SDG indicator metadata

(Harmonized metadata template - format version 1.1)

0. Indicator information (SDG_INDICATOR_INFO)

0.a. Goal (SDG_GOAL)

Goal 17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

0.b. Target (SDG_TARGET)

Target 17.7: Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed

0.c. Indicator (SDG_INDICATOR)

Indicator 17.7.1: Total amount of funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies

0.d. Series (SDG_SERIES_DESCR)

DC_ENVTECH_EXP - Amount of tracked exported Environmentally Sound Technologies [17.7.1]

DC_ENVTECH_IMP - Amount of tracked imported Environmentally Sound Technologies [17.7.1]

DC_ENVTECH_INV - Total investment in Environment Sound Technologies, by sector [17.7.1]

DC_ENVTECH_REXP - Amount of tracked re-exported Environmentally Sound Technologies [17.7.1]

DC_ENVTECH_RIMP - Amount of tracked re-imported Environmentally Sound Technologies [17.7.1]

DC_ENVTECH_TT - Total trade of tracked Environmentally Sound Technologies [17.7.1]

0.e. Metadata update (META_LAST_UPDATE)

2024-07-29

0.f. Related indicators (SDG_RELATED_INDICATORS)

United Nations Environment Programme (UNEP) has identified a number of SDGs where uptake of Environmentally Sound Technologies (ESTs) contributes to their achievement: Goal 7 on ensuring access to affordable, reliable, sustainable and modern energy for all; Goal 8 on the promotion of sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all; Goal 12 on sustainable consumption and production patterns, and Goal 13 on taking urgent action to combat climate change and its impacts.

0.g. International organisations(s) responsible for global monitoring (SDG_CUSTODIAN_AGENCIES)

United Nations Environment Programme (UNEP)

1. Data reporter (CONTACT)

1.a. Organisation (CONTACT_ORGANISATION)

United Nations Environment Programme (UNEP)

2. Definition, concepts, and classifications (IND_DEF_CON_CLASS)

2.a. Definition and concepts (STAT_CONC_DEF)

Definition:

Environmentally Sound Technologies (ESTs) are technologies that have the potential for significantly improved environmental performance relative to other technologies. ESTs protect the environment, are less polluting, use resources in a sustainable manner, recycle more of their wastes and products, and handle all residual wastes in a more environmentally acceptable way than the technologies for which they are substitutes. ESTs are not just individual technologies. They can also be defined as total systems that include know-how, procedures, goods and services, and equipment, as well as organizational and managerial procedures for promoting environmental sustainability. This means that any attempt to provide an assessment of investment into ESTs on either a global or national level must incorporate ways to track funding flows into both hard and soft technologies.

The purpose of this indicator is to develop a methodology for tracking the total amount of approved funding to promote the development, transfer, dissemination and diffusion of environmentally sound technologies. A two-pronged approach is suggested:

- Level 1. Use globally available data to create a proxy of funding flowing to countries for environmentally sound technologies, or of trade in environmentally sound technologies
- Level 2. Collect national data on investment in environmentally sound technologies.

Concepts:

There are five crucial elements which make up Goal 17 - finance, capacity building, systemic issues, technology and trade- all of which must be aligned for the Goal to be achieved. One of the key lessons over the last couple of decades has been that in order to achieve potential growth, measurement of financial flows (in terms of amount, type, geography, donor, recipient and investors) is a necessary step in such a transformation. In order to understand systemic issues, trade, capacity building, technology lock-in, innovation and deployment, we must understand how, why and where finance is being deployed. Only then we can begin to realign its flows.

In deciding which technologies are most appropriate, there will always be trade-offs between cost and a range of economic, social, health and environmental impacts, to be determined based on national or local contexts and priorities. It would also not be feasible for all countries to strive towards the best available technologies globally if these are not appropriate in a domestic context. Given the highly contextual nature of ESTs, it is therefore something that is better defined at the national level, taking into account the national context and mainstream technologies nationally. However, there is a real need to support national, sub-national governments and other actors with decision-making and defining the most nationally or locally appropriate technologies.

2.b. Unit of measure (UNIT_MEASURE)

Current United States Dollars

2.c. Classifications (CLASS_SYSTEM)

- International Standard Industrial Classification of All Economic Activities (ISIC), Rev.4.
- Standard Country or Area Codes for Statistical Use (UN M49 classification of countries and regions).
- Harmonized Commodity Description and Coding Systems (HS).

3. Data source type and data collection method (SRC_TYPE_COLL_METHOD)

3.a. Data sources (SOURCE_TYPE)

Level 1: the United Nations Comtrade database.
Level 2: National Statistical Offices (NSOs) and other members of the National Statistical System (NSS).

3.b. Data collection method (COLL_METHOD)

National data are collected through the UNEP Questionnaire on Environmentally Sound Technologies every two years.

3.c. Data collection calendar (FREQ_COLL)

First data collection in 2021, then every 2 years.

3.d. Data release calendar (REL_CAL_POLICY)

First reporting cycle in 2022, then every two years.

3.e. Data providers (DATA_SOURCE)

National Statistical Offices (NSOs) and other members of the National Statistical System (NSS), complemented by global modelling

3.f. Data compilers (COMPILING_ORG)

United Nations Environment Programme (UNEP)

3.g. Institutional mandate (INST_MANDATE)

The United Nations Environment Programme (UNEP) was mandated as the Custodian Agency for indicator 17.7.1 by the Inter-agency and Expert Group on SDG Indicators.

4. Other methodological considerations (OTHER_METHOD)

4.a. Rationale (RATIONALE)

Rational environmental management means making the best use of resources to meet basic human needs without destroying the sustaining and regenerative capacity of natural systems. This requires a good understanding of the intersecting elements within the larger frame of development and implies the adoption and use of alternative, environmentally sound development strategies and related technologies. ESTs play an important role to improve efficiency of resources (materials and energy), reduce pollution and waste from different sectors. The importance of Environmentally Sound Technology was first emphasized during Rio Earth Summit in 1992 and ever since it has become a major component of international environmental cooperation. Access to ESTs also play a central role in the ground-breaking agreement, the Addis Ababa Action Agenda – which is an implementing mechanism for the global Sustainable Development Goals (2030 Agenda for Sustainable Development). The agreement was reached by the 193 UN Member States.

4.b. Comment and limitations (REC_USE_LIM)

Various definitions of 'environmentally sound technology' exist and are in use. Terms such as 'environmental technology', 'clean technology', 'and cleantech 'or 'low-carbon technology' are sometimes used, although low-carbon technology can be considered as a sub-set of green technology. Other less commonly used terms include climate-smart and climate-friendly technology.

Additional limitations include: different baseline years in numerous available databases, and the different purposes of available databases.

Many national statistical systems lack the capacity to compile information on "Total amount of approved funding to promote the development, transfer, dissemination and diffusion of environmentally sound technologies". Compiling data on this indicator presents a challenge in terms of consistent definitions and approaches. However, this methodology recognizes these difficulties and provides an approach that can allow a comparability among countries.

4.c. Method of computation (DATA_COMP)

The methodology for tracking the total amount of approved funding to promote the development, transfer, dissemination and diffusion of environmentally sound technologies has a two-pronged approach:

Level 1. Use globally available data to create a proxy of funding flowing to countries for environmentally sound technologies, or of trade in environmentally sound technologies:

Total trade of tracked Environmentally Sound Technologies (ESTs) that provides the closest indicator of investment flows is that of trade (e.g. traded goods and services that have been internationally agreed to have a positive environmental benefit), using HS codes of the Harmonized Commodity Description and Coding Systems, preferably more than 6-digit level.

Total trade of tracked Environmentally Sound Technologies (ESTs) is calculated as the sum of tracked exported, imported, re-exported and re-imported ESTs.

The sectors deemed to be ESTs through historical research include:
- Air pollution control,
- Wastewater management,
- Solid and Hazardous waste management,
- Renewable Energy,
- Environmentally Preferable Products,
- Water Supply & Sanitation,
- Energy Storage & Distribution,
- Land & Water Protection & Remediation.

Level 2. Collect national data on investment in environmentally sound technologies:

Identifying ESTs at the national level is a simple process based on a set of criteria and simple analysis tool – the UNEP Questionnaire on Environmentally Sound Technologies, which is used to evaluate if the environmental objective is achieved and if the technology is suitable for the local market.

The environmental objective can be assessed with the performance and operational data (in relevance to the environmental objective) and if the technology has any negative environmental impact (cross- media effects). Suitability of the technology for the national market could involve assessments on criteria related to economics, market considerations and suitability to local natural conditions.

1. Environmental considerations:
   - Performance of the technology and operational data – Can the technology achieve the environmental objective (e.g. this could be compliance with local environmental law)
   - Cross-media effects – Does the technology has negative environmental impacts?
2. Local considerations – Is the technology suitable for the local market?
   - Economics impacts – Capital and operating costs
   - Market considerations – Local market availability and suitability
   - Suitability for the local natural conditions

4.d. Validation (DATA_VALIDATION)

Level 1 indicators: UNEP uses a random sampling for few countries and calculate the total of HS codes for export, import, re-export and re-import and compare with the automated produced amounts for those countries. The value per HS is also compared with the data on the COMTRADE database.

Level 2 indicators: UNEP carries out data validation procedures and contact countries for clarification if needed.

4.e. Adjustments (ADJUSTMENT)

Not applicable

4.f. Treatment of missing values (i) at country level and (ii) at regional level (IMPUTATION)

The United Nations Environment Programme (UNEP) does not make any imputation for missing values.

4.g. Regional aggregations (REG_AGG)

The data will be aggregated at the sub-regional, regional and global levels. For the aggregation methods, please see: http://wesr.unep.org/media/docs/graphs/aggregation_methods.pdf.

4.h. Methods and guidance available to countries for the compilation of the data at the national level (DOC_METHOD)

General recommendations are provided in the INDICATOR METHODOLOGY FOR SDG 17.7.1. A global guidance on Environmentally Sound Technologies is under development.

4.i. Quality management (QUALITY_MGMNT)

Quality management is provided by the United Nations Environment Programme (UNEP).

4.j Quality assurance (QUALITY_ASSURE)

Quality assurance is provided by the United Nations Environment Programme (UNEP) in cooperation with the countries that provide these data.

4.k Quality assessment (QUALITY_ASSMNT)

Quality assessment is provided by the United Nations Environment Programme (UNEP).

5. Data availability and disaggregation (COVERAGE)

Data availability:
Level 1 indicators: All UN Member States.
Level 2 indicators: All countries that provided country data to the UNEP Questionnaire on Environmentally Sound Technologies.

Time series:
Level 1 indicators: The data sets presented in the SDG database covers a period since 2010.
Level 2 indicators: The data sets presented in the SDG database presented according to country responses.

Disaggregation:
According to the International Standard Industrial Classification of All Economic Activities (ISIC), Rev.4.

6. Comparability / deviation from international standards (COMPARABILITY)

Sources of discrepancies:
Possible sources of discrepancies are caused by the highly contextual nature of Environmentally Sound Technologies (ESTs).

7. References and Documentation (OTHER_DOC)

General recommendations are provided in the INDICATOR METHODOLOGY FOR SDG 17.7.1.

UNEP (2018). Trade in environmentally sound technologies: Implications for Developing Countries.

More information on Trade in Environmentally Sound Technologies on the UNEP website.