Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Target 8.a: Increase Aid for Trade support for developing countries, in particular least developed countries, including through the Enhanced Integrated Framework for Trade-related Technical Assistance to Least Developed Countries
Indicator 8.a.1: Aid for Trade commitments and disbursements

Institutional information

Organization(s):

Organisation for Economic Co-operation and Development (OECD)

Concepts and definitions

Definition:

Aid for Trade commitments and disbursements is the gross disbursements and commitments of total Official Development Assistance (ODA) from all donors for aid for trade.

Rationale:

Total Official Development Assistance (ODA) and Other Official Flows (OOF) to developing countries quantify the public effort that donors provide to developing countries for aid for trade.

Concepts:

The DAC defines Official Development Assistance (ODA) as “those flows to countries and territories on the DAC List of ODA Recipients and to multilateral institutions which are i) provided by official agencies, including state and local governments, or by their executive agencies; and ii) each transaction is administered with the promotion of the economic development and welfare of developing countries as its main objective; and is concessional in character and conveys a grant element of at least 25 per cent (calculated at a rate of discount of 10 per cent). (See http://www.oecd.org/dac/stats/officialdevelopmentassistancedefinitionandcoverage.htm)

Other official flows (OOF), excluding officially supported export credits, are defined as transactions by the official sector which do not meet the conditions for eligibility as ODA, either because they are not primarily aimed at development, or because they are not sufficiently concessional. See http://www.oecd.org/dac/stats/documentupload/DCDDAC(2016)3FINAL.pdf, Para 24.

Aid for Trade is captured in the CRS through sector codes in the 331 series and the aid for trade marker. see here: http://www.oecd.org/dac/stats/purposecodessectorclassification.htm.

‘All donors’ refers to DAC donors, non-DAC donors and multilateral organisations.
Comments and limitations:

Data in the Creditor Reporting System are available from 1973. However, the data coverage is considered complete from 1995 for commitments at an activity level and 2002 for disbursements.

Methodology

Computation Method:

The sum of ODA and OOF flows from all donors to developing countries for aid for trade.

Disaggregation:

This indicator can be disaggregated by donor, recipient country, type of finance, type of aid, trade policy and regulations and trade related adjustment sub-sectors, etc..

Treatment of missing values:

- **At country level**
  
  Due to high quality of reporting, no estimates are produced for missing data.

- **At regional and global levels**
  
  Not applicable.

Regional aggregates:

Global and regional figures are based on the sum of ODA and OOF flows for aid for trade activities.

Sources of discrepancies:

DAC statistics are standardized on a calendar year basis for all donors and may differ from fiscal year data available in budget documents for some countries.

Data Sources

Description:

The OECD/DAC has been collecting data on official and private resource flows from 1960 at an aggregate level and 1973 at an activity level through the Creditor Reporting System (CRS data are considered complete from 1995 for commitments at an activity level and 2002 for disbursements).

The data are reported by donors according to the same standards and methodologies (see here: http://www.oecd.org/dac/stats/methodology.htm).
Data are reported on an annual calendar year basis by statistical reporters in national administrations (aid agencies, Ministries of Foreign Affairs or Finance, etc.

**Collection process:**

A statistical reporter is responsible for the collection of DAC statistics in each providing country/agency. This reporter is usually located in the national aid agency, Ministry of Foreign Affairs or Finance etc.

**Data Availability**

On a donor basis for all DAC countries and many non-DAC providers (bilateral and multilateral) that report to the DAC on aid for scholarships.

On a recipient basis for all developing countries eligible for ODA.

**Calendar**

**Data collection:**

Data are published on an annual basis in December for flows in the previous year. Detailed 2015 flows will be published in December 2016.

**Data release:**

December 2016.

**Data providers**

Data are reported on an annual calendar year basis by statistical reporters in national administrations (aid agencies, Ministries of Foreign Affairs or Finance, etc.

**Data compilers**

OECD

**References**

**URL:**

www.oecd.org/dac/stats
References:

See all links here: http://www.oecd.org/dac/stats/methodology.htm
Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Target 8.1: Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries

Indicator 8.1.1: Annual growth rate of real GDP per capita

Institutional information

Organization(s):

United Nations Statistics Division (UNSD)

Concepts and definitions

Definition:
Annual growth rate of real Gross Domestic Product (GDP) per capita is calculated as the percentage change in the real GDP per capita between two consecutive years. Real GDP per capita is calculated by dividing GDP at constant prices by the population of a country or area. The data for real GDP are measured in constant US dollars to facilitate the calculation of country growth rates and aggregation of the country data.

Rationale:
Real Gross Domestic Product (GDP) per capita is a proxy for the average standard of living of residents in a country or area. A positive percentage change in annual real GDP per capita can be interpreted as an increase in the average standard of living of the residents in a country or area.

Concepts:
Gross Domestic Product (GDP) measures the monetary value of final goods and services—that is, those that are bought by the final user—produced in an economic territory country in a given period of time (say a quarter or a year). It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. GDP can be measured using the expenditure approach as the sum of expenditure on final consumption plus gross capital formation plus exports less imports, the production approach as the value of output less intermediate consumption plus any taxes less subsidies on products not already included in the value of output, or the income approach as compensation of employees plus gross operating surplus plus gross mixed incomes plus taxes less subsidies on both production and imports.

Comments and limitations:
Although countries or areas calculate GDP using the common principles and recommendations in the United Nations System of National Accounts (SNA), there are still problems in international comparability of GDP estimates. These include:
a. Different versions of the SNA (for example, 1968, 1993 or 2008) countries or areas use in calculating their GDP estimates
b. Different degree of coverage of informal and non-observed economic activities in the GDP estimates

Further, as a necessary condition to being a key economic performance indicator of sustainable development, one of the often-cited limitations of GDP is that it does not account for the social and environmental costs of production. It is designed as a measure of the level of overall well-being. For example, growth in real GDP per capita reveals nothing concerning energy and material interactions with the environment.

Methodology

Computation Method:
The annual growth rate of real Gross Domestic Product (GDP) per capita is calculated as follows:

a. Convert annual real GDP in domestic currency at 2005 prices for a country or area to US dollars at 2005 prices using the 2005 exchange rates.
b. Divide the result by the population of the country or area to obtain annual real GDP per capita in constant US dollars at 2005 prices.
c. Calculate the annual growth rate of real GDP per capita in year t+1 using the following formula: 

\[
\frac{(G(t+1) - G(t))}{G(t)} \times 100\%
\]

where \(G(t+1)\) is real GDP per capita in 2005 US dollars in year t+1 and \(G(t)\) is real GDP per capita in 2005 US dollars in year t

Disaggregation:
It is possible to disaggregate the country data by region, if countries can make available the underlying regional data which are consistent with the national accounts data to perform the disaggregation.

Treatment of missing values:
• At country level
  When a full set of official annual GDP data is not available, estimation procedures are employed to obtain estimates for the entire time series. When full data are not available, a hierarchy of other data sources is used to gather information on the national accounts of a country or area. The data gathered are then either used directly or estimation procedures are applied to obtain the annual GDP data.

If official data are not available, the selection of data sources is based on following hierarchy:

a. Official publications and websites of national statistical offices, central banks or relevant government ministries;
b. Official statistics disseminated by Eurostat, European Central Bank and the Organization for Economic Cooperation and Development (OECD) for their members;
c. Information provided by Permanent Missions to the United Nations;
d. Economic surveys and estimates prepared by United Nations’ Regional Economic Commissions (i.e. UNECE, ECLAC, ESCAP, UNECA and ESCWA);

f. Estimates and indicators from other international organizations. The most common sources used are: the International Monetary Fund (IMF) and the World Bank;

g. Publications or websites of specialized groups, the most common sources used are: the Gulf Cooperation Council, the Asia-Pacific Economic Cooperation (APEC), the Committee of Central Bank Governors in SADC; the Islamic Development Bank, and the Statistical Training Centre for Islamic Countries;

h. Economic data from commercial providers and other sources, the most common sources used are: the Economic Intelligence Unit and the United States Central Intelligence Agency;

i. Information from neighbouring countries where no alternative source is available (Switzerland for Liechtenstein; France for Monaco; Italy for San Marino; Spain for Andorra; and some Pacific Islands for other Pacific Islands);

The estimation methods involved in preparing the GDP estimates using sources other than official data include trend extrapolation, using appropriate indices for inflating or deflating relevant data series, and share distribution of GDP. A hierarchical assessment is followed to determine which method should be used. Effort is made to keep data estimation methods consistent from year to year.

• At regional and global levels
After the missing real GDP country or area data are imputed using the methods as described in 11.1, they are summed up to derive the respective regional or global aggregates and then divided by the corresponding population data to obtain the regional or global real GDP per capita. After that, annual growth rates in regional or global real GDP per capita are calculated using the formula described in 3.3.

Regional aggregates:
For each year, the real GDP and population estimates for each country or area are summed up to derive the regional and global aggregates. The regional and global aggregates are then divided by the corresponding population to derive the regional and global real GDP per capita estimates. These estimates are then used to calculate the annual growth rates in regional and global real GDP per capita using the formula as described in 3.3.

Sources of discrepancies:
The differences include the following:

a. Official country data are typically available in domestic currency only. The data estimated by UNSD are also available in US dollars.
b. Countries or areas may not have a full set of official GDP data. The GDP data estimated by UNSD include imputations using various estimation procedures as described in 11.1 to obtain estimates for the entire time series.

c. Official country data are often reported as multiple sets of time series versions, with each version representing a unique methodology used to compile the national accounts data (for example, a difference between two time series versions could reflect a change in currency, a switch from 1968 SNA to 1993 SNA, a change in the office responsible for compiling national accounts, etc.). These time series versions may not be comparable, especially when a country has shifted from the 1968 SNA to 1993 SNA or 2008 SNA. When a single time series version does not exist for the entire period (1970 to t-1), UNSD uses estimation procedures to backcast the most recently reported time series version. Backcasting is only performed when time series overlap for at least one year. The overlapping year is used to create a ratio; this ratio is then applied backwards to the previous time series version. If there is a change of fiscal year between two official data time series, the older series are converted to the fiscal year type of the most recent time series prior to backcasting. UNSD uses the same backcasting methods when official country constant price time series versions include multiple base years or when constant price time series versions are reported as constant prices of the previous year (CPPY). CPPY data are backcasted by using the officially reported current price data and the officially reported constant price data. The data are backcasted into a single series with a fixed base year.

d. The population estimates from the United Nations Population Division may be different from country-produce estimates as the former include analysis carried out to take into account deficiencies such as incompleteness of coverage, lack of timeliness and errors in the reporting or coding of the basic information and to establish past population trends by resolving the inconsistencies affecting the basic data.

Methods and guidance available to countries for the compilation of the data at the national level:


- Population: United Nations Demographic Yearbook

- GDP: 2008 SNA

- Population: Principles and Recommendations for Population and Housing Censuses

Quality assurance
Data are validated in accordance with the international statistical standards.

Discrepancies are resolved through written communication with countries.

Data Sources

Description:
The underlying annual GDP estimates in domestic currency are collected from countries or areas annually through a national accounts questionnaire (NAQ), while the underlying population estimates are
obtained from the UN Population Division on

Collection process:
Each year, the national accounts section of the UNSD sends a pre-filled NAQ to countries or areas to collect the latest data on official annual national accounts in domestic currency. In order to lighten the reporting burden of countries to different international and regional organizations the UNSD receives data from the Organisation for Economic Co-operation and Development (OECD), the United Nations Economic Commission for Europe (ECE) and the Caribbean Community (CARICOM) on behalf of their constituents.

The official national accounts data in domestic currency are then validated to check for errors. The validation procedure involves ensuring that aggregates are equal to the sum of their components and that data series which are provided in multiple tables are represented consistently. After that, the current and constant price GDP series are converted into US dollars by applying the corresponding market exchange rates as reported by the International Monetary Fund (IMF). When these conversion rates are not available other IMF rates are used (official rates or principal rates).

For countries whose exchange rates are not reported by the IMF, the annual average of United Nations operational rates of exchange (UNOPs) is applied. The UNOPs are conversion rates that are applied in official transactions of the United Nations with these countries. These exchange rates are based on official, commercial and/or tourist rates of exchange.

In cases where a country experiences considerable distortion in the conversion rates, the UNSD uses price-adjusted rates of exchange (PARE) as an alternative to the exchange rates reported by the IMF or UN operational rates of exchange. The conversion based on PARE corrects the distorting effects of uneven price changes that are not well reflected in the other conversion rates. Consequently, unrealistic levels in GDP and other national accounts aggregates expressed in US Dollars may have been adjusted for certain time periods to improve the economic analysis at national, regional and local levels.

The constant-price GDP series for each country is then divided by its population to obtain its real GDP per capita.

The estimated data are checked for consistency by ensuring that aggregates are equal to the sum of their components and that data series which are represented in multiple tables are represented consistently. The estimates derived for each year are compared to previous years to ensure that estimates are prepared consistently from year to year. Additionally, the growth rate from year to year is analysed to identify anomalies in the data.

More information on the methodology to estimate the data is available on http://unstats.un.org/unsd/snaama/methodology.pdf.

Data Availability
National statistics offices, central banks or national agencies responsible for compiling official national accounts estimates for a country or area

**Time series:**
Annual data from 1970 to 2015 are available.

**Calendar**

**Data collection:**
The exercise to collect official annual national accounts estimates from countries or areas using the national accounts questionnaire starts in February of each year for the data available up to the end of the previous year.

**Data release:**
December of each year

**Data providers**
National statistics offices, central banks or national agencies responsible for compiling official national accounts estimates for a country or area

**Data compilers**
United Nations Statistics Division (UNSD)

**References**

**URL:**

**References:**
https://esa.un.org/unpd/wpp/

**Related indicators**
Any economic statistics related SDG indicators
Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Target 8.2: Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors
Indicator 8.2.1: Annual growth rate of real GDP per employed person

Institutional information

Organization(s):

International Labour Organization (ILO)

Concepts and definitions

Definition:

Annual growth rate of real GDP per employed person conveys the annual percentage change in real Gross Domestic Product per employed person.

Rationale:

The real GDP per employed person being a measure of labour productivity, this indicator represents a measure of labour productivity growth, thus providing information on the evolution, efficiency and quality of human capital in the production process.

Economic growth in a country can be ascribed either to increased employment or to more effective work by those who are employed. This indicator casts light on the latter effect, being therefore a key measure of economic performance. Labour productivity (and growth) estimates can support the formulation of labour market policies and monitor their effects. They can also contribute to the understanding of how labour market performance affects living standards.

Concepts:

Gross Domestic Product (GDP): It is the main measure of national output, representing the total value of all final goods and services produced in a particular economy (that is, the dollar value of all goods and services produced within a country’s borders in a given year). According to the System of National Accounts (SNA), “GDP is the sum of gross value added of all resident producer units plus that part (possibly the total) of taxes on products, less subsidies on products, that is not included in the valuation of output ... GDP is also equal to
the sum of the final uses of goods and services (all uses except intermediate consumption) measured at purchasers’ prices, less the value of imports of goods and services. GDP is also equal to the sum of primary incomes distributed by resident producer units.”

Real Gross Domestic Product (GDP): The real GDP refers to the GDP calculated at constant prices, that is, the volume level of GDP, excluding the effect of inflation and favouring comparisons of quantities beyond price changes. Constant price estimates of GDP are calculated by expressing values in terms of a base period. In theory, the price and quantity components of a value are identified and the price in the base period is substituted for that in the current period.

Employed persons: Persons of working age (usually defined as persons aged 15 and above) who, during a short reference period such as a day or a week, (i) did some work (even for just one hour) for pay, profit or family gain, in cash or in kind; or (ii) were attached to a job or had an enterprise from which they were ‘temporarily’ absent during this period (for such reasons as illness, maternity, parental leave, holiday, training, industrial dispute).

Comments and limitations:

Output measures are obtained from national accounts and represent, as much as possible, GDP at market prices for the aggregate economy. However, despite common principles that are mostly based on the United Nations System of National Accounts, there are still significant problems in international consistency of national accounts estimates, based on factors such as differences in the treatment of output in services sectors, differences in methods used to correct output measures for price changes (in particular, the use of different weighting systems to obtain deflators) and differences in the degree of coverage of informal economic activities.

Moreover, data on employment used in the denominator of this indicator refer, as much as possible, to the average number of persons with one or more paid jobs during the year. That is, the reliability of the employment data is also dependent on the degree of coverage of informal activities by the statistical source used.

Methodology

Computation Method:

Real GDP per employed person = GDP at constant prices / Total number of employed persons
where the numerator and denominator refer to the same reference period, for example, the same calendar year.

If we call the real GDP per employed person “LabProd”, then the annual growth rate of real GDP per employed person is calculated as follows:

Annual growth rate of real GDP per employed person = \( \frac{\text{LabProd in year n} - \text{LabProd in year n-1}}{\text{LabProd in year n-1}} \times 100 \)

**Disaggregation:**

No disaggregation required for this indicator.

**Treatment of missing values:**

- **At country level**
  

- **At regional and global levels**

  NA

**Regional aggregates:**

To address the problem of missing data, the former ILO Employment Trends Team designed several econometric models which are actively maintained and used to produce estimates of labour market indicators in the countries and years for which real data are not available. The Global Employment Trends Model (GET Model) is used to produce estimates, in particular, on labour productivity (among others). It uses multivariate regression techniques to impute missing values at the country level. The first step is to assemble every known piece of real information (i.e. every real data point), and keep only data that are national in coverage and comparable across countries and over time. This is an important selection criterion when GET Models are run, because they are designed to use the relationship between the various labour market indicators and their macroeconomic correlates – such as per capita GDP, GDP growth rates, demographic trends, country membership in the Heavily Indebted Poor Countries initiative (HIPC), geographical indicators, and country and time dummy variables – in order to produce estimates of the labour market indicators.
where no data exist. Thus, the comparability of the labour market data that are used as inputs in the imputation models is essential to ensure that the models accurately capture the relationship between the labour market indicators and the macroeconomic variables. The last step of the estimation procedure occurs once the datasets containing both real and imputed labour market data have been assembled. In this step, the data are aggregated across countries to produce the final world and regional estimates. For further information on the GET Models, please refer to the technical background papers available at the following website: http://www.ilo.org/empelm/projects/WCMS_114246/lang--en/index.htm.

Methods and guidance available to countries for the compilation of the data at the national level:

See:

Quality assurance:

NA

Data Sources

Description:

Output measures used in the nominator of this indicator (Gross Domestic Product) are best obtained from the production side of national accounts and represent, as much as possible, GDP at market prices for the aggregate economy (adjusted for inflation, in constant prices).

Employment data used in the denominator are preferably derived from labour force or other household surveys with an employment module. In the absence of a household survey, establishment surveys, administrative records or official estimates based on reliable sources can be used as well as population censuses. It is however important to note that employment data from establishment surveys will capture the number of jobs and not the number of persons employed as preferred for the denominator. Also,
establishment surveys cover, in many cases, the formal sector and employers and employees only, not accounting for the whole economy.

When calculating this indicator, it is important to ensure that the coverage of the employment data is consistent with that of the national accounts.

**Data Availability**

ILO estimates are available for 191 countries on a regular basis; Conference Board estimates are available for 121 countries on a regular basis.

**Calendar**

NA

**Data providers**

Mainly National Statistical Offices, in some cases Labour Ministries or other related agencies.

**Data compilers**

ILO

**References**

**URL:**

www.ilo.org/ilostat

**References:**


Trends Econometric Models: A Review of Methodology:
Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Target 8.3: Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services

Indicator 8.3.1: Proportion of informal employment in non-agriculture employment, by sex

Institutional information

Organization(s):
International Labour Organisation (ILO)

Concepts and definitions

Definition:
This indicator presents the share of non-agricultural employment which is classified as informal employment.

Rationale:
Informal employment offers a necessary survival strategy in countries that lack social safety nets, such as unemployment insurance, or where wages and pensions are low, especially in the public sector. In these situations, indicators such as the unemployment rate and time-related underemployment are not sufficient to describe the labour market completely. Statistics on the informal economy are key to assessing the quality of employment in an economy, and are relevant to developing and developed countries alike (ILOSTAT indicator description for informality, available at http://www.ilo.org/ilostat-files/Documents/description_IFL_EN.pdf).

Concepts:
Employment comprises all persons of working age who during a specified brief period, such as one week or one day, were either in paid employment (whether at work or with a job but not at work) or in self-employment (whether at work or with an enterprise but not at work).

Informal employment comprises persons who in their main or secondary jobs were in one of the following categories:
- Own-account workers, employers and members of producers’ cooperatives employed in their own informal sector enterprises (the characteristics of the enterprise determine the informal nature of their jobs);
- Own-account workers engaged in the production of goods exclusively for own final use by their household (e.g. subsistence farming);
- Contributing family workers, regardless of whether they work in formal or informal sector enterprises (they usually do not have explicit, written contracts of employment, and are not subject to labour legislation, social security regulations, collective agreements, etc., which determines the informal nature of their jobs);
- Employees holding informal jobs, whether employed by formal sector enterprises, informal sector enterprises, or as paid domestic workers by households (employees are considered to have
informal jobs if their employment relationship is, in law or in practice, not subject to national labour legislation, income taxation, social protection or entitlement to certain employment benefits).

- An enterprise belongs to the informal sector if it fulfils the three following conditions:
  - It is an unincorporated enterprise (it is not constituted as a legal entity separate from its owners, and it is owned and controlled by one or more members of one or more households, and it is not a quasi-corporation: it does not have a complete set of accounts, including balance sheets);
  - It is a market enterprise (it sells at least some of the goods or services it produces);
  - The enterprise is not registered or the employees of the enterprise are not registered or the number of persons engaged on a continuous basis is below a threshold determined by the country.

Comments and limitations:
The considerable heterogeneity of definitions and operational criteria used by countries to measure informal employment greatly hinders the international comparability of statistics on informality. Also, the scope of this indicator is limited to non-agriculture. However, to have a comprehensive picture of the importance of informality in the economy and to better understand its patterns, statistics on informal employment should be produced and analysed for both agricultural and non-agricultural activities.

Methodology

Computation Method:
Proportion of informal employment in non-agricultural employment =
(Informal employment in non-agricultural activities) / (Total employment in non-agricultural activities) x 100

Disaggregation:
Disaggregated data by sex should be available.
In order to produce this indicator, employment statistics disaggregated by formal / informal employment and by economic activity (agriculture / industry / services) are required.

Treatment of missing values:
NA

Regional aggregates:
NA

Sources of discrepancies:
NA

Methods and guidance available to countries for the compilation of the data at the national level:


Quality assurance
With a view to ensuring data quality and reliability, and especially cross-country comparability, the ILO derives statistics on informal employment based on a standard definition and standard operational criteria through processing microdata sets from household surveys. Thanks to this exercise, two series of indicators on informality are disseminated in the ILO’s central statistical database, ILOSTAT (www.ilo.org/ilostat): one referring to the statistics produced and reported by countries, and another based on ILO’s standard criteria (harmonized). Country-reported estimates of informal employment are the basis for SDG reporting.

Data Sources

Description:
The preferred source of data for this indicator is a labour force survey, with sufficient questions to determine the informal nature of jobs and whether the establishment where the person works in belongs to the formal or the informal sector.

Data Availability
NA

Calendar
NA

Data providers
At the national level, the agency responsible for producing data on informality is usually the national statistical office.

Data compilers
International Labour Organisation (ILO)

References
Resolution concerning statistics of employment in the informal sector, adopted by the Fifteenth International Conference of Labour Statisticians (January 1993), available at
Guidelines concerning a statistical definition of informal employment, adopted by the Seventieth International Conference of Labour Statisticians (November-December 2003) available at
Resolution concerning statistics of work, employment and labour underutilization adopted by the Nineteenth International Conference of Labour Statisticians (October 2013), available at

Related indicators
1.1.1, 1.3.1, 8.5.2
Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Target 8.4: Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead

Indicator 8.4.1: Material Footprint, material footprint per capita, and material footprint per GDP

Institutional information

Organization(s):
United Nations Environment Programme (UNEP)

Concepts and definitions

Definition:
Material Footprint (MF) is the attribution of global material extraction to domestic final demand of a country. The total material footprint is the sum of the material footprint for biomass, fossil fuels, metal ores and non-metal ores.

Rationale:
Material footprint of consumption reports the amount of primary materials required to serve final demand of a country and can be interpreted as an indicator for the material standard of living/level of capitalization of an economy. Per-capita MF describes the average material use for final demand.

Concepts:
Domestic Material Consumption (DMC) and MF need to be looked at in combination as they cover the two aspects of the economy, production and consumption. The DMC reports the actual amount of material in an economy, MF the virtual amount required across the whole supply chain to service final demand. A country can, for instance have a very high DMC because it has a large primary production sector for export or a very low DMC because it has outsourced most of the material intensive industrial process to other countries. The material footprint corrects for both phenomena.

Comments and limitations:
The global material flows database is based on country material flow accounts from the European Union and Japan and estimated data for the rest of the world.

Methodology

Computation Method:
It is calculated as raw material equivalent of imports (RME_{IM}) plus domestic extraction (DE) minus raw material equivalents of exports (RME_{EX}). For the attribution of the primary material needs of final demand a global, multi-regional input-output (MRIO) framework is employed. The attribution method based on I-O analytical tools is described in detail in Wiedmann et al. 2015. It is based on the EORA MRIO
framework developed by the University of Sydney, Australia (Lenzen et al. 2013) which is an internationally well-established and the most detailed and reliable MRIO framework available to date.

Disaggregation:
The MF indicator can be disaggregated to four main material categories, a varying number of economic sectors whose expenditure require materials and to three domestic final demand sectors (household consumption, government consumption and capital investment) and foreign final demand (i.e. exports).

Treatment of missing values:

- **At country level**
  A zero is imputed when no positive real value was officially recorded, in the base data sets used, for any of the underlying components which make up this aggregated total. Thus “0.0” can represent either NA, or a genuine 0.0, or (crucially) a combination of both, which is a common situation. This allows for values to be easily aggregated into further aggregations; however, it should be thus noted that due to imputing missing values as ‘0.0’, the aggregations may represent a lower value than actual situation.

- **At regional and global levels**
  Similarly, missing values are imputed as zero in the regional and global aggregations. However, in the case where no data is available at all for a particular country then the per capita and per GDP estimates are weighted averages of the available data.

Regional aggregates:
See: http://uneplive.unep.org/media/docs/graphs/aggregation_methods.pdf

Sources of discrepancies:

Data Sources

Description:
The global material flows database is based on country material flow accounts from the European Union and Japan and estimated data for the rest of the world. Estimated data is produced on the bases of data available from different national or international datasets in the domain of agriculture, forestry, fisheries, mining and energy statistics. International statistical sources for DMC and MF include the IEA, USGS, FAO and COMTRADE databases.

Collection process:
The IRP Global Material Flows and Resource Productivity working group compiles the data from countries and from other sources.

Data Availability

Description:
The data covers more than 170 countries.
Time series:
The data set covers each nation individually, over a time period of 40 years (1970-2010).

Calendar

Data collection:
Under discussion

Data release:

Data providers

National Statistical Offices

Data compilers

UNEP, OECD and EUROSTAT

References

URL:

References:

Related indicators

Target 12.2
Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Target 8.4: Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead
Indicator 8.4.2: Domestic material consumption (DMC) and DMC per capita, per GDP

Institutional information

Organization(s):
United Nations Environment Programme (UNEP)

Concepts and definitions

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

Rationale:
DMC reports the amount of materials that are used in a national economy. DMC is a territorial (production side) indicator. DMC also 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. DMC describes the physical dimension of economic processes and interactions. It can also be interpreted as long-term waste equivalent. Per-capita DMC describes the average level of material use in an economy – an environmental pressure indicator – and is also referred to as metabolic profile.

Concepts:
Domestic Material Consumption (DMC) and MF need to be looked at in combination as they cover the two aspects of the economy, production and consumption. The DMC reports the actual amount of material in an economy, MF the virtual amount required across the whole supply chain to service final demand. A country can, for instance have a very high DMC because it has a large primary production sector for export or a very low DMC because it has outsourced most of the material intensive industrial process to other countries. The material footprint corrects for both phenomena.

Comments and limitations:
DMC cannot be disaggregated to economic sectors which limits its potential to become a satellite account to the System of National Accounts (SNA).

Methodology

Computation Method:
It is calculated as direct imports (IM) of material plus domestic extraction (DE) of materials minus direct exports (EX) of materials measured in metric tonnes. DMC measure the amount of materials that are used in economic processes. It does not include materials that are mobilized the process of domestic extraction but do not enter the economic process. DMC is based on official economic statistics and it requires some modelling to adapt the source data to the methodological requirements of the MFA. The accounting standard and accounting methods are set out in the EUROSTAT guidebooks for MFA accounts in the latest edition of 2013. MFA accounting is also part of the central framework of the System of integrated Environmental-Economic Accounts (SEEA).

**Disaggregation:**
The DMC indicator can be disaggregated into imports, domestic extraction and exports by a large number of material follow categories. At the highest level of aggregation biomass, fossil fuels, metal ores and non-metallic minerals are distinguished. DMC is usually reported for 11 material categories, DE for 44 material categories.

**Treatment of missing values:**

- **At country level**
  A zero is imputed when no positive real value was officially recorded, in the base data sets used, for any of the underlying components which make up this aggregated total. Thus “0.0” can represent either NA, or a genuine 0.0, or (crucially) a combination of both, which is a common situation. This allows for values to be easily aggregated into further aggregations; however, it should be thus noted that due to imputing missing values as ‘0.0’, the aggregations may represent a lower value than actual situation.

- **At regional and global levels**
  Similarly, missing values are imputed as zero in the regional and global aggregations. However, in the case where no data is available at all for a particular country then the per capita and per GDP estimates are weighted averages of the available data.

**Regional aggregates:**
See: http://uneplive.unep.org/media/docs/graphs/aggregation_methods.pdf

**Sources of discrepancies:**

**Data Sources**

**Description:**
The global material flows database is based on country material flow accounts from the European Union and Japan and estimated data for the rest of the world. Estimated data is produced on the bases of data available from different national or international datasets in the domain of agriculture, forestry, fisheries, mining and energy statistics. International statistical sources for DMC and MF include the IEA, USGS, FAO and COMTRADE databases.

**Collection process:**
The IRP Global Material Flows and Resource Productivity working group compiles the data from countries and from other sources.
Data Availability

Description:
The data covers more than 170 countries.

Time series:
The data set covers each nation individually, over a time period of 40 years (1970-2010).

Calendar

Data collection:
Under discussion

Data release:

Data providers

National Statistical Offices

Data compilers

UNEP, OECD and EUROSTAT

References

URL:

References:

Related indicators

Target 12.2
**Goal 8:** Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

**Target 8.5:** By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value

**Indicator 8.5.1:** Average hourly earnings of female and male employees, by occupation, age and persons with disabilities

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**Institutional information**

**Organization(s):**
International Labour Organisation (ILO)

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**Concepts and definitions**

**Definition:**
This indicator provides information on the mean hourly earnings from paid employment of employees by sex, occupation, age and disability status.

**Rationale:**
Earnings are a key aspect of quality of employment and living conditions. Information on hourly earnings disaggregated by various classifications (sex, age, occupation, disability status) provides some indication of the extent to which pay equality is respected or achieved.

**Concepts:**
Earnings refer to the gross remuneration in cash or in kind paid to employees, as a rule at regular intervals, for time worked or work done together with remuneration for time not worked, such as annual vacation, other type of paid leave or holidays. Earnings exclude employers’ contributions in respect of their employees paid to social security and pension schemes and also the benefits received by employees under these schemes. Earnings also exclude severance and termination pay.

For international comparability purposes, statistics of earnings used relate to employees’ gross remuneration, i.e. the total before any deductions are made by the employer in respect of taxes, contributions of employees to social security and pension schemes, life insurance premiums, union dues and other obligations of employees.

As stated in the indicator title, data on earnings should be presented on the basis of the arithmetic average of the hourly earnings of all employees.

**Comments and limitations:**
The variety of possible sources for statistics on earnings greatly hinders international comparability, as each type of source has its own coverage, scope and characteristics. It would not be fully accurate to compare, for example, hourly earnings from a labour force survey for one country with hourly earnings from an establishment survey for another.

The use of non-standard definitions and the heterogeneity of operational criteria applied further hamper cross-country comparisons.
Methodology

Computation Method:
Statistics on average hourly earnings by sex can be used to calculate the gender pay gap, as follows: 
Gender pay gap = ([Average hourly earnings]_Men - [Average hourly earnings]_Women) / [Average hourly earnings]_Men $\times$ 100

Disaggregation:
This indicator should be disaggregated by sex, occupation, age and disability status.

Treatment of missing values:
NA

Regional aggregates:
NA

Sources of discrepancies:
NA

Methods and guidance available to countries for the compilation of the data at the national level:

Quality assurance
NA

Data Sources

Description:
There are a variety of possible sources of data on employees' earnings. Establishment surveys are usually the most reliable source, given the high accuracy of earnings figures derived from them (the information typically comes from the payroll, so is precise). However, the scope
of this statistics is limited to the coverage of the establishment survey in question (usually excluding small
establishments, agricultural establishments and/or informal sector establishments).
Household surveys (and especially labour force surveys) can provide earnings statistics covering all
economic activities, and all establishment types and sizes, but the quality of the data is highly dependent
on the accuracy of respondents’ answers.
Data on earnings could also be derived from a variety of administrative records.

Data Availability

NA

Calendar

NA

Data providers

At the national level, the agency responsible for producing data on earnings is usually the national
statistical office.

Data compilers

International Labour Organisation (ILO)

References

Resolution concerning the measurement of employment-related income, adopted by the Sixteenth
International Conference of Labour Statisticians (January 1998), available at
Resolution concerning the International Classification of Status in Employment (ICSE), adopted by the
Fifteenth International Conference of Labour Statisticians (January 1993), available at
Resolution concerning an integrated system of wages statistics, adopted by the Twelfth International
databases/standards-and-guidelines/resolutions-adopted-by-international-conferences-of-labour-
statisticians/WCMS_087496/lang--en/index.htm
ILO manual: An integrated system of wages statistics, available at
http://www.ilo.org/wcmsp5/groups/public/---dgreports/---
stat/documents/presentation/wcms_315657.pdf
ILOSTAT’s indicator description on earnings and labour cost, at http://www.ilo.org/ilostat-
files/Documents/description_EAR_EN.pdf
International Standard Classification of Occupations (ISCO-08)
http://www.ilo.org/public/english/bureau/stat/isco/isco08/

Related indicators
1.1.1, 5.5.2, 8.2.1, 10.4.1
Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Target 8.5: By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value

Indicator 8.5.2: Unemployment rate, by sex, age and persons with disabilities

Institutional information

Organization(s):

International Labour Organization (ILO)

Concepts and definitions

Definition:

The unemployment rate conveys the percentage of persons in the labour force who are unemployed.

Rationale:

The unemployment rate is a useful measure of the underutilization of the labour supply. It reflects the inability of an economy to generate employment for those persons who want to work but are not doing so, even though they are available for employment and actively seeking work. It is thus seen as an indicator of the efficiency and effectiveness of an economy to absorb its labour force and of the performance of the labour market. Short-term time series of the unemployment rate can be used to signal changes in the business cycle; upward movements in the indicator often coincide with recessionary periods or in some cases with the beginning of an expansionary period as persons previously not in the labour market begin to test conditions through an active job search.

Concepts:

Persons in unemployment are defined as all those of working age (usually persons aged 15 and above) who were not in employment, carried out activities to seek employment during a specified recent period and were currently available to take up employment given a job opportunity, where: (a) “not in employment” is assessed with respect to the short reference period for the measurement of employment; (b) to “seek employment” refers to any activity when carried out, during a specified recent period comprising the last four weeks or one month, for the purpose of finding a job or setting up a business or agricultural
undertaking; (c) the point when the enterprise starts to exist should be used to distinguish between search activities aimed at setting up a business and the work activity itself, as evidenced by the enterprise’s registration to operate or by when financial resources become available, the necessary infrastructure or materials are in place or the first client or order is received, depending on the context; (d) “currently available” serves as a test of readiness to start a job in the present, assessed with respect to a short reference period comprising that used to measure employment (depending on national circumstances, the reference period may be extended to include a short subsequent period not exceeding two weeks in total, so as to ensure adequate coverage of unemployment situations among different population groups).

Persons in employment are defined as all those of working age (usually persons aged 15 and above) who, during a short reference period, were engaged in any activity to produce goods or provide services for pay or profit. They comprise: (a) employed persons “at work”, i.e. who worked in a job for at least one hour; (b) employed persons “not at work” due to temporary absence from a job, or to working-time arrangements (such as shift work, flexitime and compensatory leave for overtime)

The labour force corresponds to the sum of persons in employment and in unemployment.

Comments and limitations:

Even though in most developed countries the unemployment rate continues to prove its usefulness as an important indicator of labour market performance, and specifically, as a key measure of labour underutilisation, in many developing countries, however, the significance and meaning of the unemployment rate could be questioned. In the absence of unemployment insurance systems or social safety nets, persons of working age must avoid unemployment, resorting to engaging in some form of economic activity, however insignificant or inadequate. Thus, in this context, other measures should supplement the unemployment rate to comprehensively assess labour underutilization.

Methodology

Computation Method:

Unemployment rate = Unemployed persons / Persons in the labour force * 100

Disaggregation:

This indicator should, ideally, be disaggregated by sex, age group and disability status.
Treatment of missing values:

- At country level

- At regional and global levels
  NA

Regional aggregates:

To address the problem of missing data, the former ILO Employment Trends Team designed several econometric models which are actively maintained and used to produce estimates of labour market indicators in the countries and years for which real data are not available. The Global Employment Trends Model (GET Model) is used to produce estimates, in particular, on unemployment (among others). It uses multivariate regression techniques to impute missing values at the country level. The first step is to assemble every known piece of real information (i.e. every real data point), and keep only data that are national in coverage and comparable across countries and over time. This is an important selection criterion when GET Models are run, because they are designed to use the relationship between the various labour market indicators and their macroeconomic correlates – such as per capita GDP, GDP growth rates, demographic trends, country membership in the Heavily Indebted Poor Countries initiative (HIPC), geographical indicators, and country and time dummy variables – in order to produce estimates of the labour market indicators where no data exist. Thus, the comparability of the labour market data that are used as inputs in the imputation models is essential to ensure that the models accurately capture the relationship between the labour market indicators and the macroeconomic variables. The last step of the estimation procedure occurs once the datasets containing both real and imputed labour market data have been assembled. In this step, the data are aggregated across countries to produce the final world and regional estimates. For further information on the GET Models, please refer to the technical background papers available at the following website: http://www.ilo.org/empelm/projects/WCMS_114246/lang--en/index.htm.

Methods and guidance available to countries for the compilation of the data at the national level:

In order to calculate this indicator (according to the ILO definitions of unemployment and unemployment rate), data is needed on both the labour force and the unemployed, by sex and age (and eventually disability status). This data is collected at the national level mainly through labour force surveys (or other types of household surveys with an employment module). For the methodology of each national household survey,
one must refer to the most comprehensive survey report or to the methodological publications of the national statistical office in question.


**Quality assurance:**

Data consistency and quality checks regularly conducted for validation of the data before dissemination in the ILOSTAT database.

In many cases, data reported to the ILO Department of Statistics through its annual questionnaire on labour statistics, by national statistical offices or other relevant national agencies. Data also received in other cases through agreements between the ILO Department of Statistics and regional or national statistical agencies.

**Data Sources**

The preferred official national data source for this indicator is a household-based labour force survey. The population census and/or other household surveys with an appropriate employment module may also be used to obtain the required data. Unemployment registers can serve as instruments to collect data on unemployment levels, and used to supplement the information obtained in household surveys.

**Data Availability**

The indicator is widely available both from actual data provided by countries and also by estimates carried out by the ILO yearly. However, the disaggregation by disability is not widely available. It is increasingly reported but coverage is still very low.

**Calendar**

NA

**Data providers**

Mainly National Statistical Offices, and in some cases Labour Ministries or other related agencies.
Data compilers

ILO

References

URL:

www.ilo.org/ilostat

References:


Key Indicators of the Labour Market, 9th edition, Tables KILM 9 and R5: www.ilo.org/ilostat/kilm
Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Target 8.7: Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms
Indicator 8.7.1: Proportion and number of children aged 5-17 years engaged in child labour, by sex and age

Institutional information

Organization(s):
United Nations Children's Fund (UNICEF)
International Labour Organization (ILO)

Concepts and definitions

Definition:
The number of children engaged in child labour corresponds to the number of children reported to be in child labour during the reference period (usually the week prior to the survey). The proportion of children in child labour is calculated as the number of children in child labour divided by the total number of children in the population. For the purposes of this indicator, children include all persons aged 5 to 17. This indicator is disaggregated by sex and age group (age bands 5-14 and 15-17)

Rationale:
Far too many children in the world remain trapped in child labour, compromising their individual future. According to the latest ILO global estimates, about 168 million children worldwide are child labourers, accounting for almost 11 percent of the child population. These stark figures underscore the need for accelerated progress against child labour in the lead up to the 2025 target date, and the accompanying need for child labour statistics to monitor and guide efforts in this regard. Reliable, comprehensive and timely data on the nature and extent of child labour provide a basis for determining priorities for national global action against child labour. Statistical information on child labour, and more broadly on all working children, also provide a basis for increasing public awareness of the situation of working children and for the development of appropriate regulatory frameworks and policies.

Concepts:

The term child labour refers to the subset of children’s activities that is injurious, negative or undesirable to children and that should be targeted for elimination. Child labour is a legal concept rather than a statistical one, and the international legal standards that define it are therefore the necessary frame of reference for child labour statistics. The three principal international conventions on child labour – ILO Convention No. 138 (Minimum Age) (C138), ILO Convention No. 182 (Worst Forms) (C182), and the United Nations Convention on the Rights of the Child (CRC), together set the legal boundaries for child labour, and provide the legal basis for national and international actions against it.
In December 2008, the International Conference of Labour Statisticians (ICLS) adopted the Resolution concerning statistics of child labour. This Resolution helps in translating the legal standards governing child labour into statistical terms. In particular, the Resolution is designed to set standards for the collection, compilation and analysis of national child labour statistics, and to guide countries in updating their existing statistical system in this field.

In accordance with the Resolution, and on the basis of the production boundary set by the United Nations System of National Accounts (SNA), child labour is defined for measurement purposes to include all persons aged 5 to 17 years who are engaged in one or more of the following activities during a specified time period:

- hazardous work (18th ICLS, paragraphs 21 to 32);
- worst forms of child labour other than hazardous work (18th ICLS, paragraphs 33 to 34); and
- employment below the minimum working age, excluding, where applicable, “light work”, performed by children aged not less than 12 or 13 years (18th ICLS, paragraphs 35 to 37).

If, depending upon national policies and circumstances, the general production boundary rather than the SNA production boundary is used for measuring productive activities by children, child labour will include, in addition to these three categories, hazardous unpaid household services. For the sake of clarity, child labour estimated on this basis should be called “child labour (general production boundary basis)

The measurement methodology used by the ILO in its global estimates on child labour, building on the ICLS statistical definition, classifies child labour on the basis of the following criteria:

- Ages 5 to 11: at least 1 hour of economic activity per week;
- Ages 12 to 14: at least 14 hour of economic activity per week in all forms of economic activity except permissible “light” work, where light work is operationally defined as economic activity that (i) does not exceed 14 hours per week and that (ii) is not hazardous in nature; and
- Ages 15 to 17: work in designated hazardous industries, or in designated hazardous occupations, or for long hours. Long hours are defined as 43 or more hours during the reference week.

Comments and limitations:
Child labour estimates based on the statistical standards set out in the ICLS resolution represent useful benchmarks for international comparative purposes but are not necessarily consistent with estimates based on national child labour legislation. ILO Convention No. 138 contains a number of flexibility clauses left to the discretion of the competent national authority in consultation (where relevant) with workers’ and employers’ organizations (e.g., minimum ages, scope of application). This means that there is no single legal definition of child labour across countries, and thus, no single statistical measure of child labour consistent with national legislation across countries.

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2 Principal areas of flexibility in the Convention include: (a) minimum ages: Members whose economy and educational facilities are insufficiently developed may specify a lower general minimum age of 14 years (Art. 2.4) and a lower age range for light work of 12 to 14 years (Art. 7.4); and (b) scope of application: Members may exclude from the application of the Convention limited (non-hazardous) categories of employment or work in respect of which special and substantial problems of application arise (Art. 4.1). Members whose economy and administrative facilities are insufficiently developed may also initially limit the scope of application of the Convention (Art. 5.1) beyond a core group of economic activities or undertakings (Art. 5.3).
Methodology

Computation Method:

Children aged 5-17: Number of children aged 5-17 reported in child labour during the week prior to the survey divided by the total number of children aged 5-17 in the population, multiplied by 100.

Children aged 5-14: Number of children aged 5-14 reported in child labour during the week prior to the survey divided by the total number of children aged 5-14 in the population, multiplied by 100.

Children aged 15-17: Number of children aged 15-17 reported child labour during the week prior to the survey divided by the total number of children aged 15-17 in the population, multiplied by 100.

Disaggregation:

Sex and age.

Data Sources

Description:

Household surveys such as National Labour Force Surveys, National Multipurpose Household Surveys, UNICEF-supported Multiple Indicator Cluster Surveys (MICS), Demographic and Health Surveys (DHS), ILO-supported Statistical Information and Monitoring Programme on Child Labour (SIMPOC), and World bank Living Standard Measurement surveys (LSMS) are among the most important instruments for generating information on child labour in developing countries. Estimates of child labour incidence generated by these survey instruments are increasingly relied on by countries to monitor progress towards national and global child labour elimination targets. Many countries also produce national labour estimates and reports that often include data on child labour and/or employment among children.

Data Availability

Nationally representative and comparable data are currently available for 102 low-and middle-income countries.

Calendar

NA

Data providers

National Statistical Offices (for the most part) and line ministries/other government agencies and International agencies that have conducted labour force surveys or other household surveys through which data on child labour were collected.
Data compilers

UNICEF and ILO

References

URL:
data.unicef.org


www.ucw-project.org

References:


www.ucw-project.org
Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Target 8.8: Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment
Indicator 8.8.1: Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status

Institutional information

Organization(s):

International Labour Organization (ILO)

Concepts and definitions

Definition:

The frequency rates of fatal and non-fatal occupational injuries provide information on the number of cases of fatal and non-fatal occupational injury per hours worked by the concerned population during the reference period. It is a measure of the risk of having a fatal or a non-fatal occupational injury based on the duration of exposure to adverse work-related factors.

Rationale:

This indicator provides valuable information that could be used to formulate policies and programmes for the prevention of occupational injuries, diseases and deaths. It could also be used to monitor the implementation of these programmes and to signal particular areas of increasing risk such as a particular occupation, industry or location. Although the principal objective of this indicator is to provide information for prevention purposes, it may be used for a number of other purposes, such as to identify the occupations and economic activities with the highest risk of occupational injuries; to detect changes in the pattern and occurrence of occupational injuries, so as to monitor improvements in safety and reveal any new areas of risk; to inform employers, employers’ organizations, workers and workers’ organizations of the risks associated with their work and workplaces, so that they can take an active part in their own safety; to evaluate the effectiveness of preventive measures; to estimate the consequences of occupational injuries, particularly in terms of days lost or costs; and to provide a basis for policy-making aimed at encouraging employers, employers’ organizations, workers and workers’ organizations to introduce accident prevention measures.

Concepts:

Occupational accident: an unexpected and unplanned occurrence, including acts of violence, arising out of or in connection with work which results in one or more workers incurring a personal injury, disease or death. Occupational accidents are to be considered travel, transport or road traffic accidents in which workers are injured and which arise out of or in the course of work; that is, while engaged in an economic activity, or at work, or carrying out the business of the employer.

Occupational injury: any personal injury, disease or death resulting from an occupational accident. An occupational injury is different from an occupational disease, which comes as a result of an exposure over a period of time to risk factors linked to the work activity. Diseases are included only in cases where the disease arose as a direct result of an accident.

Workers in the reference group: workers in the reference group refer to the average number of workers in the particular group under consideration and who are covered by the source of the statistics on occupational injuries (for example, those of a specific sex or in a specific economic activity, occupation, region, age group, or any combination of these, or those covered by a particular insurance scheme, accident notification systems, or household or establishment survey).

Fatal occupational injury: an occupational injury leading to death within one year of the day of the occupational accident.

Case of fatal occupational injury: the case of a worker fatally injured as a result of one occupational accident, and where death occurred within one year of the day of the accident.

Comments and limitations:

There may be problems of under reporting of occupational injuries, and proper systems should be put in place to ensure the best reporting and data quality. Under reporting is thought to be present in countries at all levels of development, but may be particularly problematic in some developing countries. Data users should be aware of this issue when analyzing the data.

Double-counting of cases of occupational injury may also happen in cases where data from several registries (records kept by different agencies, for example) are consolidated to have more comprehensive statistics.

Because data quality issues may be present, it may be more relevant to analyze indicator trends rather than levels. When measured over a period of time, the data can reveal progress or deterioration in occupational safety and health, and thus point to the effectiveness of prevention measures. This indicator is volatile and strong annual fluctuations may occur due to unexpected but significant accidents or national calamities. The underlying trend should therefore be analysed.

Methodology

Computation Method:
The frequency rates of fatal and non-fatal occupational injuries will be calculated separately, since statistics on fatal injuries tend to come from a different source than those on non-fatal injuries, which would make their sum into total occupational accidents inaccurate.

The fatal occupational injury frequency rate is calculated as the number of new cases of fatal injury during the reference year divided by the total number of hours worked by workers in the reference group during the reference year, multiplied by 1 000 000.

Similarly, the non-fatal occupational injury frequency rate is calculated as the number of new cases of non-fatal injury during the reference year divided by the total number of hours worked by workers in the reference group during the reference year, multiplied by 1 000 000.

Ideally, the denominator should be the number of hours actually worked by workers in the reference group. When this is not possible, the denominator can be calculated on the basis of normal hours of work taking into account entitlements to periods of paid absence from work, such as paid vacations, paid sick leave and public holidays.

If the data needed to calculate frequency rates is not available, incidence rates may be calculated instead. The fatal occupational injury incidence rate is calculated as the number of new cases of fatal injury during the reference year divided by the average number of workers in the reference group during the reference year, multiplied by 100 000.

Similarly, the non-fatal occupational injury incidence rate is calculated as the number of new cases of non-fatal injury during the reference year divided by the average number of workers in the reference group during the reference year, multiplied by 100 000.

In calculating the average number of workers, the number of part-time workers should be converted to full-time equivalents. For the calculation of rates, the numerator and the denominator should have the same coverage. For example, if self-employed persons are not covered by the source of statistics on fatal occupational injuries, they should also be taken out of the denominator.

Disaggregation:
This indicator should be disaggregated by both sex and migrant status.
Wherever possible, it would also be useful to have information disaggregated by economic activity and occupation.

Methods and guidance available to countries for the compilation of the data at the national level:

This indicator could come from a variety of sources at the national level, including various kinds of administrative records (insurance records, labour inspection records, etc.), household surveys and establishment surveys.

Global database on occupational safety and health legislation - LEGOSH

Occupational injuries statistics from household surveys and establishment surveys

Quality assurance

Data consistency and quality checks regularly conducted for validation of the data before dissemination in the ILOSTAT database.

Data reported to the ILO Department of Statistics through its annual questionnaire on labour statistics, by national statistical offices, labour ministries or other relevant national agencies.

Data Sources

The recommended data sources are different types of administrative records, such as records of national systems for the notification of occupational injuries (labour inspection records and annual reports; insurance and compensation records, death registers), supplemented by household surveys (especially in order to cover informal sector enterprises and the self-employed) and/or establishment surveys.

The metadata should clearly specify (i) whether the statistics relate to cases of occupational injury which have been reported (to an accident notification system or to an accident compensation scheme), compensated (by an accident insurance scheme) or identified in some other way (for example through a survey of households or establishments) and (ii) whether cases of occupational disease and cases of injury due to commuting accidents are excluded from the statistics, as recommended.

Data Availability

The ILO has data on either frequency or incidence rates of fatal occupational injuries for 117 countries; and on either frequency or injury rates of non-fatal occupational injuries for 89 countries.

Calendar

Data collection:

The ILO Department of Statistics sends out its annual questionnaire of labour statistics on the second quarter of every year, requesting for data referring to the previous calendar year, with a view to receiving, processing and disseminating the corresponding statistics as soon as possible. Statistics on occupational injuries are compiled through these means.

Data release:

The ILO Department of Statistics’ online database ILOSTAT is continuously updated to include newly received and processed statistics. In general, statistics on occupational injuries are available in ILOSTAT
for most countries by the 3rd or at most 4th quarter of the year following the year of reference of the statistics.

**Data providers**

Labour Ministries, Labour Inspection, National Insurances, and/or National Statistical Offices.

**Data compilers**

ILO

**References**

**URL:**

www.ilo.org/ilostat

**References:**

ILOSTAT:  
www.ilo.org/ilostat

Decent Work Indicators Manual:  

Resolution concerning statistics of occupational injuries (resulting from occupational accidents) adopted by the 16th ICLS in 1998:  
Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Target 8.8: Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment

Indicator 8.8.2: Level of national compliance of labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status

Institutional information

Organization(s):

International Labour Organization (ILO)

Concepts and definitions

Definition:

The indicator is defined according to ILO Conventions 87 on Freedom of Association and Protection of the Right to Organize and 98 on Right to Organize and Collective Bargaining and related ILO jurisprudence. This indicator is based on coding the findings of selected sources and compiling this information in a readily accessible and concise manner. It builds on five basic elements: the premises of definitional validity, reproducibility and transparency; the 108 evaluation criteria used to code violations in law and practice (each with their own specific detailed definitions); the textual sources selected for coding; the general and source-specific coding rules; and the rules to convert the coded information into normalized indicators.

Rationale:

This indicator represents a tool to monitor compliance of labour rights. Its goal is to provide reliable and concise data on the status of freedom of association and collective bargaining rights in law and practice in the world today.

Concepts:

Freedom of association represents the right of workers and employers to form and join organizations of their own choosing, an integral part of a free and open society. In many cases, these organizations have played a significant role in their countries’ democratic transformation. Collective bargaining refers to all negotiations which take place between an employer, a group of employers or one or more employers’ organisations, on the one hand, and one or more workers’ organisations, on the other, for: (a) determining working conditions and terms of employment; and/or (b) regulating relations between
employers and workers; and/or (c) regulating relations between employers or their organisations and a workers' organisation or workers' organisations.

Comments and limitations:

The coding is based on violations reliably reported on trustworthy textual sources, which means that the indicator does not take into account all other violations. This indicator should always be analysed along with information on the national context and the national legal framework, since it is highly dependent on these. Now, the coding has been done along a period which goes beyond the year and therefore more efforts to code and make the information available from ILO sources should be carried out.

Methodology

Computation Method:

Scores are assigned based on coding of freedom of association and collective bargaining rights violations in ILO textual sources according to the 108 evaluation criteria. Weights for these evaluation criteria are assigned based on the use of the Delphi survey method of expert consultation. Indicator are normalized to range zero to 10 (best to worst possible score) with breakdowns for overall freedom of association and collective bargaining rights as well as these rights in law and in practice. The database for the indicators is constructed such that coding of any given violations can be quickly traced back to the full text on which the coding is based, for each of the individual textual sources. The rules used for coding and the underlying methodology can be found at http://labour-rights-indicators.la.psu.edu/about. A Methodological paper is currently available in the IAEG-SDG metadata already submitted.

Disaggregation:

This indicator should be disaggregated by both sex and migrant status. However, now the coding is not complying with this but with further work it will be possible to have information on foreign migrant workers and on sex.

Treatment of missing values:

• At country level

Alternative sources are compiled by Penn University in cases of missing data from ILO sources. However, for comparison reasons, it would be more accurate to code as many countries as possible from ILO sources on a more timely way in order to avoid using proxies at the national level which could lead to conflict.
• At regional and global levels

NA

Regional aggregates:

NA

Sources of discrepancies:

NA

Data Sources

Description:

The computation of this indicator is done jointly by the ILO and the Penn University. It is based on textual ILO sources containing reliable information on violations of freedom of association and collective bargaining. The main textual sources used are reports of the ILO Committee of Experts on the Application of Conventions and Recommendations, reports of the ILO Conference Committee on the Application of Standards, country baselines under the ILO Declaration Annual Review, representations under Article 24 of the ILO Constitution, complaints under Article 26 of the ILO Constitution, reports of the Committee on Freedom of Association, as well as national legislation. These sources are all ILO sources coming from the ILO supervisory mechanisms and their databases. The coding is being done by a joint group of the ILO and Penn University. The indicator currently compiled by Penn University include additional sources which will not be used for the SDG indicator. However, in the database it is now already possible only to use ILO sources.

Data Availability

Description:

Reliable data are currently available on the web for 182 countries. Data is also available for 9 other countries but with a warning regarding the considerable information bias underlying their scores.

Time series:

From 2005 to 2012 and 2015 will be soon available (From 2005 to 2015)
Calendar

Data collection:

This indicator has been computed for 2000, 2005, 2009, 2012. It is planned to be computed annually as from its final adoption as an SDG indicator. Currently, the computation for 2015 is being undertaken. Data for 2000 and 2009 will be public in 2017. There is a need to schedule an annual regular reporting. (From NA to NA)

Data release:

NA

Data providers

ILO will provide the data working jointly with Penn University.

Data compilers

ILO will compile the data working jointly with Penn University.

References

URL:
http://labour-rights-indicators.la.psu.edu/
(Please note that this website is only transitional and may soon change.)

References:

ILO Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87):

ILO C098 - Right to Organise and Collective Bargaining Convention, 1949 (No. 98):

Decent Work Indicators Manual:

Kucera and Sari, New “Labour Rights Indicators”: Method and Results:

Kucera and Sari, New “Labour Rights Indicators”: Coding Rules and Definitions:
http://labour-rights-indicators.la.psu.edu/docs/Coding%20Rules.pdf

Related indicators

NA
Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

Target 8.10: Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all.

**Indicator 8.10.1:** (a) Number of commercial bank branches per 100,000 adults (b) number of automated teller machines (ATMs) per 100,000 adults

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### Institutional information

**Organization(s):**
International Monetary Fund (STAFI - Financial Access Survey Team)

### Concepts and definitions

**Definition:**
The number of commercial bank branches per 100,000 adults

The number of automated teller machines (ATMs) per 100,000 adults

**Rationale:**
Access to and use of formal financial services is essential. Services such as savings, insurance, payments, credit and remittances allow people to manage their lives, plan and pay expenses, grow their businesses and improve their overall welfare. As banks remain one of the key institutions for access to formal financial services, having an accessible bank branch is an important initial point of access to financial services and therefore use of them. Bank branches are complemented by other important points of access such as automated teller machines of all formal financial institutions, which can extend financial services to remote locations.

**Concepts:**
The number of commercial bank branches per 100,000 adults refers to the number of commercial banks branches per year reported by the Central Bank or the main financial regulator of the country. To make it comparable, this number is presented as a reference per 100,000 adults in the respective country.

The number of automated teller machines (ATMs) per 100,000 adults, refers to the number of ATMs in the country for all types of institutions such as: commercial banks, non-deposit taking microfinance institutions, deposit taking micro finance institutions, credit union and financial cooperatives, among other. This information is reported every year by the Central Bank or the main financial regulator of the country. To make it comparable, this number is presented as a reference per 100,000 adults in the respective country.

**Comments and limitations:**
Since 2009, the Financial Access Survey (FAS) collects information from administrative sources on an annual basis. The Central Bank or the main financial regulator reports yearly information including the
two indicators that are part of the SDGs. Since its launch, 189 economies have contributed to the FAS, which now contains more than 150 series on financial inclusion covering periods 2004-2016.

Methodology

Computation Method:
The indicators are calculated based on data collected directly from the Central Bank or the main financial regulator in the country. The formula to obtain those indicators are:

\[
\text{The number of commercial bank branches per 100,000 adults}_{it} = \frac{\text{Number of commercial bank branches}_{it}}{\text{Adult population}_{it}} \times 100,000
\]

\[
\text{The number of automated teller machines (ATMs) per 100,000 adults}_{it} = \frac{\text{Number of automated teller machines (ATMs)}_{it}}{\text{Adult population}_{it}} \times 100,000
\]

Where “i” indicates the country and “t” indicates the year. Information for the number of commercial bank branches and the number of ATMs comes from the FAS, while information for the adult population comes from the World Development Indicators.

Disaggregation:
Data are provided at country level, by year. Aggregates are compiled by region and by type of economy: developing, emerging and advanced.

Treatment of missing values:

- **At country level**
  Missing values are registered as empty, n/a are used when the country indicates that those services or institutions do not exist in the country, or alternatively, do not fall under the supervisory scope of a regulatory agency.

- **At regional and global levels**
  Missing values are registered as empty, n/a are used when the country indicates that those services or institutions do not exist in the country, or alternatively, do not fall under the supervisory scope of a regulatory agency.

Regional aggregates:
Country level: information provided by the authorities and recalculated to be shown as an indicator. For regional values, the FAS calculates aggregates considering information of all countries and using country population as weights. Same methodology applies for other aggregations such as type of economies.

Sources of discrepancies:
The FAS is an administrative source survey, with information from Central Banks or another main regulatory financial services authority. The data collection is centralized at the regulatory agency, which
sources data from financial institutions and financial services providers for which data are available. The regulatory agency reports aggregates for the total economy in the FAS survey. The FAS survey provides country-level metadata that explains the institutional coverage of each reporting economy. Data from the FAS survey may differ from household-based survey as a result of possible difference in coverage, scope, or concept definitions.

Methods and guidance available to countries for the compilation of the data at the national level:

- Information collected by the FAS relies on the “FAS Definitions and Instructions”, which is published every year in English, Spanish and French. To foster the use of a common methodology, the definitions of financial institutional units and instruments covered in the FAS are primarily based on the IMF’s Monetary and Financial Statistics Manual and Compilation Guide (http://data.imf.org/MFS). The FAS also publishes a Glossary for FAS indicators.

- All these documents can be found in FAS website - documents.

Quality assurance

- FAS data are collected through the Integrated Collection System (ICS) which allows for a secure submission of country information. Data submitted by countries are received internally in a system that facilitates the validation process conducted by the FAS team.

- Each submission is carefully reviewed, and when necessary, the FAS team engages with the country authorities for clarifications or adjustments to the data provided. In case a country needs to add additional relevant information pertinent to the data reported, they can do so through the metadata portal in ICS.

Data Sources

Description:
The indicators in the Financial Access Survey (FAS) database are collected on an annual basis since 2009, covering periods 2004-2016. Information is collected from Central Banks or another main financial services regulator for 189 countries.

All data and metadata are available free of charge to the public on the IMF’s FAS website, jointly with other key documents.

Collection process:
Every year, the FAS Team reaches out to FAS respondents to initiate the annual survey process. Data are compiled by countries and sent to the IMF through the Integrated Collection System (ICS) which allows for a secure submission of country information. Data are processed and validated by the FAS team.

Each submission is carefully reviewed, and when necessary, the FAS team engages with the country authorities for clarifications or adjustments to the data provided. In case a country needs to add additional relevant information pertinent to the data reported, they can do so through the metadata portal in ICS.

In the 2017 round, submissions are being disseminated on the FAS website (data.imf.org/fas) on a rolling basis as soon as they are reviewed and validated by the FAS team.
Data Availability

Description:
Covering 189 economies, the FAS provides a unique set of high-quality global supply side data. It contains 152 times series and 47 indicators that are expressed as ratios to GDP, land area, or adult population to facilitate cross-country comparisons.

Time series:
2004-2016; collected on an annual basis.

Calendar

Data collection:
The 2017 data collection round is currently underway; collection occurs on an annual basis.

Data release:
Traditionally, FAS data are publicly disseminated in end-September each year. In 2017, the FAS is disseminating information on a rolling basis as soon as submissions are reviewed and validated by the FAS team. Submissions that have completed the validation process are available in the FAS website on the coming Monday after completion.

Data providers

Country authorities for the financial services, mainly Central Banks, financial system regulators or statistics national authorities.

Data compilers

International Monetary Fund.

References

URL:
http://data.imf.org/fas

References:
FAS website:
http://data.imf.org/fas
Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Target 8.10: Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all
Indicator 8.10.2: Proportion of adults (15 years and older) with an account at a bank or other financial institution or with a mobile-money-service provider

Institutional information

Organization(s):
World Bank (WB)

Concepts and definitions

Definition:
The percentage of adults (ages 15+) who report having an account (by themselves or together with someone else) at a bank or another type of financial institution or personally using a mobile money service in the past 12 months.

Rationale:
Access to formal financial services such as savings, insurance, payments, credit and remittances is essential to the ability of people—regardless of income level, gender, age, education or where they live—to manage their lives, build their futures, and grow their businesses. Having access to an account is an important starting point for people to access a range of financial services.

Concepts:
Account at a financial institution includes respondents who report having an account at a bank or at another type of financial institution, such as a credit union, microfinance institution, cooperative, or the post office (if applicable), or having a debit card in their own name. In addition, it includes respondents who report receiving wages, government transfers, or payments for agricultural products into an account at a financial institution in the past 12 months; paying utility bills or school fees from an account at a financial institution in the past 12 months; or receiving wages or government transfers into a card in the past 12 months. Mobile money account includes respondents who report personally using GSM Association (GSMA) Mobile Money for the Unbanked (MMU) services in the past 12 months to pay bills or to send or receive money. In addition, it includes respondents who report receiving wages, government transfers, or payments for agricultural products through a mobile phone in the past 12 months.

Comments and limitations:
World Bank’s Global Findex database is based on individual level surveys worldwide, conducted every three years. The first round of the survey was done in 2011, and the second in 2014. The third round will be done in 2017. The database covers about 140 countries.
Methodology

Computation Method:

The indicator is based on data collected through individual level surveys in each country with representative samples. Appropriate sampling weights are used in calculating country-level aggregates.

Disaggregation:

Disaggregation by Income; Age; Education level; Urban/rural; Gender

Treatment of missing values:

- At country level
  n/a
- At regional and global levels
  n/a

Regional aggregates:

Country level; the percentage of adults owning accounts is multiplied by the number of adults in the country. Then for regional values, sum across all countries in the region is taken and divided by the total adults living in the region. Similarly, for global figures, the same calculation is repeated for all countries.

Sources of discrepancies:

Global Findex is an individual level survey, measuring individual's ownership of accounts. As financial inclusion is an individual-level concept, this is the appropriate measure. Other surveys that are done at household level may measure the access to finance through another member of the household which may overestimate financial inclusion.

Data Sources

Description:

The indicators in the 2014 Global Financial Inclusion (Global Findex) database are drawn from survey data covering almost 150,000 people in more than 140 economies—representing more than 97 percent of the world’s population. The survey was carried out over the 2014 calendar year by Gallup, Inc. as part of its Gallup World Poll, which since 2005 has continually conducted surveys of approximately 1,000 people in each of more than 160 economies and in over 140 languages, using randomly selected, nationally representative samples. The target population is the entire civilian, noninstitutionalized population age 15 and above.

Methodology, including interview procedures, data preparation, margin of error and notes by country are all available at http://www.worldbank.org/content/dam/Worldbank/Research/GlobalFindex/PDF/Methodology.pdf
Collection process:

Data are comparable across countries by design.

Data Availability

Description:

Countries that have at least 1 data point after 2010 for this indicator:

Asia and Pacific: 35
Africa: 38
Latin America and the Caribbean: 21
Europe, North America, Australia, New Zealand and Japan: 47

Time series:

2011 and 2014. To be collected every 3 years.

Calendar

Data collection:

Next collection round: 2017. Data are collected every three years.

Data release:

2017

Data providers

n/a

Data compilers

World Bank

References

URL:

www.worldbank.org
References:

http://www.worldbank.org/globalfindex

Related indicators

1.4, 5.a, 2.3