sum treatment options	Collected	Mismanaged	Leaked to Ocean and Waterways	Year of data	Date dataset generation
Argentina	All packaging	927,14	5,26%	0,03%	0,00%	51,70%	28,24%	3,98%	10,79%	100,00%	85,23%	43,01%	4,30%	2019	02/08/2022
Australia	All packaging	870,58	9,36%	8,57%	2,52%	71,50%	0,00%	4,19%	3,87%	100,00%	91,94%	8,06%	0,81%	2019	29/09/2022
Austria	All packaging	306,30	21,53%	0,00%	72,50%	2,06%	0,00%	3,92%	0,00%	100,00%	96,08%	3,92%	0,39%	2019	02/08/2022
Bangladesh	All packaging	434,94	0,00%	0,37%	0,00%	2,60%	37,44%	4,31%	55,28%	100,00%	40,41%	97,03%	9,70%	2019	02/08/2022
Bulgaria	All packaging	145,84	5,04%	0,00%	4,57%	33,15%	52,80%	4,44%	0,00%	100,00%	95,56%	57,24%	5,72%	2019	02/08/2022
Brazil	All packaging	3 683,69	9,47%	0,32%	0,00%	46,95%	30,64%	3,93%	8,68%	100,00%	87,39%	43,25%	4,33%	2019	02/08/2022
Canada	All packaging	1 579,95	9,26%	6,26%	3,69%	75,23%	0,78%	3,90%	0,89%	100,00%	95,21%	5,57%	0,56%	2019	02/08/2022
Switzerland	All packaging	234,36	15,49%	11,65%	67,89%	0,00%	0,00%	3,82%	1,15%	100,00%	95,03%	4,97%	0,50%	2019	29/09/2022
Chile	All packaging	457,07	1,11%	1,46%	0,00%	69,49%	19,08%	3,94%	4,93%	100,00%	91,13%	27,94%	2,79%	2019	02/08/2022
China	All packaging	28 204,67	43,02%	0,21%	20,41%	10,86%	1,48%	4,07%	19,95%	100,00%	75,98%	25,50%	2,55%	2019	02/08/2022
Colombia	All packaging	577,00	6,78%	0,60%	0,07%	68,52%	2,54%	3,87%	17,63%	100,00%	78,51%	24,03%	2,40%	2019	02/08/2022
Cyprus	All packaging	32,83	0,00%	30,49%	0,62%	60,66%	0,00%	3,91%	4,32%	100,00%	91,77%	8,23%	0,82%	2019	02/08/2022

Country	Sector	Waste produced in the country (Kt)	Domestic recycling of collected	Export of collected	Incineration & Energy recovery	Sanitary landfill	Improperly disposed	Littering	Uncollected	Sum treatment options	Collected	Mismanaged	Leaked to Ocean and Waterways	Year of data	Date dataset generation
Croatia	All packaging	75,06	6,80%	0,00%	2,46%	83,64%	3,46%	3,65%	0,00%	100,00%	96,35%	7,10%	0,71%	2019	02/08/2022
Czech Republic	All packaging	356,39	8,62%	19,15%	19,17%	47,84%	1,49%	3,73%	0,00%	100,00%	96,27%	5,22%	0,52%	2019	02/08/2022
Germany	All packaging	2 676,24	17,55%	14,33%	64,16%	0,15%	0,00%	3,82%	0,00%	100,00%	96,18%	3,82%	0,38%	2019	02/08/2022
Denmark	All packaging	171,26	11,01%	23,69%	60,73%	0,90%	0,00%	3,66%	0,00%	100,00%	96,34%	3,66%	0,37%	2019	02/08/2022
Ecuador	All packaging	188,45	6,54%	0,00%	0,00%	37,98%	35,96%	3,75%	15,77%	100,00%	80,48%	55,48%	5,55%	2019	30/11/2022
Egypt	All packaging	626,02	6,12%	0,09%	0,91%	2,28%	42,17%	3,61%	44,82%	100,00%	51,57%	90,60%	9,06%	2019	02/08/2022
Spain	All packaging	1 185,62	22,21%	6,66%	11,71%	47,56%	7,80%	4,05%	0,00%	100,00%	95,95%	11,85%	1,19%	2019	02/08/2022
Estonia	All packaging	25,81	0,00%	38,16%	30,09%	18,20%	0,00%	3,37%	10,18%	100,00%	86,45%	13,55%	1,35%	2019	02/08/2022
Finland	All packaging	153,80	10,97%	5,52%	79,15%	0,91%	0,00%	3,46%	0,00%	100,00%	96,54%	3,46%	0,35%	2019	02/08/2022
France	All packaging	2 010,07	15,52%	12,30%	47,24%	21,07%	0,00%	3,87%	0,00%	100,00%	96,13%	3,87%	0,39%	2019	02/08/2022
United Kingdom	All packaging	1 563,94	10,33%	22,98%	39,87%	22,95%	0,00%	3,87%	0,00%	100,00%	96,13%	3,87%	0,39%	2019	02/08/2022
Greece	All packaging	263,12	6,05%	8,97%	0,49%	21,89%	56,90%	3,97%	1,74%	100,00%	94,29%	62,61%	6,26%	2019	02/08/2022



Country	Sector	Waste produced in the country (Kt)	Domestic recycling of collected	Export of collected	Incineration & Energy recovery	Sanitary landfill	Improperly disposed	Littering	Uncollected	Sum treatment options	Collected	Mismanaged	Leaked to Ocean and Waterways	Year of data	Date dataset generation
Indonesia	All packaging	2 525,21	12,65%	2,23%	0,00%	19,35%	8,12%	4,22%	53,43%	100,00%	42,35%	65,76%	6,58%	2019	02/08/2022
Italy	All packaging	2 501,89	12,81%	6,99%	49,35%	13,20%	3,85%	4,26%	9,54%	100,00%	86,20%	17,65%	1,76%	2019	02/08/2022
Jamaica	All packaging	37,70	0,00%	18,73%	0,00%	0,00%	51,43%	3,74%	26,11%	100,00%	70,16%	81,27%	8,13%	2019	02/08/2022
Japan	All packaging	2 855,10	27,55%	15,70%	50,05%	1,55%	0,00%	4,19%	0,96%	100,00%	94,85%	5,15%	0,51%	2019	29/09/2022
Kenya	All packaging	203,14	11,76%	2,27%	0,00%	0,00%	14,51%	4,16%	67,30%	100,00%	28,54%	85,97%	8,60%	2019	02/08/2022
Mexico	All packaging	3 037,41	7,36%	4,82%	0,15%	48,32%	18,64%	4,10%	16,62%	100,00%	79,29%	39,36%	3,94%	2019	02/08/2022
Mozambique	All packaging	78,93	1,40%	0,73%	0,00%	0,00%	28,17%	4,29%	65,41%	100,00%	30,30%	97,87%	9,79%	2019	04/08/2022
Nigeria	All packaging	701,89	5,92%	0,67%	0,00%	0,00%	34,48%	4,22%	54,72%	100,00%	41,06%	93,42%	9,34%	2019	02/08/2022
New Zealand	All packaging	115,57	12,15%	10,66%	0,00%	72,10%	0,00%	3,82%	1,27%	100,00%	94,91%	5,09%	0,51%	2019	29/09/2022
Pakistan	All packaging	592,59	5,34%	0,94%	0,00%	2,01%	44,84%	3,97%	42,91%	100,00%	53,12%	91,72%	9,17%	2019	02/08/2022
Panama	All packaging	64,02	0,00%	2,87%	0,00%	24,69%	34,42%	3,57%	34,44%	100,00%	61,98%	72,44%	7,24%	2019	02/08/2022

Country	Sector	Waste produced in the country (Kt)	Domestic recycling of collected	Export of collected	Incineration & Energy recovery	Sanitary landfill	Improperly disposed	Littering	Uncollected	Sum treatment options	Collected	Mismanaged	Leaked to Ocean and Waterways	Year of data	Date dataset generation
Peru	All packaging	448,25	8,41%	0,31%	0,00%	40,94%	29,24%	3,94%	17,16%	100,00%	78,90%	50,34%	5,03%	2019	04/08/2022
Philippines	All packaging	703,66	13,17%	15,65%	0,92%	4,30%	6,69%	4,13%	55,14%	100,00%	40,73%	65,96%	6,60%	2019	03/08/2022
Portugal	All packaging	258,68	8,31%	9,87%	33,43%	40,95%	3,81%	3,63%	0,00%	100,00%	96,37%	7,44%	0,74%	2019	02/08/2022
Romania	All packaging	382,72	5,51%	6,10%	2,01%	35,11%	36,63%	3,97%	10,66%	100,00%	85,36%	51,27%	5,13%	2019	04/08/2022
Russian Federation	All packaging	2 373,03	2,64%	0,76%	1,82%	24,84%	55,16%	3,90%	10,87%	100,00%	85,23%	69,93%	6,99%	2019	02/08/2022
Singapore	All packaging	445,41	2,68%	4,90%	70,68%	17,67%	0,00%	3,76%	0,31%	100,00%	95,92%	4,08%	0,41%	2019	02/08/2022
Slovenia	All packaging	62,38	12,73%	0,00%	35,43%	42,51%	0,00%	3,63%	5,69%	100,00%	90,68%	9,32%	0,93%	2019	30/08/2022
Thailand	All packaging	2 516,82	7,49%	5,18%	3,19%	27,70%	32,18%	4,04%	20,22%	100,00%	75,74%	56,44%	6,04%	2019	02/08/2022
Tunisia	All packaging	134,91	2,57%	11,07%	0,00%	44,54%	12,32%	3,81%	25,69%	100,00%	70,50%	41,82%	4,18%	2019	02/08/2022
Tanzania	All packaging	95,20	1,55%	2,95%	0,00%	0,00%	31,79%	4,07%	59,64%	100,00%	36,29%	95,51%	9,55%	2019	02/08/2022
United States	All packaging	17 150,43	8,14%	2,71%	14,47%	69,19%	0,64%	3,94%	0,91%	100,00%	95,15%	5,49%	0,55%	2019	02/08/2022

Country	Sector	Waste produced in the country (Kt)	Domestic recycling of collected	Export of collected	Incineration & Energy recovery	Sanitary landfill	Improperly disposed	Littering	Uncollected	Sum treatment options	Collected	Mismanaged	Leaked to Ocean and Waterways	Year of data	Date dataset generation
Vietnam	All packaging	2 213,92	16,48%	2,10%	9,79%	8,59%	39,40%	4,29%	19,35%	100,00%	76,36%	63,04%	6,30%	2019	02/08/2022
South Africa	All packaging	759,98	25,21%	0,23%	0,00%	26,41%	21,96%	4,16%	22,04%	100,00%	73,80%	48,15%	4,82%	2019	02/08/2022
Malaysia	All packaging	1 028,55	16,38%	2,37%	0,00%	38,55%	24,31%	3,86%	14,53%	100,00%	81,61%	42,70%	4,27%	2019	03/11/2022
Republic Of Korea	All packaging	1 874,22	21,67%	1,25%	53,51%	19,09%	0,00%	3,81%	0,67%	100,00%	95,52%	4,48%	0,45%	2019	03/11/2022
Poland	All packaging	986,28	8,18%	14,87%	27,80%	37,96%	7,23%	3,95%	0,00%	100,00%	96,05%	11,19%	1,12%	2019	03/11/2022
India	All packaging	5 556,09	14,36%	0,05%	8,13%	0,02%	67,95%	3,90%	5,58%	100,00%	90,52%	77,43%	7,74%	2019	28/11/2022
Saudi Arabia	All packaging	1 579,02	5,06%	0,97%	0,00%	27,68%	58,81%	3,96%	3,51%	100,00%	92,53%	66,29%	6,63%	2019	28/11/2022
United Arab Emirates	All packaging	809,81	1,00%	1,20%	0,00%	11,24%	81,81%	3,94%	0,80%	100,00%	95,26%	86,56%	8,66%	2019	28/11/2022
Uganda	All packaging	44,84	0,00%	0,19%	0,00%	1,65%	36,78%	4,50%	56,88%	100,00%	38,62%	98,16%	9,82%	2019	28/11/2022
Uruguay	All packaging	92,51	0,00%	1,09%	0,00%	10,67%	80,50%	4,94%	2,80%	100,00%	92,26%	88,24%	8,82%	2019	26/01/2023
Qatar	All packaging	124,51	2,13%	1,01%	3,71%	0,00%	88,96%	3,48%	0,71%	100,00%	95,81%	93,15%	9,32%	2019	01/02/2023

Country	Sector	Waste produced in the country (Kt)	Domestic recycling of collected	Export of collected	Incineration & Energy recovery	Sanitary landfill	Improperly disposed	Littering	Uncollected	Sum treatment options	Collected	Mismanaged	Leaked to Ocean and Waterways	Year of data	Date dataset generation
Netherlands	All packaging	742,08	18,24%	22,94%	52,55%	2,36%	0,00%	3,90%	0,00%	100,00%	96,10%	3,90%	0,39%	2019	01/02/2023
Dominican Republic	All packaging	121,94	0,00%	5,21%	0,00%	0,08%	75,14%	3,98%	15,60%	100,00%	80,43%	94,71%	9,47%	2019	01/03/2023
Costa Rica	All packaging	88,89	0,00%	13,64%	0,00%	49,06%	23,45%	3,74%	10,11%	100,00%	86,15%	37,30%	3,73%	2019	01/03/2023
Bahrain	All packaging	28,58	0,00%	3,01%	0,00%	0,00%	90,62%	4,07%	2,30%	100,00%	93,63%	96,99%	9,70%	2019	01/03/2023
Panama	All packaging	64,02	0,00%	2,87%	0,00%	44,84%	32,75%	3,57%	15,96%	100,00%	80,47%	52,29%	5,23%	2019	27/03/2023
Cambodia	All packaging	71,84	0,00%	8,39%	0,00%	0,00%	59,80%	3,64%	28,17%	100,00%	68,19%	91,61%	9,16%	2019	27/03/2023
Belgium	All packaging	668,01	10,32%	17,67%	64,94%	3,36%	0,00%	3,70%	0,00%	100,00%	96,30%	3,70%	0,37%	2019	27/03/2023
Rwanda	All packaging	16,04	0,00%	3,60%	0,00%	0,00%	42,68%	3,64%	50,08%	100,00%	46,28%	96,40%	9,64%	2019	05/05/2023
Kuwait	All packaging	169,29	0,86%	2,56%	0,00%	0,00%	92,26%	3,50%	0,82%	100,00%	95,67%	96,58%	9,66%	2019	05/05/2023
Morocco	All packaging	325,81	0,00%	0,89%	0,00%	46,43%	33,03%	3,81%	15,85%	100,00%	80,35%	52,68%	5,27%	2019	05/05/2023
Sweden	All packaging	289,06	6,79%	6,05%	84,01%	0,17%	0,00%	2,97%	0,00%	100,00%	97,03%	2,97%	0,30%	2019	2023-09-04
Zambia	All packaging	57,89	0,00%	3,93%	0,00%	0,15%	0,46%	3,84%	91,62%	100,00%	4,54%	95,91%	9,59%	2019	2023-09-04

## FULL DATASET

Data is also available at polymers type

- PET
- PP
- LDPE
- PS
- EPS
- PVC
- ABS
- Other

and packaging type levels

- Flexible packaging
- Rigid food packaging
- Rigid non-food packaging
- Multi-layer packaging

with additional formats (excel, etc.)

For more information, please contact us at [contact@plasteax.earth](mailto:contact@plasteax.earth)

PLASTEAX is a data platform dedicated to plastic environmental analytics which discloses plastic waste management and plastic leakage metrics

[www.plasteax.earth](http://www.plasteax.earth)

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