Sustainable Development Goals (SDG) Sustainable Consumption and Production Indicators

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Introduction

Sustainable Consumption and Production (SCP) refers to the use of services and related products, which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardize the needs of future generations.

SCP is a holistic approach and is about systemic change. It is built around three main objectives:
➢ Decoupling environmental degradation from economic growth
➢ Applying life cycle thinking
➢ Seizing opportunities for developing countries and "leapfrogging"

Within the Sustainable Development Goals, SCP indicators are mainly represented in SDG 12, and in the following goals:

7.3.1 Energy intensity measured in terms of primary energy and GDP

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

SDG indicator 7.3.1

Energy intensity measured in terms of primary energy and GDP

Target 7.3: By 2030, double the global rate of improvement in energy efficiency

Energy intensity is defined as the energy supplied to the economy per unit value of economic output.

Indicator 7.3.1 is an indication of how much energy is used to produce one unit of economic output. A lower ratio indicates that less energy is used to produce one unit of output, so decreasing trends indicate progress.

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Methodology

A comprehensive energy statistics across supply and demand for all energy sources is needed. The statistics is used to produce the energy balance. Once the energy balance is developed, the indicator can be obtained by dividing total energy supply over GDP.

$$SDG\ 7.3.1 = \frac{Total\ primary\ energy\ supply}{GDP}$$

Sectors included are:
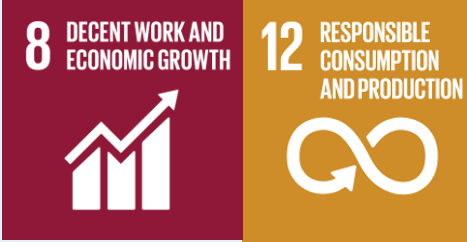- Industry
- Transport
- Households
- Services and Agriculture

Target 12.2: By 2030, achieve the sustainable management and efficient use of natural resources

Indicators 8.4.1/ 12.2.1 aim at determining the amount of primary materials required to serve final demand of a country.

They are considered as indicators for material standard of living/level of capitalization of an economy

Methodology

$SDG\ 8.4.1/12.2.1 = Domestic\ extraction\ (DE)\ +$
$Raw\ material\ equivalent\ of\ imports\ (RME_{IMP})\ -$
$Raw\ material\ equivalents\ of\ exports\ (RME_{EXP})$

Includes Domestic Material Extraction of:
- Biomass
- Fossil fuel
- Metal ores
- Non-metal ores

UNEP is the custodian agency for indicators 8.4.1/12.2.1

Target 12.2: By 2030, achieve the sustainable management and efficient use of natural resources

Domestic Material Consumption (DMC) is a standard material flow accounting (MFA) indicator and reports the apparent consumption of materials in a national economy.

It is defined as the total amount of material directly used in an economy. DMC presents the amount of material that needs to be handled within an economy, which is either added to material stocks of buildings and transport infrastructure or used to fuel the economy as material throughput.

Methodology

$SDG\ 8.4.2/12.2.2 = Domestic\ Extraction\ (DE)\ of\ materials\ +$
$Direct\ imports(IMP)\ of\ materials - Direct\ exports(EXP)\ of\ materials$

Material resources are materials originating from natural resources, including:
- Biomass (wood, food)
- Metals (ferrous, non-ferrous)
- Non-metallic minerals (construction minerals, industrial minerals),
- Fossil energy carriers

SDG indicator 12.1.1

Number of countries developing, adopting or implementing policy instruments aimed at supporting the shift to sustainable consumption and production

Target 12.1: Implement the 10-Year Framework of Programs on sustainable consumption and production (10YFP), all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries.

The indicator aims at assessing the volume and geographical repartition of governments progressing on sustainable consumption and production.

This indicator also helps monitor the evolution of the global legislative landscape

UNEP is the custodian agency for indicator 12.1.1

Methodology

Policy cycle is a political science concept is widely used to analyse and inform public policy-making processes. Policy cycles are categorized as follow:

- Policy development, including Agenda setting and Policy design;
- Policy adopted or officially launched
- Policy under implementation through specific actions; results and impacts are being monitored;
- Policy and related action plan has reached its end date and has been evaluated

To be reported under this indicator, a government should have moved through one or more new stage(s) of the "Policy cycle" on one or more policy instruments (legally binding, non-binding) during the reporting period

This indicator is calculated based on the information collected from the National Focal Points and other government officials.

UNEP is the custodian agency for indicator 12.1.1

SDG indicator 12.3.1.b
Food waste index

Target: 12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses

The indicator aims at measuring the total amount of food that is wasted in tonnes.
It helps identify where food is wasted, therefore providing governments, citizens, and the private sector with information that will help reduce food waste.

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Methodology

Food waste index for year (t) aims at estimating the amount of food in the total waste stream, by using the following formula:

$$Food\ Waste\ Index = \frac{Food\ waste\ per\ capita\ in\ year\ t}{Food\ waste\ per\ capita\ in\ base\ year} \times 100$$

With:

$$Food\ waste\ per\ capita = \frac{Total\ food\ waste}{Population}$$

$$Total\ food\ waste = FW_{Household} + FW_{Out\ of\ home\ consumption} + FW_{Retail}$$

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SDG indicator 12.5.1

National recycling rate, tons of material recycled

Target 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

National recycling rate is defined as the quantity of material recycled in the country plus quantities exported for recycling out of total waste generated in the country, minus material imported intended for recycling.

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Methodology

$National\ recycling\ rate =$

$$\frac{Material\ recycled + material\ exported\ for\ recycling - material\ imported\ for\ recycling}{total\ waste\ generated}\ x\ 100$$

SDG indicator 12.6.1

Number of companies publishing sustainability reports

Target 12.6: Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.

Indicator 12.6.1 aims at tracking the publishing of sustainability information, rather than on the practice of publishing stand-alone sustainability reports.

The indicator represents an important opportunity not only to monitor and promote the growth in sustainability reporting globally, but also to monitor and promote high quality reporting, promote the integration of sustainability information into the annual reporting cycle of companies, and promote sustainability practices by companies.

UNEP and UNCTAD are the custodian agencies for indicator 12.6.1

Methodology

The methodology is based on 2 levels of reporting, "*minimum requirements*" or "*advanced level requirements*". Companies will be counted towards the indicator if they publish sustainability information covering the following sustainability disclosures:

- *Institutional and Governance*
- *Economic*
- *Environmental*
- *Social*

For each of the categories, specific information is required to be considered as a sustainability report.

UNEP and UNCTAD are the custodian agencies for indicator 12.6.1

Target 12.7: Promote public procurement practices that are sustainable in accordance with national policies and priorities.

The indicator measures the number of countries implementing Sustainable Public Procurement (SPP) policies and action plans, by assessing the degree of implementation through an index.

Sustainable Public Procurement is a process whereby public organizations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life cycle basis in terms of generating benefits not only to the organisation, but also to society and the economy, whilst significantly reducing negative impacts on the environment

Methodology

Indicator 12.7.1 assessment is **based on the evaluation of a national government's SPP implementation level, scope and comprehensiveness**, through the **appraisal of 6 specific parameters** which will lead to the calculation of a *Government SPP Implementation Score.*

$$SPP\ Implementation\ score = A\ X \sum_{i=B}^{F} I = A\ X \sum \{B \ldots F\}$$

Note: Dominator A to F provided in the next slide

Methodology

Denoted as	Parameter and sub-indicators used to assess SPP implementation	Scoring
A	Existence of a SPP action plan/policy, and/or SPP regulatory requirements	0 or 1
B	Public procurement regulatory framework conducive to sustainable public procurement	0 or 1
C	Practical support delivered to public procurement practitioners in the implementation of SPP.	0 or 1
D	SPP purchasing criteria/ buying standards / requirements.	0 or 1
E	Existence of a SPP monitoring system	0 or 1
F	Percentage of sustainable purchase of priority products/services	0-100%

Note: 0 means no SPP policy in place
1 means existence of SPP action plan

UNEP is the custodian agency for indicator 12.7.1

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SDG indicator 12.c.1

Amount of fossil-fuel subsidies (production and consumption) per unit of GDP

Target 12.c: Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities

For indicator 12.c.1 it is proposed that countries report on the subsidy categories which are, direct transfers, induced transfers and tax expenditure, other government revenue foregone and underpricing of goods and services, including risk (optional).

UNEP is custodian agency for indicator 12.c.1

Methodology

$$Consumer\ price\ support$$
$$= (adjusted\ net-of-tax\ reference\ unit\ price-local\ net-of$$
$$-tax\ unit\ price)\ X\ units\ subsidized$$

Note: Estimates are based on reference prices on import (or export) parity prices using the price of a product at the nearest international hub, adjusted for quality differences, if necessary, plus (or minus) the cost of freight and insurance to the net importer (or back to the net exporter), plus the cost of internal distribution and marketing and any value-added tax (VAT).

UNEP is the custodian agency for indicator 12.c.1

SDG indicator 17.7.1

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

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.

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.

UNEP and OECD are the custodian agencies for indicator 17.7.1

Methodology

There are two-pronged approaches that are suggested. They include:

Level 1. Use globally available data to create a proxy of funding flowing to developing countries for environmentally sound technologies, or of trade in environmentally sound technologies. **International proxy** that provides the closest indicator of investment flows is that of trade

Level 2. Collect national data on investment in environmentally sound technologies. Identifying ESTs at the **national/ sub-national level** should be a simple process based on a set of criteria and simple analysis tool, which could be used to evaluate if the environmental objective is achieved and if the technology is suitable for the local market.

UNEP and OECD are the custodian agencies for indicator 17.7.1

Data availability

Indicator	Coverage	Year from	Year to
7.3.1	National, regional and global	2000	2018
8.4.1-12.2.	National, regional and global	1990	2017
8.4.2-12.2.	National, regional and global	1970	2017
12.1.1	National	2017	2020
12.3.1b	National, regional and global	2019	2019
12.5.1	Municipal (National), e-waste (regional and global)	2000	2019
12.6.1	National, regional and global	2020	2020
12.7.1	National, sub national (Lower and Higher subnational)	2020	2020
12.c.1	National, regional and global	2015	2019
17.7.1	No data		

References

Sustainable consumption and production policies

https://www.unep.org/explore-topics/resource-efficiency/what-we-do/sustainable-consumption-and-production-policies
SDG Indicators
https://unstats.un.org/sdgs/metadata/

Thank you!

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