

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 2.3.2: Average income of small-scale food producers, by sex and indigenous status](#)

## Institutional information

---

**Organization(s):**

Food and Agriculture Organization (FAO)

## Concepts and definitions

---

**Definition:**

SDG indicator 2.3.2 measures income from on-farm production activities, which is related to the production of food and agricultural products. This includes income from crop production, livestock production, fisheries and aquaculture production, and from forestry production.

The indicator is computed as *annual income*.

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 income 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 income by year 2030.

The enhancement of income of 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 2.3.2:

- 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 computation of income is based on the resolution adopted by the 17th International Conference of Labour Statisticians (ICLS). Income should be computed by deducting from revenues the operating costs and the depreciation of assets.

#### Comments and limitations:

## Methodology

---

#### Computation Method:

Given  $i$  agricultural activities, including crops, livestock, fisheries and forestry activities, and  $j$   $[1, \dots, n]$  small scale food producers defined as in the first section as a subset of all  $N$   $[1, \dots, k]$  food producers, the SDG indicator 2.3.2 must be computed using the following formula:

$$\text{SDG 2.3.2} = I_{2.3.2}^t = \sum_{j=1}^n \left( \sum_i (V_{ij}^t p_{ij}^t - C_{ij}^t) \right) / n$$

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 year  $t$ ;
- $C_{ij}^t$  is the production cost of agricultural product  $i$  supported by the small-scale food producer  $j$  during year  $t$ ;
- $n$  is the number of small-scale food producer.

In details, physical volumes  $V_{ik}^t$  are derived, for each  $k$  producer, from the following items:

- Crop revenues: crop sold, crop for own consumption, crop used as feed, crop saved for seed, crop stored, crop used for by-products, crop given as gift, crop used for paying labour, crop used for paying rent, crop used for paying inputs, crop given out in sharecropping agreement (sharecrop out), crop wasted. Similar criteria apply for the computation of revenues from tree crops and forestry products.
- Livestock revenues: livestock sold (alive), livestock gifts given away (component can only be kept if stock variation is possible to construct), livestock by-/products sold, livestock products self-consumed, livestock by-products self-used (also a cost in crop, for example dung used as fertilisers), livestock by-/products pay away, livestock by-/products credit away.
- Forestry revenues: products sold, forestry products for own consumption, forestry products stored, forestry products used for paying labour, forestry products used for paying rent, forestry products used for paying inputs, forestry products given out in sharecropping agreement, Forestry products wasted.

- Fisheries revenues: captured fresh fish sold, captured processed fish sold, captured fresh fish for own consumption, captured processed fish for own consumption, traded fresh fish sold, traded processed fish sold.

Production costs  $C_{ij}^t$  are meant to include operating costs. These comprise all variable costs (payments in cash and kind of agricultural inputs as fertiliser, seeds, and occasional labour) and fixed costs (hired labour, land rent and technical assistance costs).

In more details, costs  $C_{ij}^t$  generally include the following items:

- Costs of crop activities: inputs paid in cash, land rent, technical assistance/extension costs, crop saved for seed, crop used for paying labour, crop used for paying rent, crop used for paying inputs, crop given out in sharecropping agreement (sharecrop out), crop wasted, crop used for producing by-products, total value of input purchased, including those reimbursed in kind
- Costs of livestock activities: livestock bought, livestock additional expenditures, crop used as feed, technical assistance/extension costs for livestock,
- Costs of forestry activities: input costs (seedlings, fertilisers, hired labour, etc.), machine rental costs, land rental costs, other related costs.
- Costs of fisheries and aquaculture activities: fishing gear expenditures, hired labour expenditures, trading activities, fresh fish purchases, processed fish purchases, other related costs

To obtain comparable results across countries in the case of income, values must necessarily be expressed in International Dollars at Purchasing Power Parity (PPP \$), based on the conversion provided by the World Bank International Comparison Project.

**Disaggregation:**

Indicator 2.3.2 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

---

**Sources and data collection:**

Given that indicator 2.3.2 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 agricultural production and the associated costs are 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

---

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	36	E
Africa	15	E
Northern Africa		
Sub-Saharan Africa		
Eastern Africa	5	E
Middle Africa	1	E
Southern Africa	1	E
Western Africa	8	E
Americas	7	E
Latin America and the Caribbean		
Caribbean		
Latin America	3	E
Northern America	4	E
Asia	9	E
Central Asia	1	E
Eastern Asia	1	E
Southern Asia	4	E
South-Eastern Asia	2	E
Western Asia	1	E
Europe	5	E
Eastern Europe	5	E

Northern Europe		
Southern Europe		
Western Europe		
Oceania		
Australia and New Zealand		
Melanesia		
Micronesia		
Polynesia		

**Time series:**

By 2030.

## Calendar

---

**Data collection:**

To be determined.

**Data release:**

To be determined.

## Data providers

---

National Statistical Offices

## Data compilers

---

Food and Agricultural Organization of the United Nations

## References

---

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

---

Not applicable.