



Food and Agriculture Organization  
of the United Nations

October 2018

Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture  
Target 2.3: By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment

[Indicator 2.3.1: Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size](#)

## Institutional information

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**Organization(s):**

Food and Agriculture Organization (FAO)

## Concepts and definitions

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**Definition:**

Volume of agricultural production of small-scale food producer in crop, livestock, fisheries, and forestry activities per number of days.

The indicator is computed as a *ratio of annual output to the number of working days in one year*.

FAO proposes to define small-scale food producers as producers who:

- operate an amount of land falling in the first two quintiles (the bottom 40 percent) of the cumulative distribution of land size at national level (measured in hectares); and
- operate a number of livestock falling in the first two quintiles (the bottom 40 percent) of the cumulative distribution of the number of livestock per production unit at national level (measured in Tropical Livestock Units – TLUs); and
- obtain an annual economic revenue from agricultural activities falling in the first two quintiles (the bottom 40 percent) of the cumulative distribution of economic revenues from agricultural activities per production unit at national level (measured in Purchasing Power Parity Dollars) not exceeding 34,387 Purchasing Power Parity Dollars.

**Rationale:**

The 2030 Sustainable Development Agenda has emphasized the importance of enhancing productivity of small-scale food producers, as these producers play an important role in the global production of food. The indicator monitors progress in this area, where the target is to double productivity by year 2030. The enhancement of labour productivity in small-scale production units also has implications on poverty reduction, as small-scale food producers are often poor, and are frequently found to be close to subsistence conditions.

**Concepts:**

- The following concepts are adopted for the computation of indicators 2.3.1:

- Small-scale food producers are defined as those falling in the intersection of the bottom 40 percent of the cumulative distribution of land, livestock and revenues.

- Tropical Livestock Units are a conversion scale used for standardization and measurement of the number of livestock heads. One TLU is the metabolic weight equivalent of one cattle in North America. The complete list of conversion factors can be found in the Guidelines for the preparation of livestock sector Reviews
- The concept of productivity is standardized by OECD’s Manual for Measuring Productivity. This defines productivity as “a ratio of a volume measure of outputs to a volume measure of input use.” More information on possible definitions can be found in “Productivity and Efficiency Measurement in Agriculture: Literature Review and Gaps Analysis”.

#### Comments and limitations:

A major limitation is data availability. In reality, surveys collecting all the required information simultaneously at the farm level are very few. The most appropriate data source for collecting information on total volume of agricultural production and on labour input adopted on the agricultural holding would be agricultural surveys. However, in many countries, especially in a developing context, agricultural surveys are seldom conducted.

## Methodology

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#### Computation Method:

$$SDG\ 2.3.1 = I_{2.3.1}^t = \frac{\sum_{j=1}^n V_{ij}^t p_{ij}^t}{Ld_j^t} / n$$

where:

$V_{ij}^t$  is the physical volume of agricultural product  $i$  sold by the small-scale food producer  $j$  during year  $t$ ;

$p_{ij}^t$  is the constant sale price received by the small-scale food producer  $j$  for the agricultural product  $i$  during same year  $t$ ;

$Ld_j^t$  is the number of labour days utilized by the small-scale food producer  $j$  during year  $t$ ;

$n$  is the number of small-scale food producer.

As the indicator is referred to a set of production units – those of a small scale – the denominator needs to summarize information on the entire production undertaken in each unit. This requires that volumes of production are reported in a common numeraire, given that it is impossible to sum up physical units. The most convenient numeraire for aggregating products in the numerator is a vector of constant prices. When measured at different points in time, as required by the monitoring of the SDG indicators, changes in constant values represent aggregated volume changes.

#### Disaggregation:

Indicator 2.3.1 must be disaggregated by classes of farming/pastoral/forestry enterprise size. The overall SDG Target 2.3 requires specific focus on women, indigenous peoples, family farmers, pastoralists and fishers. For this reason, the indicator must be disaggregated by *sex, type of enterprise and by community of reference*.

#### Treatment of missing values:

- [At country level](#)

To be determined.

- [At regional and global levels](#)

To be determined.

**Regional aggregates:**

Not yet applicable.

**Sources of discrepancies:**

Not yet applicable.

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

Information is currently not available.

**Quality assurance**

Information is currently not available.

## Data Sources

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**Sources and collection process:**

Given that indicator 2.3.1 is measured on a target population of producers – those considered as small-scale – the ideal data source for measuring them is a single survey that collects all the information required with reference to individual production units. The most appropriate data source for collecting information on total volume of agricultural production and on labour input adopted on the agricultural holding would be agricultural surveys. Other possibilities to be explored in absence of an agricultural surveys are:

- 1) household surveys integrated with an agricultural module,
- 2) agricultural censuses,
- 3) administrative data.

## Data Availability

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Data is still not available in a systematic and harmonized fashion. The following data availability information is provided based on available suitable surveys in selected countries.

Breakdown of the number of countries covered by region is as follows:

	Number of countries	Nature of data
World	8	E
Africa	7	E
Northern Africa		
Sub-Saharan Africa		
Eastern Africa	4	E
Middle Africa		
Southern Africa		
Western Africa	3	E

Americas		
Latin America and the Caribbean		
Caribbean		
Latin America		
Northern America		
Asia	1	E
Central Asia		
Eastern Asia		
Southern Asia	1	E
South-Eastern Asia		
Western Asia		
Europe		
Eastern Europe		
Northern Europe		
Southern Europe		
Western Europe		
Oceania		
Australia and New Zealand		
Melanesia		
Micronesia		
Polynesia		

**Time series:**

By 2030.

## Calendar

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**Data collection:**

To be determined.

**Data release:**

To be determined.

## Data providers

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National Statistical Offices

## Data compilers

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## References

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- Note on "Proposed Methodology for Computing and Monitoring the sustainable Development Goal Indicator 2.3.1 and 2.3.2", Office of the Chief Statistician and Statistics Division, FAO, Rome

- Defining Small Scale Food producers to Monitor Target 2.3 of the 2030 Agenda for Sustainable Development. FAO Statistics Division Working Paper available at <http://www.fao.org/3/a-i6858e.pdf>

## Related indicators as of February 2020

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Not applicable.