SUSTAINABILITY ASSESSMENT
INDICATORS
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Overview table of indicators per dimension and themes

These indicators were defined based on a concept of a sustainable agriculture that should:

- Maintain natural resources (biodiversity, soil, water, air)
- Maintain non-renewable resources
- Maintain/develop landscapes
- Adapt to global warming effects and fight against it
- Contribute to food sovereignty and safety
- Contribute to employment and territory development
- Ensure animal health and welfare
- Ensure economic viability and continuity of the farm
- Contribute to quality of life
- Give freedom of action and independence
- Produce and share knowledge and know-how

Framework

The ALiSEA Sustainability Assessment Framework begins with the three dimensions of sustainability: agroecology, social and economic. These dimensions are broad, encompass many aspects and are translated into a set of themes. Each theme is measurable through indicators. SA Indicators document provides the guidance for the application and calculation of these indicators.

Figure 1. ALiSEA SA FRAMEWORK

Themes: these are refined in a set of 13 core sustainability issues, or “Themes”, with associated sustainability goals.

Indicators: these are refined in a set of 39 indicators which identify the measurable criteria for sustainable performance for the theme.
<table>
<thead>
<tr>
<th>Dimension</th>
<th>Theme</th>
<th>Indicator</th>
<th>Number</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agroecological Dimension</strong></td>
<td></td>
<td>Diversity of species grown</td>
<td>A1</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Biodiversity management</td>
<td>A2</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Autonomy in energy, equipment and seeds</td>
<td>A3</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Autonomy in N</td>
<td>A4</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Natural resources</td>
<td>Water consumption</td>
<td>A5</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Energy efficiency</td>
<td>A6</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water efficiency</td>
<td>A7</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Boost soil fertility</td>
<td>A8</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maintain plant protection system</td>
<td>A9</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secure availability of material means of production</td>
<td>A10</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reduce the impact on the air quality</td>
<td>A11</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reduce veterinary treatment</td>
<td>A12</td>
<td>8</td>
</tr>
<tr>
<td><strong>Social Dimension</strong></td>
<td></td>
<td>Food production</td>
<td>B1</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contribution to the global food balance</td>
<td>B2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Production quality</td>
<td>B3</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Losses and wastes</td>
<td>B4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social and cultural link to food</td>
<td>B5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Services to the territory</td>
<td>B6</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Direct selling</td>
<td>B7</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Promotion of local resources</td>
<td>B8</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Promotion of local knowledge</td>
<td>B9</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Farm accessibility</td>
<td>B10</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Management of non organic waste</td>
<td>B11</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Innovation network</td>
<td>B12</td>
<td>3</td>
</tr>
<tr>
<td><strong>Economic Dimension</strong></td>
<td></td>
<td>Contribution to employement</td>
<td>B13</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Collective work</td>
<td>B14</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quality of work</td>
<td>B15</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Training</td>
<td>B16</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Involvement in the community</td>
<td>B17</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Action of transparency</td>
<td>B18</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quality of life</td>
<td>B19</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Remoteness</td>
<td>B20</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Profitability and liquidity</td>
<td>Net Income</td>
<td>C1</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Liquidity</td>
<td>C2</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Market vulnerability</td>
<td>Market diversification</td>
<td>C3</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diversification and client relationship</td>
<td>C4</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Farm continuity</td>
<td>Farm continuity</td>
<td>C5</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Global efficiency</td>
<td>Gross efficiency of production process</td>
<td>C6</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inputs sobriety in production process</td>
<td>C7</td>
<td>10</td>
</tr>
</tbody>
</table>
Methodological sheets

AGROECOLOGICAL DIMENSION
Diversity of species grown (A1)

Description
This indicator refers to diversification of production systems (field crop, perennial crop, field gardening, net house gardening) and the index of diversity of grown species.

Unit of measurement
This indicator looks at the share of utilized area where several species are produced at the same time during the analyzed time-frame.

This indicator is measured by first determining the crop diversity index:

<table>
<thead>
<tr>
<th>Pure crops</th>
<th>Number of species in pure crops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crops in association (including agroforestry)</td>
<td>Number of species in each association</td>
</tr>
<tr>
<td><strong>Crop Diversity Index</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

A matrix crossing the crop diversity index with the presence of dominating species (“crops fairness”) will help determining the final score for this indicator:

<table>
<thead>
<tr>
<th>Crop Diversity Index (CDI)</th>
<th>Crops “fairness”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Monocrop on 95% or more of UAL</td>
</tr>
<tr>
<td>1 to 2</td>
<td>3</td>
</tr>
<tr>
<td>3 to 5</td>
<td>4</td>
</tr>
<tr>
<td>6 and +</td>
<td>6</td>
</tr>
</tbody>
</table>

For Net house gardening, the score depends on the number of species grown under the net house and whether there is a diversification of species during different seasons.
Rating

The maximum score is given to production system which maintain landscape complexity and with a high diversity of grown species. The maximum score granted for this indicator is 10.

Limitations

There is a consensus on the fact that diversity increases robustness of a farm towards climatic hazards and biotical pressure, however there is no consensus on what separate a diverse system from a non-diverse one. In addition, the number of species that are available to production depends on the region climatic conditions.
Biodiversity management (A2)

Description

This indicator refers to the extent of structural diversity in landscapes (i.e. zone of ecological compensation/natural, semi-natural habitats), and its management to assess whether it is favorable or not to natural enemies and pollinator.

Unit of measurement

This indicator is measured through 3 items:

Item1: Presence of zone of ecological compensation which are the following: hedgerows, grassland, fallow, wooded banks, ponds, agroforestry. If there are many, 4 points, some, 2 points, none 0 points.

Item2: Management of non-productive zone (=no crop): 4 points if they are managed ecologically, 0 points if there are no non-productive zone.

Item3: Fallow land or flower stripes to favor pollinating insects: 2 points if such zones exist, 0 points if not.

Rating

The maximum score is given to production system which maintain landscape complexity to favor biodiversity and hosting of natural pest enemies. The maximum score granted for this indicator is 10.

Limitations

This indicator is computed in a more complex way in IDEA method but was simplified and kept to grant points to farmers who maintain non-productive zones which are highly valuable to biodiversity.
**Autonomy in energy, equipment and seeds (A3)**

**Agroecological dimension (A)**

**Autonomy**

**Description**

This indicator refers to the autonomy provided to a farm thanks to practices such as self-repairing or adapting farm equipment and of saving seeds or other reproductive materials (e.g. tubers) for use from year to year for annuals and for tree fruits. This indicator also looks at whether renewable energy or energy produced in the farm is used in the farm.

**Unit of measurement**

This indicator is measured through 3 items:

**Item 1:** Use of energy produced on the farm or valorization of renewable energy: if energy is produced on the farm, it will grant up to 4 points.

**Item 2:** Self building of machines or adaptation of existing material, autonomy in repairing material and use of equipment produced in the farm or in group can grant up to 3 points (1 point each).

**Item 3:** If the proportion of area cultivated with seeds produced from the farm or farm transplants exceeds 50%, it will grant 4 points.

**Rating**

The maximum score is given to production system which maintain non-renewable resources, ensure farm autonomy and independence and maintain local know-how such as seed saving. The maximum score granted for this indicator is 10.

**Limitations**
Autonomy in N (A4)

Description

This indicator refers to the autonomy of the farm towards nitrogen from external sources. Growing legumes are considered favorable to reaching nitrogen autonomy and this indicator also looks at the area dedicated to plants fixing nitrogen.

Unit of measurement

This indicator is measured through 2 items:

Item1: Computation of the quantity of N imported in the farm versus the quantity of N spread on the farm plots. If this ratio is more or equal to 60%, it grants 6 points, if it is more or equal to 30% it grants 4 points, less than 30% is considered as no autonomy towards external sources and grants no points.

Item2: Area dedicated to plants fixing nitrogen:

<table>
<thead>
<tr>
<th>% leg in UAL</th>
<th>40%</th>
<th>20%</th>
<th>5%</th>
<th>0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>points</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Rating

The maximum score is given to production system which maintain non-renewable resources and ensure farm autonomy and independence. The maximum score granted for this indicator is 8.

Limitations

This indicator is detrimental to non-integrated farming systems as this type of farms must rely on external sources to provide them with organic nitrogen.
**Indicator name**  
Water consumption (A5)  

**Dimension**  
Agroecological dimension (A)  

**Theme**  
Natural resources  

---

**Description**

This indicator looks at the water use per unit and the access to water during dry season.

---

**Unit of measurement**

This indicator is measured through this matrix:

<table>
<thead>
<tr>
<th>Vulnerability in water resource</th>
<th>Pressure of extraction</th>
<th>QT &lt; 10,000 m³</th>
<th>10,000 m³ &lt; QT &lt; 30,000 m³</th>
<th>QT &gt; 30,000 m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very strong</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Strong</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Weak</td>
<td>8</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

The weaker the vulnerability in water resources, the lower the pressure of extraction, the better score.

If water is accessible during dry season (river, pond, well) 2 more points are granted.

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**Rating**

The maximum score is given to production system which maintain non-renewable resources and act against global warming. The maximum score granted for this indicator is 8.

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**Limitations**

Weighting water withdrawals is difficult when no water counter is available and no reliable public sources exist regarding the quantification of water availability.
**Energy efficiency (A6)**

**Dimension**
Agroecological dimension (A)

**Theme**
Natural resources

### Description

This indicator looks at the energy use for the production, per unit (fuel, electricity, gaz...).

### Unit of measurement

This indicator is measured through this table where each quantity (or price converted into quantity) should be filled in:

<table>
<thead>
<tr>
<th>Direct energy type</th>
<th>unit</th>
<th>quantity consumed</th>
<th>conversion factor</th>
<th>quantity consumed in EFL / unit</th>
<th>EFL</th>
</tr>
</thead>
<tbody>
<tr>
<td>electricity</td>
<td>kWh</td>
<td>0</td>
<td>0.29</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>petrol</td>
<td>L</td>
<td>0</td>
<td>1.28</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>biofuel</td>
<td>L</td>
<td>0</td>
<td></td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>natural gaz</td>
<td>kg</td>
<td>0</td>
<td>1.58</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>biogaz</td>
<td>kg</td>
<td>0</td>
<td>0.51</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>wood</td>
<td>kg DM</td>
<td>0</td>
<td>0.50</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>coil</td>
<td>kg</td>
<td>0</td>
<td>0.78</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>lubricant</td>
<td>L</td>
<td>0</td>
<td>1.01</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>straw</td>
<td>kg</td>
<td>0</td>
<td>0.53</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

| **Total consumption of direct energy** | 0.0 |

A consumption of more than 1200 EFL (equivalent fioul liter) will grant a score of 0:

<table>
<thead>
<tr>
<th>EFL points</th>
<th>300</th>
<th>600</th>
<th>900</th>
<th>1200</th>
</tr>
</thead>
<tbody>
<tr>
<td>points</td>
<td>8</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

### Rating

The maximum score is given to production system which maintain non-renewable resources and ensure farm autonomy and independence. The maximum score granted for this indicator is 8.

### Limitations

Quantities are difficult to compute as consumptions are often given in prices.
**Indicator name**  Water efficiency (A7)

**Dimension**  Agroecological dimension (A)

**Theme**  Favorable conditions for mid-long-term production

**Description**
This indicator refers to practices that aim at saving water. Water conservation refers to any beneficial reduction of water loss, use or waste. Many practices can potentially conserve water, such as maximizing the efficiency of irrigation system, rainwater harvesting or livestock grazing.

**Unit of measurement**
This indicator is measured through 3 items:

Item1: Irrigated crop: the type of irrigated crop will determine a score between 0 to 4. If livestock is grazing, this will grant 3 points and if an efficient watering strategy (early species, early sowing, mulching, pond, well) has been implemented, it will grant 1 point.

Item2: Water-waste reduction: if there is an efficient watering system in the farm, this will grant 4 points.

Item3: Rainwater harvesting or reused: if such water recycling method is used in the farm, this will grant 4 points.

**Rating**
The maximum score is given to production system which maintain non-renewable resources, ensure farm autonomy and independence and adapt and act against global warming. The maximum score granted for this indicator is 10.

**Limitations**
The efficiency and appropriateness of water-saving practices depend on local climate and water availability. Hence, it has to be determined locally what practices are beneficial.
**Indicator name**  
**Boost soil fertility (A8)**

**Dimension**  
Agroecological dimension (A)

**Theme**  
Favorable conditions for mid-long-term production

### Description

This indicator refers to all practices that aim at improving the soil fertility. Depending on the conditions of soils and on the local climatic and geological characteristics, numerous measures can be taken to improve soil fertility such as: application of compost, animal manure to improve nutrient deficiencies and/or organic matter, soil cover or/and no tillage to reduce erosion and improve biological life in the soil.

### Unit of measurement

This indicator is measured through 3 items:

**Item1: Long time soil fertility:** It looks at the area where specific soil organic matter management is implemented (possible actions: compost, ramial chipped wood, crop residues left on the plots, permanent cover crop, no tillage system...)

<table>
<thead>
<tr>
<th>OM management</th>
<th>60%</th>
<th>30%</th>
<th>0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>points</td>
<td>5</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Straw or rice husk burning grants a negative point.

**Item2: Biological life in the soil:** It looks at the area where biological life in the soil is maintained through permanent cover and/or no tillage (direct sowing):

<table>
<thead>
<tr>
<th>Permanent Cover</th>
<th>60%</th>
<th>30%</th>
<th>0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>points</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No tillage</th>
<th>60%</th>
<th>30%</th>
<th>0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>points</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

**Item3: Erosion:** Specific measures (agroforestry, soil cover, terrace, stripes, hurdles...) to counter erosion grant 2 points.
Rating

The maximum score is given to production system which maintain non-renewable resources, ensure farm autonomy and independence and adapt and act against global warming. The maximum score granted for this indicator is 12.

Limitations

Consensus on the efficacy and trade-offs of soil-enhancing practices does not yet exist for all practices. It could happen that measures that remove one problem can aggravate another problem.
Maintain plant protection system (A9)

Agroecological dimension (A)

Favorable conditions for mid-long-term production

Description

This indicator refers to the practices implemented to maintain plant protection. First of all, it looks at whether a pest management strategy has been implemented and then how it is implemented (use of bio pesticides and incidence of pests on crops).

Unit of measurement

This indicator is measured through 2 items:

Item 1: Pest management strategy:

<table>
<thead>
<tr>
<th>Item 1: PMS</th>
<th>Totally implemented</th>
<th>Partially implemented</th>
<th>No PMS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

If bio pesticides are used, 2 points are granted.

Item 2: Incidence of pests, diseases, weeds:

<table>
<thead>
<tr>
<th>Item 2: Incidence</th>
<th>no incidence</th>
<th>partial crop damages</th>
<th>significant damages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Rating

The maximum score is given to production system which maintain non-renewable resources and contribute to quality food supply. The maximum score granted for this indicator is 8.

Limitations
Secure availability of material means of production (A10)

Agroecological dimension (A)

Favorable conditions for mid-long-term production

Description

This indicator refers to the degree of dependency from external inputs, especially regarding supply issues: quality, quantity, delays. This indicator also looks at the quantity of supply not purchased locally.

Unit of measurement

This indicator is measured through 2 items:

Item1: Degree of dependency towards external outputs:

<table>
<thead>
<tr>
<th>No dependency</th>
<th>Minor dependency</th>
<th>Major dependency</th>
<th>Securisation problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>0</td>
<td>-1</td>
</tr>
</tbody>
</table>

Item2: Quantity of non-local supply: if more than 50% of supply is sourced locally, 2 points are granted.

Rating

The maximum score is given to production system which contribute to quality food supply and human and plant health. The maximum score granted for this indicator is 4.

Limitations
**Indicator name**  Reduce the impact on the air quality (A11)

**Dimension**  Agroecological dimension (A)

**Theme**  Human and animal health

---

**Description**

This indicator refers to the number of practices that aim at reducing the GHG emissions from agriculture systems. Many practices can potentially mitigate emissions such as reduced tillage, land-cover, use of non-fossil fuel, reduced deforestation and forest degradation...

---

**Unit of measurement**

This indicator is measured through on item: machines emitting particles. If the number of crossings exceeds 4, no points are granted:

<table>
<thead>
<tr>
<th>NC (nbr crossing)</th>
<th>4</th>
<th>2</th>
<th>0 or 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Points</td>
<td>0</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

The implementation of GHG emissions mitigation practices can grant up to 2 points.

---

**Rating**

The maximum score is given to production system which maintain non-renewable resources, ensure farm autonomy and independence and adapt and act against global warming. The maximum score granted for this indicator is 4.

---

**Limitations**

This indicator intends to capture the type of activities and practices that the farm has implemented which have effectively reduced the GHG emissions. However, consensus on best practices for dealing with the challenge of reducing GHG emissions does not yet exist.
Indicator name: **Reduce veterinary treatment (A12)**

**Dimension:** Agroecological dimension (A)

**Theme:** Human and animal health

### Description

This indicator serves to check whether practices have been implemented that support animal health (plants or essential oil treatments) and that reduce the need for veterinary treatment.

### Unit of measurement

This indicator is measured through 1 item:

**Item1:** Number of veterinary treatments that gives an average number of treatment based on the number of livestock.

<table>
<thead>
<tr>
<th>Veterinary treatments</th>
<th>0.5</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>points</td>
<td>8</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

The use of alternative strategy such as plants or essential oil treatments grants 1 point.

### Rating

The maximum score is given to production system which maintain animal well-being and health. The maximum score granted for this indicator is 8.

### Limitations
Methodological sheets

SOCIAL DIMENSION
Indicator name: Food production (B1)

Dimension: Social dimension (B)

Theme: Food supply

Description
This indicator looks at the proportion of cultivated area dedicated to human and/or animal food.

Unit of measurement
This indicator is measured through 2 items:

Item1: proportion of cultivated area dedicated to human and/or animal food:

<table>
<thead>
<tr>
<th>values</th>
<th>points</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>50%</td>
<td>3</td>
</tr>
<tr>
<td>85%</td>
<td>6</td>
</tr>
</tbody>
</table>

Item2: if there is a production of legumes, vegetables, fruits, it grants 4 points

Rating
The maximum score is given to production system which has a wide variety of production (crop fields, livestock, vegetables, fruits...). This indicator emphasizes agriculture's strategic role in nourishing a world where population is exploding. The maximum score granted for this indicator is 10.

Limitations
Indicator name: Contribution to the global food balance (B2)

Dimension: Social dimension (B)

Theme: Food supply

Description
This indicator looks more specifically at the cultivated area dedicated to protein plants.

Unit of measurement
This indicator is measured through 1 item:

Item1: Proportion of UAL dedicated to protein production. If the proportion is equal or more than 30%, 5 points are granted.

Rating
The maximum score is given to production system which enable the farm to produce enough protein food to be autonomous and provide food to country of origin and doing so contributing to the food sovereignty. The maximum score granted for this indicator is 5.

Limitations
**Production quality (B3)**

**Indicator name**
- Production quality (B3)

**Dimension**  
- Social dimension (B)

**Theme**  
- Food supply

**Description**
This indicator looks at the production quality which could be linked to geographic indication and/or to specific processes, to livestock nutrition or to organic certification or PGS.

**Unit of measurement**
This indicator is measured through 3 items:

- **Item1: Process quality**: a production of quality linked to territory (Geographical Indication) or to a specific process grants 3 points each.

- **Item2: Nutritious quality**: a production of quality linked to nutritious quality grants 3 points.

- **Item3: Organic agriculture or PGS**: a production of quality certified by an external organic auditor or by participatory guarantee systems grants 5 points.

**Rating**
The maximum score is given to production system which produce quality food and have certified quality approach. The maximum score granted for this indicator is 7.

**Limitations**
<table>
<thead>
<tr>
<th>Indicator name</th>
<th>Losses and wastes (B4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension</td>
<td>Social dimension (B)</td>
</tr>
<tr>
<td>Theme</td>
<td>Food supply</td>
</tr>
</tbody>
</table>

**Description**

This indicator relates to food losses that occur during production, post-harvest and processing operations and the actions implemented to limit losses and wastes.

**Unit of measurement**

This indicator is measured through the accumulation of points granted per actions implemented to limit losses and wastes. Each action, appropriate and good quality storage capacity, social action to limit products losses left in the field, involvement in a program of waste awareness and other, grants 2 points.

**Rating**

The maximum score is given to production system which adopts actions to limit food waste. The maximum score granted for this indicator is 5.

**Limitations**
Social and cultural link to food (B5)

Description
This indicator relates to actions fostering the link between consumers and producers (direct selling at the farm, farm day, baskets), knowledge about food (cooking classes, recipes based on farm products, contribution to local food network), or production of food not heavily produced or represented (ancient varieties).

Unit of measurement
This indicator is measured through 3 items:

Item1: Action fostering the link between consumer and producer: if such action exists, 3 points are granted.

Item2: Action fostering knowledge about food: if such action exists, 3 points are granted.

Item3: Significant production of food not heavily represented or commercialized: if such production exists, 3 points are granted.

Rating
The maximum score is given to production system which promotes local knowledge about food and direct link with customer to raise awareness and educate consumers. The maximum score granted for this indicator is 5.

Limitations
Services to the territory (B6)

Dimension: Social dimension (B)
Theme: Local development

Description
This indicator relates specifically to services to the territory such as pedagogical farm or agrotourism.

Unit of measurement
This indicator is measured through 2 items:

Item 1: Agrotourism: if the farm proposes such services, 2 points are granted.
Item 2: Pedagogical farm: if the farm proposes such services, 2 points are granted.

Rating
The maximum score is given to production system which promotes local knowledge about food and direct link with customer to raise awareness and educate consumers. The maximum score granted for this indicator is 3.

Limitations
Indicator name: **Direct selling (B7)**

**Dimension:** Social dimension (B)

**Theme:** Local development

### Description

This indicator relates to the production valorization through direct selling to consumers, be it households or local catering.

### Unit of measurement

This indicator is measured through 3 items:

**Item1:** Value of sales in direct selling or proximity channels:

<table>
<thead>
<tr>
<th>% revenue direct selling</th>
<th>5%</th>
<th>10%</th>
<th>15%</th>
<th>20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>item 1</td>
<td>0</td>
<td>0.5</td>
<td>1</td>
<td>1.5</td>
</tr>
</tbody>
</table>

**Item2:** Proximity selling (less than 80 km) collectively and/or individually: selling collectively grants 2 points while selling individually grants 1 point.

**Item3:** Sale to local catering grants 3 points.

### Rating

The maximum score is given to production system which enable the farm to directly benefit from the added value created by its production and by so, contributing to the circular economy. The maximum score granted for this indicator is 8.

### Limitations
**Indicator name**  
Promotion of local resources (B8)

**Dimension**  
Social dimension (B)

**Theme**  
Local development

**Description**  
This indicator looks at the promotion of local resources through the purchase of animals or seeds on the territory, the use of energy produced from local resources and the water recycling or reuse.

**Unit of measurement**  
This indicator is measured through 4 items:

- **Item1**: Local sourcing (purchase or exchange): straw/manure grants and livestock. Local purchase or exchange of straw against manure, and livestock grants 1 point.
- **Item2**: Seed exchange grants 2 points
- **Item3**: Use or production of energy coming from agriculture or from local forest grant 3 points
- **Item4**: Water harvesting grants 1 point

**Rating**  
The maximum score is given to production system which contribute to the circular economy by using or exchanging resources available on the territory. The maximum score granted for this indicator is 5.

**Limitations**
<table>
<thead>
<tr>
<th>Indicator name</th>
<th>Promotion of local knowledge (B9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension</td>
<td>Social dimension (B)</td>
</tr>
<tr>
<td>Theme</td>
<td>Local development</td>
</tr>
</tbody>
</table>

**Description**

This indicator looks at the promotion of local knowledge which is part of a territory identity and contributes to the development of the local patrimony.

**Unit of measurement**

This indicator is measured through 2 items:

- **Item1:** Contribution to supporting local agroecological or cultural knowledge grants 4 points.
- **Item2:** Maintaining and or developing the local genetic patrimony grants 3 points.

**Rating**

The maximum score is given to production systems which contribute to the development of a given territory through the perpetuation of local knowledge and know-hows. The maximum score granted for this indicator is 5.

**Limitations**
<table>
<thead>
<tr>
<th>Indicator name</th>
<th>Farm accessibility (B10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension</td>
<td>Social dimension (B)</td>
</tr>
<tr>
<td>Theme</td>
<td>Local development</td>
</tr>
</tbody>
</table>

**Description**

This indicator looks at the location of the farm and its accessibility in rural or urban area.

**Unit of measurement**

If the farm is accessible in rural zone, 2 points are granted. If the farm is accessible in urban zone, 3 points are granted.

**Rating**

The maximum score is given to farms engaging actions to facilitate access to their farms to participate to community life. The maximum score granted for this indicator is 3.

**Limitations**
Management of non-organic waste (B11)

Description
This indicator looks at the non-organic waste management, whether there is any hazardous or dangerous wastes and if and how it is recycled or disposed of. The generation of wastes and in particular of hazardous wastes creates disposal problems that can cause social problems (health risks, noxious odors), environmental pollution (leaching from inappropriate disposal, gaseous emissions) and economic damage (cost of disposal and rehabilitation).

Unit of measurement
This indicator is measured through this matrix:

<table>
<thead>
<tr>
<th>Type of waste</th>
<th>Presence</th>
<th>Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dangerous waste</td>
<td>batteries</td>
<td></td>
</tr>
<tr>
<td></td>
<td>chemicals, medicines</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Heavy waste</td>
<td>Plastics and tyres</td>
<td></td>
</tr>
</tbody>
</table>

When listed above wastes are not present, 1 point is granted. When wastes are recycled 0.5 point is granted.

Rating
The maximum score is given to production system which contribute to the circular economy by recycling non organic waste or limiting health, social or environmental impact when disposing of. The maximum score granted for this indicator is 3.

Limitations
Description

This indicator looks at the involvement of the farm in an innovation network promoting innovative agroecological practices and knowledge sharing.

Unit of measurement

This indicator is measured through 2 items:

Item1: Involvement in innovative network grants 2 points

Item2: Pooling of resources / materials grants 2 points

Rating

The maximum score is given to farm enabling the dissemination of knowledge and new, innovative practices through innovative networks. The maximum score granted for this indicator is 3.

Limitations
Contribution to employment (B13)

Social dimension (B)

Employment

Description

This indicator looks at the job creation on the farm and the origin of seasonal manpower (local or not).

Unit of measurement

This indicator is measured through 3 items:

Item1: Employment: UAL/employee:

<table>
<thead>
<tr>
<th>UAL/employee</th>
<th>item 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
</tr>
</tbody>
</table>

Item2: Creation of jobs on the farm: if a job was created over the last 5 years, 3 points are granted

Item3: Manpower: if more than 50% of seasonal manpower comes from the local area, 2 points are granted

Rating

The maximum score is given to farm contributing to job creation on the territory. The maximum score granted for this indicator is 6.

Limitations
**Indicator name**
Collective work (B14)

**Dimension**
Social dimension (B)

**Theme**
Employment

**Description**
This indicator looks at collective work provided through mutual support or farmers group. Common projects such as sharing lands or collective selling points are also taken into consideration.

**Unit of measurement**
This indicator is measured through 2 items:

- **Item1**: Mutual support and membership to a farmer group each grants 1 point
- **Item2**: Common projects grant 2 points

**Rating**
The maximum score is given to farm engaged in work mutualisation, farmers group or any action that would foster solidarity inside a community. The maximum score granted for this indicator is 4.

**Limitations**

---
**Description**

This indicator is based on the farmer self-assessment of his/her satisfaction at work and the drudgery at work.

**Unit of measurement**

This indicator is measured through 2 items:

Item1: Satisfaction at work is ranked from 0 to 4. A score of 0 corresponds to a poor satisfaction at work while 4 corresponds to a high satisfaction at work. The points granted depend on the farmer self-assessment of his/her satisfaction at work.

Item2: Drudgery is ranked from 0 to -4. A score of 0 corresponds to a low drudgery while 4 corresponds to a high drudgery. The points granted depend on the farmer self-assessment of his/her feeling of drudgery.

**Rating**

The maximum score granted for this indicator is 3.

**Limitations**
Description

This indicator looks at the number of training attended by the farmer over a year, and the hosting of young trainees or professionals.

Unit of measurement

This indicator is measured through 3 items:

Item1: Training: this item depends on the number of trainings attended by the farmer over a year. Points are granted to a limit of 3.

Item2: Hosting of young trainees grants 3 points.

Item3: Hosting of groups of professionals grants 2 points.

Rating

The maximum score is given to farms willing to learn and share experience through trainings and willing to mentor or host young trainees or professionals to guide and teach them. The maximum score granted for this indicator is 6.

Limitations
Involvement in the community (B17)

**Indicator name**

Social dimension (B)

**Theme**

Ethics and human growth

**Description**

This indicator looks at all actions implemented by the farmer to share and disseminate knowledge in the community through mentoring program or social work, public hosting (schools, group of farmers, villagers...) and his/her participation to association.

**Unit of measurement**

This indicator is measured through 3 items:

Item1: Involvement in non-farming association on the territory grants 3 points

Item2: Youth mentoring or social experimentation (community work) grants 3 points

Item3: Public hosting grants 3 points

**Rating**

The maximum score is given to farms willing to learn and share experience through trainings and willing to mentor or host young trainees or professionals to guide and teach them. The maximum score granted for this indicator is 8.

**Limitations**
**Indicator name**

**Action of transparency (B18)**

**Dimension**

Social dimension (B)

**Theme**

Ethics and human growth

---

**Description**

This indicator looks at the actions implemented to promote the quality process engaged by the farmer and at whether the farmer is member of a PGS or not.

---

**Unit of measurement**

This indicator is measured through 2 items:

**Item1:** Communication on the farmer practices (certification, marketing...) grants 4 points

**Item2:** Member of a PGS grants 3 points

---

**Rating**

The maximum score is given to production system which produce quality food and implement actions to promote such quality. The maximum score granted for this indicator is 5.

---

**Limitations**
Indicator name  Quality of life (B19)

Dimension  Social dimension (B)

Theme  Ethics and human growth

Description

This indicator is based on a farmer self-assessment of his/her quality of life.

Unit of measurement

This indicator is measured though the self-assessment of the farmer of his/her quality of life. Quality of life is ranked from 0 to 6. A score of 0 corresponds to a poor quality of life while 6 corresponds to a high quality of life.

Rating

The maximum score granted for this indicator is 3.

Limitations
Indicator name       Remoteness (B20)
Dimension            Social dimension (B)
Theme                Ethics and human growth

Description
This indicator is based on a farmer self-assessment of his/her feeling of isolation (location, social or cultural isolation) and his/her feeling of the quality of access to productive services of the farm.

Unit of measurement
This indicator is measured through the self-assessment of the farmer of his/her feeling of isolation and his/her feeling of the quality of access to productive services of the farm (phone, internet, roads...).

Isolation feeling is ranked from 0 to 4. A score of 0 corresponds to a strong isolation feeling while 4 corresponds to a low isolation feeling.

Quality of access to productive services is ranked from 0 to 4. A score of 0 corresponds to a poor quality of access while 4 corresponds to a good quality of access.

Rating
The maximum score granted for this indicator is 3.

Limitations
Methodological sheets

ECONOMIC DIMENSION
Net Income (C1)

**Economic dimension (C)**

**Profitability and liquidity**

**Description**

Net income is an indicator that helps measure the farm’s profitability and financial sustainability over time. It is calculated after subtracting cost of production from income. Income are revenues coming from farming activities and other services such as agro tourism or land lending. Cost of production refers to the costs incurred during a given time period to acquire and transform direct materials, so as to produce and sell revenue generating products, goods and/or services. Total cost of production must be less than the total income.

**Unit of measurement**

This indicator is measured through 2 items:

- **Item1**: Income and cost of production are computed, then costs of production are subtracted from income which gives a net income. The yearly net income is compared to the annual minimum wage:

<table>
<thead>
<tr>
<th>Number</th>
<th>Points</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>significantly less than annual minimum wage</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>less than AMW</td>
</tr>
<tr>
<td>3</td>
<td>12</td>
<td>close to AMW</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>more than AMW</td>
</tr>
<tr>
<td>5</td>
<td>20</td>
<td>significantly more than AMW</td>
</tr>
</tbody>
</table>

- **Item2**: Farmer self-assessment on income which is ranked from 0 to 5. A score of 0 corresponds to a poor income while 5 corresponds to a good income.

**Rating**

Assess the level of income compared to an average citizen in a given country. The maximum score granted for this indicator is 25.

**Limitations**
Description

This indicator looks at the existing instruments that could support the farmer in case of shock such as crop losses, climatic damage. Agricultural activities are vulnerable and there is a need to access safety nets, especially in periods of crisis. Formal safety nets are those which legally guarantee the farm access to financial, economic or social support (i.e. banks, micro-credit institutions, public social programs, government transfers of food or cash). Informal safety nets provide likelihood of support to the farm to cope with the risk and vulnerable situation it is facing, but with no legal guarantee (i.e. family, friends, community groups and non-governmental institutions).

Unit of measurement

This indicator is measured through the accumulation of points granted by access to formal or informal safety nets. Each access to a specific safety net grants 2 points.

Rating

The maximum score granted for this indicator is 10.
Market diversification (C3)

Economic dimension (C)

Market vulnerability

Description

This indicator looks at the product diversification. For smallholder farmers, it enables a better use of land through crop rotation and the production of several crops and species simultaneously. It could have a direct impact minimizing soil erosion and increasing its fertility, as well as providing other environmental services, such as natural pest and weed control. Furthermore, it gives the enterprise the possibility to generate income all year round, reducing the dependency to seasonal crops and minimizing the risk of mono-cultivation.

Unit of measurement

This indicator is measured through 2 items:

Item1: Proportion of the most productive subsystem:

<table>
<thead>
<tr>
<th>Weight</th>
<th>points</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>10</td>
</tr>
<tr>
<td>75%</td>
<td>6</td>
</tr>
<tr>
<td>100%</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Item2: Diversification of products:

<table>
<thead>
<tr>
<th>Products sold</th>
<th>points</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Rating

The maximum score granted for this indicator is 15.
**Indicator name**

Diversification and client relationship (C4)

**Dimension**

Economic dimension (C)

**Theme**

Market vulnerability

**Description**

This indicator looks at the client diversification and relationship. A variety of clients decreases risk of unsold production, so does a long-term and formalized client relationship.

**Unit of measurement**

This indicator is measured through 2 items:

**Item 1:** Client diversification with proportion of main clients:

<table>
<thead>
<tr>
<th>% of TO of main client</th>
<th>points</th>
</tr>
</thead>
<tbody>
<tr>
<td>33%</td>
<td>7</td>
</tr>
<tr>
<td>66%</td>
<td>3</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Item 2:** Client relationship

<table>
<thead>
<tr>
<th>Type contract</th>
<th>points</th>
</tr>
</thead>
<tbody>
<tr>
<td>contract</td>
<td>3</td>
</tr>
<tr>
<td>long term</td>
<td>2</td>
</tr>
<tr>
<td>cooperative</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

**Rating**

The maximum score granted for this indicator is 10.

**Limitations**
Farm continuity (C5)

Description

This indicator looks at structure of the farm (plots structure, development projects, secured access to land) and how easy it would be to transmit it in case there is no family to succeed. The farmer can contribute by assessing the level of certainty his/her farm to exist in 10 years' time.

Unit of measurement

This indicator is measured through 2 items:

Item1: Existence of the farm in 10 years

<table>
<thead>
<tr>
<th>Continuity</th>
<th>points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certain</td>
<td>8</td>
</tr>
<tr>
<td>Most likely</td>
<td>4</td>
</tr>
<tr>
<td>Subsistence if possible</td>
<td>2</td>
</tr>
<tr>
<td>Likely disappearance</td>
<td>0</td>
</tr>
</tbody>
</table>

Item2: Structure: a good plots structure grants 3 points, land: land ownership grants 3 points, development projects grant 2 points

Rating

The maximum score granted for this indicator is 15.

Limitations
**Indicator name**
Gross efficiency of production process (C6)

**Dimension**
Economic dimension (C)

**Theme**
Global efficiency

**Description**
This indicator measures the wealth created by the production process. It looks at the farm capable of converting costs of production into a maximum of money coming from the production.

**Unit of measurement**
This indicator is computed based on income and costs of production: (income-costs of production)/income:

<table>
<thead>
<tr>
<th>GE</th>
<th>score</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1</td>
<td>0</td>
</tr>
<tr>
<td>0.2</td>
<td>2</td>
</tr>
<tr>
<td>0.3</td>
<td>4</td>
</tr>
<tr>
<td>0.4</td>
<td>6</td>
</tr>
<tr>
<td>0.5</td>
<td>8</td>
</tr>
<tr>
<td>0.6</td>
<td>10</td>
</tr>
<tr>
<td>0.7</td>
<td>12</td>
</tr>
<tr>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

**Rating**
The maximum score granted for this indicator is 15.

**Limitations**
Inputs sobriety in production process (C7)

Dimension: Economic dimension (E)
Theme: Global efficiency

Description
This indicator looks at the dependency of a farm regarding inputs: the lower the better in a context of non-renewable resources reduction.

Unit of measurement
This indicator is computed based on inputs consumption in kip / ha UAL:

<table>
<thead>
<tr>
<th>IS in kip/ha UAL</th>
<th>score</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000</td>
<td>10</td>
</tr>
<tr>
<td>10,000,000</td>
<td>5</td>
</tr>
<tr>
<td>20,000,000</td>
<td>3</td>
</tr>
</tbody>
</table>

Rating
The maximum score granted for this indicator is 10.

Limitations