Waste SDG Indicators – Policy instruments

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What are Waste SDG indicators?

11.6.1 Proportion of municipal solid waste collected and managed in controlled facilities out of total municipal waste generated, by cities

14.1.1b plastic debris density

Waste SDG Indicators

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SDG 11: Sustainable Cities and Communities

11.6.1 Proportion of municipal solid waste collected and managed in controlled facilities out of total municipal waste generated, by cities

- Municipal Solid Waste collection coverage, by cities (%)

- Municipal Solid Waste is waste generated by households, commercial and industrial premises, by institutions such as schools, hospitals, care homes and prisons, and from public spaces such as streets, markets, slaughterhouses, public toilets, bus stops, parks, and gardens.

- The definition of MSW should follow the local definitions so it is important to annotate the local and national definition(s) of MSW.

- As many countries do not have data on waste collection systems, household survey and other complimentary surveys can be conducted for the estimation of municipal waste generation per capita.

- Examples of policy usage:
  - Reduction of waste disposed of in landfills/open sites
  - Planning waste treatment plants
  - Increasing the recycling capacities

SDG 11: Sustainable Cities and Communities

11.6.1 Proportion of municipal solid waste collected and managed in controlled facilities out of total municipal waste generated, by cities

- Urban population' growth is leading to increased amounts of solid waste that require appropriate management and policies

- When MSW generation exceeds environmental and municipal assimilation, risks for human health and ecosystems are inevitable

- After collection, controlled treatment facilities or landfill sites are necessary to prevent environmental repercussions

SDG 12: Responsible Consumption and Production

12.3.1a Food loss index

- Food loss percentage (%)
- Food waste (Tonnes)
- Food waste per capita (KG)

- Food losses are all the crop and livestock human-edible commodity quantities that, directly or indirectly, completely exit the post-harvest, slaughter production, supply chain by being discarded, incinerated or otherwise, and do not re-enter in any other, up to, and **excluding**, the retail level

- Almost 14 per cent of food was lost in 2016, from production and before reaching retail. This amount does not include food wasted at retail, home and food services.

- Examples of policy usage:
  - Reduction of food loss at priority commodities
  - Increase national food security
  - Reduce public expenditures on food commodities

SDG 12 Responsible Consumption and Production

12.3.1a Food loss index

- Reducing food loss improves food security, nutrition, alleviates environmental pressures, lowers production costs and increases food systems efficiency

- Economically, food loss represents a wasted investment that reduces the producer's income and the consumer's price

- Environmentally, food loss increases unnecessary detriments for the environment occurring during the creation of the product

SDG 12 Responsible Consumption and Production

12.3.1b Food waste index

- Food waste (Tonnes)
- Food waste per capita (KG)

- It complements 12.3.1 (a) Food loss index which is under the custodianship of FAO.

- Food security is becoming an increasingly serious concern to countries across the planet as the population increases yet the capacity of the agricultural sector has not been able to keep up.

- Food waste refers to food that completes the food supply chain up to a final product, of good quality and fit for consumption, but still doesn't get consumed because it is discarded, whether or not after it is left to spoil or expire. Food waste typically (but not exclusively) takes place at retail, home and food services

- Examples of policy usage:
    - Reduction of food waste at priority supply chain
    - Increase national food security
    - Maximize the use of available food supplies

SDG 12 Responsible Consumption and Production

12.3.1b Food waste index

- Without accurate food waste data and information, governments, businesses and other organizations lack the information to prioritize their efforts

- The opportunities provided by food waste reduction have remained largely untapped and under-exploited

- Reducing food waste improves food security, nutrition, alleviates environmental pressures, lowers production costs and increases food systems efficiency
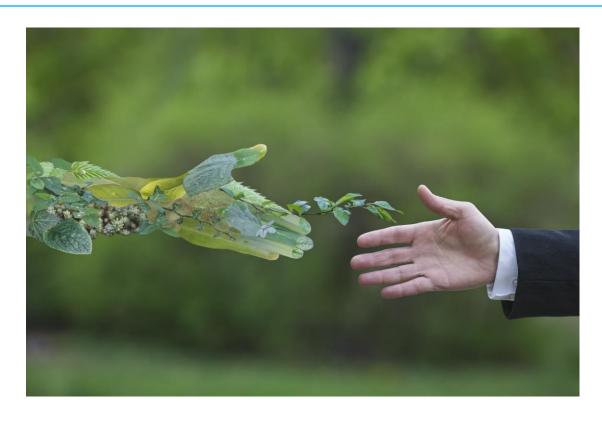
SDG 12 Responsible Consumption and Production

12.4.1 Number of parties to international multilateral environmental agreements on hazardous waste, and other chemicals that meet their commitments and obligations in transmitting information as required by each relevant agreement

- Parties meeting their commitments and obligations in transmitting information as required by (1) Basel, (2) Rotterdam, (3) Stockholm, (4) Montreal and (5) Minamata Conventions

- International MEAs to achieve environmentally sound management of hazardous wastes, chemicals and persistent organic pollutants have been established by 5 Conventions

- The indicator is process oriented; it does not measure the quantities of chemicals.

- Example of policy usage:
  - Understand the national status of compliance with the 5 Conventions
  - Improve the management of hazardous waste and other chemicals
  - Limit exposure to human health and the environment

SDG 12 Responsible Consumption and Production

12.4.1 Number of parties to international multilateral environmental agreements on hazardous waste, and other chemicals that meet their commitments and obligations in transmitting information as required by each relevant agreement

- Regular reporting of data and information related to the transboundary movement of hazardous waste and chemicals is essential for environmental protection

- The MEAs control and restrict the trade of hazardous chemicals and POPs that can pose major risks to human health and the environment

- Reduction of release of hazardous chemicals to air, water and soil
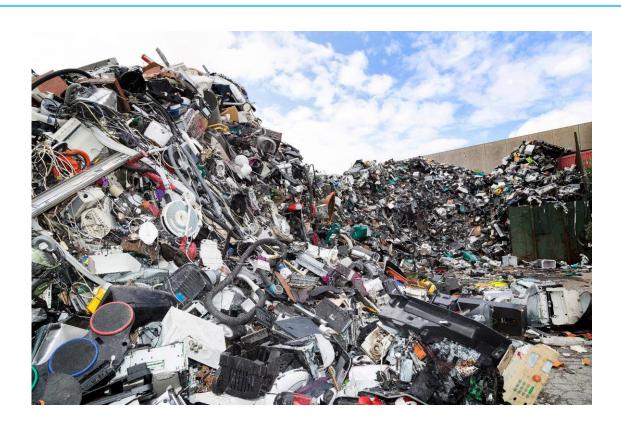
SDG 12 Responsible Consumption and Production

12.4.2 (a) Hazardous waste generated per capita; and (b) proportion of hazardous waste treated, by type of treatment

- Hazardous waste has been an evolving challenge, till date there is no global data on the generation or adequate treatment of such type of waste. The generation of e-waste almost tripled between 2000 and 2019 (17.9 million tonnes in 2000 to 53.6 in 2019).

- It is particularly important to have robust statistics for hazardous waste compared to other forms of waste because of the adverse effects it can have on human health and on the environment

- Examples of policy usage:
  - Identify potential challenges related to generation and treatment of hazardous waste, by type
  - Develop integrated hazardous waste management plan to attend to increasing amounts
  - Explore investment in improving recycling capacities

12.4.2 (a) Hazardous waste generated per capita; and (b) proportion of hazardous waste treated, by type of treatment

- Minimizing waste while maximizing recycling through effective mechanisms form the basis for sound policy implementation

- Economic growth and emerging technologies diversified the types and amount substances used by industries, many of which, inevitably become hazardous waste.

- Hazardous waste legislations and official take-back systems are necessary to ease the significant pressures of complex waste streams
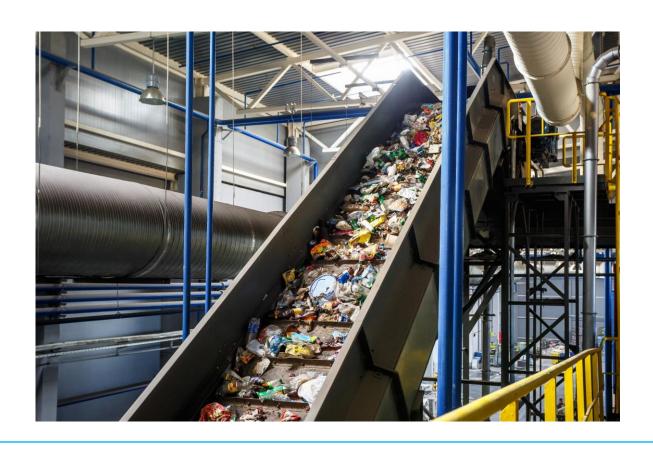
SDG 12 Responsible Consumption and Production

12.5.1 National recycling rate, tons of material recycled
- Total waste recycled (Tonnes), by type
- Total waste recycled (%)
- E-waste recycled (Tonnes)
- E-waste recycled (%)

- Total waste recycled include all types of waste recycled, including e-waste.

- Recycling is a central pillar in the transition which countries, as well as companies in the private sector, must go through in order to create long term and sustainable economies

- Recycling enables utilization of finite resources after reduction and more efficient production processes have been implemented. It is a vital way to reduce environmental and human health impacts from the adverse effects of waste streams

- Examples of policy usage:
  - Assess the feasibility and economic benefits from recycling
  - Identify sectors where recycling is most needed
  - Explore investment in improving recycling capacities

SDG 12 Responsible Consumption and Production

12.5.1 National recycling rate, tons of material recycled

- Policies and investments in recycling and transforming already extracted resources, can make significant strides in economies' ability to decouple economic growth from the resources they need.

- Consumerism and frequent upgrading and high turnover rates of products highlight the necessity for sound recycling methods

- Higher recycling rate incites better shift to circular economy

SDG 14: Life Below Water

14.1.1b Plastic debris density
- Beach litter per square kilometer (Number)

- Coastal areas are areas of high productivity where inputs from land, sea, air and people converge. With over 40 per cent of the human population residing in coastal areas, ecosystem degradation in these areas can have disproportionate effects on society

- Discarded waste in water streams and areas close to water end up in marine environments, which ends up being deposited on beaches

- Examples of policy usage:
  - Reduce marine and beach litter by designing targeted interventions
  - Assess the impact on marine ecosystems and their productivity
  - Assess the impact on the fishery sector and limit potential impact

SDG 14: Life Below Water

14.1.1b Plastic debris density

- Three-quarters of all marine litter is composed of plastic, including microplastics.

- Marine litter and plastic debris cause physical harm to marine life through incidental or deliberate ingestion, entanglement and ghost fishing.

- Monitoring the marine environment for the presence of plastic litter is a necessary part of assessing the extent and possible impact of marine litter, devising possible mitigation methods to reduce inputs, and evaluating the effectiveness of such measures.

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Why are the Waste Indicators important?

- Globally, the generation of e-waste almost tripled between 2000 and 2019. Similar increasing trends can be observed in all regions.

- Only around 18 per cent of e-waste per capita was recycled in 2019

- In 1950, the world produced around 2 million tonnes of plastics. Since then, yearly production of plastics increased nearly 200-fold, reaching 381 million tonnes in 2015.

- Three quarters of marine litter is composed of plastic and estimates indicate that around 8 million tonnes of plastic enter the ocean every year

- Urban populations are growing at much faster rates than MSW collection and recycling efforts can cope

What can we do about it?

Waste

- Circular economy approaches will significantly impact waste production and recycling rates as they aim to keep products, materials and resources as long as possible in the economy

- Sound waste policies result:
  - Reduction in natural resource exploitation
  - Reduction in waste generation
  - Reduction in pollutant concentrations
  - Human health improvements
  - Reduction in adaption costs for environmental damages, health care, infrastructure, agriculture, freshwater and marine ecosystems, air pollution and many more

Thank you

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