

**Position paper  
Indicator 2.4**

<p>Target 2.4 By 2030, ensure sustainable food production systems and implement <b>resilient agricultural practices</b> that increase <b>productivity and production</b>, that help maintain <b>ecosystems</b>, that strengthen <b>capacity for adaptation to climate change</b>, extreme weather, drought, flooding and other disasters and that progressively <b>improve land and soil quality</b></p>
<p>Indicator 2.4.1 Proportion of agricultural area under <b>productive and sustainable agriculture</b></p>
<p>Key dimensions to be reflected by a composite indicator:</p> <ol style="list-style-type: none"> <li>1. Productivity</li> <li>2. Adaptation capacity</li> <li>3. Ecosystems conservation</li> <li>4. Resource conservation and use (through soil and land)</li> <li>5.</li> </ol> <p>Resilience would be the outcome measure of the four composite dimensions</p>
<p>Dimension 1: Productivity</p> <ul style="list-style-type: none"> <li>- Currently measured as ton per ha or per animal unit, once indicator for 2.3 is determined, it could be the reference measure.</li> <li>- Widely available across a range of crops and livestock</li> <li>- Countries could select the crops most important in their context and provide data for this aggregate</li> <li>- Baseline for measurement could be 2015 so progress can be measured over the span of Agenda 2030</li> </ul>
<p>Dimension 2: Adaptation</p> <ul style="list-style-type: none"> <li>- Average variability in farmer income over a five year period, on a rolling basis</li> <li>- Where countries do not measure farm income, an alternative could be to calculate by using indicators 1.2.1 on national poverty over the national proportion of agricultural population</li> <li>- Dimension 1 will help capture productivity variability so focus adaptation dimension on incomes</li> </ul>
<p>Dimension 3: Ecosystems conservation</p> <ul style="list-style-type: none"> <li>- Use Target 15.1, indicator 15.1.2 “Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type”</li> <li>- Baseline for measurement could be 2015 so progress can be measured over the span of Agenda 2030</li> </ul>
<p>Dimension 4: Improve land and soil quality:</p> <ul style="list-style-type: none"> <li>- Re-use indicator 15.3.1 “Percentage of land that is degraded over total land area”</li> </ul>

## 1. Precise definition of the indicator

The indicator is currently defined as the “Proportion of agricultural area under productive and sustainable agriculture”, which requires defining what is ‘productive’ and what is ‘sustainable’ as these are the key dimensions to be measured. We propose that the area under productive and sustainable be aggregated from a selection of data to form a composite indicator, rather than a ratio. This will allow to reflect sustainability as a continuum of progress, rather than presuming it is a state that is either reached or not. For example, a given farm may be performing well on land and soil quality, but using water inefficiently or having high GHG emissions. Assuming one can state whether a given farm is ‘sustainable’ or not assumes there is a definite threshold over which farming is sustainable. It also ignores that several dimensions, such as ecosystems, would need to be measured on a landscape scale, and cannot be determined by measuring single farm operations.

## 2. How is the indicator linked to the specific TARGET as worded in the OWG Report?

The target suggests four key dimensions to be taken into consideration: productivity, ecosystem conservation, adaptation, and land and soil quality. The indicator would measure these four elements and create a unique composite to reflect these dimensions.

We advocate for the use of a composite indicator to reflect the complexity and multi-dimensionality of sustainability. An index can aggregate scores on several dimensions to produce a single score overall. As there is no single definition or measure of sustainability this seems the only way to reflect the complexity of the concept. This is all the more important because there is only one indicator for Target 2.4 so it is important that it reflects the dimensions outlined in the Target’s wording.

Some other dimensions of relevance, such as access to resources, will not be included under this indicator but are included under other Targets.

## 3. Does the indicator already exist, and is it regularly reported?

### Composition of the indicator

The indicator does not currently exist as such, although some of the dimensions to be encompassed are already reported on. Essentially there are two key dimensions that need to be measured: productivity, which is already commonly measured, and sustainability, which needs to take into account several issues and which is not currently measured as a single indicator.

- 1- **Productivity:** The first of the two dimensions, “productivity”, a well-known measure, already reported and used in agriculture statistics, including FAOSTAT, and given as ton per hectare or as per unit of livestock.

The more complex dimension of the indicator is ‘sustainability’, as there is no current measure that encompasses all the elements attached to that concept in agriculture. Most definitions of sustainability include three dimensions: economic, social, and environmental, all based on the notion that sustainability is defined as the ability to provide for today’s needs without undermining the ability to provide for future generation’s needs.

Based on the wording of the target, three areas should be taken into account by countries to assess progress on sustainability:

- 2- **Adaptation:** This is the capacity to absorb shocks and continue to produce in the face of drought, flood, and other severe or unexpected weather events, as well as over time to adapt to climate change. This can be measured through a proxy of variation in farmers' incomes, with guidance on what constitutes low vs high variability as an expression of farmers' ability to absorb shocks and adapt over the long term. For example, a 5%-8% variation in income year on year could be considered to reflect high adaptation capacity, 8%-10% medium etc. This would be best done by using national data on farmers income. Where this data is not available, the indicator could be compiled using the indicator under 1.2.1 "Proportion of population living below the national poverty line, by sex and age" over the total agricultural population, with change measured over time. It could provide the basis to examine variation over time to determine resilience. Using indicator 1.2.1 is more appropriate than using 2.3.2, income of small scale food producers, as the narrowed focus of 2.3.2 would exclude relevance in a number of countries.
- 3- **Ecosystems preservation:** ensuring ecosystems are protected and preserved serves to ensure resilience and productivity. Ecosystems are complex and there is no current measure of 'ecosystem health' that is based on commonly available datasets. Using the proposed indicator 15.1.2 "Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type" can offer a proxy to ecosystems preservation, which will be further complemented by the measures on land and soil which are the last elements of the sustainability dimension specified in Target 2.4
- 4- **Land and soil quality:** land quality can be measured by re-using data on land degradation, which is also covered under Target 15.3, indicator 15.3.1 "Percentage of land that is degraded over total land area" and is currently deemed to be tier 3 but there is a tested methodology, although it is not yet an international standard



