

Sustainable Development Indicator Target 2.4

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Target 2.4	By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality
Indicator 2.4.1	Percentage of agricultural area under productive and sustainable agriculture
Definition and method of computation	<p>The indicator is defined by the following formula:</p> $\text{Percent of land under productive and sustainable agriculture} = \frac{\text{Area under productive and sustainable agriculture}}{\text{Agricultural area}}$ <p>Where</p> $\text{Agricultural area} = \text{arable land} + \text{permanent crops} + \text{permanent meadows and pastures}$ <p>The denominator, agricultural area, is a well-known and established indicator that are collected by statistical bodies in countries and compiled internationally via a questionnaire by FAO. These data are available in FAO's database FAOSTAT.</p> <p>The numerator captures the three dimensions of sustainable production: environmental, economic and social. The measurement instrument – farm surveys – will give countries the flexibility to identify issues related to sustainability that are most relevant to priorities/challenges within these three dimensions.</p> <p>Land under productive and sustainable agriculture will be those farms that satisfy indicators selected across all three dimensions.</p>
Rationale and interpretation	<p>There has been considerable discussion over the past thirty years on how to define “sustainable agriculture.” Sustainability was often understood mainly in its environmental dimension. Yet, it is well established that sustainability needs to be considered in terms of its social, environmental and economic dimensions. The indicator has been operationalized in order to capture its multidimensional nature.</p> <p>Challenges to sustainable agriculture vary within and across countries, and by region and are affected by socio-economic and bio-physical conditions. By addressing sustainability across its three dimensions, countries can select those metrics within their measurement instrument that best capture the priorities most relevant to them. A further metric will be added to capture the resilience dimension of the target.</p> <p>A set of possible metrics for each dimension will be established in order to ensure relevance across the whole range of possible socio-economic and bio-physical conditions. Farm surveys will be designed on the basis of a limited set of these measurements, established at national level in order to cover the most relevant aspects of these dimensions of sustainability. Each surveyed farm will be assessed against targets for each of these measurements, decided at national level. The area of farm that satisfy the targets in all dimensions would be considered as sustainable; otherwise no. Progress would be measured against a benchmark, which would show trends over time.</p>
Sources and data collection	Data on sustainable production will most likely be collected through agricultural surveys or agricultural modules in integrated household surveys organized by the national statistical agencies, with support from FAO or other international agencies to ensure methodological rigor and harmonization. It is expected that these measurements will be integrated and complemented by earth observation technologies, either by or under the overall supervision of national statistical agencies.

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Disaggregation	As long as farm or household level data are available, the indicator can be computed for specific population groups and geographical areas. The level of disaggregation depends on the sample design and sample size in each specific country, but, in general, data can be tabulated by geographical area, size of the farm, gender and age of the enterprise manager.
Comments and limitations	Data from farm surveys can be supplemented with information from other sources, including geospatial data/remote sensing or other techniques to capture environmental data. Data collection or data sharing may be difficult in some countries.
Data for global and regional monitoring	Data for global and regional monitoring will be obtained from aggregation of national data. They can be complemented or enhanced by the use of well selected earth observation data.
Supplementary information	<p>The methodological development of the indicator could benefit from the support from the Global Strategy to improve agricultural and rural statistics, a program aiming at improving countries' capacities to produce agricultural and rural statistics in support to more effective food security and agricultural and rural development policies. As part of this program, FAO, in collaboration with IFAD and the World Bank, are working towards the establishment of a harmonized and cost-effective program of Agricultural and Rural Integrated Surveys (AGRIS) that could form the basis for the collection of data on indicator 2.4. Through this program, methodological guidelines on how to conduct enterprise surveys in agriculture will be developed and provided to countries, together with technical support in the implementation of the farm surveys.</p> <p>—</p> <p>The proposed indicator for 2.4 is directly linked – and may either draw from or provide information to – other proposed SDG targets:</p> <ul style="list-style-type: none"> • 2.3 (agricultural productivity). The link between SDG 2.3 and 2.4 is especially strong. Data for these two indicators can be jointly collected through the same integrated survey. • 6.3 (Improving water quality) • 6.4 (water use efficiency) • 12.2 (efficient use of natural resources) • 15.2 (sustainable management of forests) • 15.3 (land degradation)
References	<p>Land use data: http://faostat3.fao.org/download/R/RL/E</p> <p>Sustainable agriculture:</p> <ul style="list-style-type: none"> - http://www.fao.org/sustainability/en/ - Building a Common Vision for Sustainable Food and Agriculture <p>Global Strategy to Improve Agricultural and Rural Statistics: http://www.fao.org/3/a-i3940e.pdf</p>