

Methodology : Global Plastics Data Tracker

The tracker was developed via a rapid assessment in the run up to INC-5 – the analysts therefore welcome users to improve the sources and provide feedback to helena.dickinson@unsw.edu.au or e.northrop@unsw.edu.au .

The tracker identifies sources of Government Published data relating to the Plastics Lifecycle and Waste.

Government data constitutes data that is published on an official Government website or data that is formally submitted by a Government (e.g., Eurostat data or COMTRADE data).

The tracker indicates what plastic data governments are currently collecting and publicly reporting. The tracker also provides easy access to the sources of these data points via links.

Each data point has been assigned a “Data score” which indicates how suitable the data point is for informing annual flows of plastic in the country. The highest data score is assigned to the data points that report plastic-specific data and are reported annually. Lower data scores are given to data points that do not refer to plastic-specific data, and/or data that is published infrequently, and/or only for certain regions/provinces/states in the country.

A full breakdown of the data score descriptions is listed below.

Description	Data score
<i>All categories:</i> Data published annually (split by plastics)	*****
<i>All categories:</i> Irregular publication of data (split by plastics) <i>Consumption only:</i> Plastics production data not split by virgin/recycled content	****
<i>All categories:</i> Data published annually (not split by plastics) <i>All categories:</i> Data not published since the end of 2018, but was previously published annually (split by plastics)	***
<i>All categories:</i> Irregular publication of data (not split by plastics) <i>All categories:</i> One off publication (split by plastics) <i>All categories:</i> Plastics data published annually, but not provided in tonnage format	**
<i>All categories:</i> One off publication (composition only) <i>All categories:</i> One off publication (not split by plastics) <i>All categories:</i> One off regional publication	*
Not found	

Limitations

Whilst using search strings, only the first two pages of the search engine (Google) were reviewed. If a data source was not found on the first two pages, the data point was

assigned “not found”. This does not mean the data is not available, only that it was not found during our search.

A reason for this may be due to language differences – all of our searches used English phrases, but where countries do not translate their websites to English, the sources may not have been picked up. In addition, some countries may collect data, but not report it.

For primary plastics production specifically, some countries may not report this data because they do not produce primary plastics in their country.

At CSDR we are keen to reflect this achievement in our tracker, please get in touch to share data sources and/or to discuss how unpublished data could be communicated on the tracker (xxx@UNSW.edu.au).

Scope

Only government published data has been captured in the tracker. There are therefore a number of plastic-related publications that might be helpful for countries to develop plastic accounts (plastics data that follows a standardised collection methodology and is reproducible periodically), that have not been included in this iteration of the tracker. These included publications by IUCN, the UN, the European union, SPREP, SEEA, academic organisations and other consultancy organisations.

In order for data to be captured in the tracker, it needs to have met at least one of the following criteria:

- 1) Be published on the government website or;
- 2) Have been part-funded by the relevant government or;
- 3) Be published on a global platform that publishes data submitted by Government (e.g., Eurostat or COMTRADE).

Domestic Plastics Production

Domestic Primary Plastics Production

Approach

European data

Eurostat was used in the first instance to identify European Countries that reported Primary Plastic Production data.

Eurostat allows users to filter total production of “Plasticised polyvinyl chloride mixed with any other substance, in primary forms”. Where countries reported this data, it was

assumed that they collected and reported data on “Domestic Primary Plastic Production”.

Search strings

The below search string was used for all countries.

“Country” “Statistical Department” and/or “Country” “Statistics” “Gov”

Once a countries statistical department was located, the term “Plastics” was searched in the search bar (if available). Any plastic production data displayed here was reviewed.

If no results were available further searches were carried out:

“Country” “Plastics Production” “Data”

“Country” “Production” “Data”

From here any data found was reviewed to determine if it fell under “Domestic Primary Plastics Production” or “Domestic Plastics Products”

For European countries, where better data was found using these search strings, this new data superseded the Eurostat data.

Sources

Eurostat

Government websites

Caveats

Some countries may not produce “primary plastics” and therefore may not publish this data. The score for these countries data are data “not found” until we have confirmation that the country does not produce primary plastics.

Domestic Plastics Products

Approach

Individual country data

The following search string was used to identify data sources.

“Country” “Statistical Department” and/or “Country” “Statistics” “Gov”

Once a countries statistical department is located, the term “Plastics” was searched in the search bar (if available). Any plastic production data displayed here was reviewed.

If no results were available further searches were carried out:

“Country” “Plastics Production” “Data”

“Country” “Plastics” “Account”

From here any data found was reviewed to determine if it fell under “Domestic Primary Plastics Production” or “Domestic Plastics Products”

Sources

Government websites

Caveats

Products containing plastics may be captured in other categories – and similarly, some of the products reported may contain other materials. However, for the purposes of understanding whether countries report plastic product production data this has limited impact.

Plastics Consumption

Very few sources distinguish between the consumption of virgin plastics and consumption of recycled plastics. This limitation is reflected in the lower scores given to countries for this data type.

Approach

European data

Eurostat was used in the first instance to identify European Countries that reported Plastic Consumption data.

Eurostat allows users to filter “Domestic Material Consumption” of “Fossil energy materials/carriers”. Where countries reported this data, it was assumed that they collected and reported data on “Plastics Consumption” **plus** other uses of fossil energy materials/carriers such as electricity, fuel and manufacturing.

Because this consumption data was reported annually, but not split by plastics specifically, it was give a data score of: ******* (see table at the top of the page for description or rating).

Individual country data

For all countries, the following search string was used to identify data sources.

“Country” “Statistical Department” and/or “Country” “Statistics” “Gov”

Once a countries statistical department is located, the term “Plastics” was searched in the search bar (if available). Any plastic consumption data displayed here was reviewed.

If no results were available further searches were carried out:

“Country” “Plastics consumption” “Data”

“Country” “Plastics” “Account”

From here any data found was reviewed to determine if it described “Plastics Consumption”

For European countries, where better data was found using these search strings, this superseded the Eurostat data.

Sources

Eurostat

Government websites

Caveats

N/A

Trade data

Primary Material

Approach

For imports and exports of primary plastic material, the Standard international trade classification (SITC) code “575: Other Plastics, Primary form” was applied and an assessment was made as to whether each country annually reported this data to all “world” partners.

Where countries did not report data on COMTRADE, the following search string was used to identify data sources.

“Country” “Statistical Department” and/or “Country” “Statistics” “Gov”

Once a countries statistical department is located, the term “Trade” was searched in the search bar (if available). Any trade data displayed here was reviewed for plastics-related trade data.

If no plastics results were available, further searches were carried out in the search engine:

“Country” “Trade” “Data”

“Country” “Trade” “Data” “Gov”

From here any data found was reviewed to determine if it described “Plastics Primary Material Trade data”

Sources

COMTRADE

Government websites

Caveats

Some countries may have published relevant trade data within their own statistical websites. However, these sources were not reviewed if the data was found on COMTRADE during the initial search.

Plastic Products

Approach

For imports and exports of plastic products, the SITC code “893: Articles of artificial plastic materials nes” was applied and an assessment was made as to whether each country annually reported this data to all “world” partners.

Where countries did not report data on COMTRADE, the following search string was used to identify data sources.

“Country” “Statistical Department” and/or “Country” “Statistics” “Gov”

Once a country's statistical department is located, the term “Trade” was searched in the search bar (if available). Any trade data displayed here was reviewed.

If no plastics results were available further searches were carried out in the search engine:

“Country” “Trade” “Data”

“Country” “Trade” “Data” “Gov”

From here any data found was reviewed to determine if it described “Plastic Products Trade data”

Sources

COMTRADE

Government websites

Caveats

Whilst the SITC code 893 is expected to cover most plastic products, plastic products are also captured in other SITC codes:

58: Plastic Materials

71994: Metal plastic joints

85101: Footwear soles & uppers of rubber or plast.mat

85102: Footwear with soles of leather/rubber/plastic

Some countries may have published relevant trade data within their own statistical websites. However, these sources were not reviewed if the data was found on COMTRADE during the initial search.

Total Plastics Waste

Approach

In the first instance, for each country the following search strings were used:

“Country” “Statistical Department” and/or “Country” “Statistics” “Gov”

Once a country's statistical department is located, the term “Waste” was searched in the search bar (if available). Any waste data displayed here was reviewed and assessed to see if the country reported annual plastic waste data.

If no results were available further searches were carried out in the search engine:

“Country” “Plastics Waste” “Data” “Gov”

“Country” “Plastics Waste” “Data”

“Country” “Waste” “Data”

“Country” “Waste” “Account”

From here any data found was reviewed to determine if it described “Waste data” and if this data was split by plastic waste.

Finally, Eurostat data was reviewed for the countries that were still marked as “Plastic Waste” data “not found”. Eurostat does not split by material, but collates total waste generation data each year for most European countries.

Sources

Government websites

Eurostat

Caveats

Some countries may have published plastic waste generation data within their own statistical websites. However, these sources were not reviewed if the data was found on Eurostat during the initial search.

Waste Treatment

Approach

European data

Eurostat was used in the first instance to identify European Countries that reported plastics waste treatment data.

Eurostat enables users to filter by “Plastic Wastes” and then by:

- “Recycling”
- “Energy Recovery”
- “Incineration”
- “Landfill”
- “Landfill and other”
- “Backfilling”
- “Other”

Where countries reported this data, it was assumed that they collected and reported data on the following treatment types (as listed in the plastics data checklist):

- Recovered for recycling
- Waste to Energy
- Incinerated (without energy recovery)
- Landfilled

Individual country data

For non-European countries, and countries that did not report data to Eurostat, the following search string was used to identify data sources.

“Country” “Statistical Department” and/or “Country” “Statistics” “Gov”

Once a countries statistical department is located, the term “Waste” was searched in the search bar (if available). Any plastic production data displayed here was reviewed.

If no results were available further searches were carried out:

“Country” “Recycling” “Data” “Gov”

“Country” “Waste to Energy” “Data” “Gov”

“Country” “Incineration” “Data” “Gov”

“Country” “Landfill” “Data” “Gov”

From here any data found was reviewed to determine if it was published by the government and if it split waste treatment to material-specific data i.e., plastics.

Sources

Eurostat

Government websites

Caveats

Some countries may have published plastic waste treatment data within their own statistical websites. However, these sources were not reviewed if the data was found on Eurostat during the initial search.

Waste Trade

Approach

For imports and exports of primary plastic material, the SITC code “579: Plastic waste, scrap etc” was applied and an assessment was made as to whether each country annually reported this data to all “world” partners.

Where countries did not report data on COMTRADE, the following search string was used to identify data sources.

“Country” “Statistical Department” and/or “Country” “Statistics” “Gov”

Once a countries statistical department is located, the term “Trade” was searched in the search bar (if available). Any waste trade data displayed here was reviewed.

If no results were available further searches were carried out:

“Country” “Trade” “Data”

“Country” “Trade” “Data” “Gov”

From here any data found was reviewed to determine if it described “Plastics Waste Trade data”

Sources

COMTRADE

Government Websites

Caveats

Some countries may have published relevant trade data within their own statistical websites. However, these sources were not reviewed if the data was found on COMTRADE during the initial search.

Quality Assurance

Carried out internally.