

21 June 2024, Vienna, Austria

Global Material Flows Database

Session 8: Production of selected important indicators for waste and materials management policies, including circular economy
REGIONAL TRAINING ON THE PRODUCTION AND USE OF WASTE AND CIRCULAR ECONOMY STATISTICS AND INDICATORS

Ekaterina Poleshchuk



UNEP is the custodian agency for 25 SDG indicators, including:

- **8.4.1/12.2.1 Material footprint**, material footprint per capita, and material footprint per GDP
- **8.4.2/12.2.2 Domestic material consumption**, domestic material consumption per capita, and domestic material consumption per GDP

To report SDG indicators

8.4.1/12.2.1 and 8.4.2/12.2.2 to the [Global SDG Database](#), UNEP uses:

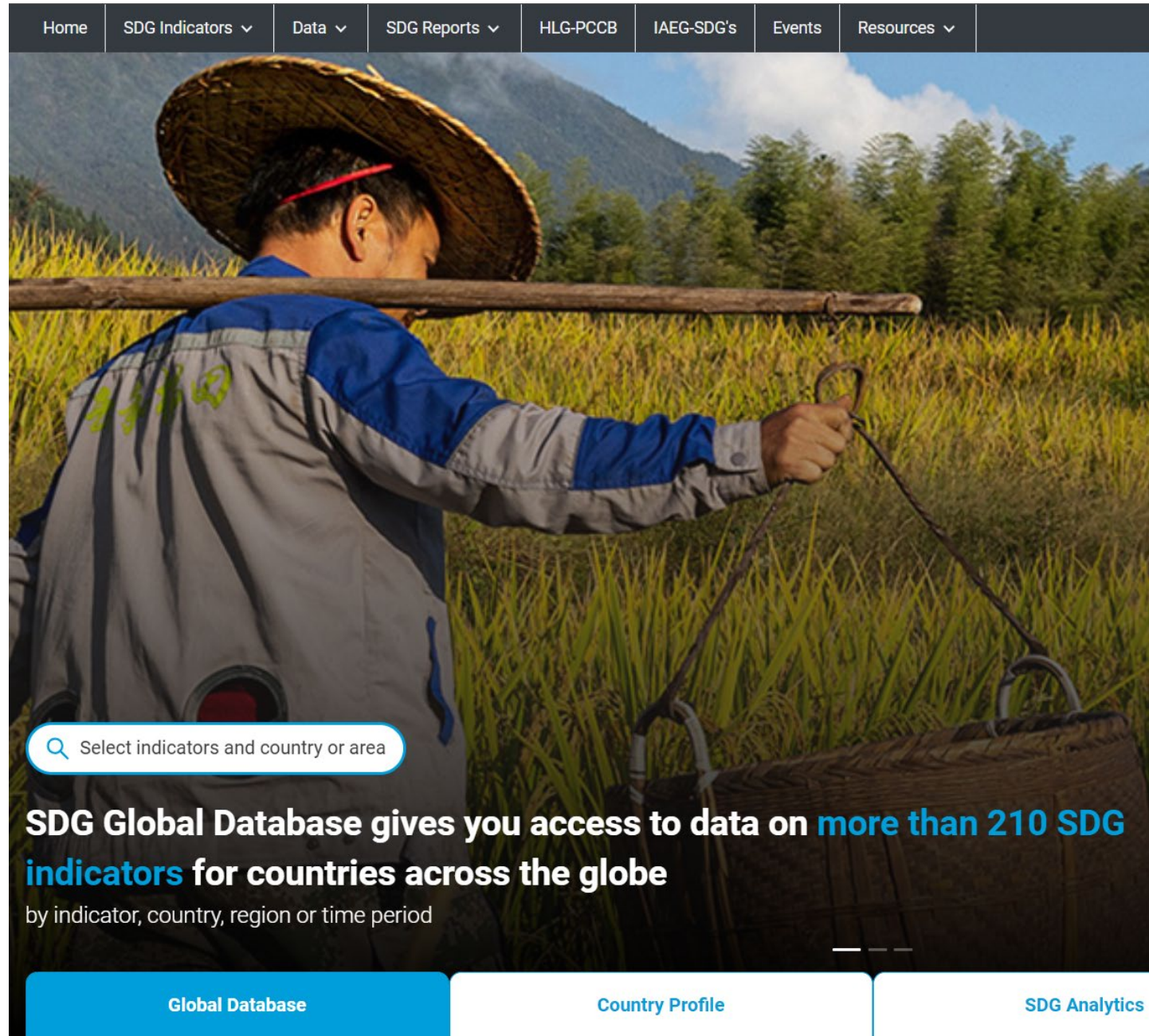
- **National data** collected from countries

These data are reported with footnote “C” (country)

and

- **Global estimates** from the Global Material Flows Database, developed by UNEP-IRP

These data are reported with footnote “E” (estimate)



Home SDG Indicators ▾ Data ▾ SDG Reports ▾ HLG-PCCB IAEG-SDG's Events Resources ▾

Select indicators and country or area

SDG Global Database gives you access to data on more than 210 SDG indicators for countries across the globe

by indicator, country, region or time period

Global Database Country Profile SDG Analytics



Methodological support

Global manual on EW-MFA:

[UNEP \(2023\). The use of natural resources in the economy: A Global Manual on Economy-Wide Material Flow Accounting](#)

- First published in 2021
- Revised in 2023

Translated into:

- Arabic, French, Russian
- Spanish is coming



Home / Global Material Flows Database

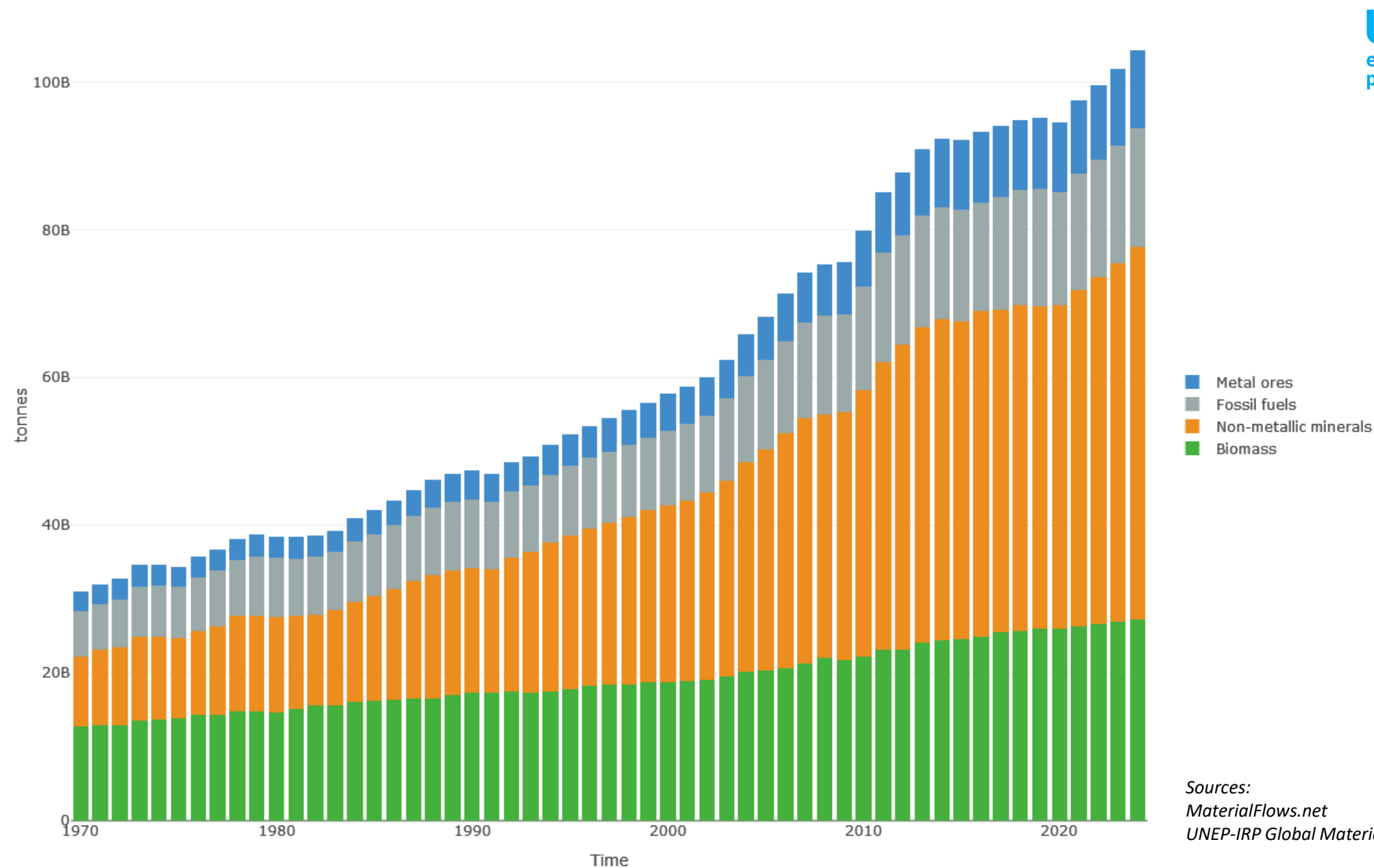
Global Material Flows Database

Supporting evidence-based decision-making by policy and business communities

[Here](#)

- Coverage: [217 countries/territories](#)
- Period: [1970 – 2024](#)
- Aligned with the [SEEA Central Framework](#)
- Provides indicators on extraction and direct trade of raw materials, as well as indirect trade flows (including material footprints)
- Material categories: [biomass](#), [fossil fuels](#), [metals](#), [non-metallic minerals](#) (disaggregated into 13 sub-categories)
- Main data sources: FAO, UNSD, UN COMTRADE, IEA, US EIA, World Mining Data, British Geological Survey, US Geological Survey

Domestic Extraction of World in 1970-2024, by material group



National Data: Data collection tool



United Nations Environment Programme

QUESTIONNAIRE ON ECONOMY-WIDE MATERIAL FLOW ACCOUNTS for the SDG indicators 8.4.1/12.2.1 and 8.4.2/12.2.2
(EW-MFA Questionnaire for SDGs)

Country:

Deadline for returning the EW-MFA Questionnaire for SDGs:

If you have any questions, please contact us at the following email address:

unep-ewad-sdgs@un.org

TABLE OF CONTENTS

Sheet	Title	Status
Intro & Contents	Introduction and table of contents	<i>for information</i>
Methodology & Guidance	Methodological sources and guidance for working with this Questionnaire	<i>for information</i>
Description & Definitions	Description of tables and definitions	<i>for information</i>
Table A	Domestic extraction	<i>to review / re-fill in</i>
Table B	Imports of materials	<i>to review / re-fill in</i>
Table C	Exports of materials	<i>to review / re-fill in</i>
Table D	Headline indicators	<i>filled automatically</i>
Table E	Material flow accounts in raw material equivalents	<i>to review / re-fill in</i>
Table F	Supplementary information from the country	<i>to fill in</i>

Last update: June 1, 2024

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Intro & Contents

Methodology & Guidance

Description & Definitions

Table A

Table B

Table C

Table D

Table E

Table F

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National Data: Data collection process

The **UNEP IRP** provides estimates on Domestic material consumption and Material footprint

UNEP communicates with countries (sends a pre-filled questionnaire to countries for review or replace the data with national data)

Countries revise/replace the data with national data if possible/needed and provide feedback to UNEP

UNEP analyzes the replacement data and prepares them for publication on various platforms (Global SDG database, UNEP WESR)

In April 2022, UNEP sent out a pre-filled questionnaire to 193 UN Member States (NSOs)

National SEEA focal points were also informed

As of 31 August 2022, UNEP has received feedback from 30 UN Member States

On 1 March 2023, UNEP reported national DMC data to UNSD for 26 countries


2024 EW-MFA Data Collection and SDG Reporting

- UNEP plans to collect EW-MFA data every two years
- The next data collection is in July 2024
- Eurostat countries will not be included in UNEP data collection in 2024:
 - To report national data for relevant SDGs to the Global SDG Database, UNEP uses Eurostat database

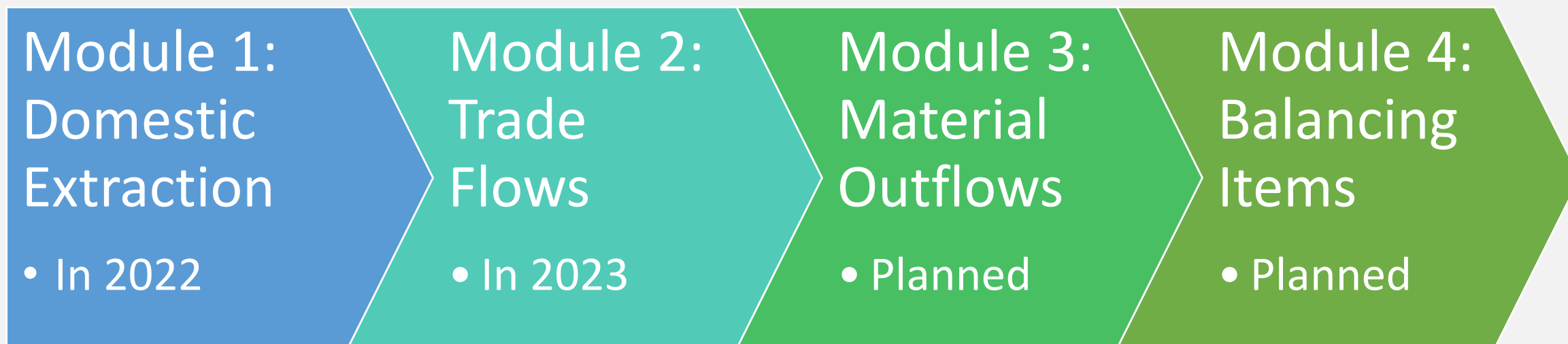
EW-MFA Compiler

Country support tool

- Provides the basic structure required for these accounts, as well as several simple tools for calculating some categories of materials
- Aligned with the EW-MFA global manual
- Published [here](#)
- Translated into Arabic, French, Russian, Spanish is coming

		
United Nations Environment Programme		
COMPILER FOR ECONOMY-WIDE MATERIAL FLOW ACCOUNTS		
(EW-MFA Compiler)		
Country:		
If you have any questions, please contact us at the following email address:		unep-science-sdgs@un.org
TABLE OF CONTENTS		
Sheet	Title	Status
Contents	Table of contents	for information
Intro	Introduction and methodology	for information
Description & Definitions	Description of tables and Definitions	for information
Table_A	Domestic Extraction	to fill in
Table_B	Imports of Materials	to fill in
Table_C	Exports of Materials	to fill in
Table_D	Material Outflows	to fill in
Table_E	Balancing Items	to fill in
Table_F	Headline Indicators	to be filled in automatically
Corresp SDMX Codes	Correspondence EW-MFA Codes to SDMX Product Codes	can be used for estimation of selected items
Corresp FAO Crop Codes_DE	Correspondence FAO Crop Codes to EW-MFA Codes_Domestic Extraction	can be used for estimation of selected items
Crop Residues Tool_DE	Calculated totals for Crop Residues - Domestic Extraction	can be used for estimation of selected items
Grazed Biomass Tool_DE	Calculated totals for Grazed Biomass - Domestic Extraction	can be used for estimation of selected items
ConvFact Wood_DE	Conversion Factors Wood - Domestic Extraction	can be used for estimation of selected items
Metal Ores Tool 1_DE	Calculated totals for Metal Ores - Mined Ores	can be used for estimation of selected items
Metal Ores Tool 2_DE	Calculated totals for Metal Ores - Processed/Shipped Ores	can be used for estimation of selected items
Metal Ores Tool 3_DE	Calculated totals for Metal Ores - SMS Back Calculation	can be used for estimation of selected items
ConvFact Non-Met Minerals	Conversion Factors Non-Metallic Minerals	can be used for estimation of selected items
Chalk, Dol and Limest Tool_DE	Calculated totals for Chalk, Dolomite and Limestone_Domestic Extraction	can be used for estimation of selected items
ConvFact Clays_DE	Conversion Factors Clays - Domestic Extraction	can be used for estimation of selected items
Sand and Gravel Tool_DE	Calculated totals for Sand and Gravel for Construction_Domestic Extraction	can be used for estimation of selected items
Fossil Fuels Tool_DE	Calculated totals for Fossil Fuels - Domestic Extraction	can be used for estimation of selected items
Fossil Fuels Tool_Imp	Calculated totals for Fossil Fuels - Imports	can be used for estimation of selected items
Fossil Fuels Tool_Exp	Calculated totals for Fossil Fuels - Exports	can be used for estimation of selected items
ConvFact Peat	Conversion Factor Peat	can be used for estimation of selected items
ConvFact Crude Oil and NGL	Conversion Factors Crude Oil and Natural Gas Liquids_Domestic Extraction	can be used for estimation of selected items
ConvFact Natural Gas	Conversion Factors Natural Gas	can be used for estimation of selected items
Corresp HS2017_Trade	Correspondence Table HS 2017 Codes to EW-MFA Codes	can be used for estimation of selected items
Corresp SITC Rev.4_Trade	Correspondence Table SITC Rev. 4 Codes to EW-MFA Codes	can be used for estimation of selected items

E-learning course on EW-MFA



- Developed in collaboration with CSIRO
- Published on the [UNEP e-learning platform](#)

Capacity building activities in 2023-2025

on EW-MFA

At the national level

- In 2023: Jordan, Senegal, Ghana, Uganda and Kazakhstan
- In 2024: Namibia, Ecuador, Belarus (UNDP Belarus)
- In 2025: Benin, Kenya, Thailand, Nepal, Colombia, Jamaica

At the regional and global level

- In 2023, two Global Webinars on Geospatial and Other Data Sources for Environment Statistics: Assessing the Impact of the Economy on the Environment
 - [21-23 March for countries in Africa, Latin America and the Caribbean](#)
 - [18-20 April for Asian, Europe and North Africa](#)

Thank you

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