WOMEN COUNT

Minimum Set of Gender Indicators for Africa

Metadata

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United Nations
Economic Commission for Africa

UN WOMEN

MINIMUM SET OF GENDER INDICATORS FOR AFRICA

Metadata

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ACRONYMS

AGDI	Africa Gender and Development Index
AGI	Africa Gender Index
Ag2063	African Union Agenda 2063
AGS	Africa Gender Scorecard
EGM	Expert Group Meeting
GMSGI	Global Minimum Set of Gender Indicators
OECD	Organisation for Economic Co-operation and Development
SDG2030	Sustainable Development Agenda 2030
UNEP	United Nations Environment Programme
UNICEF	United Nations Children's Fund

INTRODUCTION AND OVERVIEW

1. The Beijing Platform for Action (BPFA), as adopted in 1995, gives very clear guidelines on and emphasizes the importance of the statistical measurement of gender related activities, as well as the need to build policies and strategies based on statistical evidence.
2. The Inter-agency and Expert Group on Gender Statistics (IAEG-GS) was established by the United Nations (2006). A subgroup of the IAEG-GS developed a Global Minimum Set of Gender Indicators, which was adopted by the United Nations Statistical Commission in its 44th Session in 2013 (E/CN.3/2013/33). These were subsequently revised in 2017 and 2019 to reflect its linkages and updates made necessary because of ongoing work on the Sustainable Development Agenda 2030 indicator framework.
3. The Minimum Set of Gender Indicators for Africa (MSGIA) initiative is embedded in the Africa Programme of Gender Statistics (APGS), as well as the Strategy for the Harmonization of Statistics in Africa (SHaSA). The MSGIA provides guidance on the prioritization of indicators to be collected in Africa, acts as an important resource when member countries develop their own minimum sets of gender indicators as part of their gender statistics frameworks and plans, as well as facilitates the harmonization of current regional and sub-regional indicator initiatives. The MSGIA will furthermore guide priority setting by national, regional, and international entities in support of the sustainable production and use of gender statistics in the region. The initiative provides strategic direction and scope for the actors in the gender data ecosystem to strengthening institutions, improving coordination mechanisms, updating legislation, ensuring adequate budgetary allocations, advancing research and methodological development, and improving staff competencies and data sources.
4. The framework as reflected in the metadata is based on the work executed during Phase 4 of MSGIA initiative and approved by the Africa Statistical Commission during its 7th meeting held from 13-15 October 2020. The final MSGIA framework is available in English, French and Arabic.
5. The work was premised from the onset on the rationalization of existing indicator sets, rather than the creation of a completely new set. It is grounded in an analysis of gender relevant indicators from the Sustainable Development Agenda 2030, Global Minimum Set of Gender Indicators, gender indicators from the Africa Agenda 2063, the Africa Gender Scorecard and the Africa Gender and Development Index published by Economic Commission for Africa (ECA), the Africa Gender Index compiled by the Africa Development Bank (AfdB), as well as inputs received from national gender focal points, and National Statistics Offices (NSOs), United Nations (UN) agencies and civil society organizations (CSOs).
6. Since it is largely a combination of indicators from existing indicator sets **the metadata has been adapted from their original metadata of each particular indicator.** Because the formats of the metadata differ from framework to framework, a new flow unique to the MSGIA was developed making the order and types of content included unique to the MSGIA.
7. Even though the metadata has been copied nearly verbatim from the metadata of the parent indicator framework, the selected fo-

cus areas for the MSGIA metadata is in many cases not as detailed as that of the parent indicator framework. This is especially true of indicators sourced from the Agenda 2030 framework and the user is advised in those instances to also still consult the parent indicator framework to ensure a complete under standing of what is required.

8. The final framework consists of six indicator domains and 53 indicators. Five of these are the same as the Global Minimum Set of Gender Indicators and the sixth domain that was added for the region is a domain on the environment and climate change. The final recommended domains and associated indicators are: economic structures participation in productive activities and access to resources (17 indicators), health and related services (9 indicators), education (11 indicators), human rights of women and the girl child (6 indicators), public life and decision making (6 indicators) and environment and climate change (4 indicators).

ECONOMIC STRUCTURES, PARTICIPATION IN PRODUCTIVE ACTIVITIES AND ACCESS TO RESOURCES

Indicator EP1

Indicator:

Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural) (SDG indicator 1.1.1) (Also in AGDI2016)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

In order to eradicate poverty, we must understand the root causes of poverty. The working poverty rate reveals the proportion of the employed population living in poverty despite being employed, implying that their employment-related incomes are not sufficient to lift them and their families out of poverty and ensure decent living conditions. The adequacy of earnings is a fundamental aspect of job quality, and these deficits in job quality could be keeping workers and their families in poverty. Estimates compiled by UN Women and UNDP show that women are more likely to live in extreme poverty than men and that this situation has been worsened by the COVID-19 pandemic.[1]

The proportion of working poor in total employment (that is, the working poverty rate) combines data on household income or consumption with labour force framework variables measured at the individual level and sheds light on the relationship between employment and household poverty.

Definition:

The proportion of the employed population below the international poverty line of US$1.90 per day, also referred to as the working poverty rate, is defined as the share of employed persons living in households with per-capita consumption or income that is below the international poverty line of US$1.90.

Concepts:

Employment: All persons of working age who, during a short reference period (one week), were engaged in any activity to produce goods or provide services for pay or profit.

Poverty Line: Threshold below which individuals in the reference population are considered poor and above which they are considered non-poor. The threshold is generally defined as the per-capita monetary requirements an individual needs to afford the purchase of a basic bundle of goods and services. For the purpose of this indicator, an absolute international poverty line of US$1.90 per day is used.

Household in poverty: Households are defined as poor if their income or consumption expenditure is below the poverty line taking into account the number of household members and composition (e.g., number of adults and children).

Working poor: Employed persons living in households that are classified as poor, that is, that have income or consumption levels below the poverty line used for measurement.

Unit of measure:

Percent (%)

1 Estimates and forecasts of extreme poverty by sex and age using the International Futures Model By UN Women, UNDP and the Frederick S. Pardee Center for International Futures1https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2020/Gender-equality-in-the-wake-of-COVID-19-Technical-note-en.pdf. For the COVID-19 pandemic also see https://data.unwomen.org/features/poverty-deepens-women-and-girls-according-latest-projections

Data required:

Poverty status of households and economic activities of household members.

Data sources:

The preferred data source is a household survey with variables that can reliably identify both the poverty status of households and the economic activity of the household's members. Examples include household income and expenditure surveys (HIES), living standards measurement surveys (LSMS) with employment modules, or labour force surveys (LFS) that collect information on household income. Such surveys offer the benefit of allowing the employment status and income (or consumption expenditure) variables to be derived from the same sampled households ideally for the same observation period.

Employment estimates derived from a household survey other than a labour force survey may, however, not be the most robust due to questionnaire design. Similarly, a labour force survey may not be the best instrument for collecting household income or consumption expenditure data, although an attached income module can be designed to achieve statistically reliable results, including ensuring an overlap in the observation period between household income (or consumption expenditure) and employment status.

Another possibility is to combine data from a household income and expenditure survey and from a separate labour force survey when the respondent households can be matched and consistency in the long observation period between the surveys can be obtained.

Calculation method:

$$\text{Working poverty rate} = \frac{\text{Employed persons living on less than US\$ 1.90 a day}}{\text{Total employment}} \times 100$$

Treatment of missing values:

Estimates are produced for countries and years for which no direct working poverty estimates are available based on household survey estimates, but for which total poverty estimates are available in the World Bank's PovcalNet database. This is carried out through a multivariate regression model described in "Employment and economic class in the developing world" (Kapsos and Bourmpoula, 2013), available at http://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms_216451.pdf.

Following the step described directly above, missing data at the national level are estimated through a multivariate regression model for the purpose of producing global and regional estimates.

Additional disaggregation:

The series is disaggregated by sex and age, for which there are no standard international classifications. The age groups refer to all persons (aged 15+), youth (aged 15-24) and adults (aged 25+).

Comments and limitations:

At the country level, comparisons over time may be affected by such factors as changes in survey types or data collection methods. The use of Purchasing Power Parity (PPP) rather than market exchange rates ensures that differences in price levels across countries are taken into account. However, it cannot be categorically asserted that two people in two different countries, living below US$1.90 a day at PPP, face the same degree of deprivation or have the same degree of need. Poverty in the context of this indicator is a concept that is applied to households, and not to individuals, based on the assumption that households pool their income. This assumption may not always be true.

Moreover, the poverty status of a household is a function of the wage and other employment-related income secured by those household members in employment, income derived from asset ownership, plus any other available income such as transfer payments and the number of household members. Whether a worker is counted as working poor therefore depends on his or her own income, the income of other household members and the number of household members who need to be supported. It is thus often valuable to study household structure in relation to working poverty.

Indicator EP2

Indicator:

Proportion of population living below the national poverty line, by sex and age (SDG indicator 1.2.1)

Metadata adapted from: https://unstats.un.org/sdgs/metadata

Importance of indicator:

Monitoring national poverty is important for country-specific development agendas. National poverty lines are used to make more accurate estimates of poverty consistent with the country's specific economic and social circumstances and are not intended for international comparisons of poverty rates. Estimates compiled by UN Women and UNDP show that women are more likely to live in extreme poverty than men and that this situation has been worsened by the COVID-19 pandemic.[2]

Definition:

The national poverty rate is the percentage of the total population living below the national poverty line. The rural poverty rate is the percentage of the rural population living below the national poverty line (or in cases where a separate, rural poverty line is used, the rural poverty line). Urban poverty rate is the percentage of the urban population living below the national poverty line (or in cases where a separate, urban poverty line is used, the urban poverty line).

Concepts:

In assessing poverty in a given country, and how best to reduce poverty according to national definitions, one naturally focuses on a poverty line that is considered appropriate for that country. Poverty lines across countries vary in terms of their purchasing power, and they have a strong economic gradient, such that richer countries tend to adopt higher standards of living in defining poverty. Within a country, the cost of living is typically higher in urban areas than in rural areas. Some countries may have separate urban and rural poverty lines to represent different purchasing powers.

Unit of measure:

Percent (%)

Data required:

Poverty status of households and economic activities of household members.

Data sources:

The preferred data source is a household survey with variables that can reliably identify both the poverty status of households and the economic activity of the household's members. Examples include household income and expenditure surveys (HIES), living standards measurement surveys (LSMS) with employment modules, or labour force surveys (LFS) that collect information on household income. Such surveys offer the benefit of allowing the employment status and income (or consumption expenditure) variables to be derived from the same sampled households ideally for the same observation period.

Employment estimates derived from a household survey other than a labour force survey may, however, not be the most robust due to questionnaire design. Similarly, a labour force survey may not be the best instrument for collecting household income or consumption expenditure data, although an attached income module can be designed to achieve statistically reliable results, including ensuring an overlap in the observation period between household income (or consumption expenditure) and employment status.

Another possibility is to combine data from a household income and expenditure survey and from a separate labour force survey when the respondent households can be matched and consistency in the long observation period between the surveys can be obtained.

Calculation method:

The formula for calculating the proportion of the total, urban and rural population living below the national poverty line, or headcount index, is as follows:

$$P_0 = \frac{1}{N}\sum_{\substack{i \\ =1}}^{N} I(y_i < z) = \frac{N_p}{N}$$

2 Estimates and forecasts of extreme poverty by sex and age using the International Futures Model By UN Women, UNDP and the Frederick S. Pardee Center for International Futures1https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2020/Gender-equality-in-the-wake-of-COVID-19-Technical-note-en.pdf. For the COVID-19 pandemic also see https://data.unwomen.org/features/poverty-deepens-women-and-girls-according-latest-projections

Where I(.) is an indicator function that takes on a value of 1 if the bracketed expression is true, and 0 otherwise. If individual consumption or income y_i is less than the national poverty line z (for example, in absolute terms the line could be the price of a consumption bundle or in relative terms a percentage of the income distribution), then I(.) is equal to 1 and the individual is counted as poor. N_p is the total,
rty rate is defined at country-specific poverty lines in local currencies, which are different in real terms across countries and different from the $1.90-a-day international poverty line. Thus, national poverty rates cannot be compared across countries or with the $1.90-a-day poverty rate.

National poverty estimates are derived from household survey data. Caveats and limitations inherent to survey data applying to the construction of indicator 1.1.1 apply here as well.

Indicator EP3

Indicator:

Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims and the poor and the vulnerable (SDG indicator 1.3.1)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

Access to at least a basic level of social protection throughout the life cycle is a human right. The principle of universality of social protection evidences the importance of social protection systems in guaranteeing decent living conditions to the whole population, throughout their lives. The proportion of the population covered by social protection systems/floors provides an indication of the extent to which universality is accomplished, and thus, how secure are the population's living conditions. Social protection, especially in the employment sector are less likely to be available to women than men[3]. In many countries social norms and practices such as for example exclusion of women from inheritance and the ostracization of unmarried mothers increase the vulnerability of certain groups of women, making social protection by the State an important protection mechanism for women.

Measurements of **effective coverage** should reflect how in reality legal provisions are implemented.

It refers to the percentage of people actually receiving benefits of contributory and non-contributory social protection programmes, plus the number of persons actively contributing to social insurance schemes.

Definition:

The indicator reflects the proportion of persons effectively covered by a social protection system, including social protection floors. It also reflects the main components of social protection: child and maternity benefits, support for persons without a job, persons with disabilities, victims of work injuries and older persons.

Effective coverage of social protection is measured by the number of people who are either actively contributing to a social insurance scheme or receiving benefits (contributory or non-contributory).

Concepts:

Social protection systems include contributory and non-contributory schemes for children, pregnant women with new-borns, people in active age, older persons, for victims of work injuries and persons with disabilities. Social protection floors provide at least a basic level in all main contingencies along the life cycle, as defined in the Social Protection Floors Recommendation 2012 (no. 202) referred to in SDG 1.3.

When assessing coverage and gaps in coverage, distinctions need to be made between coverage by (1) contributory social insurance, (2) universal schemes covering all residents (or all residents in a given category), and (3) means-tested schemes potentially covering all those who pass the required test of income and/or assets.

Unit of measure:

Proportion of a population group, %.

Data required:

Population covered by a social protection system, specifically referring to child and maternity benefits, support for persons without a job, persons with disabilities, victims of work injuries and older persons.

Data sources:

Data is collected using the SSI questionnaires, which are filled in direct collaboration with government agencies - Ministries of labour, ministries of finance, social protection institutions and others. The collected data collected is revised by the Social Protection Department in order to identify internal inconsistencies between data and indicators, and detect major differences regarding indicators calculated in previous years. When significant discrepancies are detected, the questionnaires are sent back to the countries, including detailed comments, for further revision and adjustments. In many cases direct contact with national counterparts are required, as SSI application lies on a strong coordination with our governmental counterparts.

3 social protection to promote gender equality and women's and girls' empowerment A joint statement to the 63rd session of the Commission on the Status of Women. https://www.ilo.org/wcmsp5/groups/public/@dgreports/@nylo/documents/genericdocument/wcms_674612.pdf

The main data source is the **Social Security Inquiry (online questionnaire https://qpss.ilo.org/)**, the ILO's periodic collection of administrative data from national ministries of labour, social security, welfare, finance, and others.

Since 1950, the ILO's Social Security Inquiry has been the main global source of administrative data on social protection. Secondary data sources include existing global databases of social protection statistics, including those of the World Bank, UNICEF, UNWOMEN, HELPAGE, OECD and the International Social Security Association.

This forms the **World Social Protection Database**. It provides a unique source of information and serves as the basis for the ILO flagship World Social Protection Report, which periodically presents development trends of social protection systems, including floors, providing data for a wide range of countries (214 countries and territories).

Calculation/collection method:

Calculations include separate indicators in order to distinguish effective coverage for children, unemployed persons, older persons and persons with disabilities, mothers with newborns, workers protected in case of work injury, and the poor and the vulnerable. For each case, coverage expressed as a share of the respective population.

Indicators are obtained as follows:

a) Proportion of population covered by at least one social protection cash benefit: ratio of the population receiving cash benefits under at least one of the contingencies/social protection function (contributory or non-contributory benefit) or actively contributing to at least one social security scheme to the total population.

b) Proportion of children covered by social protection benefits: ratio of children/households receiving child or family cash benefits to the total number of children/households with children.

c) Proportion of women giving birth covered by maternity benefits: ratio of women receiving cash maternity benefits to women giving birth in the same year (estimated based on age-specific fertility rates published in the UN's World Population Prospects or on the number of live births corrected for the share of twin and triplet births).

d) Proportion of persons with disabilities receiving benefits: ratio of persons receiving disability cash benefits to persons with severe disabilities. The latter is calculated as the product of prevalence of disability ratios (published for each country group by the World Health Organization) and each country's population.

e) Proportion of unemployed receiving benefits: ratio of recipients of unemployment cash benefits to the number of unemployed persons.

f) Proportion of workers covered in case of employment injury: ratio of workers protected by injury insurance to total employment or the labour force.

g) Proportion of older persons receiving a pension: ratio of persons above statutory retirement age receiving an old-age pension to persons above statutory retirement age (including contributory and non-contributory).

h) Proportion of vulnerable persons receiving benefits: ratio of social assistance recipients to the total number of vulnerable persons. The latter are calculated by subtracting from total population all people of working age who are contributing to a social insurance scheme or receiving contributory benefits, and all persons above retirement age receiving contributory benefits.

i) Proportion of poor population receiving social assistance cash benefit: ratio of social assistance recipients to the population living below the national poverty line.

Additional disaggregation:

Whenever data is available, the indicator is disaggregated by sex and age groups.

Comments and limitations:

Data is collected through an administrative survey ongoing for decades, the ILO Social Security Inquiry. Whenever countries provide data, the indicator is disaggregated by sex. Indicators disaggregated by country and region are also available.

Indicator EP4

Indicator:

Proportion of total adult population with secure tenure rights to land, with (a) legally recognized documentation and (b) who perceive their rights to land as secure, by sex and by type of tenure (SDG indicator 1.4.2) (Also in UNEP)

Metadata Source: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

Tenure systems increasingly face stress as the world's growing population requires food security, and as urbanization, environmental degradation and climate affect land use and productivity. Many tenure problems also arise because of weak land governance, disputes due to land acquisition or large-scale land-based investments, and attempts to address tenure problems associated with dualisms to tenure regimes. Responsible governance of tenure of land is inextricably linked with access to and management of other natural resources, such as forests, water, fisheries and mineral resources. The governance of tenure is a crucial element in determining if and how people, communities and others acquire rights, and their associated obligations, to use and control land and natural resources. Legal recognition to group tenure or adopting a 'fit for purpose' land administration and using these to recognize outer boundaries of land held under communal or customary arrangements have increasingly received government attention in the recent past.

Increasing demand for pro-poor land reforms has created the need for a core set of land indicators that have national application and global comparability, and culminated in SDG 1.4.2[4]. Regular reporting on indicator 1.4.2 will provide an impetus to improve the availability of data from surveys as well as regularity of reporting on land administration service delivery to people by registries and other line agencies. Disparities between women and men with regards to land rights are well documented and the promotion of secure tenure rights for particularly women is considered important from a gender equality perspective[5]. Indicator 1.4.2 thus measures sex disaggregated progress in tenure security.

All forms of tenure should provide people with a degree of tenure security, with states protecting legitimate tenure rights, ensuring that people are not arbitrarily evicted and that their legitimate tenure rights are not otherwise extinguished or infringed. Perceptions of tenure security matter because they influence the way that land is used. Sources of perceived insecurity may include contestation from within households, families, communities or as a result of the actions of governments or private land claimants. Secure tenure rights for women require particular attention and could be affected by a number of factors, including intra-household power relations, community level inequalities, or different tenure regimes, and which can be cross tabulated against other factors of difference to ensure that women are no left behind. If measured at the individual level, the right to bequeath is another proxy of perception of tenure security. Women's ability to influence intergenerational land transfers is an important aspect of female empowerment (and one way in which this indicator links with indicator 5.a.1).

"Legally recognized documentation" and "perception of tenure security" are two complementary parts of this indicator and which reflects several insights, namely (i) land is a key asset that is essential for poverty reduction, human rights and equality of opportunity including by sex; (ii) secure land tenure creates incentives for investment in land, allows land to be transferred, and creates the institutional precondition for use of land as collateral to access finance for economic activity; (iii) there is a need to complement formal measures of tenure security with perception-based measures.

This indicator will inform policy and allow for the assessment of specific outcomes and practical priorities for further improvements of tenure security at the country level. Regular reporting on the two components of Indicator 1.4.2 will:

- provide incentives for governments to improve performance on progress with responsible land governance
- inform governments and non-state actors to what extent countries' legal and institutional frameworks recognize and support different land-tenure categories
- provide information on implementation capacity to protect such rights in practice, as well as progress

4 This need for data led to a collaboration between UN-Habitat, the Millennium Challenge Corporation and the World Bank in 2012, facilitated by the Global Land Tool Network, to develop a set of core land indicators to measure tenure security globally and at country level; the process saw the start of the Global Land Indicators Initiative (GLII), a platform used by the global land community to underscore the need for tenure security through evidence-based policymaking through more and better data.

5 FAO 2018. The gender gap in land rights. https://www.fao.org/3/I8796EN/i8796en.pdf

- identify the scope for additional action required at the country level as well as at a sub-national level or for certain categories, geographic entities or ecosystems, and
- provide for equity between men and women in land rights.

Definition:

Indicator 1.4.2 measures the relevant part of Target 1.4 (ensure men and women have equal rights to economic resources, as well as access to ..., ownership of and control over land and other forms of property, inheritance, natural resources). It measures the results of policies that aim to strengthen tenure security for all, including women and other vulnerable groups.

Secure tenure rights:
Comprised of two sub-components: (i) legally recognized documentation and (ii) perception of the security of tenure, which are both necessary to provide a full measurement of tenure security.

Legally recognized documentation:
Legal documentation of rights refers to the recording and publication of information on the nature and location of land, rights and right holders in a form that is recognized by government, and is therefore official. For purposes of computing SDG Indicator 1.4.2, the country specific metadata will define what documentation on land rights will be counted as legally recognized (see next section for rationale).

Perceived security of tenure:
Perception of tenure security refers to an individual's perception of the likelihood of involuntary loss of land, such as disagreement of the ownership rights over land or ability to use it, regardless of the formal status and can be more optimistic or pessimistic. Although those without land rights' documentation may frequently be perceived to be under threat, and those with documentation perceived as protected, there may be situations where documented land rights alone are insufficient to guarantee tenure security. Conversely, even without legally recognized documentation, individuals may feel themselves to be protected against eviction or dispossession. Therefore, capturing and analysing these diverse ranges of situations will enable a more comprehensive understanding of land tenure security, based on a country specific context.

For purposes of constructing the indicator (see next section for rationale), we define perceptions of tenure to be secure if:

(i) The landholder does not report a fear of involuntary loss of the land within the next five years due to, for example, intra-family, community or external threats and

(ii) The landholder reports having the right to bequeath the land.

Total adult population: A country's adult population[6] is measured by census data or through surveys using an adequate sampling frame.

Concepts:

The concepts below are based on the "Voluntary Guidelines for the Responsible Governance of Tenure of Land, Forests and Fisheries in the Context of National Food Security" (shorthand VGGT), which were endorsed by the United Nations World Committee on World Food Security in 2012 and therefore considered an internationally accepted standard. Other international frameworks using these concepts are the African Union Agenda on Land as laid out in the 2009 Framework and Guidelines on Land Policy in Africa and the 2014 Nairobi Action Plan on Large-Scale Land-Based Investments.

Tenure: How people, communities and others gain access to land and natural resources (including fisheries and forests) is defined and regulated by societies through systems of tenure. These tenure systems determine who can use which resources, for how long, and under what conditions. Tenure systems may be based on written policies and laws, as well as on unwritten customs and practices. No tenure right, including private ownership, is absolute. All tenure rights are limited by the rights of others and by the measures taken by states for public purposes (VGGT, 2012).

Tenure typology: A tenure typology is country specific and refers to categories of tenure rights, for example customary, leasehold, public and freehold. Rights can be held collectively, jointly or individually and may cover one or more elements of the bundle of rights (the right of possession, of control, of exclusion, of enjoyment and of disposition).

Land governance: Rules, processes and structures through which decisions are made regarding access to and the use (and transfer) of land, how those decisions are implemented and the way that conflicting interests in land are managed. States provide legal recognition for tenure rights through policies, law and land administration services, and define the categories of rights that are considered official.

6 Country specific legal definition of an 'adult' will be applied.

Unit of measure:

This indicator will be disaggregated by sex and type of tenure, using the standards developed by the working group on data disaggregation, which is a subgroup of the Inter-Agency Expert Group on SDGs[7].

Type of data Source:

The data sources used are census, multi-topic household surveys conducted by national statistical Organizations and, depending on availability, administrative data on land tenure reported by national land institutions (in most cases land registries and cadastres).

Calculation method:

Indicator 1.4.2 is composed of two parts: (A) measures the incidence of adults with legally recognized documentation over land among the total adult population; while (B) focuses on the incidence of adults who report having perceived secure rights to land among the adult population. Part (A) and part (B) provide two complementary data sets on security of tenure rights, needed for measuring the indicator.

$$\text{Part (A):} \frac{\text{People (Adult) with legally recognized documentation over land}}{\text{Total adult population}} \times 100$$

$$\text{Part (B):} \frac{\text{People (adult)who perceive their rights as secure}}{\text{Total adult population}} \times 100$$

Part A will be computed using national census data or household survey data generated by the national statistical system and/or administrative data generated by land agency (depending on data availability)[8].

Part B will be computed using national census data or household survey data that feature the perception questions globally agreed through the EGMs and standardized in the module with the list of essential questions.

Interpretation:

One motivation that makes the indicator actionable is that, in many developing countries, the gap between data on the availability of documentation and on perception of tenure security can be large. For example, tenure may be perceived as secure, even though rights are not formally documented, as in the case of customary systems and trusted local land governance arrangements. Or, the opposite, tenure may be perceived as insecure even when there is a high level of formal documentation of rights. The latter situation can be caused by various factors, including limited trust in land administration services, possible duplicated documents, high cost of having state institutions protecting such rights.

Reporting on perceived security will provide important information on people's satisfaction with the institutional quality of service, transparency, appropriateness, accessibility and affordability of land administration services and justice systems.

Additional disaggregation:

This indicator will be disaggregated by sex and type of tenure, using the standards developed by the working group on data disaggregation, which is a subgroup of the Inter-Agency Expert Group on SDGs[9].

Comments and limitations:

In 2016, a total of 116 countries reported having electronic land information systems in place. Countries with paper-based systems will have more difficulties with reporting on administrative data and household surveys will be the main source of data for this indicator in these countries. The expansion of digitization of records and land data management is one way to facilitate the ease of reporting administrative data for this indicator. Coverage may, however, be geographically skewed, for example towards urban or specific rural regions where cadastral coverage is concentrated, and therefore sub-national dimensions should be properly considered and conveyed in narrative reporting by specific countries to accompany the headline data.

In federal countries with decentralized land registry systems and no centralized reporting yet, data reporting systems for aggregation will be put in place. For countries where the land administration system does not yet collect information on sex, and sex disaggregation cannot be computed using other core data (social security numbers, ID etc), land agencies are encouraged to start expanding this by recording also the sex of owners/users of newly registered land.

7 https://unstats.un.org/sdgs/files/meetings/iaeg-sdgs-meeting-05/12_14.%20Data%20disaggregation_plenary.pdf

8 The decision on data source will be taken at the specific country level.

9 https://unstats.un.org/sdgs/files/meetings/iaeg-sdgs-meeting-05/12_14.%20Data%20disaggregation_plenary.pdf

Most of the national household surveys' target samples are sufficiently large to provide the statistical power for disaggregation by sex and tenure type at rural /urban and sub-national levels. Inferring the extent to which the adult population is tenure secure based on the existing web of surveys, will require the use of a standardized set of questions so that surveys can be combined. However, even nationally representative surveys tend to cover certain segments of the population (those living in agricultural areas, families in which there are women of reproductive age, official urban areas etc.). Even when all the existing surveys are aggregated, there may be pockets of the population that are not captured by the surveys and for which there is thus no data on tenure security. This may include families living in areas that are too far or costly to reach, like forest areas.

Household surveys generally collect household-level data from proxy respondents. Family members who are not the head or the most knowledgeable person in their households are not interviewed, as is also noted in the methodological note for the IAEG-SDG Secretariat for Indicator 5.a.1. This approach is problematic for measuring tenure rights and security due to the introduction of non-random measurement errors[10]. For instance, proxy reporting by one member of the household tends to incorrectly assign rights and misjudge and underestimate both women's and men's rights and use of land. Indicator 1.4.2 should therefore be based on self-reported rather than proxy data. If not all household members are surveyed, only those surveyed should be reported, estimating the global adult population based on the smaller sample enumerated. This lack of information affects only the numerators of the indicator; it has no bearing on the denominator which should always be the total adult population. In other words, the indicator reports and tracks the proportion of the population for which there is self-reported data stating that they are tenure secure. People for whom there is no information cannot be assumed to be tenure secure and therefore are not counted in the numerator. NSOs should report the data collected from household surveys as individual level data that corresponds to the respondent and is not extrapolated to the rest of his/her household. Any limitations in the representativeness of this data should be clearly noted in the country specific metadata submitted with the reporting, including who was included in the enumeration.

Data will still be used for countries that do not yet have survey instruments in place that survey individuals, while capacity for expanding sampling and individual self-reporting by NSOs is expanded progressively through DHS, MICS, LSMS and other type of surveys in coordination with FAO and UN-Women. Addressing this challenge will require combined efforts. Custodians of the land rights indicators1.4.2 and 5.a.1, and relevant stakeholders from the land sector, will work with custodians from other SDG indicators also require surveying of individuals, and in particular the NSOs, to identify effective approaches to start filling the void on self-reported data. NSOs need to be supported to collect data by interviewing individual adult household member. The custodians will leverage the work of the UN - Evidence and Data for Gender Equality EDGE project[11], in particular, which is the most advanced in using and testing sex sensitive methodologies and approaches. They have found the approach feasible and have developed training materials and data collection instruments suitable for this effort.

10 Findings from the Methodological Experiment on Measuring Asset Ownership from A Gender Perspective (MEXA) experiment revealed that data from proxy respondents yield different estimates than self-reported data, with variations by asset, by type of ownership and by the sex of the owner. For instance, the study found that self-reported data increase both women's and men's reported ownership of agricultural land in Uganda. Such increase is greater for men (15 percentage points) than for women (10 percentage points), and is less pronounced when we consider documented ownership (+7 percentage points for men and +2 percentage points for women) (Kilic and Moylan, 20160.

11 https://unstats.un.org/edge/

Indicator EP5

Indicator:

(a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) share of women among owners or rights-bearers of agricultural land by type of tenure (SDG indicator 5.a.1) (Also in GMSGI/AG2063)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

Even though women are the primary producers in the agricultural sector in Africa, they seldom have rights to land and that hinders their ability to enter into other transactions such as for example accessing credit by using their land as collateral. Depending on the inheritance laws and practices in a particular country, women are also generally more vulnerable if landownership is vested in men and the husband passes away.

Definition:

The indicator is divided in two sub-indicators.

Sub-indicator (a) is a prevalence measure. It measures the prevalence of people in the agricultural population with ownership or tenure rights over agricultural land, disaggregated by sex.

$$\frac{\text{No. people in agricultural population with ownership or tenure rights over agricultural land}}{\text{Total agricultural population}} * 100, \text{ by sex}$$

Sub-indicator (b) focusses on the sex parity, measuring the extent to which women are disadvantaged in ownership / tenure rights over agricultural land.

$$\frac{\text{No. women in the agricultural population with ownership or tenure rights over agricultural land}}{\text{Total in the agricultural population with ownership or tenure rights over agricultural land}} * 100, \text{ by type of tenure}$$

Concepts:

Definition of all concepts and terms associated with the indicator are reported below:

Agricultural land

In compliance with the classification proposed by the World Census of Agriculture 2020 (WCA 2020), land is considered 'agricultural land' according to its use. Moreover, a reference period is usually required in order to characterize the use of a specific area of agricultural land and identify subcategories.

As clearly shown in the figure below, agricultural land is a subset of the total land.

Basic Land Use classes	Aggregate land use classes			
LU1. Land under temporary crops	LU1-3 Arable land	LU1-4 Cropland	LU1-5 Agricultural land	LU1-6 Land used for agriculture
LU2. Land under temporary meadows and pastures				
LU3. Land temporarily fallow				
LU4. Land under permanent crops				
LU5. Land under permanent meadows and pastures				
LU6. Land under farm buildings and farmyards				
LU7. Forest and other wooded land				
LU8. Area used for aquaculture (including inland and coastal waters if part of the holding)				
LU9. Other area not elsewhere classified				

Classification of land use (WCA 2020)

In particular, following the WCA 2020, **agricultural land** includes:

- land under temporary crops[12]
- land under temporary meadows and pastures[13]
- land temporarily fallow[14]
- land under permanent crops[15]
- land under permanent meadows and pastures[16]

It excludes:

- land under farm buildings and farmyards
- forest and other wooded land
- area used for aquaculture (including inland and coastal waters if part of the holding)
- other area not elsewhere classified

Since the indicator 5.a.1 focuses on agricultural land, it excludes all the forms of land that are not considered 'agricultural', including land under farm buildings and farmyards.

Agricultural population

Indicator 5.a.1 uses 'agricultural population' as denominator, instead of the total population, because tenure rights over agricultural land are relevant especially for individuals whose livelihood relies on agriculture. More specifically, since agricultural land includes both crop land and meadows and pastures, tenure rights over agricultural land are relevant for households operating land and / or raising or tending livestock. Thus, the reference population (denominator) for indicator 5.a.1 are: ***adult individuals living in agricultural households****, i.e. households that operated land for agricultural purposes and / or raised livestock over the past 12 months, regardless of the final purpose of the production*.

The long reference period allows to capture agricultural households even if interviewed off-season, while the inclusion of all purposes includes households that produce only for own consumption.

Engagement in forestry and logging and fishing and aquaculture is not considered because the focus of the indicator is on agricultural land. Households who have tenure rights over agricultural land but do not farm the land are excluded from the reference population, because the indicator focuses on households whose livelihood is linked to practicing agriculture. Moreover, households whose member/s is/are engaged in the agricultural sector only as wage laborer/s are excluded from the reference population. Indeed, while it makes sense to classify as 'agricultural' a household where someone is operating land / raising livestock on his/her own, the same cannot be said for households where a member operates land / raises livestock for someone else because, in this case, agricultural land is not an asset relevant for the household economy.

Once a household is classified as an 'agricultural household', all the adult individuals are eligible to be asked about their tenure right status over agricultural land. The adoption of a household perspective is particularly important from the sex perspective, because in many agricultural households, women often consider themselves as not being involved in agriculture, whereas they provide substantive support to the household's agricultural activities. In addition, the individual's livelihood cannot be completely detached from the livelihood of the other household members; and in particular, for households operating land or raising livestock, land is an important asset for all the individuals and protect them in case the household dissolves.

However, identifying such households is not trivial, because:

I. Agricultural work is highly irregular and strongly affected by seasonality, therefore if the survey questions adopt a short recall period, we risk excluding individuals engaged in agriculture because they did not practice agriculture at the time of the survey or simply because they were interviewed off-season.

II. Agriculture is sometimes practiced only or mainly for own consumption, without any market orientation (so, with no or little income) and therefore not necessarily perceived as an economic activity *strictu sensu.*

12 Defined as: "all land used for crops with a less than one-year growing cycle" (WCA 2020). Temporary crops comprise all the crops that need to be sown or planted after each harvest for new production (e.g. cereals). The full list of crops classified as 'temporary' is provided in the WCA 2020, page 165 (http://www.fao.org/3/a-i4913e.pdf).

13 Defined as land that has been cultivated for less than five years with herbaceous or forage crops for mowing or pasture.

14 When arable land is kept at rest for at least one agricultural year because of crop rotation or other reasons, such as the impossibility to plant new crops, this is defined as temporarily fallow. This category does not include the land that it is not cultivated at the time of the survey but will be sowed and planted before the end of the agricultural year.

15 Area that is cultivated with long term crops that do not need to be replanted every year, such as fruits and nuts, some types of stimulant crops, etc.

16 Land cultivated with herbaceous forage crops or is left as wild prairie or grazing land for more than five years.

Ownership and tenure rights over agricultural land:

It is challenging to define and to operationalize ownership and tenure rights in a way that provides reliable and comparable figures across countries.

Land ownership is a legally recognised right to acquire, to use and to transfer land. In private property systems, this is a right akin to a freehold tenure. However, in systems where land is owned by the State, the term 'land ownership' refers to possession of the rights most akin to ownership in a private property system – for instance, long-term leases, occupancy, tenancy or use rights granted by the State, often for several decades, and that are transferrable. In this context, it is more appropriate to speak of tenure rights.

Nonetheless, as emphasized by the EDGE (Evidence and Data for Gender Equality) project[17], focusing on legally recognized documents is not sufficient to analyse the complexity of rights related to land, especially in developing countries and from the sex perspective. The main factor limiting the universal applicability of legally recognized documents is the diverse penetration of such legally binding documents.

Considering the above, as well as the need to propose an indicator valid at global level, the indicator 5.a.1 relies on the three conditions (proxies): 1) Presence of legally recognised documents in the name of the individual; 2) right to sell; 3) right to bequeath.

1) Presence of legally recognised documents in the name of the individual

It refers to the existence of any document an individual can use to claim property rights before the law over an asset by virtue of the individual's name being listed as owner or holder on the document.

Given the differences between legal systems across countries it is not possible to clearly define an exhaustive list of documents that could be considered a proof of tenure security. However, depending on the national legal framework the following documents may be considered **as formal titles:**

- Title deed: *"a written or printed instrument that effects a legal disposition"*[18]
- Certificate of occupancy or land certificate *"A land certificate is a certified copy of an entry in a land title system and provides proof of the ownership and of encumbrances on the land at that time"*[19]
- Purchase agreement: *a contract between a seller and a buyer to dispose of land*
- Registered certificate of hereditary acquisition
- Certificate of customary tenure: *an official state document indicating the owner or holder of the land because customary law has recognized that particular person as the rightful owner. It can be used as proof of legal right over the land.* These certificates include, among others, certificates of customary ownership and customary use.
- Registered certificate of perpetual / long term lease: *"a contractual agreement between a landlord and a tenant for the tenancy of land. A lease or tenancy agreement is the contractual document used to create a leasehold interest or tenancy"*[20]
- Registered short term (less than 3 years) rental contract
- Certificate issued for adverse possession or prescription: *is a certificate indicating that the adverse possessor acquires the land after a prescribed statutory period*.

In order to overcome the lack of written documentation and to generate a globally valid indicator it becomes crucial to take into account also the alienation rights over land, which can be present even in contexts where tenure rights are not documented.

Alienation is defined as the ability to transfer a given asset during lifetime or after death. The right to sell and to bequeath are considered as objective facts that carry legal force as opposed to a simple self-reported declaration of tenure rights over land. In particular:

2) Right to sell

It refers to the ability of an individual to permanently transfer the asset in question in return for cash or in-kind benefits.

3) Right to bequeath

It refers to the ability of an individual to pass on the asset in question to another person(s) after his or her death, by written will, oral will (if recognized by the country) or when the deceased left no will, through intestate succession.

The decision to rely on the three proxies above (availability of a legal document, right

17 Metadata Source: "UN Methodological Guidelines on the Production of Statistics on Asset Ownership from a Gender Perspective" Draft Guidelines submitted at the UN Statistical Commission in March 2017

18 Metadata Source: "Multilingual thesaurus on land tenure", FAO 2003

19 Metadata Source: "Multilingual thesaurus on land tenure", FAO 2003

20 Metadata Source: "Multilingual thesaurus on land tenure", FAO 2003

to sell, right to bequeath) is justified by the results of the seven field tests conducted under the framework on the EDGE project. In particular, the tests demonstrated:

- The lack of reliability of reported ownership/possession. In fact, reported ownership/possession was often neither supported by any kind of documentation nor by the possession of any alienation right.
- The need to consider as 'owners' or 'holders of tenure rights' only the individuals who are linked to the agricultural land by an objective right over it, including both formal legal possession and alienation rights.
- The need to combine different proxies, as no single proxy is universally valid.

Unit of measure:

(a) Proportion of

Data required:

Total agricultural population; total agricultural population with legally recognized document on agricultural land OR the right to sell it Or the right to bequeath it; number of women in agriculture with legally recognized document on agricultural land OR the right to sell it Or the right to bequeath it. number of people in agriculture with legally recognized document on agricultural land OR the right to sell it OR the right to bequeath it.

Data sources:

Recommended data sources:

Indicator 5.a.1 focuses on adult individuals living in agricultural households – i.e. households that have practiced agriculture over the last 12 months. Thus, it can be collected through Agricultural surveys/ censuses or national household-based surveys having a suitable coverage of agricultural households Generally speaking, surveys are more cost-effective than censuses because they are carried out on a representative sample which is then used to estimate the parameters at the population level.

Agricultural Surveys are a recommended data source for two main reasons:

1. their unit of analysis are agricultural holdings and, in most countries, a one-to-one relationship exists between the household-sector agricultural holdings and the agricultural households. Therefore, agricultural surveys capture well the reference population of indicator 5.a.1 (i.e. agricultural households) and they do not require any pre-screening and oversampling to generate nationally representative estimates.
2. agricultural surveys can easily accommodate questions on agricultural land tenure rights, since they frequently collect data regarding rights to agricultural land and data on agricultural production.

National Household Surveys (NHS)[21] are a recommended data source for indicator 5.a.1 for several reasons:

1. National Household surveys are the most common data source available in both developed and developing countries.
2. National Household surveys tend to be very broad in scope and they are normally used to generate social, demographic and economic statistics. Therefore they: i) can accommodate questions needed for the computation of indicator 5a1; ii) allow exploring associations between the individual status on indicator 5a1 and other individual or household characteristics, such as education, health, income level, etc; iii) can include additional data for a more detailed analysis of the indicator (eg., land size).

However, if NHS are used to monitor indicator 5.a.1, it is necessary to identify agricultural households. In addition, especially in countries/regions with a low proportion of households is engaged in agricultural production, a pre-screening and oversampling may be needed, especially in urban and peri-urban areas. In the absence of agricultural or household-based surveys, agricultural censuses can be used for collecting data on SDG 5.a.1 Nonetheless, the Censuses present some disadvantages:

1. They are usually conducted every 10 years; therefore, they do not allow countries to closely monitor the progress on indicator 5.a.1.
2. They are large scale and costly operations focussing on the structure of the population.

They heavily rely on proxy respondents, an approach which is in contrast with the respondents' selection procedure recommended for indicator 5.a.1.

21 Examples of NHS that could be used to generate the indicator 5.a.1 are: Household Budget Surveys (HBS), Living Standard Measurement Surveys (LSMS), Living Conditions Surveys, Labour Force Surveys (LFS) and Multipurpose Household Surveys. Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS) can be also used as data collection vehicle, provided that their individual questionnaires are administered to individuals beyond the age classes typically used in these surveys.

Calculation method:

How the indicator is calculated:

The indicator 5.a.1 considers as owners or holders of tenure rights all the individuals in the reference population (agricultural population) who:

- Are listed as 'owners' or 'holders' on a certificate that testifies security of tenure over agricultural land

OR

- Have the right to sell agricultural land

OR

- Have the right to bequeath agricultural land

The presence of one of the three proxies is sufficient to define a person as 'owner' or 'holder' of tenure rights over agricultural land. The advantage of this approach is its applicability to different countries. Indeed, based on the analysis of the seven EDGE pilot countries, these proxies provide the most robust measure of ownership/tenure rights that is comparable across countries with diverse prevalence of documentation. In fact, individuals may still have the right to sell or bequeath an asset in the absence of legally recognized document, therefore the indicator combines documented ownership / tenure rights with the right to sell or bequeath to render it comparable across countries.

Operationalization of indicator 5.a.1 expressed through mathematical formulas are the following:

Sub-indicator (a)

$$\frac{\text{Total agricultural population with: Legally recognized document on agricultural land OR the right to sell it OR the right to bequeath it}}{\text{Total agricultural population}} \times 100, \text{ by sex}$$

Sub-indicator (b)

$$\frac{\text{Number of women in agriculture with: Legally recognized document on agricultural land OR the right to sell it OR the right to bequeath it}}{\text{Number of people in agriculture with: Legally recognized document on agricultural land OR the right to sell it OR the right to bequeath it}} \times 100, \text{ by type of tenure}$$

Countries can rely on the background paper describing the methodology and other relevant documents available at http://www.fao.org/sustainable-development-goals/indicators/5a1/en/?ADMCMD_view=1as well as the e-learning available at https://elearning.fao.org/course/view.php?id=363

Additional disaggregation:

We can distinguish between levels of disaggregation which are 'mandatory' for the global monitoring and levels of disaggregation which are recommended especially for the country level analysis, as they provide an in-sight for policy making.

'mandatory' levels of disaggregation	**'recommended' levels of disaggregation** (not exhaustive list)
[for sub-indicator (a)] • sex of the individuals	[for both sub-indicators] • Income level • age group • ethnic group • geographic location (urban/rural) • tenure type • type of legally recognized document

Comments and limitations:

If a country adopts the strategy of interviewing one randomly selected person per household, this may result in a small sample size. Countries are recommended to take into consideration the impact on the expected sample size on the precision of the estimates and the tabulation plan. If necessary, countries may consider to interview more than one individual per household, or all individuals. Alternatively, countries may consider to collect information on all household member through a proxy respondent (option 1 above).

It is critical that the list of legally binging documents proposed above is customized in order to consider only documents that are enforceable before the law and that guarantee individual's tenure rights in the national context.

Indicator EP6

Indicator:

Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control (SDG indicator 5.a.2)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/files/Metadata-05-0A-02.pdf

Importance of indicator:

Indicator 5.a.2 measures the extent to which countries' legal framework (including customary law) guarantees women's equal rights to land ownership and/or control.

The focus on land of Indicator 5.a.2 reflects the recognition that land is a key economic resource inextricably linked to access to, use of and control over other economic and productive resources. It is a key input for agricultural production; it can be used as collateral to access financial resources, extension services or to join producer organisations; and, it can generate income directly, if rented or sold. It also acknowledges that women's ownership of and/or control of land is critical for poverty reduction, food security, inclusiveness and overall sustainable development objectives. Finally, gender equality in land ownership and control is a human right. For example, Article 3 of the International Covenant on Civil and Political Rights (ICCPR) guarantees equality between women and men, and prohibits discrimination based on sex in Article 2. Article 26 of the treaty enshrines equality before the law, and can be applied to defend women's right to non-discrimination and equality, not only with respect to civil and political rights, but also with economic and social rights. Further, the Convention on the Elimination of Discrimination Against Women (CEDAW), emphasizes that discrimination against women "violates the principles of equality of rights and respect for human dignity".

The following paragraphs describe the scope and rationale of the proxies, as well as its specific content.

For guidance on the meaning of the terms used in the proxies please refer to the terminology in section 2.a "Definitions and concepts" of this document. For detailed information on the conditions determining whether the proxy exists in the legal and policy framework please refer to the methodological guidelines "Realizing women's rights to land in the law. A Guide for reporting on SDG Indicator 5.a.2".

Proxy A: Is the joint registration of land compulsory or encouraged through economic incentives?

Without the inclusion of their names on the land title, deed or certificate, women's property rights remain insecure, especially in the context of land registration programs and of property acquired by the spouses during the marriage. This is particularly the case for married women who separate, divorce, are abandoned or become widows. The proxy therefore assesses whether the legal and policy framework include provisions requiring joint registration of land or encouraging joint registration through economic incentives for both married and unmarried couples. For the proxy to be present it is sufficient that joint registration is provided at least for married couples.

Proxy B: Does the legal and policy framework require spousal consent for land transactions?

Whenever actions are taken unilaterally by a husband or male partner regarding land related transactions such sale, mortgage or lease, especially when they concern the family home or other critical assets, they can leave women and any children homeless and without means of subsistence. Therefore, spousal or partner consent requirements prior to any land transaction strengthen women's control rights over land whether they are married or within an unmarried couple. By supporting equality in the marriage and the joint administration of important property, such provisions directly contribute to the achievement of indicator 5.a.2, particularly with regard to gender equality in the control over land.

The proxy examines whether countries incorporate into the legal and policy framework a spouse or partner consent for land transactions. As with proxy A, the assessment covers both married and unmarried couples. Yet, for proxy B to be present it is sufficient that spousal consent is provided at least for married couples.

Proxy C: Does the legal and policy framework support women's and girls' equal inheritance rights?

Inheritance is one of the main channels through which women acquire property and secure independent land rights. However, the persistence of discriminatory cultural and legal norms often denies women's and girls' equal inheritance rights and hinder women's

opportunity to acquire property on an equal footing to men. Personal laws and customary laws in particular have often denied women's right to inherit or at least to inherit equal shares, and many post-colonial governments have incorporated these rules in the formal legal architecture. In some cases, daughters may only be entitled to inherit in the absence of a traceable male relative.

Proxy C examines the extent to which states have incorporated into their legal and policy framework provisions that guarantee equal inheritance rights over land to surviving children and surviving spouses.

This proxy aims to identify if the legal and policy framework of a country:

1. Provide that sons and daughters have equal inheritance rights and equal shares; and
2. Provide that male and female surviving spouse and/or partner are entitled to an equal right of the deceased spouse's estate and/or to a lifetime user right to the family home.

Both equal inheritance rights for sons and daughters and surviving spouse and/or partner have to be ensured for Proxy to be present.

Proxy D: Does the legal and policy framework provide for the allocation of financial resources to increase women's ownership and control over land?

Legal reforms to support gender equality in land ownership and/or control and access to other productive resources have not always translated into practice. The poor implementation of land and agriculture related policies and laws geared towards enhancing gender equality, is partially due to the lack or insufficiency of financial resources.

For this reason, this proxy identifies any legal provision that commits the government to allocate financial resources for the purpose of increasing women's ownership and control over land or access to productive resources, including land. Such provisions are widely regarded as innovative measures to support women's land rights, and have been consistently endorsed by the CEDAW Committee in its deliberations and comments on state parties' reports under the treaty. The "condition sine qua non" for this proxy to be satisfied that the fund is anchored into the national law and explicitly mentions the purpose of improving women's land rights.

Since Proxy D amounts to a "special measure", as per Art. 4 of CEDAW, countries that do not include this measure in their legal and policy framework, yet provide official national statistical data showing the achievement of at least 40 percent of women's ownership and/or control over land (e.g. data on SDG 5.a.1, or 1.4.2.), will equally satisfy the proxy.

Proxy E: In legal systems that recognise customary land tenure, does the legal and policy framework explicitly protect the land rights of women?

Many countries have incorporated customary land tenure rights into the formal legal system, in effect 'formalizing' them. The legal recognition of customary land tenure however may reinforce discriminatory practices where there is no explicit protection for women's customary land rights. Further, the use of gender neutral provisions in the context of formalisation of customary land tenure has in practice been associated with a lack of protection of women's rights. To avoid such outcomes explicit provisions securing the protection of the land rights of women should accompany any legal provision recognizing customary land rights.

Proxy E assesses whether the Constitution and/or any land related law that recognises customary land tenure provides explicit protections for women's land rights.

It is important to note that for those countries where customary law has not been incorporated into the legal framework, Proxy E is not applicable and will not be assessed in the computation. As noted above, the only feasible way to take into account/to measure the customary dimension of this indicator is when it has been legally recognised, and therefore incorporated in the legal framework.

Proxy F: Does the legal and policy framework mandate women's participation in land management and administration institutions?

Land related institutions are responsible for governing the land tenure systems, and are in charge of land administration and management. Women are often excluded from participating in the day-to-day processes of land governance at all levels, and therefore have limited capacity to influence decision-making. A lack of women's representation in land governance tends to lead to biased outcomes in land recording and registration processes and the hindering of women's land claims, for instance by overlooking women's rights on common lands.

Proxy F aims to identify provisions within the legal framework requiring mandatory participation of women (quotas) in land related management and administration institutions.

Since Proxy F amounts to a "special measure", as per Art. 4 of CEDAW, countries that do not include this measure in their legal and policy framework, yet provide official national statistical data showing the achievement of at least 40 percent of women's ownership and/or control over land (e.g. data on SDG 5.a.1, or 1.4.2.), will equally satisfy the proxy.

Definition:

Indicator 5.a.2 looks at the extent to which the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control.

The indicator "measures" the level to which a country's legal framework supports women's land rights, by testing that framework against six proxies drawn from international law and internationally accepted good practices , in particular the Convention on the Elimination of Discrimination Against Women (CEDAW) ratified by 189 countries, and the Voluntary Guidelines for the Responsible Governance of the Tenure of Land Fisheries and Forestry (VGGT) endorsed unanimously by Committee of Food Security (CFS) members in 2012.

The six proxies through which indicator 5.a.2 is monitored are the following:

- Proxy A: Joint registration of land compulsory or encouraged through economic incentives
- Proxy B: Compulsory spousal consent for land transactions
- Proxy C: Women's and girls' equal inheritance rights
- Proxy D: Allocation of financial resources to increase women's ownership and control over land
- Proxy E: In legal systems that recognise customary land tenure, existence of explicit protection of the land rights of women
- Proxy F: Mandatory quotas for women's participation in land management and administration institutions

Concepts:

The indicator tracks progress on legal reforms that guarantee women's land rights (including customary) in terms of ownership and/or control.

The indicator refers to customary law. The inclusion of the customary dimension in the indicator is very important because in many contexts in which these systems prevail, women's land rights tend to be denied or insecure. However, the enormous diversity of customs and social norms that govern customary land among countries and their unwritten nature, create a significant challenge for assessing whether the proxies are present in these systems. To solve this issue, it is proposed that the customary dimension will be considered only when the formal legal framework recognizes customary land tenure.

Finally, the indicator refers to ownership and/or control of land which are two critical but different dimensions regarding women's land rights. Land ownership refers to the legally recognised right to acquire, to use and to transfer landed property, while the control over land is associated with the ability to make decisions over land.

Key definitions used are the following:

Land

Land is defined as all immovable property – for instance the house, the land upon which a house is built and land which is used for other purposes, such as agricultural production. It also encompasses any other structures built on land to meet permanent purposes. Legal frameworks commonly use the terms 'immovable property' or 'real property' when referring to land.

Land ownership

Land ownership is a legally recognised right to acquire, to use and to transfer land. In private property systems, this is a right akin to a freehold tenure. In systems where land is owned by the state, the term land ownership refers to possession of the rights most akin to ownership in a private property system – for instance, long-term leases, occupancy, tenancy or use rights granted by the state that are transferrable and are granted to users for several decades (for instance 99 years).

Control over land

Control over land is the ability to make decisions over land. It may include rights to make decisions about how the land should be used, including what crops should be planted, and to benefit financially from the sale of crops, including what crops should be planted, and to benefit financially from the sale of crops.

Customary land tenure

Customary land tenure is defined as the bodies of rules and institutions governing the way land and natural resources are held, managed, used and transacted within customary legal systems.

Customary legal systems

Customary legal systems are systems that exist at the local or community level, that have not been set up by the state, and that derive their legitimacy from the values and traditions of the indigenous or local group. Customary legal systems may or may not be recognized by national law.

Legal and policy framework

The legal and policy framework encompasses the Constitution, policy, primary legislation and secondary legislation. The legal and policy framework includes customary legal systems where they have been recognised by statutory law.

Personal laws

Personal law is defined as a set of codified rules and norms applying to a group of people sharing a common religious faith with regard to personal matters. These laws usually cover family relations, marriage, and inheritance. The term can be used interchangeably with 'religious laws'.

Primary legislation

Primary legislation refers to (i) acts or statutes that have been formally adopted at national level following the official parliamentary procedure for the passage of laws (in parliamentary systems); (ii) other acts at the national level with the force of law, such as decree-laws and legislative decrees and otherwise (in parliamentary systems); (iii) other legal instruments that have that have been formally endorsed by a law-making body, for instance presidential and royal orders or presidential and royal decrees (in non-parliamentary systems or systems where law-making power lies in an additional institution to the parliament). In all cases, primary legislation must have the force of law, be binding. For the purposes of this assessment primary legislation also includes the Constitution.

Secondary legislation

Secondary legislation includes subsidiary, delegated or subordinate legal instruments that have the force of law, are binding and shall not be in contradiction with primary legislation. They are usually passed by the executive, such as national regulations, rules, by-laws, determinations, directions, circulars, orders, and implementing decrees.

Joint registration

Joint registration is where the names of both spouses or both partners in an unmarried couple, are entered into the land registry as the owners or principal users of the land being registered. Joint registration signifies a form of shared tenure over the land – usually either a joint tenancy/occupancy or a tenancy in common). In legal systems which include a framework for land titling, joint registration is commonly referred to as joint titling.

Unmarried couples

Unmarried couples are defined as couples who live together (cohabit) in an intimate relationship, but who are not married in accordance with the marriage law of the country. Often this will refer to couples who were married under custom or religious laws, where such marriages are not recognised or do not comply with the requirements of the formal law. It may also refer to relationships that are recognised by the state but that are not considered a marriage – for instance a civil partnership and a de facto relationship that is registered with the state. The term 'unmarried couples' is often used interchangeably with 'de facto unions', 'consensual unions' or 'irregular unions'. The members of an unmarried couple are referred to as 'partners'.

Land transactions

Land transactions for the purpose of the methodology are major land transactions, specifically the sale and encumbrance (mortgage) of land.

Inheritance

Inheritance is defined as property passing at the owner's death to the heir or those entitled to succeed.

Deceased's estate

The deceased's estate encompasses the legal rights, interests and entitlements, to property of any kind (not only land) which the deceased spouse or partner enjoyed at the time of death, less any liabilities. Depending on the legal system, marital property may be excluded fully from the calculation of deceased's estate, or, the deceased's 50% share in the marital property will be included.

Equal inheritance rights for sons and daughters

Equal inheritance rights for sons and daughters refer to the situation when the lines of succession in the legal and policy framework governing inheritance states equality of rank and shares between brothers and sisters or between daughters and sons, or are gender neutral.

Unit of measure:

Proportion.

Data sources:

Sources of data for measuring Indicator 5.a.2 are the official versions of national policies, primary law and secondary legislation which must be publicly available. More specifically, the relevant laws include the following: land, family, marriage, inheritance, land registration, gender equality laws, constitution, agrarian reform. Relevant policies include policies include policies on land, agriculture and gender.

Calculation method:

The qualitative and legal nature of this indicator required the development of nuanced and articulated methodology that could be feasible, universally relevant and meaningful.

The computation of results under Indicator 5.a.2 involves two steps: (1) classification of country according the number of proxies located **in primary or primary and secondary legislation** and (2) consolidation of all country results for global reporting.

Step 1: Classification categories of country

The country will be classified according to the total number of proxies found in primary legislation or primary and secondary legislation. Given that **not in all countries** customary land tenure rules exist or customary law is recognised (related to proxy E), for the purpose of computation a two-scale (or dual) approach has been developed:

For countries where customary land tenure is **NOT** recognised in the legal framework (either via statute or the constitution), regardless of whether it exists *de facto* or not, Proxy E is marked **non-applicable** and the country will be assessed out of the five remaining proxies.

For countries where customary land tenure is recognised in the legal framework, the country will be assessed against all six proxies,

The table below describes the dual approach classification and the classification bands. As is shown below, in countries where customary law is applicable (Proxy E) the presence of five or six proxies are included in the same band (band 6 - very high levels of guarantees). This is due to the necessity of making universal the calculation

Table 1: Classification categories

Result of assessment Where Proxy E is applicable[22]	Result of assessment Where Proxy E is not applicable	Classification
None of the six proxies are present in the primary or primary and secondary legislation	**None of the five proxies** are present in the primary or primary and secondary legislation	**Band 1:** No evidence of guarantees of gender equality in the land ownership and/or control in the legal framework.
One of the proxies present in primary or primary and secondary legislation	**One of the proxies** present in primary or primary and secondary legislation	**Band 2:** Very low levels of guarantees of gender equality in land ownership and/or control in the legal framework.
Two the proxies present in primary or primary and secondary legislation	**Two of the proxies** present in primary and secondary legislation	**Band 3:** Low levels of guarantees of gender equality in land ownership and/or control in the legal framework.
Three of the proxies are present in primary legislation or primary and secondary legislation	**Three of the proxies** are present in primary legislation or primary and secondary legislation	**Band 4:** Medium levels of guarantees of gender equality in land ownership and/or control in the legal framework.
Four of the proxies are present in primary legislation or primary and secondary legislation	**Four of the proxies** are present in primary legislation or primary and secondary legislation	**Band 5:** High levels of guarantees of gender equality in land ownership and/or control in the legal framework.
Five or six proxies are present in primary legislation or primary and secondary legislation	**All five proxies** are present in primary legislation or primary and secondary legislation	**Band 6:** Very high levels of guarantees of gender equality in land ownership and/or control in the legal framework.

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of the component of customary law - a component of the indicator which in itself is not universal to all countries.

Under the methodology all proxies have an equal weight. This implies that no dimension is more important than another in terms of supporting gender equality in land ownership and/or control.

Comments and limitations:

Customary law. Indicator 5.a.2 entails an important challenge in terms of the assessment and computation of the results due to the reference to customary law in the title of the indicator. Customary law is not a homogenous system of law. Therefore, unless it is recognised by the general legal system, it will be extremely difficult to monitor whether or not customary law guarantees men and women equal rights to land ownership and(/or) control. In order to guarantee feasibility of the assessment, the choice of the methodology has been to monitor customary law to the extent that it has been recognised in the legal framework of a country. This however is a major limitation for the purposes of the SDGs of "leaving no one behind' as it excludes from the assessment many legal systems where customary practices which have not been endorsed in statutory law which are one of the major factors of discrimination against women. Further, given that customary law does not exist in all countries, it is not universally applicable and computation of the results represents a major challenge. The methodology has addressed this issue by creating a dual system of computation of the results which allows to assess separately those systems where customary law has been recognized, and those where no recognition of customary law is present.

Geographical scope. The data collected for the SDG indicators is collected at the national level to ensure that it is representative of the country situation. This means that the 5.a.2 assessment to determine the existence of the proxies should focus on legal and policy instruments that have nationwide authority. In countries where law-making power for land or gender matters are not within the authority of the national government (or are shared between the national government and a sub-national government level), there may be a number of different state/provincial or county laws and policy that can be analysed. Further there may be inconsistencies between these different sub-national laws in terms of the presence of a proxy and the degree of its integration in the legal and policy framework.

Where this is the case, the assessment should be conducted in as many states or counties needed to cover at least 50 percent of the total country's population. Therefore, the proxy should be located in all of the legal and policy frameworks relevant to these locations. If it is not the case, the proxy is not present.

Indicator EP7

Indicator:

Proportion of informal employment in total employment, by sector and sex (SDG indicator 8.3.1)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/files/Metadata-08-03-01.pdf

Importance of indicator:

In contexts where social protection coverage is limited, social security benefits (such as unemployment insurance) are insufficient or even inexistent, and/or where wages and pensions are low, individuals may have to take up informal employment to ensure their livelihood. In these situations, indicators such as the unemployment rate would provide a very incomplete picture of the labour market situation, overlooking major deficits in the quality of employment. Statistics on informality 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 https://ilostat.ilo.org/resources/methods/description-informality/).

Women workers are more likely than men workers to be employed in the informal sector. This situation is particularly true on developing countries and is true for more than half of the countries globally (56 per cent). Among low-educated workers, women are more likely to be informally employed in developing, emerging and developed countries. [23]. Since informal employment is usually also more vulnerable employment, tracking this indicator is important for the effective design and monitoring of programmes aimed at increasing women's access to the labour market as well as women's economic empowerment in general.

Definition:

This indicator presents the share of employment which is classified as informal employment in the total economy, and separately in agriculture and in non-agriculture.

Concepts:

Employment comprises all persons of working age who, during a short reference period (one week), were engaged in any activity to produce goods or provide services for pay or profit.

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).

For the purpose of classifying persons into formal or informal employment for this indicator, only the characteristics of the main job are considered.

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.

23 Women and Men in the Informal Economy: A Statistical Brief Florence Bonnet, Joann Vanek and Martha Chen. https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/publication/wcms_711798.pdf

Unit of measure:

Percentage

Data required:

Number population employed; number of the population in informal employment; Number population employed in agriculture; number of the population in informal employment in agriculture; Number population employed in non-agricultural activities; number of the population in informal employment in non-agricultural activities; sex.

Data sources:

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.

Calculation method:

$$\text{Proportion of informal employment in total employment} = \frac{\text{Informal employment}}{\text{Total employment}} \times 100$$

$$\text{Proportion of informal employment in agriculture} = \frac{\text{(Informal employment in agricultural activities)}}{\text{(Total employment in agriculture)}} \times 100$$

$$\text{Proportion of informal employment in non agricultural employment} = \frac{\text{Informal employment in non agricultural activities}}{\text{Total employment in non agricultural activities}} \times 100$$

Additional disaggregation:

Data on this indicator is requested disaggregated by sector and sex.

Here, sector refers to the breakdown by agriculture/non-agriculture. Where necessary and possible, the disaggregation by sector could go into a more detailed breakdown by economic activity, but for the purpose of global and regional monitoring, the aggregate categories of agriculture and non-agriculture are used.

In order to produce this indicator, employment statistics disaggregated by formal / informal employment and by economic activity (agriculture / non-agriculture) are needed.

Comments and limitations:

Although some international standards do exist for the compilation of informal employment statistics, the relevant concepts and definitions have been left relatively flexible so as to accommodate national contexts and needs. This means that, in practice, the operational criteria used by countries to compile data at the national level vary significantly from country to country, hindering the international comparability of statistics. The comparability of informal employment statistics is also highly sensitive to differences in the geographical areas covered, the economic activities covered and the treatment of special groups of workers.

Indicator EP8

Indicator:

Gender gap in wages of employees, by occupation and sector, age and persons with disabilities (GMSGI)

Metadata adapted from GMSGI: https://gender-data-hub-2-undesa.hub.arcgis.com/pages/f9da5234f3e84b4db5068007a704121b and https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_650553.pdf

Importance of indicator:

Differences in pay for men and women may result from a multitude of factors. They include individual characteristics of workers, such as their level and field of education and work experience, as well as factors connected to the job they perform, such as occupation, type of contract, economic sector and size of the establishment in which they work. Gender inequalities in all these areas are associated with traditions and stereotypes (influencing the choice of education, professions and career paths of women and men) and the difficulties in balancing work and family life that often leads to part-time work and career breaks, mainly for women.

Definition:

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

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.

Unit of measure:

Percentage (%)

Data required:

Average weekly earning of women and men.

Data sources:

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 these 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. The ILO Department of Statistics processes national household survey micro datasets in line with internationally agreed indicator concepts and definitions set forth by the International Conference of Labour Statisticians. For data that could not be obtained through this processing or directly from government websites, the ILO sends out an annual ILOSTAT questionnaire to all relevant agencies within each country (national statistical office, labour ministry, etc.) requesting the latest annual data and any revisions on numerous labour market topics and indicators, including many SDG indicators.

Calculation method:

Data for this indicator currently includes average hourly earnings in national currencies which are disaggregated by sex and occupation, as well as gender pay gap which is calculated as follows: The Gender pay gap is calculated as the difference between men's average hourly earnings and women's average hourly earnings, which is then divided by men's average hourly earnings and multiplied by 100.

Additional disaggregation:

By sex, occupation.

Comments and limitations:

Earnings statistics present a number of complications in terms of their international comparability, most of which arise from the variety of possible sources of data. The various sources available -- establishment surveys, household surveys and administrative records -- differ in their methods, objectives and scope, which influences the results obtained. The coverage of the source may vary in terms of the geographical areas covered, the workers covered (for example, part-time workers or informal workers may be excluded) and the establishments covered (for example, establishments below a certain size or of a certain sector may be excluded). In cases where the earnings of workers excluded from the coverage of the source are significantly different than those of workers included, the statistics would not be representative of the country as a whole and would not be strictly comparable to those of countries using a more comprehensive source. When using household surveys as a source of earnings statistics, there are a number of issues related to the accuracy of the earnings information reported by the respondents. They may over declare or under declare their earnings for various reasons, or they may report gross or net wages while including or excluding bonuses and benefits, without distinction. This naturally affects the reliability of the results.

Indicator EP9

Indicator:

Labour force participation rate for persons aged (a) 15-24 and (b) 15+, by sex and ***rural/urban*** (GMSGI) Also in AGS/MS)

Metadata adapted from GMSGI: https://gender-data-hub-2-undesa.hub.arcgis.com/pages/46eec013d2b74836b91562e9e0f8c356

And https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_650553.pdf

Importance of indicator:

The indicator for labour force participation rate plays a central role in the study of the factors that determine the size and composition of a country's human resources and in making projections of the future supply of labour. Knowing what the gender distribution is of those who are in the labour force helps to inform gender equality and women's empowerment programs.

Definition:

The labour force participation rate is the number of persons in the labour force as a percentage of the working-age population. The labour force is the sum of the number of persons employed and the number of persons unemployed. Thus, the measurement of the labour force participation rate requires the measurement of both employment and unemployment. Employment comprises all persons of working age who during a specified brief period, such as one week or one day, were in the following categories: paid employment (whether at work or with a job but not at work); or self-employment (whether at work or with an enterprise but not at work). The unemployed comprise all persons of working age who were: without work during the reference period, i.e. were not in paid employment or self-employment; currently available for work, i.e. were available for paid employment or self-employment during the reference period; and seeking work, i.e. had taken specific steps in a specified recent period to seek paid employment or self-employment. The working-age population is the population above the legal working age, but for statistical purposes it comprises all persons above a specified minimum age threshold for which an inquiry on economic activity is made. To promote international comparability, the working-age population is often defined as all persons aged 15 and older, but this may vary from country to country based on national laws and practices (some countries also apply an upper age limit).

Concepts:

See above.

Unit of measure:

Percentage (%)

Data required:

Number of people in labour force; Number of people of working age; number of persons employed and unemployed;

Data sources:

Labour force surveys are the preferred source of information for determining the labour force participation rate and related indicators. Such surveys can be designed to cover virtually the entire non-institutional population of a given country, all branches of economic activity, all sectors of the economy and all categories of workers, including the self-employed, contributing family workers, casual workers and multiple jobholders. In addition, such surveys generally provide an opportunity for the simultaneous measurement of the employed, the unemployed and persons outside the labour force in a coherent framework. Population censuses are another major source of data on the labour force and its components. The labour force participation rates obtained from population censuses, however, tend to be lower, as census forms do not typically allow for detailed probing on the labour market activities of the respondents.

Calculation method:

The labour force participation rate is calculated as follows: as the labour force divided by the working-age population, and then multiplied by 100; or as the sum of persons employed and unemployed, which is then divided by the working-age population, and then multiplied by 100.

Additional disaggregation:

By age, disability status and location.

Comments and limitations:

To some degree, the way in which the labour force is measured can have an effect on the extent to which men and women are included in labour force estimates. Unless specific probes are built into the data collection instrument, certain groups of workers may be underestimated - particularly the number of employed persons

who work for only a few hours in the reference period, especially if they do not do so regularly, are in unpaid employment, or work near or in their home, thus mixing work and personal activities during the day. Since women, more so than men, are found in these situations, it is to be expected that the number of women in employment (and thus the female labour force) will tend to be underestimated to a larger extent than the number of men.

Indicator EP10

Indicator:

Percentage distribution of employed population by sector, each sex (sectors here refer to Agriculture; Industry; Services) (GMSGI)

Metadata adapted from GMSGI: https://gender-data-hub-2-undesa.hub.arcgis.com/pages/33286bab8af049a29c49c0314a5f4fd6

Importance of indicator:

As economies develop, jobs are reallocated from agriculture and other labor-intensive primary activities to industry and finally to the services sector; in the process, workers migrate from rural to urban areas. In a large majority of countries, services are currently the largest sector in terms of employment. In most of the remaining countries, agricultural employment often remains widespread. The breakdown of the indicator by sex allows for analysis of gender segregation of employment by sector. Are men and women equally distributed across sectors, or is there a concentration of females in the services sector? Women may be drawn into lower paying service activities that allow for more flexible work schedules, thus making it easier to balance family responsibilities with work life. Segregation of women in certain sectors may also result from cultural attitudes that prevent them from taking up certain types of jobs.

Definition:

Employment comprises all persons of working age who, during a specified brief period, such as one week or one day, were in the following categories: a) paid employment (whether at work or having a job but not at work); or b) self-employment (whether at work or with an enterprise but not at work). To promote international comparability, the working-age population is often defined as all persons aged 15 and older, but this may vary from country to country based on national laws and practices (some countries also use an upper age limit). The classification by economic activity refers to the main activity of the establishment in which a person worked during the reference period. The branch of economic activity of a person does not depend on the specific duties or functions of the person's job, but rather on the characteristics of the economic unit in which the person works. Data presented by branch of economic activity is based on the International Standard Industrial Classification of All Economic Activities (ISIC). Statistics on employment by economic activity are presented in ILOSTAT according to both the categories of the latest version of the ISIC available and aggregate categories.

Concepts:

See above.

Unit of measure:

Percentage (%)

Data required:

Number of employed per economic sector, sex.

Data sources:

Labour force surveys are the preferred source of information on status in employment. Such surveys can be designed to cover virtually the entire non-institutional population of a given country, all branches of economic activity, all sectors of the economy and all categories of workers, including the self-employed, contributing family workers, casual workers and multiple jobholders. In addition, such surveys generally provide an opportunity for the simultaneous measurement of the employed, the unemployed and persons outside the labour force (and thus, the working-age population) in a coherent framework. Other types of household surveys and population censuses can also be used as sources of data on status in employment. The information obtained from such sources may however be less reliable since they do not typically allow for detailed probing on the labour market activities of the respondents. In the absence of the above-mentioned sources, establishment surveys or administrative records can provide information on employment by economic activity, but they do not cover the entire employed population, typically excluding the informal economy, small establishments and some specific economic activities such as public administration or even in some cases agriculture.

Calculation method:

Number of working population employed per sector divided by working age population multiplied by 100.

Additional disaggregation:

By age, disability status and location.

Comments and limitations:

Household Labour force surveys which typically is the source of this data usually exclude institutionalized individuals. In some countries where for example migrant workers reside in hostels this can skew the data.

Indicator EP11

Indicator:

Proportion of employed who are employers, by sex (GMSGI)

Metadata adapted from GMSGI: https://gender-data-hub-2-undesa.hub.arcgis.com/pages/04dd05dbb162411ba054d7fb5639fe68

And *https://www.ilo.org/llostat-files/Documents/Description_STE_EN.pdf*

Importance of indicator:

This indicator, together with "Proportion of employed who are contributing family workers, by sex" and "Proportion of employed who are employer, by sex", provides information on the distribution of the workforce by status in employment by sex. Breaking down employment information by status in employment provides a statistical basis for describing workers' behaviour and conditions of work, and for defining an individual's socio-economic group. A discrepancy of gender in the employment status can reveal a social inequality problem.

Definition:

Employment comprises all persons of working age who during a specified brief period, such as one week or one day, were in the following categories: a) paid employment (whether at work or with a job but not at work); or b) self-employment (whether at work or with an enterprise but not at work). The working-age population is the population above the legal working age, but for statistical purposes it comprises all persons above a specified minimum age threshold for which an inquiry on economic activity is made. To promote international comparability, the working-age population is often defined as all persons aged 15 and older, but this may vary from country to country based on national laws and practices (some countries also use an upper age limit). The classification by status in employment refers to inherent characteristics of the jobs held by the employed population. Jobs can be classified with respect to the type of explicit or implicit contract of employment the person has with other persons or organizations. The basic criteria used to define the groups of the classification are the type of economic risk and the type of authority over establishments and other workers which the job incumbents have. Data presented by status in employment is based on the 1993 International Classification of Status in Employment (ICSE-93). The ICSE-93 classifies jobs into five main categories, which can be grouped under two main types of jobs: paid employment jobs (employees) and self-employment jobs (employers, own-account workers, contributing family workers and members of producers' cooperatives). A sixth category is reserved for workers not classifiable by status. Employers are those workers who, working on their own account or with one or a few partners, hold the type of jobs defined as a "self- employment jobs" (i.e. jobs where the remuneration is directly dependent upon the profits derived from the goods and services produced), and, in this capacity, have engaged, on a continuous basis, one or more persons to work for them as employee(s).

Concepts:

See above.

Unit of measure:

Percentage (%)

Data required:

Number of employers; number of people employed, sex.

Data sources:

Labour force surveys are the preferred source of information on status in employment. Such surveys can be designed to cover virtually the entire non-institutional population of a given country, all branches of economic activity, all sectors of the economy and all categories of workers, including the self-employed, contributing family workers, casual workers and multiple jobholders. In addition, such surveys generally provide an opportunity for the simultaneous measurement of the employed, the unemployed and persons outside the labour force (and thus, the working-age population) in a coherent framework. Other types of household surveys and population censuses can also be used as sources of data on status in employment. The information obtained from such sources may however be less reliable since they do not typically allow for detailed probing on the labour market activities of the respondents.

Calculation method:

The proportion of employed who are employers is calculated by expressing the number of employers as a percentage of the total employed population.

Additional disaggregation:

By age, disability status and location.

Comments and limitations:

Comparability of employment statistics across countries is affected most significantly by variations in the definitions used for the employment figures. Differences can result from age coverage, such as the lower and upper bounds for labour force activity. Estimates of employment are also likely to vary according to whether members of the armed forces are included. Another area with scope for measurement differences has to do with the national treatment of particular groups of workers. The international definition of employment calls for inclusion of all persons who worked for at least one hour during the reference period. Workers could be in paid employment or in self-employment, including in less obvious forms of work, some of which are dealt with in detail in the resolution adopted by the 19th ICLS, such as unpaid family work, apprenticeship or non-market production. The majority of exceptions to coverage of all persons employed in a labour force survey have to do with national variations to the international recommendation applicable to the alternate employment statuses. Comparisons can also be problematic when the frequency of data collection differs. The range of data collection can run from one month to 12 months in a year. Given the fact that seasonality of various kinds is undoubtedly present in all countries, employment figures can vary for this reason alone. Some countries group together some of the ICSE categories (including for example members of producers' cooperatives with wage and salaried workers, or own-account workers with employers), affecting the comparability of the statistics. Importantly, the classification by status in employment does not provide information about finer distinctions in working status (for instance, whether workers have casual or regular contracts and the kind of protection the contracts provide against dismissals).

Indicator EP12

Indicator:

Unemployment rate, by sex, age and persons with disabilities (SDG indicator 8.5.2) (Also in GMSGI and Ag2063)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

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.

The unemployment rate by sex is one of the measures used to track progress with regards to women's economic empowerment[24], which is a prerequisite for sustainable development, pro-poor growth and the achievement of all the SDGs.

Definition:

The unemployment rate conveys the percentage of persons in the labour force who are unemployed, *disaggregated by sex, age and disability status.*.

Concepts:

Unemployed persons are defined as all those of working age (usually 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 aged 15 and above) who, during a short reference period such as one week or one day, were engaged in any activity to produce goods or provide services for pay or profit.

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

For more information on the definitions of employment and unemployment refer to the Resolution concerning statistics of work, employment and labour underutilization Adopted by the 19th International Conference of Labour Statisticians.

Unit of measure:

Percentage (%)

Calculation method:

$$\text{Unemployment rate} = \frac{\text{Total unemployment}}{\text{Total labour force}} \times 100$$

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 sur-

24 OECD 2011. Women's economic empowerment. Issues paper.

vey, one must refer to the most comprehensive survey report or to the methodological publications of the national statistical office in question.

- Decent Work and the Sustainable Development Goals: A Guidebook on SDG Labour Market Indicators, available at https://www.ilo.org/stat/Publications/WCMS_647109/lang--en/index.htm
- ILO Manual – Decent Work Indicators, Concepts and Definitions – Chapter 1, Employment opportunities http://www.ilo.org/integration/resources/pubs/WCMS_229374/lang--en/index.htm (second version, pages 34 and 49)
- Resolution concerning statistics of work, employment and labour underutilization http://www.ilo.org/global/statistics-and-databases/standards-and-guidelines/resolutions-adoptedby-international-conferences-of-labour-statisticians/WCMS_230304/lang--en/index.htm
- ILOSTAT (https://ilostat.ilo.org/)
- ILOSTAT Indicator descriptions (https://ilostat.ilo.org/resources/methods/description-unemployment-rate/)
- ILOSTAT's topic page on Unemployment and Labour Underutilization (https://ilostat.ilo.org/topics/unemployment-and-labour-underutilization/).

Additional disaggregation:

This indicator should, ideally, be disaggregated by sex, age group and disability status.

Data required:

Unemployed individuals, number of individuals in the labour force, sex.

Data sources:

The preferred official national data source for this indicator is a household-based labour force survey. In the absence of a labour force survey, a population census and/or other type of household surveys with an appropriate employment module may also be used to obtain the required data. It is important to note that unemployment data derived from employment office records or unemployment registers would not refer to unemployment (as defined for the purposes of this indicator, using the three-criteria of being without a job, seeking employment and available for employment) but to registered unemployment, and thus, it would not be comparable with indicator 8.5.2.

Comments and limitations:

Even though in most developed countries the unemployment rate is useful as an indicator of labour market performance, and specifically, as a key measure of labour underutilization, in many developing countries, 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.

Indicator EP13

Indicator:

Proportion of individuals who own a mobile telephone, by sex (SDG indicator 5.b.1) (Also in GMSGI)

Metadata adapted from: *https://unstats.un.org/sdgs/metadata/*

Importance of indicator:

Mobile phone networks have spread rapidly over the last decade and the number of mobile-cellular subscriptions is quasi equal to the number of the people living on earth. However, not every person uses, or owns a mobile-cellular telephone. Mobile phone ownership, in particular, is important to track gender equality since the mobile phone is a personal device that, if owned and not just shared, provides women with a degree of independence and autonomy, including for professional purposes. A number of studies have highlighted the link between mobile phone ownership and empowerment, and productivity growth.

Existing data on the proportion of women owning a mobile phone suggest that less women than men own a mobile phone. This indicator highlights the importance of mobile phone ownership to track and to improve gender equality, and monitoring will help design targeted policies to overcome the sex divide. The collection of this indicator was proposed by the Task Group on Gender of the Partnership on Measuring ICT for Development.

Definition:

The proportion of individuals who own a mobile telephone, by sex is defined as the 'proportion of individuals who own a mobile telephone, by sex'. *(SDG 2030) (Also in GMSGI)*

Concepts:

An individual owns a mobile cellular phone if he/she has a mobile cellular phone device with at least one active SIM card for personal use. Mobile cellular phones supplied by employers that can be used for personal reasons (to make personal calls, access the Internet, etc.) are included. Individuals who have only active SIM card(s) and not a mobile phone device are excluded. Individuals who have a mobile phone for personal use that is not registered under his/her name are also included. An active SIM card is a SIM card that has been used in the last three months.

A mobile (cellular) telephone refers to a portable telephone subscribing to a public mobile telephone service using cellular technology, which provides access to the PSTN. This includes analogue and digital cellular systems and technologies such as IMT-2000 (3G) and IMT-Advanced. Users of both postpaid subscriptions and prepaid accounts are included.

Unit of measure:

Percentage (%)

Data required:

Number of in-scope individuals who own a mobile phone by the total number of in-scope individuals; sex.

Data sources:

Countries can collect data on this indicator through national household surveys. This indicator is a newly developed ITU indicator that was approved by the World Telecommunication/ICT Indicators Symposium (WTIS) 2014. The indicator's definition and methodology were developed under the coordination of ITU, through its Expert Groups and following an extensive consultation process with countries. Data for the proportion of individuals owning a mobile phone were first collected in 2015, through an annual questionnaire that ITU sends to national statistical offices (NSO). In this questionnaire, through which ITU already collects a number of ICT indicators, ITU collects absolute values. The percentages are calculated a-posteriori. The survey methodology is verified to ensure that it meets adequate statistical standards. The data are verified to ensure consistency with previous years' data and other relevant country-level indicators (ICT and economic).

Data are usually not adjusted, but discrepancies in the definition, age scope of individuals, reference period or the break in comparability between years are noted in a data note. For this reason, data are not always strictly comparable.

Calculation method:

This indicator is calculated by dividing the total number of in-scope individuals who own a mobile phone by the total number of in-scope individuals.

Additional disaggregation:

For countries that collect this indicator through a national household survey, and if data allow breakdown and disaggregation, the indicator can be broken down not only by sex but also by region (geographic and/or urban/rural), by age group, by educational level, by labour force status, and by occupation.

Comments and limitations:

While the data on the 'proportion of individuals who own a mobile telephone' currently only exist for very few countries, ITU is encouraging all countries to collect data on this indicator through national household surveys and the indicator is expected to be added to the Partnership on Measuring ICT for Development's Core List of Indicators. The number of countries with official data for this indicator is expected to increase in the near future.

Indicator EP14

Indicator:

Proportion of adults (15 years and older) with an account at a bank or other financial institution or with a mobile-money-service provider, by sex (SDG indicator 8.10.2) (Also in GMSGI and AGS)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

Access to formal financial services such as savings, insurance, payments, credit and remittances is essential to the ability of people—regardless of income level, sex, 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.

Globally women are less likely to have access to finance then men. According to World Bank 2017 figures globally the numbers of people with bank accounts increased from 2011, but there was still a 9-percentage point gap between women's and men's access[25].

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.

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.

Unit of measure:

Percentage (%)

Data required:

Number of persons 15 years and older with accounts at bank or another financial institution/ Total number of persons 15 years and older

Data sources:

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

Calculation 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. 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.

Percentage of adults with accounts at bank or another financial institution =

Number of persons 15 years and older with accounts at bank or another financial institution/ Total number of persons 15 years and older

25 World Bank, 2017. Global Findex Database 2017 : Measuring Financial Inclusion and the Fintech Revolution Available from: https://openknowledge.worldbank.org/handle/10986/29510.

$$\text{Percentage of adults with accounts} = \frac{\text{Number of persons 15 years and older with accounts}}{\text{Total number of persons 15 years and older}} \times 100$$

Additional disaggregation:

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

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.

Indicator EP15

Indicator:

Percentage of population aged 15+ years who borrowed from a financial institution (Commercial and microcredit), disaggregated, by sex (AGS) (Also in AGDI2016)

Metadata adapted from: https://www.afdb.org/en/documents/africa-gender-index-2019-methodological-and-statistical-report

Importance of indicator:

Inclusive growth is dependent on financial Inclusion (FI), which promotes access and the use of high-quality financial services, particularly among poor people and women. Women are more likely to face financial access barriers that prevent them from participating in the economy and from improving their lives. The unmet financial needs of particularly women owned small and medium sized enterprises is one of the biggest barriers to growth and development. Improved access to credit is one of the mechanisms that promote greater financial inclusion and can help to support women achieve gender equity and poverty reduction[26].

Definition:

Percentage of persons aged 15+, who report borrowing any money from a bank, credit union, microfinance institution, or another financial institution such as a cooperative.

Concepts:

Microfinance institution[27] - Institutions that provide financial services to households and micro-enterprises that are excluded from traditional commercial banking services.

Formal Financial institutions - Formal financial institutions include a range of different institutions, including banks, nonbank financial institutions, and microfinance institutions.

Unit of measure:

Percentage (%)

Data required:

Persons who report borrowing money from a bank, credit union, microfinance institution, or another financial institution such as a cooperative, sex age.

Data sources:

Integrated household surveys, Financial sector surveys, Informal sector surveys, Word Bank Findex Data (http://datatopics.worldbank.org/financialinclusion/)

Calculation method:

Persons fifteen years and older who report borrowing money from a bank, credit union, microfinance institution, or another financial institution divided by the total population of persons aged 15 years and older multiplied by 100.

Additional disaggregation:

Disaggregate by location, age and disability status.

Comments and limitations:

The range of institutions included in this calculation may vary in composition and nomenclature from country to country – potentially generating incomparable data. It is important though to ensure that it is limited to formal institutions regardless of whether their services are aimed at large/medium/small enterprises as well as regardless of the registration status of the business with Government.

26 Extending women's access to financial services. https://www.worldbank.org/en/results/2013/04/01/banking-on-women-extending-womens-access-to-financial-services

27 The concepts in this section are from World Bank IEG working paper 2015/No.4. Microfinance: A critical literature survey. Accessible from: https://openknowledge.worldbank.org/bitstream/handle/10986/23546/Microfinance000al0literature0survey.pdf

Indicator EP16

Indicator:

Percentage of the population 15 years or older engaged in production of goods for own final use, by activity, sex, urban/rural place[28]

Metadata adapted from: https://ilostat.ilo.org/resources/concepts-and-definitions/description-work-statistics-icls19/

Importance of indicator:

Production of goods for own final use fall outside the System of National Accounts (SNA) production boundary is therefore not often measured and quantified even though in many parts of the world it account for an important share of the primary and secondary sectors and are often the responsibility of girls and women.

These activities need to be measured in order for it to be recognized and valued both at a national and household level.

Definition:

The population 15 years and older who produce goods for own consumption, expressed as a percentage of the population aged 15 years and older.

The ILO identifies[29] five forms of work one of which is (a) Own-use production work—goods and services for own final use. In this instance the output is primarily intended for final use by the producer. This can take the form of capital formation, or final consumption by household members or by family members living in other households. If agricultural, fishing, hunting or gathering goods are mainly used for own consumption, it is still considered as own use productive work even if a part or surplus is sold or bartered;

According to the System of National Accounts (SNA 2008)[30] and the International classification of time use (ICATUS)[31] non-SNA production includes the production of services by members of the household for their own final consumption

Concepts:

It is recommended that the concepts and definitions contained in the ICATUS framework be used to guide the collection and analysis of time use data. Where needed ICATUS can also be used to guide the collection of time-use data or adapted into countries' classifications to reflect the national context and needs.

Unit of measure:

Percentage (%)

Data required:

Number of people 15 years or older engaged in production of goods for own final use; total number of people aged 15 years and older; kinds of activities to produce goods for own final use; sex, urban/rural place

Data sources:

Labour force surveys; Standalone time use household surveys or modules attached to existing household questionnaire surveys such as for example the labour force survey.

Calculation method:

The indicator is calculated as follows:

Number of people 15 years or older engaged in production of goods for own final use divided by the total number of people aged 15 years and older and multiplied by 100.

Additional disaggregation:

Kinds of activities to produce goods for own final use; age and location.

Comments and limitations:

This indicator is measured to determine employment and labour force participation rates. However, not all countries include the necessary battery of questions to determine this.

28 Proportion changed to percentage
29 9th International Conference of Labour Statisticians resolution concerning statistics of work, employment and labour underutilization.
30 System of National Accounts 2008 (United Nations publication, Sales No. E.08.XVII.29)
31 International Classification of Activities for Time-Use Statistics 2016. https://unstats.un.org/unsd/gender/timeuse/23012019%20ICATUS.pdf

Indicator EP17

Indicator:

Proportion of time spent on (a) unpaid domestic and (b) care work, (c) volunteer work, by sex, age and location (rural/urban) (SDG indicator 5.4.1) (Also in GMSGI)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

Women's unpaid care work burden is disproportionally higher than that of men. Evidence suggest that implementing policies around the five Rs to recognize, reduce, and redistribute unpaid care work, and reward and represent paid care work make a significant contribution towards women's economic empowerment.

Definition:

This indicator is defined as the proportion of time spent in a day on unpaid domestic and care work by men and women. Unpaid domestic and care work refers to activities related to the provision of services for own final use by household members, or by family members living in other households. These activities are listed in ICATUS 2016 under the major divisions "3. Unpaid domestic services for household and family members" and "4. Unpaid caregiving services for household and family members".

Concepts:

Unpaid domestic and care work refers to activities including food preparation, dishwashing, cleaning and upkeep of the dwelling, laundry, ironing, gardening, caring for pets, shopping, installation, servicing and repair of personal and household goods, childcare, and care of the sick, elderly or disabled household and family members, among others. These activities are listed in ICATUS 2016 under the major divisions "3. Unpaid domestic services for household and family members" and "4. Unpaid caregiving services for household and family members".

Concepts and definitions for this indicator are based on the following international standards:

- System of National Accounts 2008 (SNA 2008)
- The Resolution concerning statistics of work, employment and labour underutilization, adopted by the International Conference of Labour Statisticians (ICLS) at its 19th Session in 2013
- International Classification of Activities for Time Use Statistics 2016 (ICATUS 2016)

Relevant specific concepts are presented below:

- An activity is said to be productive or to fall within the "general production boundary" if it satisfies the third-person criterion (the activity can be delegated to another person and yield the same desired results).
- Productive activities can be further classified based on the ILO framework for work statistics (included in the 19th ICLS resolution) into:
  a) Own-use production work (activities to produce goods and services for own final use; the intended destination of the output is mainly for final use of the producer in the form of capital formation, or final consumption by household members or by family members living in other households; in the case of agricultural, fishing, hunting or gathering goods intended mainly for own consumption, a part or surplus may nevertheless be sold or bartered)
  b) Employment (activities to produce goods or provide services for pay or profit)
  c) Unpaid trainee work (any unpaid activity to produce goods or provide services for others, in order to acquire workplace experience or skills in a trade or profession)
  d) Volunteer work (any unpaid, non-compulsory activity to produce goods or provide services for others)
  e) Other forms of work

The own-use production work can be differentiated based on whether goods or services are produced.

Indicator 5.4.1 only considers the own-use production work of services, or in other words, the activities related to unpaid domestic services and unpaid caregiving services undertaken by households for their own use. These activities are listed in ICATUS 2016 under the major divisions "3. Unpaid domestic services for household and family members" and "4. Unpaid caregiving services for household and family members".

As much as possible, statistics compiled by UNSD are based on the International Classification of Activities for Time Use Statistics 2016 (ICATUS 2016), which classifies activities undertaken by

persons during the survey period. ICATUS 2016 was adopted by the United Nations Statistical Commission for use as an international statistical classification at its 48th session, 7-10 March 2017.

Unit of measure:

Percentage (%)

Data required:

Number of hours spent by individuals per day on unpaid domestic and care work.

Data sources:

Standalone time use household surveys or modules attached to existing household questionnaire surveys such as for example the labour force survey.

Calculation method:

Data presented for this indicator are expressed as a proportion of time in a day. Weekly data is averaged over seven days of the week to obtain the daily average time.

Proportion of time spent on unpaid domestic and care work is calculated by dividing the daily average number of hours spent on unpaid domestic and care work by 24 hours.

Proportion of time spent on unpaid domestic and care work (*Indicator* 5.4.1) is calculated as:

$$\text{Indicator 5.4.1} = \frac{\text{Daily number of hours spent on domestic work+Daily number of hours spent on care work}}{24} \times 100$$

where

$$\text{Daily number of hours spent on relevant activities} = \frac{\text{Total number of hours spent by @the population on relevant activities}}{\text{Total population (regardless of whether @ they participated in the activity)}} \times 100$$

If data on time spent are weekly, data are averaged over seven days of the week to obtain daily time spent.

Average number of hours spent on unpaid domestic and care work derives from time use statistics that is collected through stand-alone time-use surveys or a time-use module in multi-purpose household surveys. Data on time-use may be summarized and presented as either (1) average time spent for participants (in a given activity) only or (2) average time spent for all population of a certain age (total relevant population). In the former type of averages, the total time spent by the individuals who performed an activity is divided by the number of persons who performed it (participants). In the latter type of averages, the total time is divided by the total relevant population (or a sub-group thereof), regardless of whether people performed the activity or not.

SDG indicator 5.4.1 is calculated based on the average number of hours spent on unpaid domestic and unpaid care work for the total relevant population. This type of measures can be used to compare groups and assess changes over time. Differences among groups or over time may be due to a difference (or change) in the proportion of those participating in the specific activity or a difference (or change) in the amount of time spent by participants, or both.

Additional disaggregation:

This indicator should be disaggregated by the following dimensions: sex, age and location.

The categories for disaggregation, by dimension, are as follows:

Sex: female/male;

Age: the recommended age groups are: 15+, 15-24, 25-44, 45-54, 55-64 and 65+

Location: urban/rural (following national definitions given the lack of international definition)

These categories have been recommended by the Inter-Agency and Expert Group on Gender Statistics (IAEG-GS) during its 11th meeting in Rome, Italy on 30-31 October 2017.

Available data are currently disaggregated by sex, age and location.

Comments and limitations:

Time use statistics have been used for: (1) provide a measure of quality of life or general wellbeing of individuals and households; (2) offer a more comprehensive measurement of all forms of work, including unpaid household service work; (3) produce data relevant for monitoring gender equality and the empowerment of women and girls and are essential inputs for the policy and political dialogue on gender equality.

International comparability of time-use statistics is limited by a number of factors, including:

a) Diary versus stylized time-use survey. Data on time-use can be collected through a 24-hour diary (light diary) or stylized questionnaire. With diaries, respondents are asked to report on what activity they were performing when they started the day, what activity followed, and the time that activity began and ended, and so forth through the 24 hours of the day. Stylized time-use questions ask respondents to recall the amount of time they allocated to a certain activity over a specified period, such as a day or week. Often, stylized time-use questions are attached as a module to a multipurpose household survey. The 24-hour diary method yields better results than the stylized method but is a more expensive mode of data collection. Data obtained from these two different data collection methods are usually not comparable, and even data collected with different stylized questions might not be comparable given that the level of details asked about activities performed might differ from one instrument to another, thus impacting the total time spent on a given activity.

b) Time-use activity classification. Regional and national classifications of time-use activities may differ from ICATUS 2016, resulting in data that are not comparable across countries.

c) Time-use data presented refer to the "main activity" only. Any "secondary activity" performed simultaneously with the main activity is not reflected in the average times shown. For instance, a woman may be cooking and looking after a child simultaneously. For countries reporting cooking as the main activity, time spent caring for children is not accounted for and reflected in the statistics. This may affect international comparability of data on time spent caring for children; it may also underestimate the time women spend on this activity.

d) Different target age population used by countries and age groups used also make time use data difficult to compare across countries.

HEALTH AND RELATED SERVICES

Indicator H1

Indicator:

Maternal mortality ratio (SDG indicator 3.1.1) (Also in GMSGI, ag2063/AGS)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

All maternal mortality indicators derived from the 2019 estimation round include a point-estimate and an 80% uncertainty interval (UI). Data are available and can be downloaded from the webpage "maternal mortality – levels and trends 2000-2017: http://mmr2017.srhr.org. Both point-estimates and 80% UIs should be taken into account when assessing estimates.

For example:

The estimated 2017 global MMR is 211 (UI 199 to 243)

This means:

- The point-estimate is 211 and the 80% uncertainty interval ranges 199 to 243.
- There is a 50% chance that the true 2017 global MMR lies above 211, and a 50% chance that the true value lies below 211.
- There is an 80% chance that the true 2017 global MMR lies between 199 and 243.
- There is still a 10% chance that the true 2017 global MMR lies above 243, and a 10% chance that the true value lies below 199.

Other accurate interpretations include:

- We are 90% certain that the true 2017 global MMR is at least 199.
- We are 90% certain that the true 2017 global MMR is 243 or less.

The amount of data available for estimating an indicator and the quality of that data determine the width of an indicator's UI. As data availability and quality improve, the certainty increases that an indicator's true value lies close to the point-estimate.

Definition:

The maternal mortality ratio (MMR) is defined as the number of maternal deaths during a given time period per 100,000 live births during the same time period. It depicts the risk of maternal death relative to the number of live births and essentially captures the risk of death in a single pregnancy or a single live birth.

Maternal deaths: The annual number of female deaths from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, expressed per 100,000 live births, for a specified time period.

Concepts:

Definitions related to maternal death in ICD-10

Maternal death: The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management (from direct or indirect obstetric death), but not from accidental or incidental causes.

Pregnancy-related death: The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the cause of death.

Late maternal death: The death of a woman from direct or indirect obstetric causes, more than 42 days, but less than one year after termination of pregnancy

Unit of measure:

Rate per 100,000

Data required:

Recorded or estimated live births and maternal deaths during the same time period.

Data sources:

Please see page 14 of the report (https://www.who.int/reproductivehealth/publications/maternal-mortality-2000-2017/en/).

The MMEIG maintains an input database consisting of maternal mortality data from civil registration, population-based surveys, surveillance systems, censuses, and other specialized studies/surveys. This database is used to determine the number of maternal deaths and where possible the number of deaths among all women of reproductive age (WRA) to calculate the "PM" proportion of maternal deaths among WRA. The MMR is then calculated as MMR = PM(D/B); where "D" is the number of deaths in women aged 15-49 (WRA) and "B" is the number of live births. The number of live births is based upon the World Population Prospects 2019.

Statistical modelling is undertaken to generate comparable country, regional, and global level estimates. The model's fit is assessed by cross-validation. Estimates are then reviewed with Member States through a WHO country consultation process and SDG focal points. In 2001, the WHO Executive Board endorsed a resolution (EB. 107.R8) seeking to "establish a technical consultation process bringing together personnel and perspectives from Member States in different WHO regions". A key objective of this consultation process is "to ensure that each Member State is consulted on the best data to be used". Since the process is an integral step in the overall estimation strategy, it is described here in brief.

The country consultation process entails an exchange between WHO and technical focal person(s) in each country. It is carried out prior to the publication of estimates. During the consultation period, WHO invites focal person(s) to review input data sources, methods for estimation and the preliminary estimates. Focal person(s) are encouraged to submit additional data that may not have been taken into account in the preliminary estimates.

Adjustments are made according to the data source type:

(1) CRVS, for incompleteness and misclassification of maternal deaths

(2) reports providing "pregnancy-related" mortality, for underreporting of these deaths, as well as over-reporting of maternal deaths due to inclusion of deaths which are accidental or incidental to pregnancy (thus outside of the definition of maternal mortality).

The analysis also accounts for stochastic errors due to the general rarity of maternal deaths, sampling error in the data source, errors during data collection and processing, and other random error.

Calculation method:

The maternal mortality ratio can be calculated by dividing recorded (or estimated) maternal deaths by total recorded (or estimated) live births in the same period and multiplying by 100 000. Measurement requires information on pregnancy status, timing of death (during pregnancy, childbirth, or within 42 days of termination of pregnancy), and cause of death.

The maternal mortality ratio can be calculated directly from data collected through vital registration systems, household surveys or other sources. There are often data quality problems, particularly related to the underreporting and misclassification of maternal deaths. Therefore, data are often adjusted in order to take these data quality issues into account. Some countries undertake these adjustments or corrections as part of specialized/confidential enquiries or administrative efforts embedded within maternal mortality monitoring programmes.

Additional disaggregation:

Current MMR estimates are reported at Country, Regional, and Global levels. Regional level estimates have income strata per World Bank classification, by UNICEF and UNFPA regional groupings

Comments and limitations:

The extent of maternal mortality in a population is essentially the combination of two factors:

i. The risk of death in a single pregnancy or a single live birth.

ii. The fertility level (i.e. the number of pregnancies or births that are experienced by women of reproductive age).

The maternal mortality ratio (MMR) is defined as the number of maternal deaths during a given time period per 100 000 live births during the same time period. It depicts the risk of maternal death relative to the number of live births and essentially captures (i) above.

By contrast, the maternal mortality rate (MMRate) is calculated as the number of maternal deaths divided by person-years lived by women of reproductive age. The MMRate captures both the risk of maternal death per pregnancy or per total birth (live birth or stillbirth), and the level of fertility in the population. In addition to the MMR and the MMRate, it is possible to calculate the adult lifetime risk of maternal mortality for women in the population. An alternative measure of maternal mortality, the proportion of deaths among women of reproductive age that are due to maternal causes (PM), is calculated as the number of maternal deaths divided by the total deaths among women aged 15–49 years.

Indicator H2

Indicator:

Proportion of births attended by skilled health personnel (SDG indicator 3.1.2) (Also in GMSGI, AG2063)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

Having a skilled health care provider at the time of childbirth is an important lifesaving intervention for both women and new-borns. Not having access to this key assistance is detrimental to women's and new-borns health because it could cause the death of the women and/or the new-born or long lasting morbidity Achieving universal coverage for this indicator is therefore essential for reducing maternal and newborn mortality.

Definition:

Proportion of births attended by skilled health personnel (generally doctors, nurses or midwives but can refer to other health professionals providing childbirth care) is the proportion of childbirths attended by professional health personnel. According to the current definition (1) these are competent maternal and new-born health (MNH) professionals educated, trained and regulated to national and international standards. They are competent to: (i) provide and promote evidence-based, human-rights based, quality, socio-culturally sensitive and dignified care to women and new-borns; (ii) facilitate physiological processes during labour and delivery to ensure a clean and positive childbirth experience; and (iii) identify and manage or refer women and/or new-borns with complications.

Concepts:

An important aspect of this indicator is the reporting of categories of health providers at country level. Standard categories for the indicator include doctor, nurse and midwife. However, some additional categories are currently being reported by some countries. When that is the case, a process of verification is conducted in which the competency level of other categories of health care providers is assessed with national sources and in communication with national counterparts.

Unit of measure:

This indicator is reported in proportion (or percentage)

Data required:

Number of births attended by skilled health personnel (doctor, nurse or midwife) trained in providing quality obstetric care, including giving the necessary support and care to the mother and the new-born during childbirth and immediate postpartum period; The total number of live births in the same period.

Data sources:

National-level household surveys are the main data sources used to collect data for skilled health personnel. These surveys include Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), Reproductive Health Surveys (RHS) and other national surveys based on similar methodologies. Surveys are undertaken every 3 to 5 years. Data sources also include routine service statistics

Population-based surveys is the preferred data source in countries with a low utilization of childbirth services, where private sector data are excluded from routine data collection, and/or with weak health information systems. These surveys include Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), Reproductive Health Surveys (RHS) and other national surveys based on similar methodologies. In MICS, DHS and similar surveys, the respondent is asked about the last live birth and who helped during delivery for a period up to five years before the interview. The surveys are generally undertaken every 3 to 5 years. Routine service/facility records is a more commons data source in countries where a high proportion of births occur in health facilities and are therefore recorded. These data can be used to track the indicator on an annual basis.

Calculation method:

Numerator:

Number of births attended by skilled health personnel (doctor, nurse or midwife) trained in providing quality obstetric care, including giving the necessary support and care to the mother and the newborn during childbirth and immediate postpartum period

Denominator:

The total number of live births in the same period.

Additional disaggregation:

For this indicator, when data are reported from household surveys, disaggregation is available for various socio-economic characteristics including age of the mother, residence (urban/rural), household wealth (quintiles), education level of the mother, maternal age, geographic regions. When data are reported from administrative sources, disaggregation is more limited and tend to include only residence.

Comments and limitations:

Births attended by skilled health personnel is an indicator of health care utilization. It is a measure of the health system's functioning and potential to provide adequate coverage for childbirth. On its own, however, this indicator does not provide insight into the availability or accessibility of services, for example in cases where emergency care if needed. Neither does this indicator capture the quality of care received.

Data collection and data interpretation in many countries is challenged by lack of guidelines, standardization of professional titles and functions of the health care provider, and in some countries by task-shifting. In addition, many countries have found that there are large gaps between international standards and the competencies of existing of health care professionals providing childbirth care. Lack of training and an enabling environment often hinder evidence-based management of common obstetric and neonatal complications.

The most commonly used denominator is the number of live births.

Indicator H3

Indicator:

Under-five mortality rate by sex (SDG indicator 3.2.1) (Also in GMSGI, Ag2063, AGS, AGDI)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

Mortality rates among young children are a key output indicator for child health and well-being, and, more broadly, for social and economic development. It is a closely watched public health indicator because it reflects the access of children and communities to basic health interventions such as vaccination, medical treatment of infectious diseases and adequate nutrition.

Definition:

Under-five mortality is the probability of a child born in a specific year or period dying before reaching the age of 5 years, if subject to age specific mortality rates of that period, expressed per 1000 live births.

Concepts:

The under-five mortality rate as defined here is, strictly speaking, not a rate (i.e. the number of deaths divided by the number of population at risk during a certain period of time), but a probability of death derived from a life table and expressed as a rate per 1000 live births.

Unit of measure:

Rate per 1000 live births.

Data required:

Mortality data of children under five years, number of live births during the same time period.

Data sources:

Nationally-representative estimates of child mortality can be derived from a number of different sources, including civil registration and sample surveys. Demographic surveillance sites and hospital data are excluded as they are rarely representative. The preferred source of data is a civil registration system that records births and deaths on a continuous basis. If registration is complete and the system functions efficiently, the resulting estimates will be accurate and timely. However, many countries do not have well-functioning vital registration systems. In such cases, household surveys, such as the UNICEF-supported Multiple Indicator Cluster Surveys (MICS), the USAID-supported Demographic and Health Surveys (DHS) and periodic population censuses have become the primary sources of data on under-five mortality. These surveys ask women about the survival of their children, and it is these reports that provide the basis of child mortality estimates for a majority of low- and middle- income countries. These data, however, are often subject to sampling or/and non-sampling errors, which might be substantial.

Civil registration

Civil registration data are the preferred data source for under-five, infant and neonatal mortality estimation. The calculation of the under-five and infant mortality rates from civil registration data is derived from a standard period abridged life table. For civil registration data (with available data on the number of deaths and mid-year populations), initially annual observations were constructed for all observation years in a country.

Population census and household survey data

The majority of survey data comes in one of two forms: the full birth history (FBH), whereby women are asked for the date of birth of each of their children, whether the child is still alive, and if not the age at death; and the summary birth history (SBH), whereby women are asked only about the number of their children ever born and the number that have died (or equivalently the number still alive).

Calculation method:

The UN Inter-agency Group for Child Mortality Estimation (UN IGME) estimates are derived from national data from censuses, surveys or vital registration systems. The UN IGME does not use any covariates to derive its estimates. It only applies a curve fitting method to good-quality empirical data to derive trend estimates after data quality assessment. In most cases, the UN IGME estimates are close to the underlying data. The UN IGME aims to minimize the errors for each estimate, harmonize trends over time and produce up-to-date and properly assessed estimates. The UN IGME applies the Bayesian B-splines bias-reduction model to empirical data to derive trend estimates of under-five mortality for all countries. See references for details.

For the underlying data mentioned above, the most frequently used methods are as follows:

Civil registration: The under-five mortality rate can be derived from a standard period abridged life table using the age-specific deaths and mid-year population counts from civil registration data to calculate death rates, which are then converted into age-specific probabilities of dying.

Census and surveys: An indirect method is used based on a summary birth history, a series of questions asked of each woman of reproductive age as to how many children she has ever given birth to and how many are still alive. The Brass method and model life tables are then used to obtain an estimate of under-five and infant mortality rates. Censuses often include questions on household deaths in the last 12 months, which can be used to calculate mortality estimates.

Surveys: A direct method is used based on a full birth history, a series of detailed questions on each child a woman has given birth to during her lifetime. Neonatal, post-neonatal, infant, child and under-five mortality estimates can be derived from the full birth history module.

Additional disaggregation:

The common disaggregation for mortality indicators includes disaggregation by sex, age (neonatal, infant, child), wealth quintile, residence, and mother's education. Disaggregated data are not always available. Disaggregation by geographic location is usually at regional level, or the minimum provincial level for survey or census data. Data from well-functioning vital registration systems can provide further geographical breakdowns.

Comments and limitations:

The UN IGME estimates are derived based on national data. Countries often use a single source as their official estimates or apply methods different from the UN IGME methods to derive estimates. The differences between the UN IGME estimates and national official estimates are usually not large if empirical data has good quality.

Many countries lack a single source of high-quality data covering the last several decades. Data from different sources require different calculation methods and may suffer from different errors, for example random errors in sample surveys or systematic errors due to misreporting. As a result, different surveys often yield widely different estimates of under-five mortality for a given time period and available data collected by countries are often inconsistent across sources. It is important to analyse, reconcile and evaluate all data sources simultaneously for each country. Each new survey or data point must be examined in the context of all other sources, including previous data. Data suffer from sampling or non-sampling errors (such as misreporting of age and survivor selection bias; underreporting of child deaths is also common). UN IGME assesses the quality of underlying data sources and adjusts data when necessary. Furthermore, the latest data produced by countries often are not current estimates but refer to an earlier reference period. Thus, the UN IGME also projects estimates to a common reference year. In order to reconcile these differences and take better account of the systematic biases associated with the various types of data inputs, the UN IGME has developed an estimation method to fit a smoothed trend curve to a set of observations and to extrapolate that trend to a defined time point. The UN IGME aims to minimize the errors for each estimate, harmonize trends over time and produce up-to-date and properly assessed estimates of child mortality. In the absence of error-free data, there will always be uncertainty around data and estimates. To allow for added comparability, the UN IGME generates such estimates with uncertainty bounds. Applying a consistent methodology also allows for comparisons between countries, despite the varied number and types of data sources. UN IGME applies a common methodology across countries and uses original empirical data from each country but does not report figures produced by individual countries using other methods, which would not be comparable to other country estimates.

Indicator H4

Indicator:

Number of new HIV infections per 1,000 uninfected population, by sex, age and key populations (SDG indicator 3.3.1) (Also in GMSGI, AG2063)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

The incidence rate provides a measure of progress toward preventing onward transmission of HIV. Although other indicators are also very important to the HIV epidemic, HIV incidence reflects success in prevention programmes and, to some extent, successful treatment programmes, as those will also lead to lower HIV incidence.

Definition:

The number of new HIV infections per 1,000 uninfected population, by sex, age and key populations as defined as the number of new HIV infections per 1000 person-years among the uninfected population.

Concepts:

HIV-Positive

A person who is HIV-positive (or seropositive) has had antibodies against HIV detected in a blood test or gingival exudate test (commonly known as a saliva test). Results may occasionally be false-positive, especially in infants up to 18 months of age who are carrying maternal antibodies[32].

A new HIV infection refers to someone who has tested HIV-positive for the first time.

Unit of measure:

Number of people per 1000.

Data required:

Number of new HIV infections; number of uninfected individuals in the population.

Data sources:

Spectrum modelling is used for the data presented here. Alternative methods of measures include household or key population surveys with HIV incidence-testing, or routine surveillance among key populations.

Calculation method:

Longitudinal data on individuals newly infected with HIV would be the most accurate source of data but are rarely available for representative populations. Special diagnostic tests in surveys or from health facilities can also be used to obtain data on HIV incidence but these require very large samples to accurately estimate HIV incidence and the latter are also rarely representative. HIV incidence is thus modelled using the Spectrum software

Additional disaggregation:

General population, Age groups (0-14, 15-24, 15-49, 50+ years, All ages), sex (male, female, both) Key population data are currently not available as methods are being developed.

Comments and limitations:

The methods and limitations for estimating HIV incidence vary based on the data and surveillance systems available in countries.

- Countries with high HIV prevalence in the general population have relatively strong surveillance systems with household surveys contributing to the information required to estimate incidence. In epidemics concentrated in key populations, the surveillance systems for key hard-to-reach populations are often not comparable over time due to changing survey and sampling methods. The estimated size of key populations, a critical input to the Spectrum model for concentrated epidemics, can also lead to important under or over estimation of HIV epidemics in concentrated epidemics.
- fections rely on prevalence data from routine antenatal clinic testing. If those data are biased because women with known positive HIV status are not captured when calculating prevalence, or women found to be negative at initial ANC visit are retested later in the pregnancy, the derived incidence trends might be biased. While some limitations of the models are reflected in the uncertainty bounds the measurement biases and the uncertainty caused by these biases are not easily quantified and are thus not included.
- Although HIV prevalence and incidence among children appears to be reasonably robust in generalized epidemics, estimating the paediatric HIV epidemic in concentrated epidemics remains a challenge because no robust measures exist of fertility among key populations living with HIV.
- Currently UNAIDS only supports the HIV estimates development in countries with populations greater than 250,000. This is primarily due to support capacity.

32 UNIADS, terminology guidelines. Available at : https://www.unaids.org/sites/default/files/media_asset/2015_terminology_guidelines_en.pdf

Indicator H5

Indicator:

Prevalence of stunting (height for age <-2 standard deviations from the median of the WHO child growth standard among children under 5 years (SDG indicator 2.2.1) (Also in Ag2063, AGS, AGDI, MS)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

Child growth is an internationally accepted outcome reflecting child nutritional status. Child stunting refers to a child who is too short for his or her age and is the result of chronic or recurrent malnutrition. Stunting is a contributing risk factor to child mortality and is also a marker of inequalities in human development. Stunted children fail to reach their physical and cognitive potential. Child stunting is one of the World Health Assembly nutrition target indicators.

Definition:

Prevalence of stunting (height-for-age <-2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age.

(French: pourcentage de sous-alimentation; Spanish: porcentaje de sub-alimentación)

Concepts:

Stunting

Stunting is defined as low height-for-age. It is the result of chronic or recurrent undernutrition, usually associated with poverty, poor maternal health and nutrition, frequent illness and/or inappropriate feeding and care in early life. Stunting prevents children from reaching their physical and cognitive potential[33].

Unit of measure:

Global and regional estimates refer to the age group of children under 5 years, sexes combined. Disaggregated country data are available in a majority of household surveys and UNICEF - WHO- The World Bank Group are expanding the joint data set to include sub national and stratified estimates (e.g. sex, age groups, wealth, mothers' education, residence) in 2017.

Data required:

Height and age measures for children younger than 5 years.

Data sources:

For the majority of countries, nationally representative household surveys constitute the data source. For a limited number of countries data from surveillance systems is used if sufficient population coverage is documented (about 80%). For both data sources, the child's height and weight measurements have to be collected following recommended standard measuring techniques (WHO 2008).

Survey estimates are based on standardized methodology using the WHO Child Growth Standards as described elsewhere (Ref: Anthro software manual). Global and regional estimates are based on methodology outlined in UNICEF-WHO-The World Bank: Joint child malnutrition estimates - Levels and trends (UNICEF/WHO/WB 2012)

Additional disaggregation:

Global and regional estimates refer to the age group of children under 5 years, sexes combined. Disaggregated country data are available in a majority of household surveys and UNICEF - WHO- The World Bank Group are expanding the joint data set to include sub national and stratified estimates (e.g. sex, age groups, wealth, mothers' education, residence) in 2017.

Comments and limitations:

Survey estimates come with levels of uncertainty due to both sampling error and non-sampling error (e.g. mesasurement technical error, recording error etc.,). None of the two sources of errros have been fully taken into account for deriving estimates neither at country nor at regional and global levels.

33 WHO Health topics. Available from https://www.who.int/health-topics/malnutrition#tab=tab_1

Indicator H6

Indicator:

Prevalence of malnutrition (weight for height >+2 or <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight) (SDG indicator 2.2.2a) (Also in Ag2063, AGDI, MS)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

Child growth is an internationally accepted outcome area reflecting child nutritional status. Child overweight refers to a child who is too heavy for his or her height. This form of malnutrition results from expending too few calories for the amount of food consumed and increases the risk of noncommunicable diseases later in life. Child overweight is one of the World Health Assembly nutrition target indicators.

Definition:

Wasting is defined as the prevalence of children aged 0–59 months, whose weight-for-length or height values are below minus two standard deviations from the WHO Child Growth Standards median.

Prevalence of overweight (weight for height >+2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age.

Concepts:

Wasting

Wasting is defined as low weight-for-height. It often indicates recent and severe weight loss, although it can also persist for a long time. It usually occurs when a person has not had food of adequate quality and quantity and/or they have had frequent or prolonged illnesses[34].

Overweight

The official MDG indicator is overweight as assessed using weight for height. Overweight can however also be assessed with other indicators such body mass index for age. In general BMI for age is not used in the joint dataset but has been considered in absence of any other available estimates.

Unit of measure:

Percentage (%)

Data required:

Height and weight measures for children younger than 5 years.

Data sources:

For the majority of countries, nationally representative household surveys constitute the data source. For a limited number of countries data from surveillance systems is used if sufficient population coverage is documented (about 80%). For both data sources, the child's height and weight measurements have to be collected following recommended standard measuring techniques (WHO 2008).

Calculation method:

Survey estimates are based on standardized methodology using the WHO Child Growth Standards as described elsewhere (Ref: Anthro software manual). Global and regional estimates are based on methodology outlined in UNICEF-WHO-The World Bank: Joint child malnutrition estimates - Levels and trends (UNICEF/WHO/WB 2012)

Additional disaggregation:

Disaggregated country data are available in a majority of household surveys and UNICEF - WHO- The World Bank Group are expanding the joint data set to include sub national and stratified estimates (e.g. sex, age groups, wealth, mothers' education, residence) in 2017.

Comments and limitations:

Survey estimates come with levels of uncertainty due to both sampling error and non-sampling error (e.g. mesasurement technical error, recording error etc.,). None of the two sources of errros have been fully taken into account for deriving estimates neither at country nor at regional and global levels. Of particular concern for overweight is the fact that data for high income countries are scarce yet the rates are generally higher among the high income countries with data and so the lack of representation from high income countries may affect the global and even regional rates.

34 WHO Health Topics. Available from https://www.who.int/health-topics/malnutrition#tab=tab_1

Indicator H7

Indicator:

2.1.2, Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES) (SDG indicator 2.1.2)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

Food insecurity at moderate levels of severity is typically associated with the inability to regularly eat healthy, balanced diets. As such, high prevalence of food insecurity at moderate levels can be considered a predictor of various forms of diet-related health conditions in the population, associated with micronutrient deficiency and unbalanced diets. Severe levels of food insecurity, on the other hand, imply a high probability of reduced food intake and therefore can lead to more severe forms of undernutrition, including hunger.

Short questionnaires like the FIES are very easy to administer at limited cost, which is one of the main advantages of their use. The ability to precisely determine the food insecurity status of specific individuals or households, however, is limited by the small number of questions, a reason why assignment of individual respondents to food insecurity classes is best done in probability terms, thus ensuring that estimates of prevalence rates in a population are sufficiently reliable even when based on relatively small sample sizes.

As with any statistical assessment, reliability and precision crucially depend on the quality of the survey design and implementation. One major advantage of the analytic treatment of the data through the Rasch model based methods is that it permits testing the quality of the data collected and evaluating the likely margin of uncertainty around estimated prevalence rates, which should always be reported.

Unit of measure:

The unit of the prevalence of moderate or severe food insecurity is percentage of the total population. A related indicator, the number of food insecure people, is measured as millions of people.

Definition:

The indicator measures the percentage of individuals in the population who have experienced food insecurity at moderate or severe levels during the reference period. The severity of food insecurity, defined as a latent trait, is measured on the Food Insecurity Experience Scale global reference scale, a measurement standard established by FAO through the application of the Food Insecurity Experience Scale in more than 140 countries worldwide, starting in 2014.

Concepts:

Extensive research over more than 25 years has demonstrated that the inability to access food results in a series of experiences and conditions that are fairly common across cultures and socio-economic contexts and that range from being concerned about the ability to obtain enough food, to the need to compromise on the quality or the diversity of food consumed, to being forced to reduce the intake of food by cutting portion sizes or skipping meals, up to the extreme condition of feeling hungry and not having means to access any food for a whole day. Typical conditions like these form the basis of an experience-based food insecurity measurement scale. When analysed through sound statistical methods rooted in Item Response Theory, data collected through such scales provide the basis to compute theoretically consistent, cross country comparable measures of the prevalence of food insecurity. The severity of the food insecurity condition as measured by this indicator thus directly reflects the extent of households' or individuals' inability to regularly access the food they need.

The construction of the regional and global estimates, as well as estimates for specific groups, such as Least Developed Countries, Land Locked Developing countries, Small Island Developing States, Developed Regions, and Developing Regions, of this indicator follows the UN M49 Standard.

Data required:

Information on food insecurity experiences of individuals. Please refer to the detailed explanation of the tool used for this indicators described below under the data sources section.

Data sources:

Data can be collected using the Food Insecurity Experience Scale survey module (FIES-SM) developed by FAO, or any other experience-based food security scale questionnaires, including:

- the Household Food Security Survey Module (HFSSM) developed by the Economic Research Service of the US Department of Agriculture, and used in the US and Canada,
- the Latin American and Caribbean Food Security Scale (or Escala Latinoamericana y Caribeña de Seguridad Alimentaria – ELCSA), used in Guatemala and tested in several other Spanish speaking countries in Latin America,
- the Mexican Food Security Scale (or Escala Mexicana de Seguridad Alimentaria, - EMSA), an adaptation of the ELCSA used in Mexico,
- the Brazilian Food Insecurity Scale (Escala Brasileira de medida de la Insegurança Alimentar – EBIA) used in Brazil, or
- the Household Food Insecurity Access Scale (HFIAS),

or any adaptation of the above that can be calibrated against the global FIES.

Two versions of the FIES-SM are available for use in surveys of individuals or households respectively, and the difference stands in whether respondents are asked to report only on their individual experiences, or also on that of other member of the household.

The current FIES-SM module include eight questions as in the table below.

GLOBAL FOOD INSECURITY EXPERIENCE SCALE	
Now I would like to ask you some questions about food.	
Q1. During the last 12 MONTHS, was there a time when you (or any other adult in the household) were worried you would not have enough food to eat because of a lack of money or other resources?	0 No 1 Yes 98 Don't Know 99 Refused
Q2. Still thinking about the last 12 MONTHS, was there a time when you (or any other adult in the household) were unable to eat healthy and nutritious food because of a lack of money or other resources?	0 No 1 Yes 98 Don't Know 99 Refused
Q3. And was there a time when you (or any other adult in the household) ate only a few kinds of foods because of a lack of money or other resources?	0 No 1 Yes 98 Don't Know 99 Refused
Q4. Was there a time when you (or any other adult in the household) had to skip a meal because there was not enough money or other resources to get food?	0 No 1 Yes 98 Don't Know 99 Refused
Q5. Still thinking about the last 12 MONTHS, was there a time when you (or any other adult in the household) ate less than you thought you should because of a lack of money or other resources?	0 No 1 Yes 98 Don't Know 99 Refused
Q6. And was there a time when your household ran out of food because of a lack of money or other resources?	0 No 1 Yes 98 Don't Know 99 Refused
Q7. Was there a time when you (or any other adult in the household) were hungry but did not eat because there was not enough money or other resources for food?	0 No 1 Yes 98 Don't Know 99 Refused
Q8. Finally, was there a time when you (or any other adult in the household) went without eating for a whole day because of a lack of money or other resources?	0 No 1 Yes 98 Don't Know 99 Refused

The questions should be adapted and administered in the respondents' preferred language and enumerators instructed to make sure that respondents recognize the reference period and the qualifier according to which experiences should be reported only when due to "lack of money or other resources" and not, for example, for reasons related to health or other cultural habits (such as fasting for religious credos).

The FIES-SM can be included in virtually any telephone-based or personal interview based survey of the population, though face to face interview is preferred.

Calculation method:

An average of less than three minutes of survey time is estimated to collect FIES data in a well-conducted face-to-face survey, which should make it possible to include the FIES-SM in a nationally representative survey in every country in the world, at a very reasonable cost. FAO provides versions of the FIES-SM adapted and translated in each of the more than 200 languages and dialects used in the Gallup World Poll.

When used in the Gallup World Poll, with sample sizes of only about 1000 individuals, the width of confidence intervals rarely exceeds 20% of the measured prevalence (that is, prevalence rates of around 50% are estimated with margins of errors of plus or minus 5%). Obviously, confidence intervals are likely to be much smaller when national prevalence rates are estimated using larger samples.

Compared to other proposed non-official indicators of household food insecurity, the FIES based approach has the advantage that food insecurity prevalence rates are directly comparable across population groups and countries. Even if they use similar labels (such as "mild", "moderate" and "severe" food insecurity) other approaches have yet to demonstrate the formal comparability of the thresholds used for classification, due to lack of the definition of a proper statistical model that links the values of the "indexes" or "scores" used for classification, to the severity of food insecurity. For this reason, care should be taken when comparing the results obtained with the FIES with those obtained with these other indicators, even if, unfortunately, similar labels are used to describe them.

Additional disaggregation:

As the FIES or any other compatible experience-based food security questionnaire is applied through surveys, the prevalence of food insecurity can be measured in any population group for which the survey used to collect data is representative.

If applied at household level, disaggregation is thus possible based on household characteristics such as location, household income, composition (including for example presence and number of small children, members with disabilities, elderly members, etc.), sex, age and education of the household head, etc. If applied at the individual level, proper disaggregation of the prevalence of food insecurity by sex is possible as the prevalence of food insecurity among male and among female members of the same population group can be measured independently.

When producing disaggregated statistics, attention must be devoted to verifying the validity of the application by estimating the Rasch model with the data from each specific subpopulation group and, if necessary, perform the appropriate equating of the measure before comparing results.

It is good practice to associate a measure of variability (margins of error or upper and lower bound) when disaggregated data are produced.

Comments and limitations:

An average of less than three minutes of survey time is estimated to collect FIES data in a well-conducted face-to-face survey, which should make it possible to include the FIES-SM in a nationally representative survey in every country in the world, at a very reasonable cost. FAO provides versions of the FIES-SM adapted and translated in each of the more than 200 languages and dialects used in the Gallup World Poll.

When used in the Gallup World Poll, with sample sizes of only about 1000 individuals, the width of confidence intervals rarely exceeds 20% of the measured prevalence (that is, prevalence rates of around 50% are estimated with margins of errors of plus or minus 5%). Obviously, confidence intervals are likely to be much smaller when national prevalence rates are estimated using larger samples.

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FIES based approach has the advantage that food insecurity prevalence rates are directly comparable across population groups and countries. Even if they use similar labels (such as “mild”, “moderate” and “severe” food insecurity) other approaches have yet to demonstrate the formal comparability of the thresholds used for classification, due to lack of the definition of a proper statistical model that links the values of the “indexes” or “scores” used for classification, to the severity of food insecurity. For this reason, care should be taken when comparing the results obtained with the FIES with those obtained with these other indicators, even if, unfortunately, similar labels are used to describe them.

Indicator H8

Indicator:

Proportion of women of reproductive age (aged 15–49 years) who have their need for family planning satisfied with modern methods (SDG indicator 3.7.1) (Also in GMSGI, Ag2063)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

The proportion of demand for family planning satisfied with modern methods is useful in assessing overall levels of coverage for family planning programmes and services. Access to and use of an effective means to prevent pregnancy helps enable women and their partners to exercise their rights to decide freely and responsibly the number and spacing of their children and to have the information, education and means to do so. Meeting demand for family planning with modern methods also contributes to maternal and child health by preventing unintended pregnancies and closely spaced pregnancies, which are at higher risk for poor obstetrical outcomes.

Levels of demand for family planning satisfied with modern methods of 75 per cent or more are generally considered high, and values of 50 per cent or less are generally considered as very low. The indicator has no global numerical 'target' value set to be achieved by 2030. Looking at the highest values of the indicator, in 22 countries representing regions such as Europe and Northern America, Latin America and the Caribbean and Eastern and South-Eastern Asia, more than 85 per cent of women who want to avoid pregnancy are using a modern contraceptive method but for no country is this estimate above 91 per cent. Even in these countries, specific sub-populations (for example, adolescents or the poor) can still face barriers to access to family planning information and services. It should also be recognized that reaching 100 per cent may not be a necessary or even desirable outcome with respect to reproductive rights. Some women may prefer to use a traditional method, even while having access to a full range of modern methods and being aware of the typical differences in effectiveness of methods in preventing pregnancies. Other women might have ambivalent preferences regarding their next pregnancy which may influence their contraceptive choice.

Definition:

The percentage of women of reproductive age (15-49 years) currently using a modern method of contraception among those who desire either to have no (additional) children or to postpone the next pregnancy. The indicator is also referred to as the demand for family planning satisfied with modern methods.

Concepts:

The percentage of women of reproductive age (15-49 years) who have their need for family planning satisfied with modern methods is also referred to as the proportion of demand satisfied by modern methods. The components of the indicator are contraceptive prevalence (any method and modern methods) and unmet need for family planning.

Contraceptive prevalence is the percentage of women who are currently using, or whose partner is currently using, at least one method of contraception, regardless of the method used.

For analytical purposes, contraceptive methods are often classified as either modern or traditional. Modern methods of contraception include female and male sterilization, the intra-uterine device (IUD), the implant, injectables, oral contraceptive pills, male and female condoms, vaginal barrier methods (including the diaphragm, cervical cap and spermicidal foam, jelly, cream and sponge), lactational amenorrhea method (LAM), emergency contraception and other modern methods not reported separately (e.g., the contraceptive patch or vaginal ring). Traditional methods of contraception include rhythm (e.g., fertility awareness-based methods, periodic abstinence), withdrawal and other traditional methods not reported separately.

Unmet need for family planning is defined as the percentage of women of reproductive age who want to stop or delay childbearing but are not using any method of contraception. The standard definition of unmet need for family planning includes women who are fecund and sexually active in the numerator, and who report not wanting any (more) children, or who report wanting to delay the birth of their next child for at least two years or are undecided about the timing of the next birth, but who are not using any method of contraception.

The numerator also includes pregnant women whose pregnancies were unwanted or mistimed at the time of conception; and postpartum amenorrheic women who are not using family planning and whose last birth was unwanted or mistimed. Further information on the operational definition of the unmet need for family planning, as well as survey questions and statistical programs needed to derive the indicator, can be found at the following website of the USAID Demographic and Health Surveys Program: http://measuredhs.com/Topics/Unmet-Need.cfm.

Unit of measure:

Proportion.

Data required:

Number of women using modern contraception methods; number of women who are using method of contraception.

Data sources:

This indicator is calculated from nationally-representative household survey data. Multi-country survey programmes that include relevant data for this indicator are: Contraceptive Prevalence Surveys (CPS), Demographic and Health Surveys (DHS), Fertility and Family Surveys (FFS), Reproductive Health Surveys (RHS), Multiple Indicator Cluster Surveys (MICS), Performance Monitoring and Accountability 2020 surveys (PMA), World Fertility Surveys (WFS), other international survey programmes and national surveys.

For information on the source of each estimate, see United Nations, Department of Economic and Social Affairs, Population Division (2021). World Contraceptive Use 2021. (https://www.un.org/development/desa/pd/data/world-contraceptive-use)

Calculation method:

The numerator is the percentage of women of reproductive age (15-49 years old) who are currently using, or whose partner is currently using, at least one modern contraceptive method. The denominator is the total demand for family planning (the sum of contraceptive prevalence (any method) and the unmet need for family planning).

$$\text{Demand satisfied by modern methods} = \frac{\text{Number of women who are currently using a modern method of contraception}}{\text{Number of women who are using any method of contraception or are having an unmet need for family planning}}$$

Additional disaggregation:

Age, marital status, geographic location, socioeconomic status and other categories, depending on the data source and number of observations.

Comments and limitations:

Differences in the survey design and implementation, as well as differences in the way survey questionnaires are formulated and administered can affect the comparability of the data. The most common differences relate to the range of contraceptive methods included and the characteristics (age, sex, marital or union status) of the persons for whom contraceptive prevalence is estimated (base population). The time frame used to assess contraceptive prevalence can also vary. In most surveys there is no definition of what is meant by "currently using" a method of contraception.

In some surveys, the lack of probing questions, asked to ensure that the respondent understands the meaning of the different contraceptive methods, can result in an underestimation of contraceptive prevalence, in particular for traditional methods. Sampling variability can also be an issue, especially when contraceptive prevalence is measured for a specific subgroup (by age-group, level of educational attainment, place of residence, etc.) or when analysing trends over time.

When data on women aged 15 to 49 are not available, information for married or in-union women is reported. Illustrations of base populations that are sometimes presented are: married or in-union women aged 15-44, sexually active women (irrespective of marital status), or ever-married women. Notes in the data set indicate any differences between the data presented and the standard definitions of contraceptive prevalence or unmet need for family planning or where data pertain to populations that are not representative of women of reproductive age.

Indicator H9

Indicator:

Adolescent birth rate (aged 10–14 years; aged 15–19 years) per 1,000 women in that age group (SDG indicator 3.7.2) (Also in GMSGI)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

Reducing adolescent fertility and addressing the multiple factors underlying it are essential for improving sexual and reproductive health and the social and economic well-being of adolescents. There is substantial agreement in the literature that women who become pregnant and give birth very early in their reproductive lives are subject to higher risks of complications or even death during pregnancy and birth and their children are also more vulnerable. Therefore, preventing births very early in a woman's life is an important measure to improve maternal health and reduce infant mortality. Furthermore, women having children at an early age experience reduced opportunities for socio-economic advancement, particularly because young mothers are less likely to complete their education and, if they need to work, may find it especially difficult to combine family and work responsibilities. The adolescent birth rate also provides indirect evidence on access to pertinent health services since young people, and in particular unmarried adolescent women, often experience difficulties in access to sexual and reproductive health services.

Definition:

Annual number of births to females aged 10-14 or 15-19 years per 1,000 females in the respective age group.

Concepts:

The adolescent birth rate represents the level of childbearing among females in the particular age group. The adolescent birth rate among women aged 15-19 years is also referred to as the age-specific fertility rate for women aged 15-19.

Unit of measure:

Annual number of births to females aged 10-14 or 15-19 years per 1,000 females in the respective age group.

Data required:

Number of live births to women aged 15-19 years, and an estimate of exposure to childbearing by women aged 15-19 years.

Data sources:

Civil registration is the preferred data source. Census and household survey are alternate sources when there is no reliable civil registration.

Data on births by age of mother are obtained from civil registration systems covering 90 per cent or more of all live births, supplemented eventually by census or survey estimates for periods when registration data are not available. For the numerator, the figures reported by National Statistical Offices to the

United Nations Statistics Division have first priority. When they are not available or present problems, use is made of data from the regional statistical units or directly from National Statistical Offices. For the denominator, first priority is given to the latest revision of World Population Prospects produced by the Population Division, Department of Economic and Social Affairs, United Nations. In cases where the numerator does not cover the complete de facto population, an alternative appropriate population estimate is used if available. When either the numerator or denominator is missing, the direct estimate of the rate produced by the National Statistics Office is used. Information on sources is provided at the cell level. When the numerator and denominator come from two different sources, they are listed in that order.

In countries lacking a civil registration system or where the coverage of that system is lower than 90 per cent of all live births, the adolescent birth rate is obtained from household survey data and census data. Registration data regarded as less than 90 per cent complete are exceptionally used for countries where the alternative sources present problems of compatibility and registration data can provide an assessment of trends. In countries with multiple survey programmes, large sample surveys conducted on an annual or biennial basis are given precedence when they exist.

For information on the source of each estimate, see United Nations, Department of Economic and Social Affairs, Population Division (2019). World Fertility Data 2019. POP/DB/Fert/Rev2019. Available at: https://www.un.org/en/development/desa/population/publications/dataset/fertility/wfd2019.asp

Calculation method:

The adolescent birth rate is computed as a ratio. The numerator is the number of live births to

women aged 15-19 years, and the denominator an estimate of exposure to childbearing by women aged 15-19 years. The computation is the same for the age group 10-14 years. The numerator and the denominator are calculated differently for civil registration, survey and census data.

In the case of civil registration data, the numerator is the registered number of live births born to women aged 15-19 years during a given year, and the denominator is the estimated or enumerated population of women aged 15-19 years.

In the case of survey data, the numerator is the number of live births obtained from retrospective birth histories of the interviewed women who were 15-19 years of age at the time of the births during a reference period before the interview, and the denominator is person-years lived between the ages of 15 and 19 years by the interviewed women during the same reference period. The reported observation

year corresponds to the middle of the reference period. For some surveys without data on retrospective birth histories, computation of the adolescent birth rate is based on the date of last birth or the number of births in the 12 months preceding the survey.

With census data, the adolescent birth rate is computed on the basis of the date of last birth or the number of births in the 12 months preceding the enumeration. The census provides both the numerator and the denominator for the rates. In some cases, the rates based on censuses are adjusted for under- registration based on indirect methods of estimation. For some countries with no other reliable data, the own-children method of indirect estimation provides estimates of the adolescent birth rate for a number of years before the census.

Whenever data are available, adolescent fertility at ages 10-14 years can also be computed.

For a thorough treatment of the different methods of computation, see Handbook on the Collection of Fertility and Mortality Data, United Nations Publication, Sales No. E.03.XVII.11, (https://unstats.un.org/unsd/demographic/standmeth/handbooks/Handbook_Fertility_Mortality.pdf). Indirect methods of estimation are analyzed in Manual X: Indirect Techniques for Demographic Estimation, United Nations Publication, Sales No. E.83.XIII.2. (https://www.un.org/en/development/desa/population/publications/pdf/mortality/Manual_X.pdf).

Additional disaggregation:

Age, education, number of living children, marital status, socioeconomic status, geographic location and other categories, depending on the data source and number of observations.

Comments and limitations:

Discrepancies between estimates obtained from different national data are common.

For civil registration, rates are subject to limitations which depend on the completeness of birth registration, the treatment of infants born alive but die before registration or within the first 24 hours of life, the quality of the reported information relating to age of the mother, and the inclusion of births from previous periods. The population estimates may suffer from limitations connected to age misreporting and coverage.

For survey and census data, both the numerator and denominator come from the same population. The main limitations concern age misreporting, the omission of births, misreporting the date of birth of the child, and, in the case of surveys, sampling size and variability.

With respect to estimates of the adolescent birth rate among females aged 10-14 years, comparative evidence suggests that a very small proportion of births in this age group occur to females below age 12. Other evidence based on retrospective birth history data from surveys indicates that women aged 15-19 years are less likely to report first births before age 15 than women from the same birth cohort when asked five years later at ages 20–24 years.

The adolescent birth rate is commonly reported as the age-specific fertility rate for ages 15-19 years in the context of calculation of total fertility estimates. It has also been called adolescent fertility rate. A related measure is the proportion of adolescent fertility measured as the percentage of total fertility contributed by women aged 15-19.

EDUCATION

Indicator ED1

Indicator[35]:

Participation rate in organized learning (one year before the official primary entry age), by sex (SDG indicator 4.2.2) (Also in Ag2063, AGDI2016)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

The indicator measures children's exposure to organized learning activities in the year prior to the start of primary school. A high value of the indicator shows a high degree of participation in organized learning immediately before the official entrance age to primary education.

Definition:

The participation rate in organized learning (one year before the official primary entry age), by sex as defined as the percentage of children in the given age range who participate in one or more organized learning programme, including programmes which offer a combination of education and care. Participation in early childhood and in primary education are both included. The age range will vary by country depending on the official age for entry to primary education.

Concepts:

An organized learning programme is one which consists of a coherent set or sequence of educational activities designed with the intention of achieving pre-determined learning outcomes or the accomplishment of a specific set of educational tasks. Early childhood and primary education programmes are examples of organized learning programmes.

Early childhood and primary education are defined in the 2011 revision of the International Standard Classification of Education (ISCED 2011). Early childhood education is typically designed with a holistic approach to support children's early cognitive, physical, social and emotional development and to introduce young children to organized instruction outside the family context. Primary education offers learning and educational activities designed to provide students with fundamental skills in reading, writing and mathematics and establish a solid foundation for learning and understanding core areas of knowledge and personal development. It focuses on learning at a basic level of complexity with little, if any, specialisation.

The official primary entry age is the age at which children are obliged to start primary education according to national legislation or policies. Where more than one age is specified, for example, in different parts of a country, the most common official entry age (i.e. the age at which most children in the country are expected to start primary) is used for the calculation of this indicator at the global level.

Unit of measure:

Rate expressed as a proportion

Data required:

Age, school-age population aged one year below the official entry age a to primary education, enrolment in early childhood education.

35 Indicator ED1 (modified as per January 2021 SDG metadata)

Data sources:

Administrative data from schools and other centres of organized learning or from household surveys on enrolment by single year of age in early learning programmes; population censuses and surveys for population estimates by single year of age (if using administrative data on enrolment); administrative data from ministries of education on the official entrance age to primary education.

Calculation method:

The number of children in the relevant age group who participate in an organized learning programme is expressed as a percentage of the total population in the same age range. The indicator can be calculated both from administrative data and from household surveys. If the former, the number of enrolments in organized learning programmes are reported by schools and the population in the age group one year below the official primary entry age is derived from population estimates. For the calculation of this indicator at the global level, population estimates from the UN Population Division are used. If derived from household surveys, both enrolments and population are collected at the same time.

$$PROL0t1,AG(x\text{-}1) = \frac{E0t1,AG(x\text{-}1)}{SAPAG(x\text{-}1)}$$

where:

PROL0t1,AG(x-1) = participation rate in organized learning one year before the official entry age x to primary education

E0t1,AG(x-1) = enrolment in early childhood or primary education (ISCED levels 0 and 1) aged one year below the official entry age x to primary education

SAPAG(x-1) = school-age population aged one year below the official entry age x to primary education

Additional disaggregation:

By age and sex from administrative sources, and by age, sex, location and income from household surveys.

Comments and limitations:

Participation in learning programmes in the early years is not full time for many children, meaning that exposure to learning environments outside of the home will vary in intensity. The indicator measures the percentage of children who are exposed to organized learning but not the intensity of the programme, which limits the ability to draw conclusions on the extent to which this target is being achieved. More work is needed to ensure that the definition of learning programmes is consistent across various surveys and defined in a manner that is easily understood by survey respondents, ideally with complementary information collected on the amount of time children spend in learning programmes.

Indicator ED2

Indicator:

Total net enrolment rate in primary education, by sex (GMSGI) also in (Ag2063, AGDI2016)

Metadata adapted from GMSGI:

https://gender-data-hub-2-undesa.hub.arcgis.com/pages/2434f6d9bc054cad82ebb9f75afbfcbd and uis.unesco.org/sites/default/files/documents/metadata-global-thematic-indicators-sdg4-education2030-2017-en_1.pdf

http://uis.unesco.org/en/glossary-term/adjusted-net-enrolment-rate

Importance of indicator:

To measure the actual school participation of official school age population for primary education. The difference between the total NER and the adjusted NER provides a measure of the proportion of children in the official relevant school age group who are enrolled in levels of education below the one intended for their age. The difference between the total NER and the adjusted NER for primary education is due to enrolment in pre-primary education. The difference between the total NER and the adjusted NER for lower secondary education is due to enrolment in pre-primary or primary education.

Definition:

Total number of students of the official age group for primary education who are enrolled in any level of education, expressed as a percentage of the corresponding population.

Concepts:

See above.

Unit of measure:

Percentage (%)

Data required:

Number of students enrolled per official age group, total number of students enrolled, sex, age.

Data sources:

School register, school survey or census for data on enrolment by age; population census or estimates for school-age population.

Calculation method:

Total number of students of the official age group for primary education who are enrolled in any level of education divided by the total number of enrolled students multiplied by 100.

Additional disaggregation:

By age, location and disability status.

Comments and limitations:

As other net rates, the total NER is affected by the use of different reference points for age for enrolment and the population.

Indicator ED3

Indicator:

Youth literacy rate of persons (15-24 years), by sex. Youth/adult literacy rate (GMSGI) also in (AGS, AGDI2016)

Metadata adapted from GMSGI: https://gender-data-hub-2-undesa.hub.arcgis.com/pages/6a0d19a053654bc1aad357eca8da1bc0

Definition:

Defined as the youth (aged 15-24 years) and adults (aged 15 years and older) who have the ability to both read and write, with understanding, a short, simple statement about everyday life, divided by the number of literate persons by the total number of persons in the same age group, excluding persons with unknown literacy status.

The literacy rate indicates the proportion of a given population that has a minimum level of reading and writing skills. The literacy rate is calculated by uis.unesco.org/sites/default/files/documents/metadata-global-thematic-indicators-sdg4-education2030-2017-en_1.pdf

Importance of indicator:

Literacy represents a potential for further intellectual growth and contribution to economic, social and cultural development of society. A high literacy rate suggests the existence of an effective primary education system and/or literacy programmes that have enabled a large proportion of the population to acquire the ability of using the written word (and making simple arithmetic calculations) in daily life and to continue learning.

Definition:

The youth literacy rate is defined by the percentage of the population aged 15 to 24 years that can read and write. It is typically measured according to the ability to comprehend a short simple statement on everyday life. Generally, literacy also encompasses numeracy, and measurement may incorporate a simple assessment of arithmetic ability. The literacy rate and number of literates should be distinguished from functional literacy, a more comprehensive measure of literacy assessed on a continuum in which multiple proficiency levels can be determined.

Concepts:

See above.

Unit of measure:

Percentage (%)

Data required:

Number of literate persons in age group; total number of persons in the same age group, sex.

Data sources:

National data on literacy are typically collected through self- or household-declaration in household surveys or population censuses that rely on the "able to read and write a simple statement" definition of literacy, although the questions asked in surveys vary between countries. Household surveys like the Demographic and Health Surveys (DHS, http://dhsprogram.com) and Multiple Indicator Cluster Surveys (MICS, http://mics.unicef.org) have moved from self- or household-declaration to simple assessments in the form of a reading test, in which respondents are asked to read a simple sentence written in their language.

Calculation method:

Percentage of the number of literate persons out of the total number of persons in the same age group, excluding persons with unknown literacy status.

Additional disaggregation:

Location and disability status.

Comments and limitations:

It is common practice to present and analyse literacy rates together with the absolute number of adult illiterates as improvements in literacy rates may sometimes be accompanied by increases in the illiterate population due to a changing demographic structure.

Differences in literacy levels between young women and men will often reflect recent inequalities in access to formal education and persisting inequalities in adult life and the world of work. Some countries apply definitions and criteria for literacy which are different from the international standards, or equate persons with no schooling to illiterates, or change definitions between censuses. Some assessments of literacy may also rely on self-reporting, possibly reducing accuracy. In countries where nearly all individuals have completed basic education, the literacy rate provides limited information on the variance of literacy skills in the population.

Indicator ED4

Indicator:

Gross enrolment ratio in secondary education, by sex, Parity ratios (GMSGI) also in (Ag2063,AGS, AGDI2016)

Metadata adapted from GMSGI: https://gender-data-hub-2-undesa.hub.arcgis.com/pages/d4988167ef9748e69589548bb85c07cb

And uis.unesco.org/En/Glossary-term/Gross-enrolment-ratio

Importance of indicator:

A high GER generally indicates a high degree of participation, whether the pupils belong to the official age group or not. A GER value approaching or exceeding 100% indicates that a country is, in principle, able to accommodate all of its school-age population, but it does not indicate the proportion already enrolled. The achievement of a GER of 100% is therefore a necessary but not sufficient condition for enrolling all eligible children in school. When the GER exceeds 90% for a particular level of education, the aggregate number of places for students is approaching the number required for universal access of the official age group. However, this is a meaningful interpretation only if one can expect the under-aged and over-aged enrolment to decline in the future to free places for pupils from the expected age group. GER can exceed 100% due to the inclusion of over-aged and under-aged students because of early or late entrants, and grade repetition. In this case, a rigorous interpretation of GER needs additional information to assess the extent of repetition, late entrants, etc. In situations of limited resources, families make difficult choices about sending their children to school. They may perceive the value of education differently for boys and girls. Girls are more likely than boys to suffer from limited access to education, especially in rural areas. But where basic education is widely accepted and overall enrolment is high, girls tend to equal or outnumber boys at primary and secondary levels. The pattern is similar in higher education, but with larger differences between the two sexes.

Definition:

Number of students enrolled in secondary education, regardless of age, expressed as a percentage of the official school-age population corresponding to the same level of education.

Concepts:

See above.

Unit of measure:

Percentage (%).

Data required:

Number of students enrolled in secondary education; number of persons of official school-age for secondary education; sex; age.

Data sources:

School register, school survey or census for data on enrolment by level of education; population census or estimates for school-age population.

Calculation method:

Number of students enrolled in secondary education divided by number of persons of official school-age for secondary education, multiplied by 100.

Additional disaggregation:

By location and disability status.

Comments and limitations:

No additional comments.

Indicator ED5

Indicator:

Gross enrolment ratio for tertiary education, by sex (GMSGI) (Also in AGS, AGDI2016)

Metadata adapted from GMSGI: https://gender-data-hub-2-undesa.hub.arcgis.com/pages/6a0d19a053654bc1aad357eca8da1bc0 and uis.unesco.org/sites/default/files/documents/metadata-global-thematic-indicators-sdg4-education2030-2017-en_1.pdf

Importance of indicator:

A high value of the indicator shows a high degree of participation in tertiary education by students of all ages. In situations of limited resources, families make difficult choices about sending their children to school. They may perceive the value of education differently for boys and girls. Girls are more likely than boys to suffer from limited access to education, especially in rural areas. But where basic education is widely accepted and overall enrolment is high, girls tend to equal or outnumber boys at primary and secondary levels. The pattern is similar in higher education, but with larger differences between the two sexes.

Definition:

Total enrolment in tertiary education regardless of age expressed as a percentage of the population in the 5-year age group immediately following upper secondary education.

Concepts:

See above.

Unit of measure:

Percentage (%)

Data required:

Number of students enrolled in tertiary education; number of persons in the 5-year age group immediately following upper secondary education. Age and sex.

Data sources:

Administrative data from schools and universities or household survey data on enrolment; population censuses and surveys for population estimates by single year of age (if using administrative data on enrolment); administrative data from ministries of education on the structure of upper secondary education.

Calculation method:

Number of students enrolled in tertiary education, expressed as percentage of the 5-year age group immediately following upper secondary education. If the official entrance age to upper secondary is 15 years and the duration is 3 years, then the age group is 18-22 years. The indicator should be based on total enrolment in all types of education institutions, including public and private. Disaggregation: by sex.

Additional disaggregation:

By location and disability status.

Comments and limitations:

The gross enrolment ratio is a broad measure of participation in tertiary education and does not take account of differences in duration of programmes between countries or between different levels of education and fields of study. It is standardised to some extent by measuring it relative to a 5-year age group for all countries but may underestimate participation especially in countries with poorly developed tertiary education systems or those where provision is limited to first tertiary programmes (which are generally shorter than 5 years in duration).

Indicator ED6

Indicator:

Primary education completion rate (proxy), by sex (GMSGI) (Also in AGDI2019)

Metadata adapted from GMSGI: https://gender-data-hub-2-undesa.hub.arcgis.com/pages/294e479fdd7f45769fcf0ab851aba22a

And uis.unesco.org/sites/default/files/documents/metadata-global-thematic-indicators-sdg4-education2030-2017-en_1.pdf

Importance of indicator:

The indicator is explicitly referenced in the text of target 4.1: "ensure that all girls and boys complete [...] primary and secondary education". A completion rate at or near 100% indicates that all or most children and adolescents have completed a level of education by the time they are 3 to 5 years older than the official age of entry into the last grade of that level of education. A low completion rate indicates low or delayed entry into a given level of education, high dropout, high repetition, late completion, or a combination of these factors. The completion rate can be used either as a self-standing indicator or in combination with SDG indicator 4.1.1 (proportion of children and young people (a) in Grade 2 or 3; (b) at the end of primary education; and (c) at the end of lower secondary education achieving at least a minimum proficiency level in (I) reading and (ii) mathematics). Combining the completion rate with indicator 4.1.1 provides information on the percentage of children or young people in a cohort who achieve a minimum level of proficiency, and not only on the percentage of children in school who achieve minimum proficiency.

Definition:

Percentage of a cohort of children or young people aged 3-5 years above the intended age for the last grade of each level of education who have completed that grade.

Concepts:

The intended age for the last grade of each level of education is the age at which pupils would enter the grade if they had started school at the official primary entrance age, had studied full-time and had progressed without repeating or skipping a grade. For example, if the official age of entry into primary education is 6 years, and if primary education has 6 grades, the intended age for the last grade of primary education is 11 years. In this case, 14-16 years (11 + 3 = 14 and 11 + 5 = 16) would be the reference age group for calculation of the primary completion rate.

Unit of measure:

Rate.

Data sources:

The data can be obtained from population censuses and household surveys that collect information on the highest level of education and/or grade completed by children and young people in a household. Typical questions in a survey to collect data on educational attainment are: What is the highest level of education [name of household member] has attended? What is the highest grade of education [name of household member] has completed at that level? Sources include publicly available data from Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), European Union Statistics on Income and Living Condition (EU-SILC), the Integrated Public Use Microdata Series (IPUMS), and national household surveys and censuses. Data from all publicly available household surveys and censuses with the required information are compiled and used to calculate the completion rate. For international comparability, national data are mapped to the ISCED before indicator calculation. Indicator values intended for dissemination and addition to the global SDG Indicators Database are submitted by the UNESCO Institute for Statistics to National Statistical Offices, Ministries of Education or other relevant agencies in individual countries for their review and feedback.

Calculation method:

The number of persons in the relevant age group who have completed the last grade of a given level of education is divided by the total population (in the survey sample) of the same age group. Global and regional estimates of the primary, lower secondary and upper secondary completion rate are derived by using the national population in the respective age groups as weights for aggregation of national values. Disaggregation: by sex, location and wealth quintile.

Additional disaggregation:

Disaggregation: by sex, location and wealth quintile.

Comments and limitations:

Three common issues affect the indicator. First, the age group 3-5 years above the official age of entry into the last grade for a given level of education was selected for the calculation of the completion rate to allow for some delayed entry or repetition. In countries where entry can occur very late or where repetition is common, some children or adolescents in the age group examined may still attend school and the eventual rate of completion may therefore be underestimated. Second, as the indicator is calculated from household survey data, itis subject to time lag in the availability of data. Third, when multiple surveys are available, they may provide conflicting information due to the possible presence of sampling and non-sampling errors in survey data. Responding to a request by the Technical Cooperation Group (TCG) on the Indicators for SDG 4 -Education 2030, a refinement of the methodology to model completion rate estimates has been developed (Barakat et al. 2021), following an approach similar to that used for the estimation of child mortality rates. The model ensures that these common challenges with household survey data, such as timeliness and sampling or non-sampling errors are addressed to provide annual, up-to-date (through short-term projections) and more robust data, including for children and youth who complete each level later than 3-5 years above the official age of entry into the last grade.

Indicator ED7

Indicator:

Effective transition rate from primary to secondary education (general programmes), by sex (GMSGI)

Metadata adapted from GMSGI: https://gender-data-hub-2-undesa.hub.arcgis.com/pages/6a0d19a053654bc1aad357eca8da1bc0

And UNESCO Institute for Statistics (http://uis.unesco.org/)

Importance of indicator:

The effective transition rate from primary to secondary education conveys the degree of access or transition between the two levels. As completing primary education is a prerequisite for participating in lower secondary education, growing numbers of primary completers will inevitably create pressure for more available places at the secondary level. A low effective transition rate can signal such problems as an inadequate examination and promotion system or insufficient secondary education capacity.

Definition:

Progression to secondary school refers to the number of new entrants to the first grade of secondary school in a given year as a percentage of the number of students enrolled in the final grade of primary school in the previous year (minus the number of repeaters from the last grade of primary education in the given year).

Concepts:

See above.

Unit of measure:

Percentage (%)

Data required:

Number of new entrants first grade of higher-level education; number of students in the last grade or primary education in the given year; number of repeaters of primary education in the following year, sex.

Data sources:

The data can be obtained from population censuses and household surveys that collect information on the highest level of education and/or grade completed by children and young people in a household. Typical questions in a survey to collect data on educational attainment are: What is the highest level of education [name of household member] has attended? What is the highest grade of education [name of household member] has completed at that level? Sources include publicly available data from Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), European Union Statistics on Income and Living Condition (EU-SILC), the Integrated Public Use Microdata Series (IPUMS), and national household surveys and censuses. Data from all publicly available household surveys and censuses with the required information are compiled and used to calculate the completion rate. For international comparability, national data are mapped to the ISCED before indicator calculation. Indicator values intended for dissemination and addition to the global SDG Indicators Database are submitted by the UNESCO Institute for Statistics to National Statistical Offices, Ministries of Education or other relevant agencies in individual countries for their review and feedback.

Calculation method:

Effective transition rate is calculated by dividing the number of new entrants in the first grade of secondary education in a given year (t) by the number of students who enrolled in the final grade of primary education in the previous school year (t-1) minus the number of repeaters from the last grade of primary education in the given year (t), and multiplying by 100. Data on education are collected by the UNESCO Institute for Statistics from official responses to its annual education survey. All the data are mapped to the International Standard Classification of Education (ISCED) to ensure the comparability of education programs at the international level. The current version was formally adopted by UNESCO Member States in 2011. The reference years reflect the school year for which the data are presented. In some countries the school year spans two calendar years (for example, from September 2010 to June 2011); in these cases the reference year refers to the year in which the school year ended (2011 in the example).

Additional disaggregation:

Disaggregate by age, location and wealth quintile.

Indicator ED8

Indicator:

Educational attainment of the population aged 25 years and older, by sex (GMSGI)

Metadata adapted from: https://gender-data-hub-2-undesa.hub.arcgis.com/pages/indicators

Importance of indicator:

To show the educational composition of the population aged 25 years and above. This indicator reflects the structure and performance of the education system and informs policies for to increase educational opportunity. Educational attainment by the level of education provides an indication of the stock of knowledge, skills and competencies associated with completing that level. Differences in the distribution of attainment between different population groups can provide an indication of the current and historical effectiveness of the education system in promoting equal access to education. Caution is required when using this indicator for cross-country comparison, since the countries do not always classify degrees and qualifications at the same ISCED levels, even if they are received at roughly the same age or after a similar number of years of schooling. Moreover, certain educational programmes and study courses cannot be easily classified according to ISCED, and segments of the population may be assigned an unknown level of educational attainment. In reporting educational attainment this indicator only measures educational attainment in terms of the level of education attained and does not necessarily reveal the quality of the education.

Definition:

Youth/adult educational attainment rates by age group and level of education Distribution of the population aged 25 years and above according to the highest level of education attained or completed. This indicator is usually presented for age groups of at least 25 years and older in order to ensure that the majority of the population has completed their education. Younger age groups are often still enrolled in the education system. The indicator can be calculated for youth (15-24 years) if desired. The indicator measures for each level of education the percentage of the population who completed at least that level of education. Education levels are defined according to the International Standard Classification of Education (ISCED). Educational attainment - the highest ISCED level of education an individual has successfully completed. This is usually measured with respect to the highest educational programme successfully completed which is typically certified by a recognized qualification. Recognized intermediate qualifications are classified at a lower level than the programme itself.

Concepts:

See above.

Unit of measure:

Percentage (%)

Data required:

The highest ISCED level of education an individual has successfully completed.

Data sources:

Population censuses and household surveys which collect data on the highest levels of education completed by members of a household, through self- or household declaration. In the former case, each household member above a certain age reports his or her own level of educational attainment. In the latter case, one person, usually the head of the household or another reference person, indicates the highest qualification held or level of education completed of each member of the household. Labour force surveys are the most common source of data on educational attainment. International sample surveys, such as Demographic and Health Surveys (DHS, http://dhsprogram.com) or Multiple Indicator Cluster Surveys (MICS, http://mics.unicef.org), are another source. These surveys are designed to meet commonly agreed upon international data needs while also providing data for national policy purposes. These surveys are implemented on a regular basis in selected countries, on average every 3 to 5 years. They aim to assure cross-national comparability, although they often integrate national modules to suit specific country data needs. Modules from international surveys are sometimes added to other on-going national sample surveys. Population censuses are another important source of attainment data but they are carried out less frequently than labour force surveys or other sample surveys, often only once per decade. Data on attainment collected with surveys or censuses are usually mapped to ISCED levels post-enumeration.

Calculation method:

Divide the number of persons aged 25 years and above with respect to the highest level of education attained by the total population of the same age group and multiply the result by 100. This indicator should be based on complete and reliable census or survey data, applying clear classification of levels of education in accordance with ISCED.

Additional disaggregation:

Disaggregation by age, location, disability status and wealth quintile.

Comments and limitations:

No additional comments,

Indicator ED9

Indicator:

Proportion of schools offering basic services, by type of service (SDG 4.a.1) (Also in MS, OECD, UNICEF)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

The indicator measures access in schools to key basic services and facilities necessary to ensure a safe and effective learning environment for all students.

A high value indicates that schools have good access to the relevant services and facilities. Ideally each school should have access to all these services and facilities.

Definition:

The percentage of schools by level of education (primary education) with access to the given facility or service.

Concepts:

Electricity: Regularly and readily available sources of power (e.g. grid/mains connection, wind, water, solar and fuel-powered generator, etc.) that enable the adequate and sustainable use of ICT infrastructure for educational purposes.

Internet for pedagogical purposes: Internet that is available for enhancing teaching and learning and is accessible by pupils. Internet is defined as a worldwide interconnected computer network, which provides pupils access to a number of communication services including the World Wide Web and carries e-mail, news, entertainment and data files, irrespective of the device used (i.e. not assumed to be only via a computer) and thus can also be accessed by mobile telephone, tablet, PDA, games machine, digital TV etc.). Access can be via a fixed narrowband, fixed broadband, or via mobile network.

Computers for pedagogical use: Use of computers to support course delivery or independent teaching and learning needs. This may include activities using computers or the Internet to meet information needs for research purposes; develop presentations; perform hands-on exercises and experiments; share information; and participate in online discussion forums for educational purposes. A computer is a programmable electronic device that can store, retrieve and process data, as well as share information in a highly-structured manner. It performs high-speed mathematical or logical operations according to a set of instructions or algorithms. Computers include the following types:

- A desktop computer usually remains fixed in one place; normally the user is placed in front of it, behind the keyboard;
- A laptop computer is small enough to carry and usually enables the same tasks as a desktop computer; it includes notebooks and netbooks but does not include tablets and similar handheld devices; and
- A tablet (or similar handheld computer) is a computer that is integrated into a flat touch screen, operated by touching the screen rather than using a physical keyboard.

Adapted infrastructure is defined as any built environment related to education facilities that are accessible to all users, including those with different types of disability, to be able to gain access to use and exit from them. Accessibility includes ease of independent approach, entry, evacuation and/or use of a building and its services and facilities (such as water and sanitation), by all of the building's potential users with an assurance of individual health, safety and welfare during the course of those activities .

Adapted materials include learning materials and assistive products that enable students and teachers with disabilities/functioning limitations to access learning and to participate fully in the school environment.

Accessible learning materials include textbooks, instructional materials, assessments and other materials that are available and provided in appropriate formats such as audio, braille, sign language and simplified formats that can be used by students and teachers with disabilities/functioning limitations.

Basic drinking water is defined as a functional drinking water source (MDG 'improved' categories) on or near the premises and water points accessible to all users during school hours.

Basic sanitation facilities are defined as functional sanitation facilities (MDG 'improved' categories) separated for males and females on or near the premises.

Basic handwashing facilities are defined as functional handwashing facilities, with soap and water available to all girls and boys.

Unit of measure:

Percentage (%)

Data required:

Number of schools per level of education; number of schools with access to the listed facilities.

Data sources:

(1) Administrative data from schools and other providers of education or training

(2) Cross-national learning assessment

For administrative sources:

The UNESCO Institute for Statistics produces time series based on data reported by Ministries of Education or National Statistical Offices. The data are gathered through the annual Survey of Formal Education (on access to electricity, drinking water, sanitation and handwashing facilities) and through the Survey on ICTs in Education (on access to electricity, Internet and computers). Data on adapted infrastructure are not collected currently. Countries are asked to report data according to the levels of education defined in the International Standard Classification of Education (ISCED) to ensure international comparability of resulting indicators.

The data received are validated using electronic error detection systems that check for arithmetic errors and inconsistencies and trend analysis for implausible results. Queries are taken up with the country representatives reporting the data so that corrections can be made (of errors) or explanations given (of implausible but correct results). During this process countries are also encouraged to provide estimates for missing or incomplete data items.

In addition, countries also have an opportunity to see and comment on the main indicators the UIS produces in an annual "country review" of indicators.

For cross-national learning assessments:

Data is acquired from the administrators of cross-national assessment; typically these are available for download publically. UIS analyses this data to provide estimates of the indicator. When there is more than one data point available for a given level of schooling, an average is used as the indicator. Annexe Table 2 presents the questionnaire used to collect data in the cross-national assessments included.

Calculation method:

The number of schools in a given level of education with access to the relevant facilities is expressed as a percentage of all schools at that level of education.

$$PSn,f = \frac{Sn,f}{Sn}$$

where:

PSn,f = percentage of schools at level n of education with access to facility f

Sn,f = schools at level n of education with access to facility f

Sn = total number of schools at level n of education

Additional disaggregation:

By level of education offered at institution.

Comments and limitations:

The indicator measures the existence in schools of the given service or facility but not its quality or operational state.

Indicator ED10

Indicator:

Proportion of youth aged 15-24 not in employment, education or training (NEET), by sex (SDG indicator 8.6.1) (Also in AGDI2019, MS, UNICEF, SDG center)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

The share of youth not in employment, education or training (youth NEET rate) provides a measure of youth who are outside the educational system, not in training and not in employment, and thus serves as a broader measure of potential youth labour market entrants than youth unemployment. It includes discouraged worker youth as well as those who are outside the labour force due to disability or engagement in household chores, among other reasons. Youth NEET is also a better measure of the current universe of potential youth labour market entrants as compared with the youth inactivity rate, as the latter includes those youth who are outside the labour force and are in education, and thus are furthering their skills and qualifications.

Definition:

This indicator conveys the proportion of youth (aged 15-24 years) not in education, employment or training (also known as "the youth NEET rate"). *For the purposes of this indicator, youth is defined as all persons between the ages of 15 and 24 (inclusive).*

Concepts:

For the purposes of this indicator, youth is defined as all persons between the ages of 15 and 24 (inclusive). According to the International Standard Classification of Education (ISCED), education is defined as organized and sustained communication designed to bring about learning. Formal education is defined in ISCED as education that is institutionalized, intentional, and planned through public organizations and recognized private bodies and, in their totality, make up the formal education system of a country.

Non-formal education, like formal education is defined in ISCED as education that is institutionalized, intentional and planned by an education provider but is considered an addition, alternative and/or a complement to formal education. It may be short in duration and/or low in intensity and it is typically provided in the form of short courses, workshops or seminars. Informal learning is defined in ISCED as forms of learning that are intentional or deliberate, but not institutionalized. It is thus less organized and less structured than either formal or non-formal education. Informal learning may include learning activities that occur in the family, in the work place, in the local community, and in daily life, on a self-directed, family-directed or socially-directed basis. For the purposes of this indicator, persons will be considered in education if they are in formal or non-formal education, as described above, but excluding informal learning.

Employment is defined as all persons of working age who, during a short reference period (one week), were engaged in any activity to produce goods or provide services for pay or profit.

For the purpose of this indicator, persons are considered to be in training if they are in a non-academic learning activity through which they acquire specific skills intended for vocational or technical jobs.

Vocational training prepares trainees for jobs that are based on manual or practical activities, and for skilled operative jobs, both blue and white collar related to a specific trade, occupation or vocation. Technical training on the other hand imparts learning that can be applied in intermediate-level jobs, in particular those of technicians and middle managers.

Unit of measure:

Percentage (%)

Data required:

Number of youth; number of youth in employment; youth not in employment but in education and training.

Data sources:

The preferred official national data source for this indicator is a household-based labour force survey.

In the absence of a labour force survey, a population census and/or other type of household survey with an appropriate employment module may be used to obtain the required data.

Calculation method:

$$\text{Youth NEET rate} = \frac{\text{Youth} - (\text{Youth in employment} + \text{Youth not in employment but in education or training})}{\text{Youth}} \times 100$$

It is important to note here that youth simultaneously in employment and education or training should not be double counted when subtracted from the total number of youth. The formula can also be expressed as:

$$\text{Youth NEET rate} = \frac{(\text{Unemployed youth} + \text{Youth outside the labour force}) - (\text{Unemployed youth in education or training} + \text{Youth outside the labour force in education or training})}{\text{Youth}} \times 100$$

Additional disaggregation:

Disaggregation by detailed age groups within the youth age band.

Comments and limitations:

The calculation of this indicator requires to have reliable information on both the labour market status and the participation in education or training of young persons. The quality of such information is heavily dependent on the questionnaire design, the sample size and design and the accuracy of respondents' answers. In terms of the analysis of the indicator, in order to avoid misinterpreting it, it is important to bear in mind that it is composed of two different subgroups (unemployed youth not in education or training and youth outside the labour force not in education or training). The prevalence and composition of each sub-group would have policy implications, and thus should also be considered when analysing the NEET rate.

Indicator ED11

Indicator:

Parity indices (female/male, rural/urban, bottom/top wealth quintile, and others such as disability status indigenous peoples and conflict-affected, as data become available) for all SDG 4 education indicators that can be disaggregated (SDG indicator 4.5.1)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

To measure the general level of disparity between two sub-populations of interest with regard to a given indicator. The further from 1 the parity index lies, the greater the disparity between the two groups of interest.

Definition:

This indicator is defined as the ratio of the value of the underlying indicator (e.g. 4.1.1) for one sub-group to that of another. Typically, the value for the likely more disadvantaged group is the numerator. A value of exactly 1 indicates parity between the two groups although, for analytical purposes, values between 0.97 and 1.03 are typically assumed to be at parity.

Parity indices require data for the specific groups of interest. They represent the ratio of the indicator value for one group to that of the other. Typically, the likely more disadvantaged group is placed in the numerator. A value of exactly 1 indicates parity between the two groups.

Concepts:

See metadata for relevant underlying indicator on which the parity index is based.

Unit of measure:

Ratio of girls/women to boys/men

Data required:

Data of the underlying indicator as well as sex, wealth quintile, location and disability status.

Data sources:

The sources are the same as for the underlying indicators for this goal.

Calculation method:

The indicator value of the likely more disadvantaged group is divided by the indicator value of the other sub-population of interest.

DPI = [Indi]d

[Indi]a

where:

DPI = the Dimension (Gender, Wealth, Location, etc.) Parity Index

Indi = the Education 2030 Indicator i for which an equity measure is needed.

d = the likely disadvantaged group (e.g. female, poorest, etc.)

a = the likely advantaged group (e.g. male, richest, etc.)

Additional disaggregation:

None because the parity indices directly compare two sub-populations of interest.

Comments and limitations:

The indicator is not symmetrical about 1 but a simple transformation can make it so (by inverting ratios that exceed 1 and subtracting them from 2). This will make interpretation easier.

HUMAN RIGHTS OF WOMEN AND THE GIRL CHILD

Indicator HR1

Indicator:

Whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex (SDG indicator 5.1.1) (Also in SDG centre)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

Equality and non-discrimination on the basis of sex are core principles under the international legal and policy framework, including the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), which has 189 States parties, and the Beijing Platform for Action. This framework sets out the commitments of States to eliminate discrimination against women and promote gender equality, including in the area of legal frameworks.

In the Beijing Platform for Action, States pledged to revoke any remaining laws that discriminate on the basis of sex. The five-year review and appraisal of the Beijing Platform for Action (Beijing + 5) established 2005 as the target date for the repeal of laws that discriminate against women. This deadline has come and gone. While there has been progress in reforming laws to promote gender equality, discrimination against women in the law continues in many countries. Even where legal reforms have taken place, gaps in implementation persist.

Removing discriminatory laws and putting in place legal frameworks that advance gender equality are prerequisites to ending discrimination against women and achieving gender equality (Goal 5, Target 5.1). Indicator 5.1.1 will be crucial in accelerating progress on the implementation of SDG 5 and all other gender-related commitments in the 2030 Agenda for Sustainable Development.

Definition:

Indicator 5.1.1 measures Government efforts to put in place legal frameworks that promote, enforce and monitor gender equality.

The indicator is based on an assessment of legal frameworks that promote, enforce and monitor gender equality. The assessment is carried out by national counterparts, including National Statistical Offices (NSOs) and/or National Women's Machinery (NWMs), and legal practitioners/researchers on gender equality, using a questionnaire comprising 42 yes/no questions under four areas of law: (i) overarching legal frameworks and public life; (ii) violence against women; (iii) employment and economic benefits; and (iv) marriage and family[36]. The areas of law and questions are drawn from the international legal and policy framework on gender equality, in particular the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), which has 189 States parties, and the Beijing Platform for Action. As such, no new internationally agreed standard on equality and non-discrimination on the basis of sex was needed. The primary sources of information relevant for indicator 5.1.1 are legislation and policy/action plans.

36 The areas of law were agreed at the expert workshop, held on 14 and 15 June 2016, to discuss the methodological development of SDG indicator 5.1.1.

The 42 questions in the questionnaire are:

Area 1: Overarching legal frameworks and public life

Promote

1. If customary law is a valid source of law under the constitution, is it invalid if it violates constitutional provisions on equality or non-discrimination?
2. If personal law is a valid source of law under the constitution, is it invalid if it violates constitutional provisions on equality or nondiscrimination?
3. Is there a discrimination law that prohibits both direct and indirect discrimination against women?
4. Do women and men enjoy equal rights and access to hold public and political office (legislature, executive, judiciary)?
5. Are there quotas for women (reserved seats) in, or quotas for women in candidate lists for, national parliament?
6. Do women and men have equal rights to confer citizenship to their spouses and their children?

Enforce and monitor

7. Does the law establish a specialized independent body tasked with receiving complaints of discrimination based on sex (e.g., national human rights institution, women's commission, ombudsperson)?
8. Is legal aid mandated in criminal matters?
9. Is legal aid mandated in civil/family matters?
10. Does a woman's testimony carry the same evidentiary weight in court as a man's?
11. Are there laws that explicitly require the production and/or dissemination of gender statistics?
12. Are there sanctions for noncompliance with mandated candidate list quotas, or incentives for political parties to field women candidates in national parliamentary elections?

Area 2: Violence against women

=Promote

13. Is there legislation specifically addressing domestic violence ?
14. Have provisions exempting perpetrators from facing charges for rape if the perpetrator marries the victim after the crime been removed, or never existed in legislation?
15. Have provisions reducing penalties in cases of so-called honour crimes been removed, or never existed in legislation?
16. Are laws on rape based on lack of consent, without requiring proof of physical force or penetration?
17. Does legislation explicitly criminalize marital rape or does legislation entitle a woman to file a complaint for rape against her husband or partner?
18. Is there legislation that specifically addresses sexual harassment?

Enforce and monitor

19. Are there budgetary commitments provided for by government entities for the implementation of legislation addressing violence against women by creating an obligation on government to provide budget or allocation of funding for the implementation of relevant programmes or activities?
20. Are there budgetary commitments provided for by government entities for the implementation of legislation addressing violence against women by allocating a specific budget, funding and/or incentives to support non-governmental organizations for activities to address violence against women?
21. Is there is a national action plan or policy to address violence against women that is overseen by a national mechanism with the mandate to monitor and review implementation?

Area 3: Employment and economic benefits

Promote

22. Does the law mandate non-discrimination on the basis of sex in employment?
23. Does the law mandate equal remuneration for work of equal value?
24. Can women work in jobs deemed hazardous, arduous or morally inappropriate in the same way as men?
25. Are women able to work in the same industries as men?
26. Are women able to perform the same tasks as men?
27. Does the law allow women to work the same night hours as men?
28. Does the law provide for maternity or parental leave available to mothers in accordance with the ILO standards?

29. Does the law provide for paid paternity or parental leave available to fathers or partners?

Enforce and monitor

30. Is there a public entity that can receive complaints on sex discrimination in employment?
31. Is childcare publicly provided or subsidized?

Area 4: Marriage and family

Promote

32. Is the minimum age of marriage at least 18, with no legal exceptions, for both women and men?
33. Do women and men have equal rights to enter marriage (i.e., consent) and initiate divorce?
34. Do women and men have equal rights to be the legal guardian of their children during and after marriage?
35. Do women and men have equal rights to be recognized as head of household or head of family?
36. Do women and men have equal rights to choose where to live?
37. Do women and men have equal rights to choose a profession?
38. Do women and men have equal rights to obtain an identity card?
39. Do women and men have equal rights to apply for passports?
40. Do women and men have equal rights to own, access and control marital property including upon divorce?

Enforce and monitor

41. Is marriage under the legal age void or voidable?
42. Are there dedicated and specialized family courts?

Concepts:

Article 1 of CEDAW provides a comprehensive definition of discrimination against women covering direct and indirect discrimination and article 2 sets out general obligations for States, in particular on required legal frameworks, to eliminate discrimination against women. Article 1 of CEDAW states: "... the term "discrimination against women" shall mean any distinction, exclusion or restriction made on the basis of sex which has the effect or purpose of impairing or nullifying the recognition, enjoyment or exercise by women, irrespective of their marital status, on a basis of equality of men and women, of human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field".

The term "legal frameworks" is defined broadly to encompass laws, mechanisms and policies/plans to 'promote, enforce and monitor' gender equality.

Legal frameworks that "promote" are those that establish women's equal rights with men and enshrine non-discrimination on the basis of sex. Legal frameworks that "enforce and monitor' are directed to the realization of equality and non-discrimination and implementation of laws, such as policies/plans, establishment of enforcement and monitoring mechanisms, and allocation of financial resources.

Unit of measure:

Percentage (%)

Data required:

Please refer to list of questions in the Concepts section. These are responded to in a Yes/No manner.

Data sources:

The data for the indicator are derived from an assessment of legal frameworks using primary sources/official government documents, in particular laws, policies/action plans. The assessment is carried out by national counterparts, including National Statistical Offices (NSOs) and/or National Women's Machinery (NWMs), and legal practitioners/researchers on gender equality, using a questionnaire comprising 42 yes/no questions under four areas of law: (i) overarching legal frameworks and public life; (ii) violence against women; (iii) employment and economic benefits; and (iv) marriage and family. The areas of law and questions are drawn from the international legal and policy framework on gender equality, in particular the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), which has 189 States parties, and the Beijing Platform for Action.

Calculation method:

Scoring:

The indicator is based on an assessment of legal frameworks that promote, enforce and monitor gender equality using a questionnaire comprising 42 Yes/No questions under four areas of law drawn from the international legal and policy framework on gender equality, in particular, CE-

DAW and the Beijing Platform for Action.

The answers to the questions are coded with simple "Yes/No" answers with "1" for "Yes" and "0" for "No". For questions 1 and 2 only, they may be scored "N/A" in which case they are not included as part of the overall score calculation for the area.[37]

The scoring methodology is the unweighted average of the questions under each area of law calculated by: .

$$A_i = \frac{q_i + \ldots + qm_i}{m_i} \times 100$$

Where A_i refers the area of law i; m_i refers to the total number of questions under the area of law i;[38] $q_1+\ldots+q_{mi}$ refers to the sum of the coded questions under the area of law and where q_i="1" if the answer is "Yes" and q_i="0" if the answer is "No".

Results of the four areas are reported as percentages as a dashboard: . The score for each area (a number between 0 and 100) therefore represents the percentage of achievement of that country in that area, with 100 being best practice met on all questions in the area.

The choice of presenting all four area scores without further aggregation is the result of adopting the posture that high values in one area in a given country need not compensate in any way the country having low values in some other area, and that a comprehensive examination of the value of those four numbers for each country is potentially more informative than trying to summarize all four numbers into a single index.

Additional disaggregation:

Four areas of law: (i) overarching legal frameworks and public life; (ii) violence against women; (iii) employment and economic benefits; and (iv) marriage and family.

Comments and limitations:

To avoid duplication, the indicator does not cover areas of law that are addressed under indicator 5.a.2, 'Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control', and indicator 5.6.2, 'Number of countries with laws and regulations that guarantee full and equal access to women and men aged 15 years and older to sexual and reproductive health care, information and education'. Indicator 5.1.1 complements these other indicators.

37 For questions 1 and 2, the methodology does not attribute a score (positive or negative) to the existence of customary or personal law, but does score whether they are subject to constitutional principles of equality or nondiscrimination. Therefore, in countries where customary or personal law does not apply, these questions are scored as "N/A" and are not included as part of the overall score calculation for the area 'overarching legal frameworks and public life'.

38 If a question is coded as "N/A", it will not be counted in the total number of questions in an area of the law.

Indicator HR2

Indicator:

Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age. (SDG indicator 5.2.1) (Also in Ag2063)

Metadata adapted from https://unstats.un.org/sdgs/metadata/

Importance of indicator:

Intimate partner violence is the most common form of violence that women and girls face globally. Given prevailing social norms that sanction male dominance over women, violence between intimate partners is often perceived as an ordinary/normal element of relationships, particularly in the context of marriage or other unions. Violence against women and girls is an extreme manifestation of gender inequality.

Prevalence data are required to measure the magnitude of the problem; understand the various forms of violence and their consequences; identify groups at high risk; explore the barriers to seeking help; and ensure that the appropriate responses are being provided. These data are the starting point for informing laws, policies, and developing effective responses and programmes. They also allow countries to monitor change over time and optimally target resources to maximize the effectiveness of interventions (especially in resource-constrained settings).

Definition:

This indicator measures the percentage of ever-partnered women and girls aged 15 years and older who have experienced physical, sexual or psychological violence by a current or former intimate partner, in the previous 12 months. Definition of violence against women and girls and of the forms of violence specified under this indicator are presented in the next section (Concepts).

NOTE: Due to constraints related to feasibility (as noted in the Feasibility section below), this indicator currently globally reports only on the percentage of ever-partnered women and girls aged *15 to 49* who have experienced *physical and/or sexual* partner violence.

Concepts:

According to the UN Declaration on the Elimination of Violence against Women (1993), violence against women is "Any act of sex-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life. Violence against women shall be understood to encompass, but not be limited to, the following: Physical, sexual and psychological violence occurring in the family [...]". See here for full definition: http://www.un.org/documents/ga/res/48/a48r104.htm

Intimate partner violence against women includes any abuse perpetrated by a current or former partner within the context of marriage, cohabitation or any other formal or informal union.

The different forms of violence included in the indicator are defined as follows:

1. Physical violence consists of acts aimed at physically hurting the victim and include, but are not limited to acts like pushing, grabbing, twisting the arm, pulling hair, slapping, kicking, biting or hitting with a fist or object, trying to strangle or suffocate, burning or scalding on purpose, or threatening or attacking with some sort of weapon, gun or knife.
2. Sexual violence is defined as any sort of harmful or unwanted sexual behavior that is imposed on someone, whether by use of force, intimidation or coercion. It includes acts of abusive sexual contact, forced engagement in sexual acts, attempted or completed sexual acts without consent, non-contact acts such as being forced to watch or participate in pornography, etc. In intimate partner relationships, sexual violence is commonly defined as: being physically forced to have sexual intercourse, having sexual intercourse out of fear for what the partner might do or through coercion, and/or being forced to so something sexual that the woman considers humiliating or degrading.
3. Psychological violence consists of any act intended to induce fear or emotional distress caused by a person's behaviour or act. It includes a range of behaviors that encompass acts of emotional abuse such as being frequently humiliated in public, intimidated or having things you care for destroyed, etc. These often coexist with acts of physical and sexual violence by intimate partners. In addi-

tion, surveys often measure controlling behaviours (e.g., being kept from seeing family or friends, or from seeking health care without permission).

For a more detailed definition of physical, sexual and psychological violence against women see *Guidelines for Producing Statistics on Violence against Women- Statistical Surveys* (UN, 2014) and the *International Classification of Crime for Statistical Purposes* ICCS (UNODC, 2015).

Unit of measure:

Percentage (%)

Data required:

Type of violence experienced, sex and age.

Data sources:

Countries gather data on intimate partner violence through (1) specialized national prevalence surveys dedicated to measuring violence against women, (2) violence against women modules that are added to international/national household surveys, such as the DHS; and (3) victimization surveys

Although administrative data from health, police, courts, justice and social services, among other services used by survivors of violence, can provide information on violence against women and girls, these do not provide prevalence data, but rather incidence data or service use (i.e., number of cases received in/reported to these services). Many abused women do not report violence and those who do, tend to be the most serious cases. Therefore, administrative data are not recommended to be used as a data source for this indicator.

For more information on recommended practices in production of violence against women statistics see: UN Guidelines for Producing Statistics on Violence against Women- Statistical Surveys (UN, 2014).

The SDG 5.2.1 Indicator Database comprises namely data from population-based household surveys implementing an internationally standardised methodology. A significant proportion of data are gathered through the inclusion of a Domestic Violence Module in the DHS. In addition, some data come from dedicated surveys on violence against women in countries that have implemented, for example, WHO's violence against women survey methodology. Where available, other dedicated surveys are included if the data are deemed comparable. All sources date from 2005 onwards.

Calculation method:

This indicator calls for breakdown by form of violence and by age group. Countries are encouraged to compute prevalence data for each form of violence as detailed below to assist comparability at the regional and global levels:

1. **Physical violence:**

   Number of ever-partnered women and girls (aged 15 years and above) who experience physical violence by a current or former intimate partner in the previous 12 months divided by the number of ever-partnered women and girls (aged 15 years and above) in the population multiplied by 100

2. **Sexual violence:**

   Number of ever-partnered women and girls (aged 15 years and above) who experience sexual violence by a current or former intimate partner in the previous 12 months divided by the number of ever-partnered women and girls (aged 15 years and above) in the population multiplied by 100

3. **Psychological violence:**

   Number of ever-partnered women and girls (aged 15 years and above) who experience psychological violence by a current or former intimate partner in the previous 12 months divided by the number of ever-partnered women and girls (aged 15 years and above) multiplied by 100

4. **Any form of physical and/or sexual violence:**

   Number of ever-partnered women and girls (aged 15 years and above) who experience physical and/or sexual violence by a current or former intimate partner in the previous 12 months divided by the number of ever-partnered women and girls (aged 15 years and above) multiplied by 100

5. **Any form of physical, sexual and/or psychological violence:**

   Number of ever-partnered women and girls (aged 15 years and above) who experience physical, sexual and/or psychological violence by a current or former intimate partner in the previous 12 months divided by the number of ever-partnered women and girls (aged 15 years and above) multiplied by 100

NOTE: To assist comparability at the regional and global level, countries are encouraged to *additionally* compute the above figures for ev-

er-partnered *women aged 15 to 49*. Regional and global reporting on this indicator currently only includes data computed by countries for #4 above (i.e., *any form of physical and/or sexual partner violence*, and for the 15-49 age group). For further details, see Feasibility section above.

Additional disaggregation:

In addition to form of violence and age, income/wealth, education, ethnicity (including indigenous status), disability status, marital/partnership status, relationship with the perpetrator (i.e. current/former partner), geographic location and frequency of violence are suggested as desired variables for disaggregation for this indicator. Though disaggregated data by these variables is not yet feasible to report on at regional and global levels, countries are encouraged to report these levels of disaggregation in their national reports; and—whenever possible—include these data for the age group 15 to 49.

Comments and limitations:

Comparability:

The availability of comparable data remains a challenge in this area as many data collection efforts have relied on different survey methodologies, used different definitions of partner or spousal violence and of the different forms of violence and different survey question formulations, used diverse age groups, or used different denominators, as well as the quality of interviewer training. Willingness to discuss experiences of violence and understanding of relevant concepts may also differ according to how the survey is implemented, and the cultural context and this can affect reported prevalence levels.

Regularity of data production:

Since 2005, only about 40 countries have conducted more than one survey on violence against women. Obtaining data on violence against women is a costly and time-consuming exercise, whether they are obtained through stand-alone dedicated surveys or through modules in other surveys. Demographic and Health Surveys (DHS) are conducted every 5 years or so and dedicated surveys, if repeated, are conducted usually with less periodicity than this. Monitoring this indicator with certain periodicity may be a challenge if sustained capacities are not built and financial resources are not available.

Feasibility:

This indicator calls for global reporting on three types of intimate partner violence: physical, sexual, and psychological. While there is global consensus on how physical and sexual intimate partner violence are generally defined and measured, psychological partner violence—which may be conceptualised differently across cultures and in different contexts—is still a Tear III sub-indicator. Since it is not yet feasible to report on psychological partner violence, this indicator currently reports on *physical and/or sexual intimate partner violence* only. Efforts are underway by custodian agencies to develop a global standard for measuring and reporting on psychological intimate partner violence. This will enable reporting on the three stipulated types of partner violence in the future.

Similarly, this indicator calls for global reporting of violence experienced by ever-partnered women aged 15 years and above. However, a majority of data come from DHS, which typically sample only women aged 15-49, and there is a lack of consistency in the age range of sample populations across other country surveys. For those surveys that interview a sample of women from a different age group, the prevalence for the 15-49 age group is often published or can be calculated from available data. The global indicator therefore currently reports violence experienced by ever-partnered women and girls 15-49 years of age. Efforts are underway by custodian agencies to address this issue and to better understand and measure partner violence against women aged 50 and above.

Indicator HR3

Indicator:

Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence (SDG indicator 5.2.2) (Also in SDG centre)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

Violence against women and girls is one of the most pervasive forms of human rights violations in the world. Evidence has shown that globally, an estimated 7% of women have been sexually assaulted by someone other than a partner at some point in their lives (WHO et al., 2013). Having data on this indicator will help understand the extent and nature of this form of violence and develop appropriate policies and programmes.

Definition:

This indicator measures the percentage of women and girls aged 15 years and older who have experienced sexual violence by persons other than an intimate partner, in the previous 12 months.

Definition of sexual violence against women and girls is presented in the next section (Concepts).

Concepts:

According to the UN Declaration on the Elimination of Violence against Women (1993), Violence against Women is "Any act of sex-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life. Violence against women shall be understood to encompass, but not be limited to, the following: [...], Physical, sexual and psychological violence occurring within the general community, including rape, sexual abuse, sexual harassment and intimidation at work, in educational institutions and elsewhere, trafficking in women and forced prostitution [...]". See here for full definition: http://www.un.org/documents/ga/res/48/a48r104.htm

Sexual violence is defined as any sort of harmful or unwanted sexual behaviour that is imposed on someone. It includes acts of abusive sexual contact, forced engagement in sexual acts, attempted or completed sexual acts without consent, incest, sexual harassment, etc. However, in most surveys that collect data on sexual violence against women and girls by non-partners the information collected is limited to forcing someone into sexual intercourse when she does not want to, as well as attempting to force someone to perform a sexual act against her will or attempting to force her into sexual intercourse.

For a more detailed definition of sexual violence against women see *Guidelines for Producing Statistics on Violence against Women- Statistical Surveys* (UN, 2014).

Unit of measure:

Percentage (%)

Data required:

Number of women and girls aged 15 years and above who experience sexual violence by persons other than an intimate partner in the previous 12 months; number of women and girls aged 15 years and above in the population.

Data sources:

The main sources of intimate partner violence prevalence data are (1) specialized national surveys dedicated to measuring violence against women and (2) international household surveys that include a module on experiences of violence by women, such as the DHS. Although administrative data from health, police, courts, justice and social services, among other services used by survivors of violence, can provide information on violence against women and girls, these do not produce prevalence data, but rather incidence data or number of cases received in/reported to these services. We know that many abused women do not report violence and those who do, tend to be only the most serious cases. Therefore, administrative data should not be used as a data source for this indicator. For more information on recommended practices in production of violence against women statistics see: *UN Guidelines for Producing Statistics on Violence against Women- Statistical Surveys* (UN, 2014).

Calculation method:

This indicator calls for disaggregation by age group and place of occurrence. No standard definitions and methods have been globally agreed yet to collect data on the place where

the violence occurs, therefore this is not presented at this point in the computation method below.

Number of women and girls aged 15 years and above who experience sexual violence by persons other than an intimate partner in the previous 12 months divided by the number of women and girls aged 15 years and above in the population multiplied by 100.

Additional disaggregation:

In addition to age and place of occurrence, income/wealth, education, ethnicity (including indigenous status), disability status, geographic location, relationship with the perpetrator (including sex of perpetrator) and frequency and type of sexual violence (as proxy to severity) are suggested as desired variables for disaggregation for this indicator.

Comments and limitations:

Comparability:

The availability of comparable data remains a challenge in this area as many data collection efforts have relied on different survey methodologies and used different definitions of sexual violence and different survey question formulation. Diverse age groups are also often utilized. Willingness to discuss experiences of violence and understanding of relevant concepts may also differ according to the cultural context and this can affect reported prevalence levels.

Efforts and investment will be required to develop an internationally-agreed standard and definition of sexual violence by non-partners that will enable comparison across countries.

Regularity of data production:

Since 1995, only some 40 countries have conducted more than one survey on violence against women and girls. Obtaining data on violence against women and girls is a costly and time-consuming exercise, no matter if they are obtained through stand-alone dedicated surveys or through modules inserted in other surveys. Not all VAW surveys, however, collect information on non-intimate partner violence. Monitoring this indicator with certain periodicity may be a challenge if sustained capacities are not built and financial resources are not available.

Indicator HR4

Indicator:

Proportion of women aged 20–24 years who were married or in a union before age 15 and before age 18 (SDG indicator 5.3.1) (Also in GMS-GI, Ag2063)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

Marriage before the age of 18 is a fundamental violation of human rights. Child marriage often compromises a girl's development by resulting in early pregnancy and social isolation, interrupting her schooling, limiting her opportunities for career and vocational advancement and placing her at increased risk of intimate partner violence. In many cultures, girls reaching puberty are expected to assume gender roles associated with womanhood. These include entering a union and becoming a mother.

The practice of early/child marriage is a direct manifestation of gender inequality.

The issue of child marriage is addressed in a number of international conventions and agreements. Although marriage is not mentioned directly in the Convention on the Rights of the Child, child marriage is linked to other rights – such as the right to freedom of expression, the right to protection from all forms of abuse, and the right to be protected from harmful traditional practices.

Definition:

This indicator is defined as the percentage of women aged 20-24 years who were first married or in a union before age 15 and before age 18.

Concepts:

Both formal (i.e., marriages) and informal unions are covered under this indicator. Informal unions are generally defined as those in which a couple lives together for some time, intends to have a lasting relationship, but for which there has been no formal civil or religious ceremony (i.e., cohabitation).

Unit of measure:

Proportion

Data required:

Number of women aged 20-24 who were first married or in union before age 15 (or before age 18); total number of women aged 20-24 in the population multiplied by 100

Data sources:

Household surveys such as UNICEF-supported MICS and DHS have been collecting data on this indicator in low- and middle-income countries since around the late 1980s. In some countries, such data are also collected through national censuses or other national household surveys.

Calculation method:

Number of women aged 20-24 who were first married or in union before age 15 (or before age 18) divided by the total number of women aged 20-24 in the population multiplied by 100

Additional disaggregation:

None.

Comments and limitations:

There are existing tools and mechanisms for data collection that countries have implemented to monitor the situation with regards to this indicator. The modules used to collect information on marital status among women and men of reproductive age (15-49 years) in the DHS and MICS have been fully harmonized.

The measure of child marriage is retrospective in nature by design, capturing age at first marriage among a population that has completed the risk period (i.e., adult women). While it is also possible to measure the current marital status of girls under age 18, such measures would provide an underestimate of the level of child marriage, as girls who are not currently married may still do so before they turn 18. For more details on interpretation and common pitfalls for this indicator, see: *A Generation to Protect: Monitoring violence exploitation and abuse of children within the SDG framework* (UNICEF 2020).

Indicator HR5

Indicator:

Proportion of girls and women aged 15–49 years who have undergone female genital mutilation/cutting, by age (SDG indicator 5.3.2) (Also in SDG2030, GMSGI, Ag2063, MS)

Metadata adapted from: https://unstats.un.org/sdgs/metadata

Importance of indicator:

FGM is a violation of girls' and women's human rights. There is a large body of literature documenting the adverse health consequences of FGM over both the short and long term. The practice of FGM is a direct manifestation of gender inequality

FGM is condemned by a number of international treaties and conventions. Since FGM is regarded as a traditional practice prejudicial to the health of children and is, in most cases, performed on minors, it violates the Convention on the Rights of the Child. Existing national legislation in many countries also include explicit bans against FGM.

Definition:

This indicator is defined as the percentage of girls and women aged 15-49 years who have undergone female genital mutilation/cutting.

This indicator can be measured among smaller age groups, with the experience of younger women representing FGM/C that has occurred more recently and the experience of older women representing levels of the practice in the past. At the regional and global level, this indicator is currently being reported as the proportion of adolescent girls aged 15-19 years who have undergone female genital mutilation.

Concepts:

Female genital mutilation (FGM) refers to "all procedures involving partial or total removal of the female external genitalia or other injury to the female genital organs for non-medical reasons" (World Health Organization, Eliminating Female Genital Mutilation: An interagency statement, WHO, UNFPA, UNICEF, UNIFEM, OHCHR, UNHCR, UNECA, UNESCO, UNDP, UNAIDS, WHO, Geneva, 2008, p.4)

Unit of measure:

Proportion

Data required:

Number of girls and women aged 15-49 who have undergone FGM; Total number of girls and women aged 15-49 in the population.

Data sources:

Household surveys such as UNICEF-supported MICS and DHS have been collecting data on this indicator in low- and middle-income countries since the late 1980s. In some countries, such data are also collected through other national household surveys.

Calculation method:

Number of girls and women aged 15-49 who have undergone FGM divided by the total number of girls and women aged 15-49 in the population multiplied by 100

Additional disaggregation:

Age (15-49 years at the national level, 15-19 years at the regional level)

Comments and limitations:

There are existing tools and mechanisms for data collection that countries have implemented to monitor the situation with regards to this indicator. The modules used to collect information on the circumcision status of girls aged 0-14 and girls and women aged 15-49 in the DHS and MICS have been fully harmonized.

Data on FGM inform policymakers of critically important variables in an effort to better understand the practice and develop policies for its abandonment. That said, these data must be analysed in light of the extremely delicate and often sensitive nature of the topic. Self-reported data on FGM need to be treated with caution for several reasons. Women may be unwilling to disclose having undergone the procedure because of the sensitivity of the issue or the illegal status of the practice in their country. In addition, women may be unaware that they have been cut or of the extent of the cutting, particularly if FGM was performed at an early age.

Data users should also keep in mind the retrospective nature of these data, which results in this indicator not being sensitive to recent change. For more details on interpretation and common pitfalls for this indicator, see: *A Generation to Protect: Monitoring violence exploitation and abuse of children within the SDG framework* (UNICEF 2020).

Indicator HR6

Indicator:

Proportion and number of children aged 5–17 years engaged in child labour, by sex and age (SDG indicator 8.7.1) (Also in Ag2063, MS)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

Far too many children in the world remain trapped in child labour, compromising their individual future and our collective futures. According to the latest ILO global estimates, about 152 million children worldwide – 64 million girls and 88 million boys - are child labourers, accounting for almost 10 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 for ending child labour in all its forms, 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.

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.

Concepts:

Three principal international legal instruments – ILO Convention No. 138 (Minimum Age) (C138), United Nations Convention on the Rights of the Child (CRC), ILO Convention No. 182 (Worst Forms) (C182) together set the legal boundaries for child labour, and provide the legal basis for national and international actions against it. In accordance with these instruments, child labour is work that children should *not* be doing because (a) they are too young or (b) is likely to harm their health, safety or morals, due to its nature or the conditions in which it is carried out.

The resolutions adopted by the International Conference of Labour Statisticians (ICLS), the world's acknowledged standard-setting body in the area of labour statistics, provide the basis for translating the legal standards governing the concept of child labour into statistical terms for the purpose of child labour measurement.

In accordance with the ICLS resolutions[1], child labour can be measured on the basis of the production boundary set by the United Nations System of National Accounts (SNA) or on the basis of the general production boundary. The former limits the frame of reference to economic activity, while the latter extends it to include both economic activity *and* unpaid household services, that is, the production of domestic and personal services by a household member for consumption within their own household, commonly called "household chores".

Following from this, two indicators are used for measuring child labour for the purpose of SDG reporting, the first based on the production boundary set by the United Nations System of National Accounts (SNA) and the second based on the general production boundary.

Indicator 1: Proportion and number of children aged 5-17 years engaged in economic activities at or above age-specific hourly thresholds (**SNA production boundary basis**)

- *Child labour for the 5 to 11 age range*: children working at least 1 hour per week in economic activity;
- *Child labour for the 12 to 14 age range*: children working for at least 14 hours per week in economic activity;
- *Child labour for the 15 to 17 age range*: children working for more than 43 hours per week in economic activity.
- Indicator 2: Proportion and number of children aged 5-17 years engaged in economic activities and household chores at or above age-specific hourly thresholds (**general production boundary basis**):
- *Child labour for the 5 to 11 age range*: children working at least 1 hour per week in economic activity and/or involved in unpaid household services for more than 21 hours per week;
- *Child labour for the 12 to 14 age range*: children working for at least 14 hours per week in economic activity and/or involved in unpaid household services for more than 21 hours per week;

- *Child labour for the 15 to 17 age range*: children working for more than 43 hours per week in economic activity.[2]

The concept of child labour also includes the worst forms of child labour other than hazardous (18th ICLS paragraphs 33 to 34) as well as hazardous work (18th ICLS paragraphs 21 to 32). The worst forms of child labour include all forms of slavery or similar practices such as trafficking and the recruitment and use of child soldiers, the use or procurement of children for prostitution or other illicit activities, and other work that is likely to harm children's health, safety or well-being.

Unit of measure:

Proportion

Data required:

Children aged 5-17: Number of children aged 5-17 reported in child labour during the week prior to the survey; Total number of children aged 5-17 in the population.

Children aged 5-14: Number of children aged 5-14 reported in child labour during the week prior to the survey; Total number of children aged 5-14 in the population.

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.

Data sources:

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 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.

Calculation 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.

Additional disaggregation:

Sex and age.

Comments and limitations:

While the concept of child labour includes working in activities that are hazardous in nature, to ensure comparability of estimates over time and to minimize data quality issues, work beyond age-specific hourly thresholds are used as a proxy for hazardous work for the purpose of reporting on SDG indicator 8.7.1. Further methodological work is needed to validate questions specifically aimed at identifying children in hazardous working conditions.

Similarly, while the worst forms of child labour other than hazardous also form part of the concept of child labour more broadly, data on the worst forms of child labour are not currently captured in regular household surveys given difficulties with accurately and reliably measuring it. Therefore, this element of child labour is not captured by the indicators used for reporting on SDG 8.7.1.

In addition, 'own use production of goods', including activities such as fetching water and collecting firewood, falls within the production boundary set by the United Nations System of National Accounts (SNA). However, for the purpose of SDG reporting of indicator 8.7.1, and with the goal of facilitating international comparability, fetching water and collecting firewood have been classified as unpaid household services (i.e., household chores), a form of production that lies outside the SNA production boundary.

More broadly, 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).[3] 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.

PUBLIC LIFE AND DECISION MAKING

Indicator PD1a

Indicator:

Proportion of seats held by women in (a) national parliaments (SDG indicator 5.5.1a) (Also in GMSGI, AGS, Ag2063, AGDI)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

The indicator measures the degree to which women have equal access to parliamentary decision making. Women's participation in parliaments is a key aspect of women's opportunities in political and public life, and is therefore linked to women's empowerment. Equal numbers of women and men in lower chambers would give an indicator value of 50 per cent.

A stronger presence of women in parliament allows new concerns to be highlighted on political agendas, and new priorities to be put into practice through the adoption and implementation of policies and laws. The inclusion of the perspectives and interests of women is a prerequisite for democracy and gender equality, and contributes to good governance. A representative parliament also allows the different experiences of men and women to affect the social, political and economic future of societies.

Changes in the indicator have been tracked over time. Although the international community has supported and promoted women's participation in political decision-making structures for several decades, improvement in women's access to parliament has been slow. This has led to the introduction of special policy and legal measures to increase women's shares of parliamentary seats in several countries. Those countries that have adopted special measures generally have greater representation of women in parliament than countries without special measures.

Definition:

The proportion of seats held by women in (a) national parliaments, currently as at 1 January of reporting year, is currently measured as the number of seats held by women members in single or lower chambers of national parliaments, expressed as a percentage of all occupied seats.

National parliaments can be bicameral or unicameral. This indicator covers the single chamber in unicameral parliaments and the lower chamber in bicameral parliaments. It does not cover the upper chamber of bicameral parliaments. Seats are usually won by members in general parliamentary elections. Seats may also be filled by nomination, appointment, indirect election, rotation of members and by-election.

Seats refer to the number of parliamentary mandates, or the number of members of parliament.

Concepts:

Seats refer to the number of parliamentary mandates, also known as the number of members of parliament. Seats are usually won by members in general parliamentary elections. Seats may also be filled by nomination, appointment, indirect election, rotation of members and by-election.

Unit of measure:

Proportion.

Data required:

Number of seats occupied by women; total number of seats in parliament.

Data sources:

The data used are official statistics received from parliaments.

Calculation method:

The proportion of seats held by women in national parliament is derived by dividing the total number of seats occupied by women by the total number of seats in parliament.

There is no weighting or normalizing of statistics.

Additional disaggregation:

The indicator can be disaggregated for analysis by geographical region and sub-region, legislature type (single or lower, parliamentary or presidential), the method of filling seats (directly elected, indirectly elected, appointed) and the use of special measures.

Comments and limitations:

- The number of countries covered varies with suspensions or dissolutions of parliaments. As of 1 February 2016, 193 countries are included.
- There can be difficulties in obtaining information on by-election results and replacements due to death or resignation. These changes are ad hoc events which are more difficult to keep track of. By-elections, for instance, are often not announced internationally as general elections are.
- The data excludes the numbers and percentages of women in upper chambers of parliament. The information in available on the IPU website at https://data.ipu.org/women-ranking.
- Parliaments vary considerably in their internal workings and procedures, however, generally legislate, oversee government and represent the electorate. In terms of measuring women's contribution to political decision making, this indicator may not be sufficient because some women may face obstacles in fully and efficiently carrying out their parliamentary mandate.

Indicator PD1b

Indicator:

Proportion of seats held by women in local governments (SDG indicator 5.5.1b) (Also in GMSGI, AGS, Ag2063, AGDI)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

Women's and men's right to exercise their political rights on an equal basis, and at all levels of decision-making, is recognized in the SDGs and enshrined in many human and political rights declarations, conventions and resolutions agreed to by most countries in the world. Indicator 5.5.1(b) measures the degree to which gender balance has been achieved in, and women have equal access to, political decision-making in local government.

Indicator 5.5.1(b) complements the Indicator 5.5.1(a) on women in national parliaments, and accounts for the representation of women among the millions of members of local governments that influence (or have the potential to influence) the lives of local communities around the world. All tiers of local government are covered by the indicator, consistent with national legal frameworks defining local government.

Definition:

Indicator 5.5.1(b) measures the proportion of positions held by women in local government.

It is expressed as a percentage of elected positions held by women in legislative/ deliberative bodies of local government.

Concepts:

Local government is one of the sub-national spheres of government and a result of decentralization, a process of transferring political, fiscal, and administrative powers from the central government to sub-national units of government distributed across the territory of a country to regulate and/or run certain government functions or public services on their own.

The definition of local government follows the 2008 System of National Accounts (SNA) distinction between central, state, and local government (para 4.129). Local government consists of local government units, defined in the SNA as "institutional units whose fiscal, legislative and executive authority extends over the smallest geographical areas distinguished for administrative and political purposes" (para 4.145). What constitutes local government of a given country is defined by that country's national legal framework, including national constitutions and local government acts or equivalent legislation.

Each local government unit typically includes a legislative/ deliberative body and an executive body. Legislative/ deliberative bodies, such as councils or assemblies, are formal entities with a prescribed number of members as per national or state legislation. They are usually elected by universal suffrage and have decision-making power, including the ability to issue by-laws, on a range of local aspects of public affairs.

Executive bodies, consisting of an executive committee or a mayor, may be elected, appointed or nominated and they prepare and execute decisions made by the legislative/ deliberative body.

Elected positions are the most common manner of selection of local government members. They are selected in local elections, based on a system of choosing political office holders in which the voters cast ballots for the person, persons or political party that they desire to see elected. The category of elected positions includes both elected persons who competed on openly contested seats and persons selected during the electoral processes on reserved seats or through a candidate quota.

By comparison, members selected on appointed positions (the least common manner of selection of local government members) are nominated, typically by government officials from higher-ranking tiers of government. Appointed members of local government are more frequent among the leadership positions, such as the heads of the executive body, representatives of specific groups (e.g., women, disadvantaged groups, youth); and, temporary committees/delegations/caretakers appointed by government officials when a council has been dissolved.

Unit of measure:

Percentage (%)

Data required:

Number of seats held by women; total number of seats held by women and men.

Data sources:

Administrative data based on electoral records are the main source of data on elected members

of local government, and the recommended data source for Indicator 5.5.1(b). Electoral records are produced and upheld by Electoral Management Bodies (EMBs) or equivalent bodies tasked with organizing elections at local level. EMBs are part of the National Statistical System, and often specifically mentioned in the national statistics acts as producers of official statistics.

The use of electoral records to measure women's representation in local government and monitoring of Indicator 5.5.1(b) is cost-effective, straightforward and timely. No adjustments or estimates are necessary to transform the administrative information into statistics for monitoring the indicator. The conceptual framework at the basis of Indicator 5.5.1(b) is consistent with the conceptual framework at the basis of local elections, as both are provided by national legal framework. The data used to calculate Indicator 5.5.1(b) refer to information on election winners, disaggregated by sex, and the coverage of the reference population (in this case, the elected officials) should be complete. In countries where the electoral records are electronic and centralized, information on numbers of women and men in elected positions can be made available as soon as the official results of elections are released.

Two other types of sources of data may be used in the few instances where electoral records are not electronic or not centralized. One additional type of source is also administrative, and refers to public administration data available to line ministries overseeing local government. However, its use for statistics may be less straightforward compared to centralized electoral records. The scope of public administration records is beyond the elected positions, and information on women and men in elected positions of local government may be mixed with information on public administration employees, which are not covered by this indicator. Therefore, additional data processing and resources may be required to carefully extract the information needed. In some cases, the forms used as the basis for administrative records may need to be modified to ensure recording of the positions as being elected, in legislative/deliberative bodies, as well as the sex of persons in those positions. In other cases, some elected positions may not be covered in the records maintained, for example, if the administrative records are restricted to only those positions that are on the government payroll.

Another type of data source that may provide information on women and men in local government in the absence of centralized electronic election records, refers to existing surveys or censuses using local government units as units of observation. These surveys or censuses may be undertaken by National Statistical Offices and/or line ministries and may take the form of (a) local government censuses or surveys; (b) establishment survey; and (c) municipality surveys. These surveys/census may already include, in the data collection tool dedicated to their main purpose, a few questions on the number of members of local legislative/deliberative and executive bodies by sex and other individual characteristics such as age and education; or may require the integration of such questions. Similar to other censuses and surveys, a low response rate can result in bias of the statistics obtained. Sampling errors may also add to the bias, in ways that cannot be assessed in the absence of a good understanding of distribution of women's and men's representation across different local government units across the territory of a country.

Collection process:

The compilation of data, coordinated by UN Women and undertaken with the support of UN Regional Commissions, uses two mechanisms:

- data request forms sent to EMBs and NSOs directly or through UN Regional Commissions
- on-line dissemination of data by NSS entities who are the primary source of data or in charge with coordination of SDGs, including EMBs and/or NSOs. This process will be done in a transparent manner, based on communication with NSS focal points, so that the NSS has a chance to validate or dismiss a country's compiled data.

Calculation method:

The method of computation is as follows:

$$\textit{Indicator 5.5.1(b)} = \frac{\text{(Number of seats held by women}}{\text{Total number of seats held by women and men}} \times 100$$

Additional disaggregation:

Data on elected positions in legislative/deliberative bodies of local government have to be disaggregated by sex to enable the calculation of the indicator. No additional disaggregation is required for SDG reporting.

Comments and limitations:

Indicator 5.5.1(b) refers to the representation of women among elected positions of legislative/deliberative bodies of local government. This is a strength, because it ensures comparability across countries, at low cost, and mirrors the SDG indicator measuring women's representation at national level, in parliament. This is also a limitation in that the indicator does not consider other positions in local government. Local government officials holding executive positions who are not simultaneously holding a position within the legislative/deliberative body, or who are appointed and not elected, are not considered in this indicator.

It is recommended that women's representation in executive positions, particularly at the level of the head of the executive (such as mayor), is monitored separately at national and global levels, but not as a headline SDG indicator.

Importantly, the indicator refers to representation among members of local government and not the quality of their participation. Countries may therefore consider assessing political participation through national or subnational studies involving qualitative and/or quantitative methods of research. Additional indicators of political participation may also be monitored at national level, such as women's share among voters and candidates in local elections, to monitor the closing of other gaps on women's political participation.

Finally, aspects of local governance beyond the formal institutions of local government, such as public administration staff, are not included in the indicator 5.5.1(b), and may be covered by other indicators in the SDG framework, particularly within the Goal 16 on inclusive societies.

Indicator PD2

Indicator:

Women's share of government ministerial positions (GMSGI) (Also in AGs, AGDI)

Metadata adapted from: https://gender-data-hub-2-undesa.hub.arcgis.com/pages/9b1fd95892974dc1ae6986273ed45020

Importance of indicator:

The proportion of women in decision-making positions is an indicator of the degree of gender-sensitivity of political processes and actors. Recent efforts have focused more importantly on facilitating women's access to parliament. Women in the Executive have been the subject of less attention though recently several political leaders have committed to ensuring parity in government. While women in decision making positions cannot be held solely responsible for the advancement of gender equality, their level of participation contributes to setting different priorities, bringing in women's points of views and changing the way politics are made.

Definition:

Women's share of government ministerial positions is the proportion of women in ministerial positions out of the total of men and women in ministerial positions. A man or woman at the head of two or more ministries or holding several ministerial positions is counted only once. The total includes Deputy Prime Ministers/Heads of Government and Ministers. Prime Ministers/Heads of Government are also included when they hold ministerial portfolios. Heads of governmental or public agencies and Speakers of Parliament have not been included even if they have ministerial rank.

Concepts:

See above.

Unit of measure:

Proportion.

Data required:

Number of women in government ministerial positions; Number of men and women in government ministerial positions.

Data sources:

Government administrative records. Data is obtained by IPU through national governments, permanent missions to the United Nations and publicly available information.

Calculation method:

Women's share of ministerial positions is derived by dividing the total number of women occupying a ministerial position by the total number of men and women occupying a ministerial position.

Additional disaggregation:

Disaggregation by age.

Comments and limitations:

No additional comments.

Indicator PD3

Indicator:

Proportion of women in managerial positions (SDG indicator 5.5.2) (Also in AGDI2019)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

The indicator provides information on the proportion of women who are employed in decision-making and management roles in government, large enterprises and institutions, thus providing some insight into women's power in decision making and in the economy (especially compared to men's power in those areas).

Definition:

This indicator refers to the proportion of females in the total number of persons employed in managerial positions. It is recommended to use two different measures jointly for this indicator: the share of females in (total) management and the share of females in senior and middle management (thus excluding junior management). The joint calculation of these two measures provides information on whether women are more represented in junior management than in senior and middle management, thus pointing to an eventual ceiling for women to access higher-level management positions. In these cases, calculating only the share of women in (total) management would be misleading, in that it would suggest that women hold positions with more decision-making power and responsibilities than they actually do.

Concepts:

Employment comprises all persons of working age who, during a short reference period (one week), were engaged in any activity to produce goods or provide services for pay or profit.

Employment in management is determined according to the categories of the latest version of the International Standard Classification of Occupations (ISCO-08), which organizes jobs into a clearly defined set of groups based on the tasks and duties undertaken in the job. For the purpose of this indicator, it is preferable to refer separately to senior and middle management only, and to total management (including junior management). The share of women tends to be higher in junior management than in senior and middle management, so limiting the indicator to a measure including junior management may introduce bias. Senior and middle management correspond to sub-major groups 11, 12 and 13 in ISCO-08 and sub-major groups 11 and 12 in ISCO-88. If statistics are not available disaggregated at the sub-major group level (two-digit level of ISCO), then major group 1 of ISCO-88 and ISCO-08 can be used as a proxy and the indicator would then refer only to total management (including junior management).

Unit of measure:

Percentage

Data required:

Employment management coded using the categories of the latest version of the International Standard Classification of Occupations (ISCO-08) as described above.

Data sources:

The recommended source for this indicator is a labour force survey or, if not available, other similar types of household surveys, including a module on employment. In the absence of any labour-related household survey, establishment surveys or administrative records may be used to gather information on the female share of employment by the required ISCO groups. In cases where establishment surveys or administrative records are used, the coverage is likely to be limited to formal enterprises or enterprises of a certain size. Information on the enterprises covered should be provided with the figures. When comparing figures across years, any changes in the versions of ISCO that are used should be taken into account.

Calculation method:

Using ISCO-08:

$$\text{Proportion of women in senior and middle management} = \frac{\text{(Women employed in ISCO 08 category 1- Women employed in ISCO 08 category 14)}}{\text{(Persons employed in ISCO 08 category 1 - Persons employed in ISCO 08 category 14)}} \times 100$$

Which can be also expressed as:

$$\text{Proportion of women in senior and middle management} = \frac{\text{(Women employed in ISCO 08 categories 11+ 12+13)}}{\text{(Persons employed in ISCO 08 categories 11+12+13)}} \times 100$$

And

$$\text{Proportion of women in management} = \frac{\text{Women employed in ISCO 08 category 1}}{\text{Persons employed in ISCO 08 category 1}} \times 100$$

- Using ISCO-08:

$$\text{Proportion of women in senior and middle management:} = \frac{\text{(Women employed in ISCO 08 category 1 – Women employed in ISCO 08 category 13)}}{\text{(Persons employed in ISCO 08 category 1 - Persons employed in ISCO 08 category 13)}} \times 100$$

Which can also b e expressed as:

$$\text{Proportion of women in senior and middle management:} = \frac{\text{(Women employed in ISCO 08 categories 11+12)}}{\text{(Persons employed in ISCO 08 categories 11+12)}} \times 100$$

And

$$\text{Proportion of women in managerial positions:} = \frac{\text{Women employed in ISCO 08 category 1}}{\text{Persons employed in ISCO 08 category 1}} \times 100$$

Additional disaggregation:

This indicator requires no disaggregation per se, although employment statistics by both sex and occupation are needed to calculate it. If statistics are available and the sample size permits, it may be of interest to cross-tabulate this indicator by economic activity (ISIC) or disaggregate further to observe the share of women across more detailed occupational groups.

Comments and limitations:

This indicator's main limitation is that it does not reflect differences in the levels of responsibility of women in these high- and middle-level positions or the characteristics of the enterprises and organizations in which they are employed. Its quality is also heavily dependent on the reliability of the employment statistics by occupation at the ISCO two-digit level.

Indicator PD4

Indicator:

Share of women among judges (GMSGI) (Also in AGDI2016)

Metadata adapted from: *https://gender-data-hub-2-undesa.hub.arcgis.com/pages/9b1fd95892974dc1ae6986273ed45020*

Importance of indicator:

For a number of reasons, the share of female judges and magistrates in many countries is relatively high, compared to the share of female police personnel, or other law enforcement agencies with available data, indicating that this is an area relatively accessible and attractive for female candidates.

Definition:

"Professional Judges or Magistrates" means both full-time and part-time officials as of 31 December authorized to hear specifically criminal cases, including in appeal courts, and to make dispositions in a court of law. Also includes authorized associate judges and magistrates. Data refer to 'Female Professional Judges or Magistrates at the national level'.

Concepts:

See above.

Unit of measure:

Proportion.

Data required:

Total number of women occupying a ministerial position by the total number of men and women occupying a ministerial position.

Data sources:

UNODC collects data on crime and criminal justice in its annual United Nations Survey of Crime Trends and Operations of Criminal Justice Systems (UN-CTS) from Member States.

Calculation method:

It is recommended to compute the percentage female as female/(male+female) rather than female/total, as the sum of (male+female) in some cases is smaller than the total (there are some judges/magistrates of unknown sex).

Additional disaggregation:

Disaggregation by age and type of court.

Comments and limitations:

The main challenge faced in collecting the data concerns definitions - i.e. what one considers as a ministerial position or not. A methodology and classification have been developed by the IPU, based on the collection of data since 2005. Differences in titles of holders of ministerial positions are linked to differences in political systems.

Indicator PD5

Indicator:

Share of women among police officers (GMSGI)

Metadata adapted from: https://gender-data-hub-2-undesa.hub.arcgis.com/pages/9b1fd95892974dc1ae6986273ed45020

Importance of indicator:

It may be questioned whether the % of female police personnel should be a target of gender equality per se. In most countries the great majority of criminal offenders (suspects), persons convicted and persons in prisons is male (over 90 per cent), which may make it less attractive for women to work in this field.

Definition:

"Police Personnel" means personnel in public agencies as of 31 December whose principal functions are the prevention, detection and investigation of crime and the apprehension of alleged offenders. Data refer to 'Female Police Personnel at the national level'.

Concepts:

See above.

Unit of measure:

Percentage (%)

Data required:

Number of women police officers; number of men police officers.

Data sources:

UNODC collects data on crime and criminal justice in its annual United Nations Survey of Crime Trends and Operations of Criminal Justice Systems (UN-CTS) from Member States.

Calculation method:

It is recommended to compute the percentage female as female/(male+female) rather than female/total, as the sum of (male+female) in a few cases is smaller than the total (there are some police personnel of unknown sex).

Additional disaggregation:

Disaggregation by age and location.

Comments and limitations:

Global figures published by UNODC in its reports are based on available data for 100+ countries. The availability of additional country data may change the global picture slightly.

Indicator PD6

Indicator:

Presence of a sex quota for parliament (reserved seats and legal candidate quotas) (GMSGI)

Metadata adapted from: https://gender-data-hub-2-undesa.hub.arcgis.com/pages/8f-9c3d0102024f669ee55802f125ef17

Importance of indicator:

The evidence throughout the world illustrates that there are numerous obstacles to women's political participation and representation. Women's participation and representation in decision making bodies at executive and legislative levels has increased, but slow and uneven across the world. Increasing women's participation and representation in political life requires efforts to address political, economic, social, cultural and religious constraints within both formal and informal public and private spheres. A range of strategies such as quotas have been proposed and implemented to help increase women's representation in positions of power and decision making. The quota system places the burden of recruitment not on the individual woman, but on those who control the recruitment process. The use of quotas is increasingly influenced by international recommendations and from cross-country inspiration. It seems important, however, that quotas are not just imposed from above, but rest on grass root mobilization of women and the active participation of women's organizations. Quotas in themselves do not remove all the other barriers for women's full citizenship. But under certain conditions electoral gender quotas can lead to historical leaps in women's political representation.

Definition:

This indicator contains information on the following two types of electoral gender quotas at the single or lower house level: **Legislated Candidate Quotas**, this quota provision reserves a number of places on electoral lists for female candidates **Reserved seats**, reserves a number of seats in a legislated assembly for women While reserved seats regulate the number of women elected, legislated candidate quotas set a minimum for the share of women on the candidate lists as a legal requirement.

Concepts:

See above.

Unit of measure:

Yes/No type of data about the presence of a quota or not.

Data required:

Legislated Candidate Quotas and Reserved seats for women at the single or lower house level.

Data sources:

A collaborative effort of International IDEA, Inter-Parliamentary Union and Stockholm University, the Gender Quotas Database has collected data through many different sources, including, in order of authoritativeness: Constitutions and electoral laws, parliamentary websites and political party websites. The Inter-Parliamentary Union's website on women in parliaments, as the standard reference in this field, has been of great help. Many other international databases and separate websites on parliaments, political parties, and international organizations have also been consulted. Official electoral statistics on gender is not available in all countries in the world, although an increasing number of countries now comply with the demands of the international Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW) for solid gender statistics. In gathering all this information, research has been made by other scholars as well as from personal networks worldwide. In order to check and verify the information, numerous political parties, individual politicians and Electoral Management Bodies around the world have been contacted.

Calculation method:

No calculations required.

Additional disaggregation:

Not applicable.

Comments and limitations:

No additional comments.

ENVIRONMENT AND CLIMATE CHANGE

Indicator EC1

Indicator:

Proportion of the population using safely managed drinking water services, ***by sex, type of household*** (SDG indicator 6.1.1) (Also in MS, UNEP)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

MDG target 7C called for 'sustainable access' to 'safe drinking water'. At the start of the MDG period, there was a complete lack of nationally representative data about drinking water safety in developing countries, and such data were not collected through household surveys or censuses. The JMP developed the concept of 'improved' water sources, which was used as a proxy for 'safe water', as such sources are likely to be protected against faecal contamination, and this metric has been used since 2000 to track progress towards the MDG target. International consultations since 2011 have established consensus on the need to build on and address the shortcomings of this indicator; specifically, to address normative criteria of the human right to water including accessibility, availability and quality.

The above consultation concluded that JMP should go beyond the basic level of access and address safe management of drinking water services, including dimensions of accessibility, availability and quality. The proposed indicator of 'safely managed drinking water services' is designed to address this.

Definition:

Proportion of population using safely managed drinking water services is currently being measured by the proportion of population using an improved basic drinking water source which is located on premises, available when needed and free of faecal (and priority chemical) contamination. 'Improved' drinking water sources include: piped water into dwelling, yard or plot; public taps or standpipes; boreholes or tubewells; protected dug wells; protected springs; packaged water; delivered water and rainwater.

Concepts:

Improved drinking water sources include the following: piped water into dwelling, yard or plot; public taps or standpipes; boreholes or tubewells; protected dug wells; protected springs; packaged water; delivered water and rainwater.

A water source is considered to be 'located on premises' if the point of collection is within the dwelling, yard, or plot.

'Available when needed': households are able to access sufficient quantities of water when needed.

'Free from fecal and priority chemical contamination': water complies with relevant national or local standards. In the absence of such standards, reference is made to the WHO Guidelines for Drinking Water Quality (http://www.who.int/water_sanitation_health/dwq/guidelines/en/).

E. coli or thermotolerant coliforms are the preferred indicator for microbiological quality, and arsenic and fluoride are the priority chemicals for global reporting.

Unit of measure:

Percentage (%)

Data required:

Number of persons using safely managed drinking water services; total number of persons in the population. Household type; sex of the household head.

Data sources:

Access to water and sanitation are considered core socio-economic and health indicators, and key determinants of child survival, maternal, and children's health, family wellbeing, and economic productivity. Drinking water and sanitation facilities are also used in constructing wealth quintiles used by many integrated household surveys to analyse inequalities between rich and poor. Access to drinking water and sanitation is therefore a core indicator for most household surveys. Currently the JMP database holds over 1,700 censuses and surveys. In high-income countries where household surveys or censuses do not always collect information on basic access, data are drawn from administrative records.

Data on availability and quality of drinking water, and regulation by appropriate authorities will be collected by the JMP through consultation with the government departments responsible for drinking water supply and regulation. The JMP routinely conducts country consultations with national authorities before publishing country estimates. Data on availability and quality of water supplies are currently available from household surveys or administrative sources including regulators for over 70 high-income countries, and at least 30-40 low- and middle-income countries. Thus, data are currently available from ca. 100 countries, covering the majority of the global population. This number will rise as regulation becomes more widespread in low- and middle-income countries.

The population data used by the JMP, including the proportion of the population living in urban and rural areas, are those routinely updated by the UN Population Division.

Calculation method:

Household surveys and censuses currently provide information on types of basic drinking water sources listed above, and also indicate if sources are on premises. These data sources often have information on the availability of water and increasingly on the quality of water at the household level, through direct testing of drinking water for faecal or chemical contamination. These data will be combined with data on availability and compliance with drinking water quality standards (faecal and chemical) from administrative reporting or regulatory bodies.

The WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) estimates access to basic services for each country, separately in urban and rural areas, by fitting a regression line to a series of data points from household surveys and censuses. This approach was used to report on use of 'improved water' sources for MDG monitoring. The JMP is evaluating the use of alternative statistical estimation methods as more data become available.

The JMP 2017 update and SDG baselines report describes in more detail how data on availability and quality from different sources, can be combined with data on use of different types of supplies, as recorded in the current JMP database to compute the safely managed drinking water services indicator. https://washdata.org/report/jmp-2017-report-final.

Additional disaggregation:

Disaggregation by place of residence (urban/rural) and socioeconomic status (wealth, affordability) is possible for all countries. Drinking water services will be disaggregated by service level (including no services, basic, and safely managed services) following the JMP drinking water ladder.

Comments and limitations:

Data on availability and safety of drinking water is increasingly available through a combination of household surveys and administrative sources including regulators, but definitions have yet to be standardized. Data on faecal and chemical contamination, drawn from household surveys and regulatory databases, will not cover all countries immediately. However, sufficient data were available to make global and regional estimates of safely managed drinking water services for four out of eight SDG regions in 2017.

Indicator EC2

Indicator:

Proportion of the population using safely managed sanitation services and (b) a hand-washing facility with soap and water, ***by sex and type of household*** (SDG indicator 6.2.1) (Also in MS, UNEP)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

MDG target 7C called for 'sustainable access' to 'basic sanitation'. The JMP developed the metric of use of 'improved' sanitation facilities, which are likely to hygienically separate human excreta from human contact, and has used this indicator to track progress towards the MDG target since 2000. International consultations since 2011 have established consensus on the need to build on and address the shortcomings of this indicator; specifically, to address normative criteria of the human right to water including accessibility, acceptability, and safety. Furthermore, the safe management of faecal wastes should be considered, as discharges of untreated wastewater into the environment create public health hazards.

The above consultation concluded that post-2015 targets, which apply to all countries, should go beyond the basic level of access and address indicators of safe management of sanitation services, including dimensions of accessibility, acceptability and safety. The Expert Working Group called for analysis of faecal waste management along the sanitation chain, including containment, emptying of latrines and septic tanks, and safe on-site disposal or the transport and treatment of wastes at a designated treatment site. Classification of treatment will be based on categories defined by SEEA and the International Recommendations for Water Statistics and following a laddered approach (primary, secondary and tertiary treatment).

Handwashing with soap is widely agreed to be the top hygiene priority for improving health outcomes. In 2008 and 2009, the JMP supported a review of indicators of handwashing practice, and determined that the most practical approach leading to reliable measurement of handwashing in national household surveys was observation of the place where household members wash their hands and noting the presence of water and soap (or local alternative) at that location. This provides a measure of whether households have the necessary tools for handwashing and is a proxy for their behaviour. Observation by survey enumerators represents a more reliable, valid and efficient indicator for measuring handwashing behaviour than asking individuals to report their own behaviour.

Definition:

The Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water is currently being measured by the proportion of the population using a basic sanitation facility which is not shared with other households and where excreta is safely disposed in situ or treated off-site. 'Improved' sanitation facilities include: flush or pour flush toilets to sewer systems, septic tanks or pit latrines, ventilated improved pit latrines, pit latrines with a slab, and composting toilets.

Population with a basic handwashing facility: a device to contain, transport or regulate the flow of water to facilitate handwashing with soap and water in the household.

Concepts:

Improved sanitation facilities include the following: flush or pour flush toilets to sewer systems, septic tanks or pit latrines, ventilated improved pit latrines, pit latrines with a slab, and composting toilets.

Safely disposed in situ; when pit latrines and septic tanks are not emptied, the excreta may still remain isolated from human contact and can be considered safely managed. For example, with the new SDG indicator, households that use twin pit latrines or safely abandon full pit latrines and dig new facilities, a common practice in rural areas, would be counted as using safely managed sanitation services.

Treated offsite; not all excreta from toilet facilities conveyed in sewers (as wastewater) or emptied from pit latrines and septic tanks (as faecal sludge) reaches a treatment site. For instance, a portion may leak from the sewer itself or, due to broken pumping installations, be discharged directly to the environment. Similarly, a portion of the faecal sludge emptied from containers may be discharged into open drains, to open ground or water bodies, rather than being transported to a treatment plant. And finally, even once the excreta reaches a treatment plant a portion may remain untreated, due to dysfunctional treatment equipment or inadequate treatment capacity, and be discharged to the environment.

For the purposes of SDG monitoring, adequacy of treatment will initially be assessed based on the reported level of treatment.

A handwashing facility with soap and water: a handwashing facility is a device to contain, transport or regulate the flow of water to facilitate handwashing. This indicator is a proxy of actual handwashing practice, which has been found to be more accurate than other proxies such as self-reports of handwashing practices.

Unit of measure:

Percentage (%)

Data required:

Number of persons using different types of basic sanitation facilities with estimates of the proportion of faecal waste which is safely disposed in situ or treated off-site.

Data sources:

Access to water and sanitation are considered core socio-economic and health indicators, and key determinants of child survival, maternal, and children's health, family wellbeing, and economic productivity. Drinking water and sanitation facilities are also used in constructing wealth quintiles used by many integrated household surveys to analyse inequalities between rich and poor. Access to sanitation is therefore a core indicator for most household surveys. Currently the JMP database holds over 1,700 surveys and censuses. In high-income countries where household surveys or censuses do not always collect information on basic access, data are drawn from administrative records.

Estimates of excreta management will be collected from countries and used to adjust the data on use of basic sanitation facilities as needed. Administrative, population and environmental data can also be combined to estimate safe disposal or transport of excreta, when no country data are available. Data on disposal or treatment of excreta are limited but estimates for safe management of faecal wastes can be calculated based on faecal waste flows associated with the use of different types of basic sanitation facility.

Since the handwashing with soap survey questions were standardized in 2009, over 70 DHS and MICS surveys have included the module. JMP published handwashing estimates for 12 countries in its 2014 update, for 54 countries in its 2015 update, and for 70 countries in its 2017 update.

The population data used by JMP, including the proportion of the population living in urban and rural areas, are those established by the UN Population Division.

Calculation method:

Method of computation: Household surveys and censuses provide data on use of types of basic sanitation facilities listed above, as well as the presence of handwashing materials in the home.

The percentage of the population using safely managed sanitation services is calculated by combining data on the proportion of the population using different types of basic sanitation facilities with estimates of the proportion of faecal waste which is safely disposed in situ or treated off-site.

The JMP estimates use of basic sanitation facilities for each country, separately in urban and rural areas, by fitting a regression model to a series of data points from household surveys and censuses. This approach was used to report on use of 'improved sanitation' facilities for MDG monitoring. The JMP is evaluating the use of alternative statistical estimation methods as more data become available.

The JMP 2017 update and SDG baselines report describes in more detail how estimates of the proportion of household wastewater that is safely disposed of in situ or treated off-site have been combined with data on use of different types of sanitation facilities, as recorded in the JMP global database.

Additional disaggregation:

Disaggregation by place of residence (urban/rural) and socioeconomic status (wealth, affordability) is possible for all countries. Disaggregation by other stratifies of inequality (subnational, sex, disadvantaged groups, etc.) will be made where data permit. Sanitation services will be disaggregated by service level (including no services, basic, and safely managed services) following the JMP sanitation ladder.

Comments and limitations:

A framework for measuring faecal waste flows and safety factors has been developed and piloted in 12 countries (World Bank Water and Sanitation Program, 2014), and is being adopted and scaled up within the sanitation sector. This framework has served as the basis for indicators 6.2.1 and 6.3.1. Data on safe disposal and treatment are not available for all countries. However, sufficient data were available to make global and regional estimates of safely managed sanitation services in 2017.

Presence of a handwashing station with soap and water does not guarantee that household members consistently wash hands at key times, but has been accepted as the most suitable proxy. Data were available for 70 countries in 2017.

Indicator EC3

Indicator:

Number of deaths, missing persons and directly affected persons attributed to disasters per 100000 population by sex (SDG indicator 11.5.1) (Also in MS, UNEP)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

The Sendai Framework for Disaster Risk Reduction 2015-2030 was adopted by UN Member States in March 2015 as a global policy of disaster risk reduction. Among the global targets, "Target A: Substantially reduce global disaster mortality by 2030, aiming to lower average per 100,000 global mortality between 2020-2030 compared with 2005-2015" and "Target B: Substantially reduce the number of affected people globally by 2030, aiming to lower the average global figure per 100,000 between 2020-2030 compared with 2005-2015" will contribute to sustainable development and strengthen economic, social, health and environmental resilience. The economic, environmental and social perspectives would include poverty eradication, urban resilience, and climate change adaptation.

The open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction (OIEWG) established by the General Assembly (resolution 69/284) has developed a set of indicators to measure global progress in the implementation of the Sendai Framework, which was endorsed by the UNGA (OIEWG report A/71/644). The relevant global indicators for the Sendai Framework will be used to report for this indicator.

Disaster loss data is greatly influenced by large-scale catastrophic events, which represent important outliers. UNISDR recommends countries report the data by event, so that complementary analysis can be undertaken to obtain trends and patterns in which such catastrophic events (that can represent outliers) can be included or excluded.

Definition:

This indicator measures the number of people who died, went missing or were directly affected by disasters per 100,000 population.

Concepts:

Death: The number of people who died during the disaster, or directly after, as a direct result of the hazardous event.

Missing: The number of people whose whereabouts is unknown since the hazardous event. It includes people who are presumed dead, for whom there is no physical evidence such as a body, and for which an official/legal report has been filed with competent authorities.

Directly affected: The number of people who have suffered injury, illness or other health effects; who were evacuated, displaced, relocated or have suffered direct damage to their livelihoods, economic, physical, social, cultural and environmental assets. Indirectly affected are people who have suffered consequences, other than or in addition to direct effects, over time, due to disruption or changes in economy, critical infrastructure, basic services, commerce or work, or social, health and psychological consequences.

Unit of measure:

Rate per 100,000 of the population.

Data required:

Number of deaths attributed to disasters;

Number of missing persons attributed to disasters; and

Number of directly affected people attributed to disasters.

Data sources:

Data provider at national level is appointed Sendai Framework Focal Points. In most countries disaster data are collected by line ministries and national disaster loss databases are established and managed by special purpose agencies including national disaster management agencies, civil protection agencies, and meteorological agencies. The Sendai Framework Focal Points in each country are responsible of data reporting through the Sendai Framework Monitoring System.

Calculation method:

Related indicators as of February 2020

$$X = \frac{(A_2+A_3+B_1)}{\text{Global Population}} \times 100{,}000$$

Where:

A_2 Number of deaths attributed to disasters;

A_3 Number of missing persons attributed to disasters; and

B_1 Number of directly affected people attributed to disasters.

* Detailed methodologies can be found in the Technical Guidance (see below the Reference section)

Additional disaggregation:

[Desirable Disaggregation]:

Hazard

Geography (Administrative Unit)

Sex

Age (3 categories)

Disability

Income

Comments and limitations:

The Sendai Framework Monitoring System has been developed to measure the progress in the implementation of the Sendai Framework by UNGA endorsed indicators. Member States will be able to report through the System from March 2018. The data for SDG indicators will be compiled and reported by UNISDR.

Indicator EC4

Indicator:

Proportion of population with primary reliance on clean fuels and technology, by sex of main user (SDG indicator 7.1.2) (Also in EGM)

Metadata adapted from: https://unstats.un.org/sdgs/metadata/

Importance of indicator:

Cooking, lighting and heating represent a large share of household energy use across the low- and middle-income countries. For cooking and heating, households typically rely on solid fuels (such as wood, charcoal, biomass) or kerosene paired with inefficient technologies (e.g. open fires, stoves, space heaters or lamps). It is well known that reliance on such inefficient energy for cooking, heating and lighting is associated with high levels of household (indoor) air pollution. The use of inefficient fuels for cooking alone is estimated to cause over 4 million deaths annually, mainly among women and children. This is more than TB, HIV and malaria combined. These adverse health impacts can be avoided by adopting clean fuels and technologies for all main household energy end-or in some circumstances by adopting advanced combustion cook stoves (i.e. those which achieve the emission rates targets provided by the WHO guidelines) and adopting strict protocols for their safe use. Given the importance of clean and safe household energy use as a human development issue, universal access to energy among the technical practitioner community is currently taken to mean access to both electricity and clean fuels and technologies for cooking, heating and lighting. For this reason, clean cooking forms part of the universal access objective under the UN Secretary General's Sustainable Energy for All initiative.

Definition:

Proportion of population, by sex of main user, with primary reliance on clean fuels and technology is calculated as the number of people using clean fuels and technologies for cooking, heating and lighting divided by total population reporting that any cooking, heating or lighting, expressed as percentage. "Clean" is defined by the emission rate targets and specific fuel recommendations (i.e. against unprocessed coal and kerosene) included in the normative guidance WHO guidelines for indoor air quality: household fuel combustion.

Concepts:

Current global data collection focuses on the primary fuel used for cooking, categorized as solid or non-solid fuels, where solid fuels are considered polluting and non-modern, while non-solid fuels are considered clean. This single measure captures a good part of the lack of access to clean cooking fuels but fails to collect data on type of device or technology is used for cooking, and also fails to capture other polluting forms of energy use in the home such as those used for lighting and heating.

New evidence-based normative guidance from the WHO (i.e. WHO Guidelines for indoor air quality guidelines: household fuel combustion), highlights the importance of addressing both fuel and the technology for adequately protecting public health. These guidelines provide technical recommendations in the form of emissions targets for as to what fuels and technology (stove, lamp, and so on) combinations in the home are clean. These guidelines also recommend against the use of unprocessed coal and discourage the use kerosene (a non-solid but highly polluting fuel) in the home. They also recommend that all major household energy end uses (e.g. cooking, space heating, lighting) use efficient fuels and technology combinations to ensure health benefits.

For this reason, the technical recommendations in the WHO guidelines, access to modern cooking solution in the home will be defined as "access to clean fuels and technologies" rather than "access to non-solid fuels." This shift will help ensure that health and other "nexus" benefits are better counted, and thus realized.

Unit of measure:

Percentage (%)

Data required:

Number of individuals and type of cooking, lighting and heating fuels used.

Data sources:

Primary household fuels and technologies, particularly for cooking, is routinely collected at the national levels in most countries using censuses and surveys. Household surveys used include: United States Agency for International Development (USAID)-supported Demographic and Health Surveys (DHS); United Nations Children's Fund (UNICEF)-supported Multiple

Indicator Cluster Surveys (MICS); WHO-supported World Health Surveys (WHS); and other reliable and nationally representative country surveys.

The World Health Organization is the agency that has taken responsibility for compiling a database of statistics on access to clean and polluting fuels and technologies harvested from the full global body of household surveys for cooking, heating and lighting. Currently, the WHO Database covers cooking energy for 170 countries and one territory for the period 1960-2020 and is updated regularly and publicly available. For lighting, the WHO database includes data for 125 countries for the period 1963-2019. For heating, the WHO database includes data for 71 countries for the period 1977-2020.

Presently WHO is working with national surveying agencies, country statistical offices and other stakeholders (e.g. researchers) to enhance multipurpose household survey instruments to gather data on the fuels and technologies used for heating and lighting.

In 2020, as a result of a survey enhancement process, data collection for the cooking database included main cooking fuel, exhaust systems (chimney or fan), cooking technology and cooking location. Lighting data collection focused on main lighting fuel. Data collection for the heating database included main heating fuel as well as heating technology.

Calculation method:

The indicator is modelled with household survey data compiled by WHO. The information on cooking fuel use and cooking practices comes from about 1440 nationally representative survey and censuses. Survey sources include Demographic and Health Surveys (DHS) and Living Standards Measurement Surveys (LSMS), Multi-Indicator Cluster Surveys (MICS), the World Health Survey (WHS), and other nationally developed and implemented surveys.

Estimates of primary cooking energy for the total, urban and rural population for a given country and year are obtained together using a single multivariate hierarchical model. Using household survey data as inputs, the model jointly estimates primary reliance on 6 specific fuel types: 1. unprocessed biomass (e.g. wood), 2. charcoal, 3. coal, 4. kerosene, 5. gaseous fuels (e.g. LPG), and 6. electricity; and a final category including other clean fuels (e.g. alcohol). Estimates of the proportion of the population with primary reliance on clean fuels and technology (SDG indicator 7.1.2) are then derived by aggregating the estimates for primary reliance on clean fuel types from the model. Details on the model are published in Stoner et al. (2019).

Only survey data with less than 15% of the population reporting "missing" and "no cooking" and "other fuels" were included in the analysis. Surveys were also discarded if the sum of all mutually exclusive categories reported was not within 98-102%. Fuel use values were uniformly scaled (divided) by the sum of all mutually exclusive categories excluding "missing", "no cooking" and "other fuels".

Countries classified as high-income according to the World Bank country classification (60 countries) in the 2019 fiscal year were assumed to have fully transitioned to clean household energy and therefore are reported as >95% access to clean technologies.

No estimates were reported for low- and middle-income countries without data (Bulgaria, Cuba, Lebanon, Libya). Modelled specific fuel estimates were derived for 128 low- and middle-income countries and 2 countries with no World Bank income classification (Cook Islands and Niue). Estimates of overall clean fuel use were reported for 190 countries.

Additional disaggregation:

Disaggregated estimates for different end-uses (i.e. cooking, heating and lighting; with expected improvements in household surveys, this will be possible for heating and lighting for all countries.

Disaggregation of access to clean fuel and technologies for cooking by rural or urban place of residence is possible for all countries with survey data.

Gender disaggregation by main user (i.e. cook) of cooking energy will be available with expected improvements in household surveys.

Gender disaggregation of head of household for cooking, lighting and heating is available

Energy is a service provided at the household, rather than individual level.

Nonetheless, it is used differentially by men and women and has different impacts on their health and well-being. What will be possible, in principle, is to report energy access disaggregated by the main user of cooking energy.

In addition, WHO's Household energy database includes country data from thirty countries on

the time spent by children collecting fuelwood and water disaggregated by sex. With the improvements in data collection via the below mentioned survey harmonization process, data will be available reporting time spent exclusively on fuel collection rather than in combination with water collection.

Comments and limitations:

The indicator uses the type of primary fuels and technologies used for cooking, heating, and lighting as a practical surrogate for estimating human exposure to household (indoor) air pollution and its related disease burden, as it is not currently possible to obtain nationally representative samples of indoor concentrations of criteria pollutants, such as fine particulate matter and carbon monoxide. However epidemiological studies provide a science-based evidence for establishing those estimates using these surrogates.

The indicator is based on the main type of fuel and technology used for cooking as cooking occupies the largest share of overall household energy needs. However, many households use more than one type of fuel and stove for cooking and, depending on climatic and geographical conditions, heating with polluting fuels can also be a contributor to household (indoor) air pollution levels. In addition, lighting with kerosene, a very polluting and hazardous fuel is also often used, and in some countries is the main fuel used for cooking.

While the existing global household survey evidence base provides a good starting point for tracking household energy access for cooking fuel, it also presents a number of limitations that will need to be addressed over time. Currently there is a limited amount of available data capturing the type of fuel and devices used in the home for heating and lighting. Accordingly, WHO in cooperation with World Bank, and the Global Alliance for Clean Cook stoves, led a survey enhancement process with representatives from country statistical offices and national household surveying agencies (e.g. Demographic and Health Survey, Multiple Indicator Cluster Survey, Living Standards Measurement Survey) to better gather efficiently and harmoniously information on the fuels and technologies for cooking, heating and lighting. The efforts concluded in the creation of 6 new questions that will replace and slightly expand the current set of questions commonly used on national multipurpose surveys to assess household energy.

Substantial progress has already been made toward developing and piloting a new methodology known as the Multi-Tier Framework for Measuring Energy Access (World Bank) which is able to capture the affordability and reliability of energy access explicitly referenced in the language of SDG7 and harnesses the normative guidance in the WHO guidelines to benchmark tiers of energy access. The methodology for the Multi-Tier Framework for Measuring Energy Access has already been published based on a broad consultative exercise and represents a consensus view across numerous international agencies working in the field. For the first time this year, the estimates provided include data extracted from these surveys.

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