

Goal 8

Target number: 8.4 and 12.2

Indicator Number and Name:

8.4.1/12.2.1 Material footprint (MF), material footprint per capita, and material footprint per GDP

8.4.2/12.2.2 Domestic material consumption (DMC), domestic material consumption per capita, and domestic material consumption per GDP

Agency: UNEP

Has work for the development of this indicator begun?

Yes. UNEP is publishing a global material flow dataset which includes the MF and DMC. The database is part of the work of the Global Material Flows working group of the International Resource Panel (IRP). The database covers 180 nations, over a time period of 40 years (1970-2010). Data is available at the UNEP online data platform UNEP Live www.uneplive.unep.org on each country page in the section 'UNEP resources' under the category 'natural resources'.

Material Flows Accounting is a well-established methodology with a strong conceptual basis in physical accounting and economics. Although, UNEP does have time series data for many countries. More needs to be done to build the capacity of countries to compile material flow accounts, to report data and to be able to validate the existing data. UNEP proposes a two-pronged approach to capacity building: enhancing the accounting capabilities for DMC and MF within countries, while at the same time supporting the UNEP IRP in continuing to update the global database and encouraging countries to verify and adopt the dataset made available by UNEP to fill the gap until capacity is available in all regions and countries.

For detailed methodological information see: EUROSTAT (2013). Economy-wide material flow accounts. Compilation guide 2013.

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

UNEP, along with the EU, OECD and UNSD, are involved in this work. CISRO is also involved. The members of the IRP are also involved in developing the methodology and reviewing the database.

- 1) From UNEP: the 10YFP secretariat (contact people: Charles Arden-Clarke, Charles.arden-clarke@unep.org; Cecilia Lopez y Royo, Cecilia.lopezyroyo@unep.org) and UNEP-DEWA (Jillian Campbell jillian.campbell@unep.org)
- 2) From UNSD: The Economic Statistics Branch (Alessandra Alfieri, alfieri@un.org)
- 3) From EU: Statistical Office of the European Communities (Anton Steurer, Anton.Steurer@ec.europa.eu)
- 4) From OECD: Environment Directorate (Myriam Linster, Myriam.LINSTER@oecd.org)
- 5) From CSIRO: Heinz Schandl, Heinz.Schandl@csiro.au
- 6) Members of the IRP

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

National Statistical Offices are often responsible for the compilation of Material Flow Accounts. UNEP plans to work with the IRP to develop a global guidance document for material flow accounts (based on the Eurostat compilation guide). This approach will be piloted in countries outside of the

EU and Japan. UNEP plans to also use the UNCEEAA as a forum for discussing methodological issues and facilitating peer review.

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

The methodology has already been developed; however, more needs to be done in terms of making the methodology more accessible to all countries and in building capacity in countries and incorporating the views of countries with less developed statistical systems into the methodology.

Deliverables

Improved methodologies for countries (including less developed statistical systems)

By June 2017: A guidance document which simplifies the current EUROSTAT methods guides, and makes it more relevant for countries outside of the EU, (notably those which have economies where resource extraction sectors are more prominent). (Aligned with the SEEA framework.)

June 2017-June 2018: Piloting in countries

By June 2018: Review of the methodologies

Global database

By end 2017: Update and extension of the current UNEP material flow and resource productivity database in time for reporting to UNEA-3 in 2017.

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

It is likely that UNEP would be interested in seeking approval from the UNSC of the methodology. (Or at least the methodology should be brought up for discussion at the UNSC – probably in 2018.)

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

By 2020

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:

The EU member countries and Japan report material flow accounts which are directly used in the UNEP database. For countries in Asia and the Pacific, Latin America and the Caribbean and Eastern Europe, Caucasus and Central Asia, UNEP has constructed material flow accounts using data available in global databases (primarily, global databases which include official national data are utilized, including the UN COMTRADE database, the UN National Accounts database, FAO database and the IEA database; however, some non-official sources of data are also used, such as the United States Geological Services data and British Geological Survey). For Africa, UNIDO has pioneered material flow accounting using methodology consistent with the methodology that UNEP has employed.

How do you plan to collect the data?

Through the work of the IRP which includes data submitted by and collected from countries.

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

UNEP will continue to utilise the existing official databases maintained by UNSD and others. It is not practical to send questionnaires to countries to request duplicate information which they are already providing to the UN System.

With what frequency is data expected to be collected?

Annually; however, the database will only be updated every few years up until 2020.

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

Through the IRP there is a validation process; however, the process for involving each country will be determined subsequently.

If yes, please briefly describe:

(as of 3 March 2017)