

National activities

Overview of data sources



Ghana
June 20, 2023

Ghana – Monitoring of the Sustainable development goals until 2030

The [Ghana Statistical Service](#) compiles data on [agricultural production](#) and imports (crops, fisheries, livestock, pesticides, fertilizers, and forestry). The [Environment Statistics Compendium](#) includes data on emissions to air (greenhouse gases (GHG) and precursors and local air pollutants), solid waste generation and management, discharge to water, and extraction of mineral (gold, diamond, manganese, bauxite), energy and timber resources .

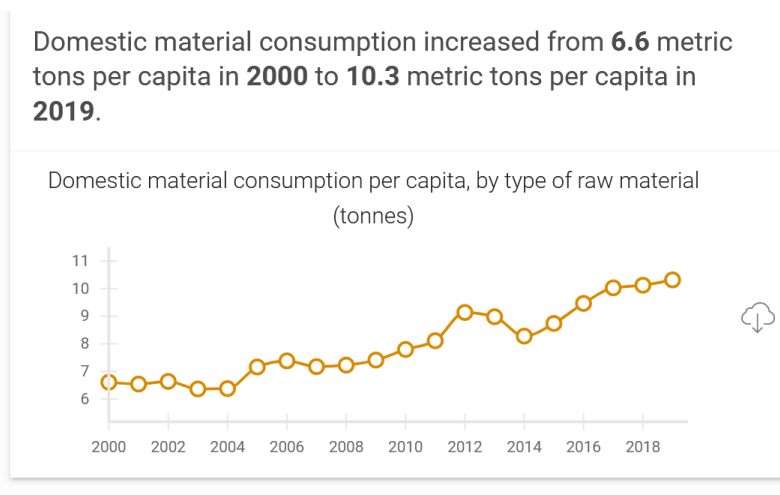
Data availability for indicators 12.2.1, 12.2.2, 12.4.2, and 12.5.1

Data for indicator 12.2.1 (Material footprint, material footprint per capita, and material footprint per GDP) and indicator 12.2.2 (Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP) are available from the [UNEP IRP Global Material Flows Database](#).

Information on indicators 12.2.1 and 12.2.2 is available in the UNSD country profile and the WERS Scorecard as shown below. The data in these dashboards are taken from national sources through instruments such as the UNSD/UNEP questionnaire or from international sources such as UNEP's International Resource Panel, Global Material Flows Database. Data for these two indicators

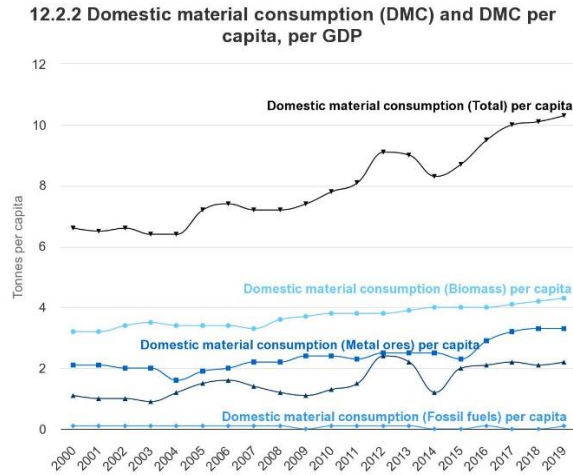
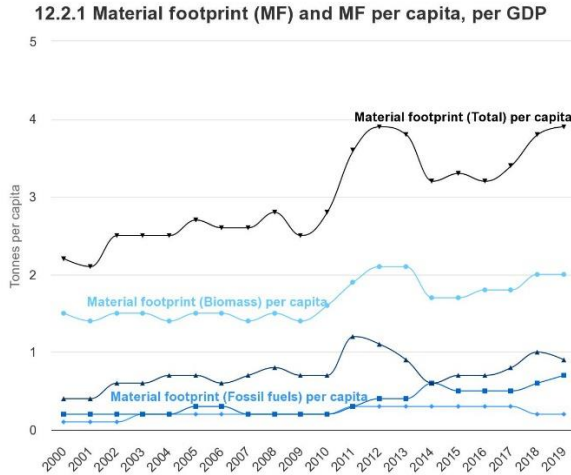
No data were found for indicator 12.4.2 (Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment). [Environment Statistics Compendium](#) provides data on municipal waste management which is relevant for 12.5.1 (National recycling rate, tons of material recycled).

The following visualization is available in the UN Statistics Division's Country Profile for Ghana (<https://unstats.un.org/sdgs/dataportal/countryprofiles/gha#goal-12>)



Source: World Environment Situation Room ([WESR](#)) Global Material Flows Database

UNEP's World Environment Situation Room (WESR) scorecard (<https://wesr.unep.org/scorecard/>) includes the following visualizations:



Summary of data availability

a) Material footprint and domestic material consumption

Material category	Information needed	Data availability
<p>Biomass Material of vegetable origin extracted by humans and their livestock – crops, used crop residues, fodder crops, grazed biomass, wood, capture of wild fish, and the biomass of hunted animals.</p>	<p>Statistics on the production, import, export and use of agricultural crops, crop residues, wood, wild harvests (fishing, hunting, gathering of terrestrial and aquatic plants).</p>	<p>Production of Agriculture Statistics</p> <p>Information on trade volumes: Standard International Trade Classification (SITC) Time Series</p> <p>Nationally reported data are also available in FAOSTAT and FISHSTAT</p>
<p>Metal ores Deposits of metal compounds in the Earth's crust which can be processed to produce desired metals at an economically viable cost. Only the portion of the excavated rock which is to be processed in some way to obtain the desired metals is included in the accounts. Data is compiled in three ore categories: iron,</p>	<p>Statistics on production, import, export of metallic ores. This includes information on ore type, ore grade, recovery rate, estimated total tonnage of Run of Mine (ROM) ore extracted, quantity of waste rock. This information may be collected from mine operators</p>	<p>Environment Statistics Compendium</p> <p>Asset Accounts for Mineral Resources</p>
<p>Non-metallic minerals "stone quarries and clay and sand pits; chemical and fertilizer mineral deposits; salt</p>	<p>Statistics on production, import, export of non-metallic ores</p>	<p>None identified</p>

Material category	Information needed	Data availability
deposits; deposits of quartz, gypsum, natural gem stones, asphalt and bitumen, peat and other non-metallic minerals other than coal and petroleum.”	Data from official national statistical reports on consumption of cement, bitumen and bricks can indirectly indicate consumption of non-metallic minerals.	
Fossil fuels Includes coal and peat, crude oil, natural gas and natural gas liquids, and oil shale and tar sands.	Statistics on production, import, export of fossil fuels	Ghana Energy Database System See also: Environment Statistics Compendium
Emissions to air Includes Emissions of greenhouse gases (Carbon dioxide (CO ₂), Methane (CH ₄), Dinitrogen oxide (N ₂ O), Nitrogen oxides (NO _x), Hydroflourcarbons (HFCs), Perflourocarbons (PFCs) Sulphur hexafluoride (SF ₆)) Common air pollutants (Carbon monoxide (CO), Non-methane volatile organic compounds (NMVOC), Sulfur dioxide (SO ₂) Ammonia (NH ₃), Particles (e.g. PM ₁₀ , Dust)) Toxic pollutants (Heavy metals Persistent organic pollutants (POPs)) Other emissions to air	Annual quantities of pollutants emitted to air	Environment Statistics Compendium
Waste landfilled (uncontrolled) Waste refers to materials that are of no further use to the generator for production, transformation or consumption. Waste may be generated during the extraction of raw materials,	Total quantities of uncontrolled municipal and industrial waste produced per year In addition to the national environmental authority, sources of this information	Information on municipal waste: Environment Statistics Compendium Hazardous waste, including e-waste: no information identified

Material category	Information needed	Data availability
during the processing of raw materials to intermediate and final products, during the consumption of final products, and in the context of other activities.	may include municipal governments and industries	
Emissions to water Substances and materials released to natural waters by human activities after or without passing wastewater treatment. It includes the following pollutants: Nitrogen (N), Phosphorus (P), Heavy metals, Other substances and (organic) materials, Dumping of materials at sea	Information on outflows from municipal or industrial sewage treatment plants	Environment Statistics Compendium
Dissipative use of products Materials that are deliberately dissipated into the environment such as organic fertilizer (manure), mineral fertilizer, sewage sludge, compost, pesticides, seeds, salt and other thawing materials spread on roads, solvents, laughing gas, and other materials.	<p>Agricultural statistics on sale or use of fertilizers, pesticides, seeds.</p> <p>For manure, an estimate could be based on the number of livestock</p> <p>Information on the use of lime (e.g. as a fertilizer in forestry)</p> <p>Information on compost</p> <p>Information on amount of salt or other materials spread on roads</p> <p>For data on non-methane volatile organic compounds solvents, information on use and emissions from paint application, degreasing and dry cleaning, chemical products manufacture and processing, and other sources. Information on use of laughing gas.</p>	Production of Agriculture Statistics
Dissipative losses Dissipative losses are unintentional outputs of materials to the environment	Abrasion from tyres, particles worn from friction products, such as brakes and clutches, losses of materials due to	None identified

Material category	Information needed	Data availability
<p>resulting from abrasion, corrosion, and erosion at mobile and stationary sources, and from leakages or accidents. This includes abrasion from tyres, friction products, buildings and infrastructure, leakages (e.g. of gas pipelines), or from accidents during the transport of goods.</p>	<p>corrosion, abrasion, and erosion of buildings and infrastructure, dissipative losses from the transport of goods, and leakages during (natural) gas pipeline transport (if not reported as emissions to air).</p>	
<p>Balancing items The oxygen demand of various combustion processes (both technical and biological ones), water vapour from biological respiration, and from the combustion of fossil fuels containing water and/or other hydrogen compounds. Also, flows of considerable economic importance such as nitrogen which is withdrawn from the atmosphere to produce fertilizer in the Haber-Bosch process or groundwater used in the production of beverages are accounted for as balancing items.</p>	<p>For balancing items – input side: Oxygen for combustion processes Oxygen for respiration of humans and livestock; bacterial respiration from solid waste and wastewater Nitrogen for Haber-Bosch process Water requirements for the domestic production of exported beverages</p> <p>For balancing items – output side: Water vapour from combustion Water vapour from moisture content of fuels Water vapour from the oxidized hydrogen components of fuels Gases from respiration of humans and livestock (CO₂ and H₂O), and from bacterial respiration from solid waste and wastewater (H₂O) Carbon dioxide (CO₂) Water vapour (H₂O) Excorporated water from biomass products</p>	<p>None identified</p>

Material category	Information needed	Data availability
Material footprint and domestic material consumption	Not applicable	Information on Material Footprint and Domestic material consumption is available at UNEP IRP Global Material Flows Database

b) Waste indicators

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

Indicator	Information needed	Data availability
Hazardous waste generated	"the quantity of hazardous waste generated within the country during the reported year, prior to any activity such as collection, preparation for reuse, treatment, recovery, including recycling, or export, no matter the destination of this waste". r	None identified
Hazardous waste generated by type, including e-waste	A breakdown of hazardous waste generated by key type of waste, including e-waste, waste engine oils, Hazardous household waste, Healthcare waste	None identified
Proportion of hazardous waste treated	The total quantity of hazardous waste treated = sum of quantities of hazardous waste treated, per each type of treatment (recycling, incineration with/without energy recovery, landfilling or other) + Exports - Imports. Proportion of hazardous waste treated = Quantity of hazardous waste treated ÷ Total quantity of hazardous waste generated	None identified
Hazardous waste intensity of production	= Quantity of hazardous waste generated ÷ Domestic material consumption	None identified

c) National recycling rate

Indicator	Information needed	Source
National recycling rate	Amount of waste generated, material recycled, material exported for recycling, material imported intended for recycling in the country Total MSW generated (t/day) Quantity of material recycled from MSW stream	Information on municipal waste generation: Environment Statistics Compendium
Total Waste Generated (excluding construction, mining and agriculture) by type, including e-waste	Waste from manufacturing (ISIC 10-33) + Waste from electricity, gas, steam and air conditioning supply (ISIC 35) + Waste from other economic activities (excluding ISIC 38) + Municipal waste (excluding construction and demolition)	Information on municipal waste generation: Environment Statistics Compendium
National recycling rate by type of waste	Waste streams can include e-waste metals (ferrous, non-ferrous) packaging waste	None identified
Waste intensity	Total waste generated ÷ Domestic material consumption	None identified

Stakeholders

a) National Government Stakeholders

Ghana Statistical Service (GSS): The Service provides statistical information to guide national development as stipulated in Section 3 of the Statistical Service Act, 2019 (Act 1003). It produces monthly and quarterly data on various economic indicators and periodic reports on topics of interest.

The following ministries can provide data to assist in compiling Ghana's material flow accounts and the compilation of data for indicators 12.4.2 (hazardous waste) and 12.5.1 (national recycling rate).

Ministry of Environment, Science, Technology and Innovation (MESTI): The Environment Directorate of the Ministry ensures the effective environmental governance and management of natural resource. It provides technical support for the development and implementation of policies, programmes and projects and liaises with relevant agencies such as the Environmental Protection Agency (EPA) and Town and Country Planning Department (TCPD).

Ministry of Fisheries and Aquaculture Development (MoFAD): The Ministry focuses on the development and implementation of interventions intended to drive the fisheries sector and industry to contribute more effectively to the overall development of Ghana.

- The Fisheries Commission is responsible for monitoring, control, surveillance, evaluation, and compliance related to fisheries development and management in Ghana, including fish health, post-harvest activities, safety, and quality assurance.

Ministry of Food and Agriculture (MOFA): The Ministry is responsible for developing and executing policies and strategies for the agriculture sector. Plans and programmes are developed, coordinated and implemented through policy and strategy frameworks.

Ministry of Lands and Natural Resources (MLNR): Established under Section 11 of the Civil Service Law 1993 (PNDCL 327) the Ministry ensures the sustainable management and utilization of the nation's lands, forests and wildlife resources as well as the efficient management of the mineral resources. The Ministry consists of three sub-sectors; Lands, Forestry and Mining.

Ministry of Local Government, Decentralization and Rural Development (MLGDR): The Ministry ensures good governance and the balanced development of metropolitan, Municipal and District Assemblies.

- The Local Government Service secures effective administration and management of the decentralised local government system in Ghana.

Ministry of Roads and Highways (MRH): The Ministry provides and maintains the road transport network to meet user needs, support economic growth and contribute to poverty reduction.

- The Ghana Highway Authority (GHA) administers, controls, developments, and maintains public highways and related facilities in Ghana.
- The Department of Urban Roads is mandated to set up Road Units in Municipal and Metropolitan Assemblies and to support the construction and maintenance of the urban network.
- Department of Feeder Roads, is responsible for the feeder roads systems within districts.

Ministry of Sanitation and Water Resources (MSWR): The Ministry contributes to improvement in the living standards of Ghanaians through increased access to and use of safe water, sanitation and hygiene practices and sustainable management of water resources.

The Ministry of Trade & Industry (MOTI): The Ministry is the lead policy advisor to government on trade, industrial and private sector development with responsibility for the formulation and implementation of policies for the promotion, growth and development of domestic and international trade and industry.

b) Other stakeholders

Regional and municipal governments

- The National Association of Local Authorities in Ghana ([NALAG](#)) is a voluntary platform for communication and capacity building of local government. All district assembly members are members.

Industry

- The [Ghana Chamber of Mines](#) is the main minerals industry association in Ghana. The Chamber represents the collective interests of companies involved in mineral exploration, production and processing in Ghana.
- The Environmental Service Providers Association ([ESPA](#)) is an association of private waste companies handling waste of various categories for metropolitan/municipal and district assemblies in public private-partnership agreements. ESPA is an advocacy body and operates in line with the government's policy of maintaining a clean and a healthy environment for all citizens.
- The Ghana Recycling Initiative by Private Enterprises ([GRIPE](#)) is an industry-led coalition formed under the Association of Ghana Industries (AGI) with a stake in the plastics sector to integrate sustainable waste management solutions, particularly around plastics.
- Ghana's [Waste Recovery Platform](#) connects actors playing a role in promoting waste recovery in Ghana to facilitate the exchange of information and ideas.
- [Sustainable Recycling Industries](#) works with private and public institutions as well as the informal sector, to improve local capacity for sustainable recycling. It introduces best practices and recycling standards and promotes technological innovation. It has projects in six countries including Ghana.