# Goal 12: Ensure sustainable consumption and production patterns

**Target number:** 12.5

• 12.3

**Indicator Number and Name:** 12.5.1 National recycling rate, tons of material recycled

Agency: United Nations Environment Programme (UNEP), UNSD

Has work for the development of this indicator begun?

Yes.

Who are the entities, including national and international experts, directly involved and consulted in developing the methodology/and or data collection tools?

**UNSD** - Environment Statistics Section

**OECD** 

Eurostat

UNEP – BRS Secretariat (Secretariat of the Basel, Rotterdam and Stockholm Conventions)

UNSD consults with OECD, Eurostat and the BRS Secretariat on the concepts and definitions, as well as on the structure and content of the respective questionnaires to promote harmonization of data at the international level. [see section 6.2.6]

What is the involvement of or how do you plan to involve National Statistical Systems in the development of the methodology?

The methodology has already been developed for the related statistics contained in the UNSD/UNEP Questionnaire, but further refinements are needed.

Data collected by the UNSD/UNEP Questionnaires on municipal waste recycling as a proxy, can be complemented by data submitted by the Parties to the Basel Convention through their national reports on those wastes that are subject to transboundary movements for the purpose of disposal operations.

## Please briefly describe the process of developing the methodology for the indicator

To produce this indicator, two statistics seem to be required: Total waste recycled and Total waste generation.

UNSD, through its UNSD/UNEP Questionnaire on Environment Statistics (waste section), collects data on Total waste generation. The definition of this statistic originates from the OECD/Eurostat Joint Questionnaire.

However, for the second statistic, Total waste recycled, no data are currently being collected. Data on waste recycled are collected as part of the treatment of municipal waste and hazardous waste. However, there is an overlap between the two. Moreover, non-hazardous industrial waste is not represented in these two categories.

The meaning of the term "recycling" will benefit from being clarified for the purpose of the Basel Convention: whether it is understood as only encompassing the recycling operations listed in part B of Annex IV (i.e. R-3 R5 operations) or whether it is understood as encompassing all operations falling within the scope of part B of Annex IV. Guidance from the Conference of the Parties will be sought in May 2017.

It would be necessary to continue the methodological development in collaboration with OECD and Eurostat if the objective is to have an indicator about the total waste recycling rate.

As a practical solution it is possible to use the municipal waste recycling rate as a proxy. Even though municipal waste represents only a small part of the total waste, especially in developing countries where municipal waste collection is not available outside of the main cities, there are some advantages to using it. Data are already being collected by UNSD on municipal waste collected, municipal waste managed (municipal waste collected plus imports minus exports), and municipal waste recycled through the UNSD/UNEP Questionnaire on Environment Statistics. Moreover, because municipal waste collected or municipal waste managed is easier to obtain than waste generation, the indicator wouldn't rely as much on estimates. Last but not least, statistics about the municipal waste recycling rate will help countries to assess whether they need to build new waste treatment facilities.

Please indicate new international standards that will need to be proposed and approved by an intergovernmental process (such as UNSC) for this methodology.

When do you expect the methodological work on this indicator to be completed?

Are data and metadata already being collected from the National Statistical System for one or more components of this indicator?

Yes

## If yes, please describe:

UNSD Environment Statistics Section collects data from official national sources for water and waste statistics through its biennial UNSD/UNEP Questionnaire on Environment Statistics from non OECD/Eurostat countries. Data for OECD and Eurostat countries are collected through the biennial OECD/Eurostat Questionnaire that is consistent with the UNSD/UNEP Questionnaire, so data are comparable. The terms and definitions used in both the UNSD/UNEP Questionnaire and the OECD/Eurostat Questionnaire are mostly identical with those used by other sources, and where not, bridges or correspondence are developed where possible. For the number of responses to the UNSD/UNEP Questionnaire reference should be made to Part I of the Background Document to the Report of Secretary-General on Environment Statistics the (E/CN.3/2016/27) (http://unstats.un.org/unsd/statcom/47th-session/documents/BG-2016-27-EnvironmentStats-E.pdf)

The statistics collected by UNSD through the UNSD/UNEP Questionnaire that can be used to produce this indicator are presented below. The number of responses to the UNSD/UNEP Questionnaire for the year 2012 is in brackets for UNSD.

OECD/Eurostat also collects these statistics which are harmonized conceptually with those collected by UNSD therefore promoting internationally comparable data.

#### UNSD/UNEP Questionnaire Table R1 and R3

If the goal is to have an indicator representing all waste, then so far UNSD is only able to provide data for the total waste generation, but not for the total waste recycled.

• R1.8 Total waste generation (25 to UNSD + ??? to OECD/Eurostat)

Indicator =  $\frac{Total\ waste\ recycled}{R_{1}}$ 

If Municipal waste is used as a proxy, UNSD can provide the two underlying statistics for the indicator. However, the response rate to the questionnaire is very low due to the lack of resources and data in the countries. For the denominator, one can use the municipal waste managed or the municipal waste collected.

- R3.6 Municipal waste managed in the country (23 to UNSD + ??? to OECD/Eurostat)
- R3.7 Municipal waste recycled (18 to UNSD + ??? to OECD/Eurostat)

Indicator = 
$$\frac{R3.7}{R3.6}$$

Or

- R3.3 Municipal waste collected (40 to UNSD + ??? to OECD/Eurostat)
- R3.7 Municipal waste recycled (18 to UNSD + ??? to OECD/Eurostat)

Indicator = 
$$\frac{R3.7}{R3.3}$$

## How do you plan to collect the data?

Send questionnaire(s) to country

Other: OECD/Eurostat from NSO and Ministry of Environment

If the indicator involves multiple components from different data sources, please describe how each individual component of the indicator will be collected here.

## With what frequency is data expected to be collected?

Data are already being collected every two years. [see section 6.2.6]

Is there a process of data validation by countries in place or planned for this indicator?

Yes

## If yes, please briefly describe:

To promote data quality assurance UNSD carries out extensive data validation procedures that include built-in automated procedures, manual checks and cross-references to national sources of data. Communication is carried out with countries for clarification and validation of data. UNSD does not make any estimation or imputation for missing values so the number of data points provided are actual country data. Only data that are considered accurate or those confirmed by countries during the validation process are included in UNSD's environment statistics database and disseminated on UNSD's website.

If you have any additional comments that you believe would be helpful to IAEG-SDG members in analysing the work plan and methodological development of the indicator, please provide them here:

Data for the underlying statistics for this indicator are already collected from the countries (NSO and Ministry of Environment). Moreover, there is no intention to increase the frequency of the UNSD/UNEP Questionnaire due to lack of resources and data, and the fact that the Questionnaire is aligned to that of OECD/Eurostat, which is also conducted every two years.