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## List of abbreviations

AKIS Agricultural Knowledge and Information System

AMR antimicrobial resistance

ANC Areas with natural or other specific constraints

AWU Annual Work Unit

CAP Common Agricultural Policy

CAPRI Common Agricultural Policy Regional Impact Analysis

CCA Cumulative Cost Analysis
CCO cross-cutting objective
CIS Coupled Income Support

EAFRD European Agricultural Fund for Rural Development

EAGF European Agricultural Guarantee Fund

EFSA European Food Safety Authority

Eionet European Environment Information and Observation Network

EIP European Innovation Partnership

EQ Evaluation Question

ERDF European Regional Development Fund

ESDAC European Soil Data Centre

ESF European Social Fund

FADN Farm Accountancy Data Network
FAO Food and Agriculture Organisation

FNVA Farm Net Value Added

FSDN Farm Sustainability Data Network

GAEC good agricultural and environmental condition

GDP Gross Domestic Product

GHG greenhouse gas GO general objective HNV High Nature Value

IACS Integrated Administration and Control System

JRC Joint Research Centre

LPIS Land Parcel Identification System

LSU livestock units

NAP National adaptation plan

NAS National adaptation strategy

NECP National Energy and Climate Plan

NIR National Implementation Report

NUTS Nomenclature of territorial units for statistic

NVZ nitrate vulnerable zoneOG Operational Group

PMEF Performance Monitoring and Evaluation Framework

PO producer organisation



RIS3	Regional Innovation and Smart Specialisation Strategy
SDG	Sustainable Development Goal
SEBI	Streamlining European Biodiversity Indicators
SME	Small and medium enterprise
SMR	Statutory Management Requirement
SO	specific objective
SOC	soil organic carbon
SUD	Sustainable Use Directive
TF	type of farm
UAA	utilised agricultural area
USDA	United States Department of Agriculture
WFD	Water Framework Directive
WISE	Water Information System for Europe

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## Introduction

The European Evaluation Helpdesk for the CAP (Evaluation Helpdesk) provides methodological support on activities carried out by the European Commission in the field of monitoring and evaluation of the CAP. Under this task, the Evaluation Helpdesk supported the Commission in the preparation of the EU-level interim evaluation (see <a href="Chapter1">Chapter 1</a>) by **developing an action plan to close identified gaps in data** required to measure changes and attribute them to the CAP Strategic Plans' interventions.

The achievement of this objective has been pursued through the following:

- > establishment of the objective, context and scope of the interim evaluation:
- > identification and prioritisation of data and attribution gaps;
- development of an action plan to close identified gaps.

In order to identify potential data and attribution gaps, intervention logic diagrams were developed, for each general objective (GO) set out in Article 5 of the Regulation (EU) 2021/2115 ¹, Illustrating the needs that must be addressed, the instruments developed at the EU level to address these needs and the effects expected by the implementation of the selected instruments ¹. Based on these, an evaluation framework has been established which described how the EU level interim evaluation can be structured and includes:

- > evaluation questions (EQ);
- > key elements to assess and corresponding sub-questions;
- factors of success;
- > indicators; and
- > corresponding data sources.

This evaluation framework, which specifies the data requirements for the EU level interim evaluation, is presented in this report.

The report is structured in three chapters.

- > <u>Chapter 1</u> describes the legal framework underpinning the interim evaluation, setting also the scope of the activity.
- Chapter 2 presents the intervention logic of each GO set out in Article 5 of the Regulation (EU) 2021/2115, illustrating the needs that must be addressed, the instruments developed at the EU level to address these needs and the effects expected by the implementation of the selected instruments.
- Chapter 3 contains the proposed evaluation framework that could be used to structure the EU level interim evaluation and identify the data requirements for measuring the change and attributing it to the implementation of CAP interventions.

Regulation (EU) 2021/2115 of the European Parliament and of the Council of 2 December 2021 establishing rules on support for strategic plans to be drawn up by Member States under the common agricultural policy (CAP Strategic Plans) and financed by the European Agricultural Guarantee Fund (EAGF) and by the European Agricultural Fund for Rural Development (EAFRD) and repealing Regulations (EU) 1305/2013 and (EU) 1307/2013.

## 1. The 2026 interim evaluation

## 1.1 Background

On 2 December 2021, the agreement on the reform of the CAP was formally adopted. The legislation establishes a new delivery mechanism to modernise and simplify the policy. Under this new delivery mechanism, the provisions for most of the Pillar I interventions, funded by the European Agricultural Guarantee Fund (EAGF), are combined with those for Pillar II interventions, funded by the European Agricultural Fund for Rural Development (EAFRD) in a single regulation  $^1$ .

The main components of the new delivery mechanism are CAP Strategic Plans and the Performance Monitoring and Evaluation Framework (PMEF).

The CAP Strategic Plans (CSP) are drawn up by each Member State at a national level and include direct payments, sectoral programmes and rural development interventions. The interventions not covered by the CSPs, all funded by the EAGF, include:

The programme of options specifically relating to remoteness and insularity (POSEI)<sup>2</sup>;

- > The programme for the smaller Aegean Islands (SAI) 3;
- All measures, except sectoral programmes, of the common organisation of the markets in agricultural products 4;
- > The promotion measures 5.

Under the PMEF, the Commission must carry out an **interim evaluation** to examine **effectiveness**, **efficiency**, **relevance**, **coherence and Union added value** of both the EAGF and the EAFRD interventions (paragraph 4, Article 141 Regulation (EU) 2021/2115, see box 1 below).

The evaluation findings must be based on evidence that include at least the indicators listed in Annex I of Regulation (EU) 2021/2115 along with any other data available at EU institutions, Managing Authorities (MAs) or other bodies and entities implementing the budget.

The Commission must have the evaluation **completed by 31 December 2026.** 

## Box 1. Legal basis for 2026 interim evaluation

#### Article 141

#### Performance assessment and evaluation

- The Commission shall establish a multiannual evaluation plan of the CAP to be carried out under its responsibility. That evaluation plan shall also cover the measures under Regulation (EU) No 1308/2013.
- 2. The Commission shall submit to the European Parliament and to the Council a summary report of Member States' CAP Strategic Plans by 31 December 2023. The report shall include an analysis of the joint effort and collective ambition of Member States to address the specific objectives set out in Article 6(1) and (2), in particular those mentioned in Article 6(1), points (d), (e), (f) and (i).
- 3. By 31 December 2025, the Commission shall submit a report to the European Parliament and the Council in order to assess the operation of the new delivery model by the Member States and consistency and combined contribution of the interventions in Member States' CAP Strategic Plans to achieving environmental and climate-related commitments of the Union. When necessary, the Commission shall issue recommendations to the Member States to facilitate the achievement of those commitments.
- 4. The Commission shall carry out an interim evaluation to examine the effectiveness, efficiency, relevance, coherence and Union added value of the EAGF and the EAFRD by 31 December 2026, taking into account the indicators set out in Annex I. The Commission may make use of all relevant information already available in accordance with Article 128 of the Financial Regulation.
- The Commission shall carry out an ex post evaluation to examine the effectiveness, efficiency, relevance, coherence and Union added value of the EAGF and the EAFRD.
- 6. Based on evidence provided in evaluations on the CAP, including evaluations on CAP Strategic Plans, as well as other relevant information sources, the Commission shall present a report on the interim evaluation, including first results on the performance of the CAP, to the European Parliament and the Council by 31 December 2027. A second report including an assessment of the performance of the CAP shall be presented by 31 December 2031.

Source: Regulation (EU) 2021/2115 on CAP Strategic Plans

Although the scope of the 2026 interim evaluation is not limited to CSPs but includes all the interventions funded by the EAGF and the EAFRD, this report focused mostly on the evaluation of CSPs.

- <sup>2</sup> Regulation (EU) 228/2013 of the European Parliament and of the Council of 13 March 2013 laying down specific measures for agriculture in the outermost regions of the Union and repealing Council Regulation (EC) No 247/2006 (OJ L 78, 20.3.2013, p. 23-40).
- Regulation (EU) 229/2013 of the European Parliament and of the Council of 13 March 2013 laying down specific measures for agriculture in favour of the smaller Aegean islands and repealing Council Regulation (EC) 1405/2006 (0J L 78, 20.3.2013, p. 23-40).
- Regulation (EU) 1308/2013 of the European Parliament and of the Council of 17 December 2013 establishing a common organisation of the markets in agricultural products and repealing Council Regulations (EEC) No 922/72, (EEC) No 234/79, (EC) No 1037/2001 and (EC) 1234/2007 (OJ L 347, 20.12.2013, p. 671–854).
- Regulation (EU) 1144/2014 of the European Parliament and of the Council of 22 October 2014 on information provision and promotion measures concerning agricultural products implemented in the internal market and in third countries and repealing Council Regulation (EC) 3/2008 (OJ L 317, 4.11.2014, p. 56-70).



## 1.2 Scope of the interim evaluation

The interim evaluation must demonstrate and quantify contribution of the CSPs' instruments and interventions to the GOs in order to better prepare for the next programming period.

However, the analysis can be based on only two years of implementation and, therefore, the available data will be limited. In this context, it would be, perhaps, more pragmatic to focus on potential or short-term impacts.

Potential impact means an estimation of the change in the value of an impact indicator that can be derived using proxies or coefficients that are applied to outputs and/or results <sup>6</sup>. Data sources for such an estimation could be the work on coefficients, already undertaken by the JRC (Impacts of farming practices on environment and climate - iMAP - EC Public Wiki (europa.eu)) or data from previous programming periods. Regarding data from previous programming period, it has to be examined if these data can be available and suitable for the interim evaluation.

Regarding short-term impacts, these can be defined as the change in the value of an impact indicator that can be already measured in 2026.

In this context, the scope of the interim evaluation should be to demonstrate and quantify contribution of the CSPs' instruments and interventions to the GOs by assessing their effectiveness, efficiency, relevance, coherence and Union added value, using all available data about the indicators listed in Annex I of Regulation (EU) 2021/2115, as well as the disaggregated data for monitoring and evaluation referred to in Title II of the Commission Implementing Regulation 2022/1475 <sup>7</sup> and focusing, where necessary and applicable, on short-term and potential impacts by making use of the work under JRC iMAP and data from previous programming period(s).

Commission Implementing Regulation (EU) 2022/1475 of 6 September 2022 laying down detailed rules for implementation of Regulation (EU) 2021/2115 of the European Parliament and of the Council as regards the evaluation of the CAP Strategic Plans and the provision of information for monitoring and evaluation (OJ L 232, 7.9.2022, p. 8-36).



<sup>6</sup> Common output, result, impact and context indicators (PMEF indicators) are defined in Annex I of the Regulation (EU) 2021/2115. More details for each indicator can be found in the corresponding fiches, available on https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cmef\_en#towardsthepmef.

## 2. Intervention logic

## 2.1 Introduction

Chapter 2 presents all-inclusive EU level intervention logic (IL) diagrams for each GO set out in Article 5 of the Regulation (EU) 2021/2115 as well as the cross-cutting objective (CCO) set out in paragraph 2 of Article 6 of the Regulation (EU) 2021/2115.

As suggested in the Better Regulation <sup>8</sup> Tool #46 'Designing the Evaluation', "establishing the intervention logic is useful in identifying specific and robust evaluation questions linked to the initial expectations of the policy intervention". These IL diagrams served as a basis for developing the detailed evaluation frameworks at the GO and CCO level.

The following sources of information were used for the development of the IL diagrams:

- > the general and the specific objectives (SOs) as well as the CCO of the CAP (Articles 5 and 6 of the Regulation (EU) 2021/2115);
- > the draft ILs provided by the Commission;
- the impact assessment accompanying the regulatory framework of the CAP post 2020 reform<sup>9</sup>;
- the CAP policy briefs 10;
- the toolkit provided by the Commission for the assessment of CSPs, especially those dealing with each SO (2.2.1 to 2.2.9) and the ones for each type of intervention (available on CIRCABC);
- the output, result and impact Indicators fiches 11.

It should be taken into account that the diagram for the CCO applies also to all GOs and especially the elements that correspond to the types of interventions set out in Article 127 (European Innovation Partnership (EIP) for agricultural productivity and sustainability) and 78 (Knowledge exchange and dissemination information) of the Regulation (EU) 2021/2115 should be considered as being present, mutatis mutandis, in all GOs.

All diagrams follow the same structure including needs, objectives, inputs, activities, outputs, results, impacts and influencing factors.

The 'Needs' section contains the issues that should be addressed by each general and the CCO. The key source of information was the impact assessment accompanying the regulatory framework of the CAP post 2020 reform and recitals of Regulation (EU) 2021/2115.

The '**Objectives**' section contains the SOs as well as the CCO, set out in Article 6 of Regulation (EU) 2021/2115.

The **'inputs'** section should contain the planned financial allocations to the corresponding GO or CCO by all Member States.

The 'Activities' section contains the relevant types of interventions set out in the Regulation (EU) 2021/2115 as well as other relevant instruments (i.e. support granted under Regulation (EU) 1308/2013). It includes also definitions, requirements and standards that must be established or adjusted at the Member State level (i.e. definition of active farmer, capping and degressivity arrangements, good agricultural and environmental conditions (GAECs), ring-fencing or resources, minimum amounts to be allocated etc.) and which contribute to the achievement of the CAP objectives.

The 'Outputs' section includes the outputs expected from the implementation of the activities and the corresponding indicators and disaggregated data described in the Regulation (EU) 2022/1475.

The 'Results' section contains the immediate outcomes of the realisation of outputs and the corresponding result indicators.

The **'Impacts'** section includes the longer-term outcomes of the implementation of the bundle of interventions and the corresponding impact indicators.

Finally, 'Influencing Factors' include other factors that may affect the implementation of interventions such as other EU policies/strategies, non-EU policies and other external factors (e.g. climate change).

### Box 2. How to read the intervention logic diagrams

When reading the intervention logic diagrams, the reader should keep in mind the following points:

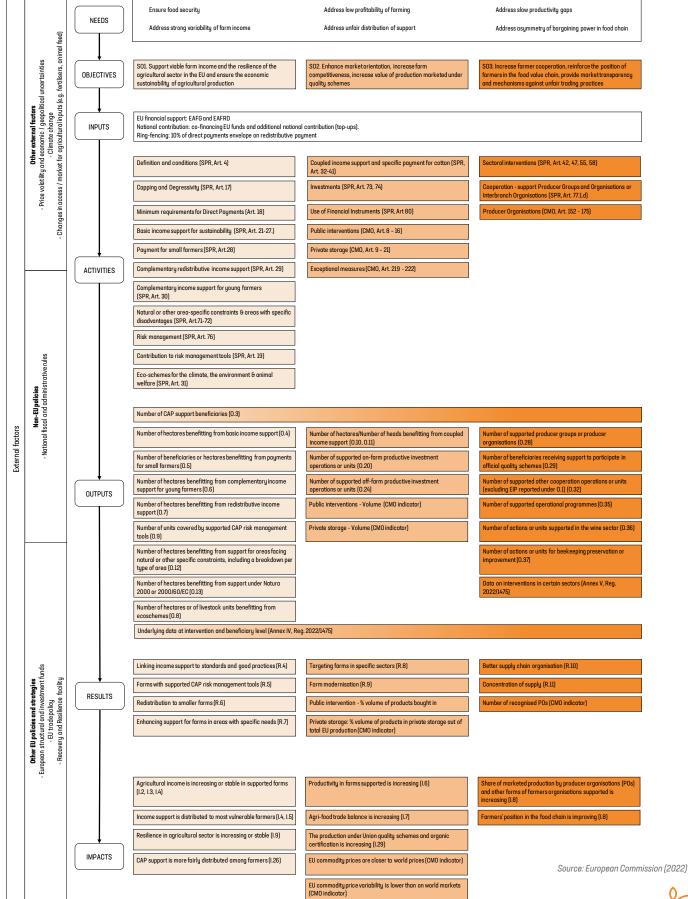
- Each SO is visually identified in the diagrams by a certain colour.
- 2. The colour coding of the activities, outputs, results, and impacts follows the colour coding of the SOs. When an activity, output, result, or impact correspond to more than one SO, its colour takes the form of a gradient comprising the colours of the corresponding SOs. For example, in Figure 1, illustrating the IL of GO1, the activity 'Coupled income support and specific payment for cotton' contribute to both SO1 and SO2 and its colour is a gradient of the corresponding colour of SO1 and SO2. Accordingly, the output 'Number of CAP support beneficiaries' correspond to all three SOs and it is coloured by a gradient comprising the corresponding colours of the objectives.
- https://commission.europa.eu/law/law-making-process/planning-and-proposing-law/better-regulation/better-regulation-guidelines-and-toolbox\_en.
- OMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT Accompanying the document Proposals for a Regulation of the European Parliament and of the Council establishing rules on support for strategic plans to be drawn up by Member States under the Common agricultural policy (CAP Strategic Plans) and financed by the European Agricultural Guarantee Fund (EAGF) and by the European Agricultural Fund for Rural Development (EAFRD) and repealing Regulation (EU) 1305/2013 of the European Parliament and of the Council Regulation of the European Parliament and of the European Parliament and of the financing, management and monitoring of the common agricultural policy and repealing Regulation (EU) 1306/2013 Regulation of the European Parliament and of the Council amending Regulations (EU) 1308/2013 establishing a common organisation of the markets in agricultural products, (EU) 1151/2012 on quality schemes for agricultural products and foodstuffs, (EU) 251/2014 on the definition, description, presentation, labelling and the protection of geographical indications of aromatised wine products, (EU) 228/2013 laying down specific measures for agriculture in the outermost regions of the Union and (EU) 229/2013 laying down specific measures for agriculture in favour of the smaller Aegean islands. SWD/2018/301 final 2018/0216 (COD).
- 10 Key policy objectives of the new CAP (europa.eu).
- PMEF Indicator Fiches (europa.eu); Indicators listed in the Implementing Regulation 834/2014.



## 2.2 General objective 1

GO1 aims "to foster a smart, competitive, resilient and diversified agricultural sector ensuring long-term food security" (Article 5 and 6 of the Regulation (EU) 2021/2115). GO1 focuses on three SOs that are entirely or partly associated with it (SO1, SO2 and SO3).

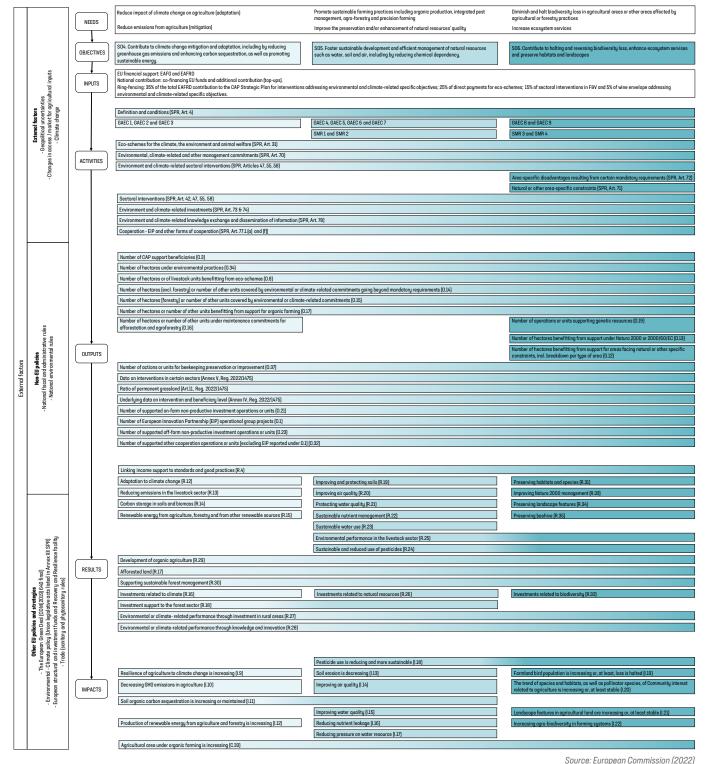
Figure 1: Intervention logic of general objective 1



## 2.3 General objective 2

GO2 aims "to support and strengthen environmental protection, including biodiversity, and climate action and to contribute to achieving the environmental and climate-related objectives of the Union, including its commitments under the Paris Agreement" (Article 5 and 6 of the Regulation (EU) 2021/2115). GO2 focuses on four SOs that are entirely or partly associated with it (SO4, SO5, SO6, SO9).

Figure 2: Intervention logic of general objective 2



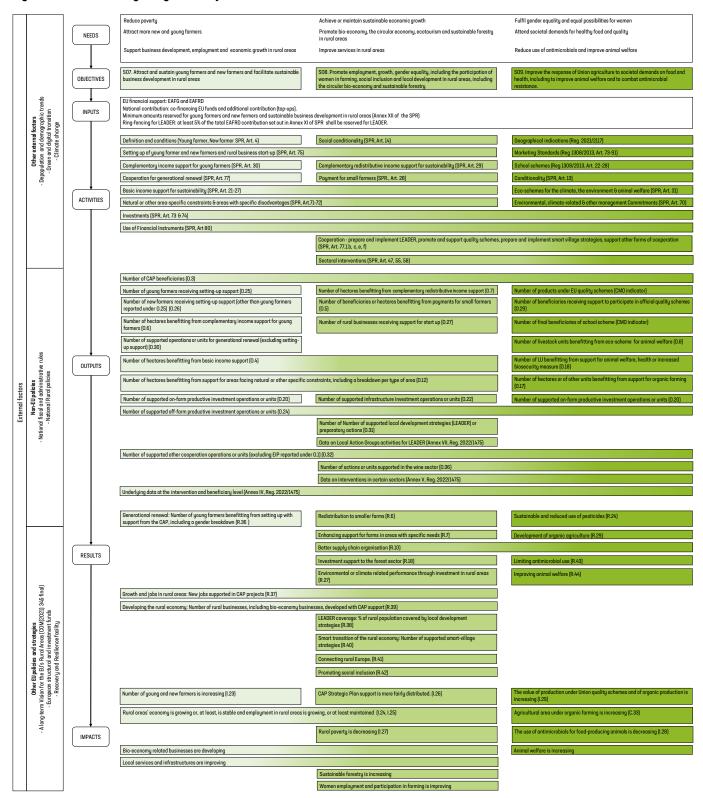
Source. Europeur Gommission (2022)



## 2.4 General objective 3

GO3 aims "to strengthen the socio-ecnomic fabric of rural areas" (Article 5 and 6 of the Regulation (EU) 2021/2115). GO3 focuses on three SOs that are entirely or partly associated with it (SO7, SO8, SO9).

Figure 3: Intervention logic of general objective 3



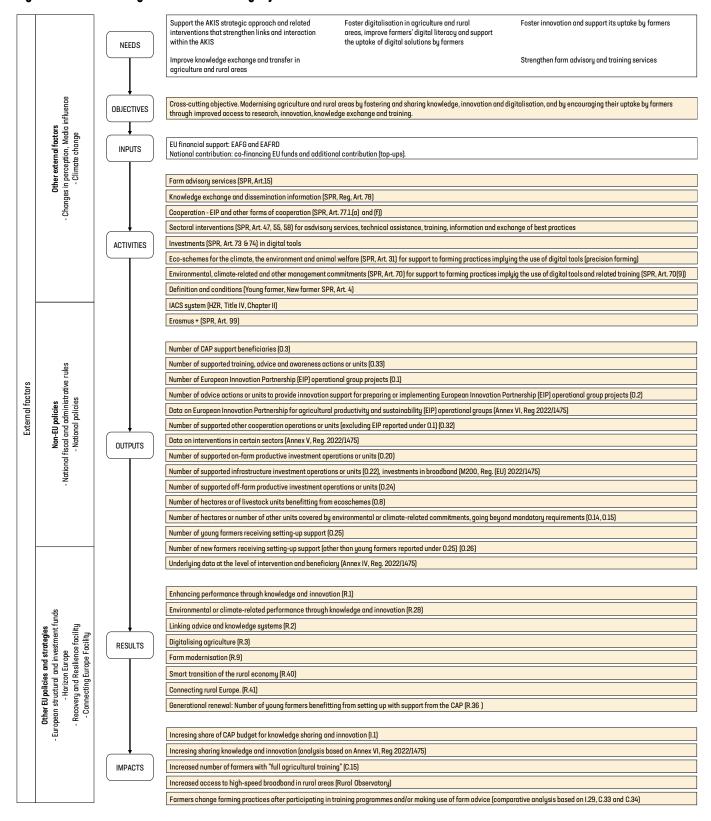
Source: European Commission (2022)



## 2.5 Cross-cutting objective

The CCO (or S010) focuses on "modernising agriculture and rural areas through fostering and sharing knowledge, innovation and digitalisation, and by encouraging their uptake by farmers through improved access to research, innovation, knowledge exchange and training" (Article 5 and 6 of the Regulation (EU) 2021/2115).

Figure 4: Intervention logic of the cross-cutting objective



Source: European Commission (2022)



## 3. The proposed evaluation framework

## 3.1 Introduction

Chapter 3 presents the evaluation framework covering each GO and the CCO. The framework can be applied for the evaluation of the CSPs during the implementation period as well as after the implementation period (ex post). It addresses all five evaluation criteria referred to in Article 141.4 of Regulation (EU) 2021/2115,

namely effectiveness, efficiency, relevance, coherence and Union value added. The definitions used for the evaluation criteria are the ones presented in the Tool #47 of the Better Regulation Toolbox <sup>12</sup> and summarised in the following box.

### Box 3. Definitions of evaluation criteria, according to the Better Regulation Toolbox

#### Effectiveness

Effectiveness analysis considers how successful EU action has been in achieving or progressing towards its objectives. The evaluation should form (a) an opinion on the progress made to date and (b) the role of the EU action in delivering the observed changes. The effectiveness analysis should also look closely at the benefits of the EU intervention as they accrue to different stakeholders (Better Regulation Toolbox, Tool #47, p.403)

#### Efficiency

Efficiency considers the resources used by an intervention for the given changes generated by the intervention. Efficiency analysis should look closely at the costs of the EU intervention as they accrue to different stakeholders. The efficiency analysis should also compare the identified costs with the benefits that were identified under the effectiveness criterion as well as explore the potential for simplification and burden reduction (Better Regulation Toolbox, Tool #47, pp. 404-405)

#### Relevance

Relevance looks at the relationship between the needs and problems at the time of introducing the intervention and during its implementation. Relevance should also look at the relationship between the current and future needs and problems in the EU and the objectives of the intervention (Better Regulation Toolbox, Tool #47, p. 407).

#### Coherence

The evaluation of coherence involves looking at how well (or not) different interventions, EU/international policies or national/regional/local policy elements work together. Checking 'internal' coherence means looking at how the various components of the same EU intervention operate together to achieve its objectives. Checking 'external' coherence means that similar checks can be conducted in relation to other (external) interventions, at different levels. Where relevant, analysis of coherence may involve checking whether interventions are in line with the objectives of the EU Green Deal, or whether the intervention is consistent with the overarching environmental goals (such as the Climate Law) or other policies targeting the environment (Better Regulation Toolbox, Tool #47, p. 408).

### > Union value added

EU added value looks for changes that are due to the EU intervention, over and above what could reasonably have been expected from national actions by Member States. Under the principle of subsidiarity (Article 5 of the Treaty on European Union), and in areas of nonexclusive competence, the EU should only act when the objectives can be better achieved by EU action rather than action by Member States (Better Regulation Toolbox, Tool #47, p. 409).

**Effectiveness is addressed separately** for each GO and the CCO. For each evaluation criterion, evaluation questions are formulated, accompanied by more detailed sub-questions that focus either on a corresponding SO or on the different conceptual aspects of the corresponding evaluation criterion. For each sub-question, several factors of success are established to enable the assessment of the interventions.

Each factor of success is assigned output, result, impact and, in most cases, context indicators that will be used to measure success. This ensures that sufficient data can be collected to support the evaluation of CSPs, in particular the interim evaluation (since at this stage mainly outputs and results may be reported). The factors of success and related indicators, which cannot be measured and assessed for the interim evaluation due to a lack of implementation of the interventions and/or a lack of achieved impacts by 2026, should be considered for the ex post evaluation.

Most of the proposed indicators are the ones included in the PMEF, as it has been established in Annex I of the Regulation (EU) 2021/2115 (see <a href="footnote11">footnote11</a>).

Apart from the PMEF indicators, **additional indicators** are proposed to help address the data gaps in the monitoring and evaluation of CSP interventions. This proposal is grounded on three main reasons:

- Having additional indicators that complement the PMEF indicators ensures that sufficient and appropriate data on outputs, results and impacts can be collected to support the evaluation of CSP interventions.
- It allows to check the plausibility along the impact chain, which better describes how the supported CSP interventions will generate certain outputs that will likely lead to results, and results to potential impacts. If corresponding PMEF output, result or impact indicators were missing, additional indicators were added.



<sup>12</sup> Better Regulation Toolbox - Chapter 6 (europa.eu)

It allows to have a coherent approach for all GOs and the CCO, especially if the list of PMEF indicators does not cover all the expected outputs, results or impacts.

Regarding the **other evaluation criteria**, a horizontal approach is applied by proposing evaluation questions, sub-questions,

factors of success, indicators or topics, and data sources that can be applicable to all GOs and the CCO. Some aspects related to efficiency and relevance are broken down by SO (e.g. related to the compliance with specific conditionalities).

## 3.2 Effectiveness

As previously mentioned, 'effectiveness' is addressed for each GO and the CCO. The following tables present the structure to assess the effectiveness of CSP interventions under each GO and the CCO, including:

- > key evaluation elements;
- > evaluation sub-questions;
- > factors of success;
- > indicators (PMEF and additional ones); and
- data sources.

The key evaluation elements and recommended factors of success listed in Annex I of Regulation (EU) 2022/1475 were taken into consideration when formulating the evaluation questions and factors of success.

<u>Annex 1</u> presents a detailed overview and comparison of the key evaluation elements and recommended factors of success listed in the Regulation (EU) 2022/1475 and in this report.

All mandatory 17 key elements and 36 recommended factors of success are covered by the evaluation framework. Additional elements and factors of success were also defined.

Table 1: Summary of factors of success for 'effectiveness'

Regulation (EU) 2022/1475		This	report
Key elements to assess	Recommended factors of success	Key elements to assess	Factors of success
17	36	21	53

Source: <u>Annex 1 of this report</u>

#### Box 4. How to read the evaluation framework tables

When reading the tables of the evaluation framework, the reader should keep in mind the following points:

- 1. PMEF indicators are marked in brown.
- Non-PMEF indicators for which an EU level data source can be used are marked with a single asterisk (\*).
- 3. Non-PMEF indicators, for which there is not any EU level data source, are marked with a double asterisk (\*\*). A code is assigned to these indicators, formatted as A####,
- where the first three digits represent the code of the corresponding factor of success and the fourth (or subsequent) digit the serial number of the indicator. A summary of all non-PMEF indicators for which there is not any EU level data source is presented in Table 6.
- For every PMEF output indicator listed, the corresponding realised expenditures, included in the Annual Performance Report, are equally considered.

## 3.2.1 General objective 1

GO1 aims to "foster a smart, competitive, resilient and diversified agricultural sector ensuring long-term food security" (Article 5 and 6 of the Regulation (EU) 2021/2115).

It includes three SOs:

> S01 - to support viable farm income and resilience of the agricultural sector across the EU in order to enhance long-term food security and agricultural diversity as well as to ensure the economic sustainability of agricultural production in the EU.

- > SO2 to enhance market orientation and increase farm competitiveness both in the short- and long-term, including greater focus on research, technology and digitalisation.
- > S03 to improve farmers' position in the value chain.

<u>Table 2</u> presents the key evaluation elements for assessing the effectiveness of GO1 covering its three SOs.



## Table 2: Evaluation framework – general objective 1

EQ1: To what extent has the CAP contributed to a smarter, more competitive, more resilient and more diversified agricultural sector ensuring long-term food security?

## **Related to S01**

Factors of success	Indicators	Data sources		
1.1 Viable farm income:  To what extent have the CAP Strategic Plans interest.	1.1 Viable farm income: To what extent have the CAP Strategic Plans interventions ensured viable farm income?			
1.1.1 Agricultural income level in farms supported is increasing.      1.1.2 Variability of agricultural income level is decreasing.	<ul> <li>Output</li> <li>Number of hectares benefitting from basic income support (0.4)</li> <li>Number of beneficiaries or hectares benefitting from payments for small farmers (0.5)</li> <li>Number of hectares benefitting from complementary income support for young farmers (0.6)</li> <li>Number of hectares benefitting from redistributive income support (0.7)</li> <li>Number of hectares/number of heads of livestock benefitting from coupled income support (0.10-0.11)</li> <li>Number of hectares or heads of livestock benefitting from eco-schemes (0.8)</li> <li>Number of hectares benefitting from support for areas facing natural or other specific constraints (0.12)</li> <li>Number of hectares benefitting from support under Natura 2000 or Directive 2000/60/EC (0.13)</li> <li>Number of supported operational programmes (0.35)</li> <li>Number of actions or units supported in the wine sector (0.36)</li> <li>Number of supported on-farm productive investment operations or units (0.20) (only if the corresponding intervention is targeted to S01)</li> <li>Data on interventions in certain sectors (Annex V, Regulation (EU) 2022/1475 and especially data from Form B1 and B3)</li> </ul>	<ul> <li>CAP indicators and data explorer</li> <li>Agri-food markets</li> <li>Data for monitoring and evaluation</li> <li>FADN/FSDN</li> </ul>		



> Share of utilised agricultural area (UAA) covered by income support and subject to conditionality (R.4)
Share of supported farms by type of interventions (calculation based on data from Annex IV, Regulation (EU) 2022/1475 for the number of beneficiaries per intervention (nominator) and C.12 for the total number of farms (denominator)

#### Related to 1.1.1

Percentage share of CAP support in Farm Net Value Added (FNVA)/Annual Work Unit (AWU) (Farm Accountancy Data Network (FADN)/Farm Sustainability Data Network (FSDN))\*

#### Impact

- > Percentage variation of the index of agricultural factor income per AWU compared to the last three year average (I.3)
- > Comparison of average percentage change of agricultural factor income per AWU between 2014-2022 and 2023-2027 programming periods across Member State (calculation based on C.25.1)

#### Related to 1.1.1

> Comparison of FNVA/AWU with and without CAP support across Member State (FADN/FSDN) 13\*

#### Related to 1.1.2

> Farm income fluctuations over the period (magnitude of fluctuations around the trend)  $^{\rm 14}$  (FADN/FSDN)  $^{\star}$ 

#### Context

- > GDP per capita (C.09)
- > Agricultural holdings (C.12)
- > Farm labour force (C.13)
- > Utilised agricultural area (C.17)
- Evolution of monthly market prices (agri-food markets)\*

Note that the simple elimination of the support can be criticised because it assumes that all support is transformed into income and that farmers do not adjust their choices to respond to the elimination of the support. Indeed, a not negligible share of farms will quit farming under this very extreme case. However, this should be regarded as a simulation exercise not as a plausible policy scenario.

<sup>4</sup> Average volatility of farm income across Member States can be calculated using the coefficient of variation (CV) of the residual values of the de-trended farm income. Estimating a trend requires long enough time series. An option to consider is to expand the timeseries taking into account some of the pre-reform years.

Factors of success	Indicators	Data sources
l.1 Viable farm income:		
To what extent have the CAP Strategic Plans into	erventions ensured viable farm income?	
1.1.3 Income disparities between the farming sector and other economic sectors are	Output > Number of hectares benefitting from basic income support (0.4)	<ul> <li>CAP indicators and data explorer</li> <li>Data for monitoring and evaluation</li> </ul>
decreasing.	> Number of beneficiaries or hectares benefitting from payments for small farmers (0.5)	Ū
	> Number of hectares benefitting from complementary income support for young farmers (0.6)	
	> Number of hectares benefitting from redistributive income support (0.7)	
	<ul> <li>Number of hectares/number of heads of livestock benefitting from coupled income support (0.10-0.11)</li> </ul>	
	> Number of hectares or heads of livestock benefitting from eco-schemes (0.8)	
	<ul> <li>Number of hectares benefitting from support for areas facing natural or other specific constraints (0.12)</li> </ul>	
	<ul> <li>Number of hectares benefitting from support under Natura 2000 or Directive 2000/60/EC (0.13)</li> </ul>	
	> Number of supported operational programmes (0.35)	
	> Number of actions or units supported in the wine sector (0.36)	
	<ul> <li>Number of supported on-farm productive investment operations or units (0.20)</li> <li>(only if the corresponding intervention is targeted to S01)</li> </ul>	
	> Result variable R004 (Annex IV, Regulation (EU) 2022/1475)	
	Result	
	> Share of UAA covered by income support and subject to conditionality (R.4)	
	Impact	
	> Evolution of agricultural income compared to average income in the economy (1.2)	
	Context	
	> Agricultural holdings (C.12)	
	> Utilised agricultural area (C.17)	
	> Comparison of agricultural income with non-agricultural labour costs (C.26)	



Factors of success	Indicators	Data sources
1 Viable farm income: To what extent have the CAP Strategic Plans in	terventions ensured viable farm income?	
a.1.4 Income disparities among farms and territories are decreasing.	Output  Number of beneficiaries or hectares benefitting from payment for small farmers (0.5)  Number of hectares benefitting from redistributive income support (0.7)  Number of hectares benefitting from support for areas facing natural or specific constraints, including a breakdown per type of areas (0.12)  Number of hectares benefitting from support under Natura 2000 or Directive 2000/60/EC (0.13)  Result variable R004 (Annex IV, Regulation (EU) 2022/1475)  Result  Share of UAA covered by income support and subject to conditionality across Member State and by sector (type of farm (TF)) (R.4)  Percentage of additional direct payments per hectare for eligible farms below average farm size (compared to average) (R.6)  Percentage of additional support per hectare in areas with higher needs (compared to average (R.7)  Impact  Evolution of agricultural income level by TF compared to the average in agriculture (1.4)  Evolution of agricultural income in areas with natural constraints compared to average agricultural income (1.5)  FNVA by Member State, region, territory (ANC, Natura 2000, WFD) and by TF, farm size (economic and/or physical), extensive/intensive farming (FADN/FSDN)*  Comparison of FNVA/AWU with and without CAP support across sectors (TF) and across the FNVA quantiles (FADN/FSDN)*  Evolution of the standard deviation of the relative income level by Wember State, region, territories (ANC, Natura 2000, WFD) and by TF, farm size (economic and/or physical), extensive/intensive farming with and without support (FADN/FSDN)*	> CAP indicators and data explorer > Data for monitoring and evaluation > CSPs > FADN/FSDN

A careful interpretation of this indicator is needed as dimensions such as region, territories (ANC, Natura 2000, WFD), TF, farm size (by SO and/or UAA), and extensive/intensive farming might be very much correlated. For example, in mountain areas farms may be smaller than in other areas, some TF are more represented among small than large farms, and so on.



The relative income level could be calculated as ratio between the average income of the i-th group and the average income of all considered farms (e.g. mean income of farms in TF1/mean income of all considered farms).

If the standard deviation declines with the policy support, this could suggest the policy has a positive impact in terms of reducing income disparities between the farms belonging to the i-th group.

Context	
> Farming in Natura 2000 areas (C.19)	
> Areas facing natural and other specific constraints (C.20)	
> Farm income by TF, region, farm size, in areas facing natural or specific constraints (C.27)	

Factors of success	Indicators	Data sources
1.2 Resilience: To what extent have the CAP Strategic Plans inter	ventions supported the resilience of the agricultural sector and ensured the economic sustainabi	lity of agricultural production?
1.2.1 The resilience of the farming sector is improving. 1.2.2 Income support is distributed to farmers most in need.	Output  Number of hectares benefitting from basic income support (0.4)  Number of beneficiaries or hectares benefitting from payments for small farmers (0.5)  Number of hectares benefitting from complementary income support for young farmers (0.6)  Number of hectares benefitting from redistributive income support (0.7)  Number of hectares/Number of heads of livestock benefitting from coupled income support (0.10-0.11)  Number of hectares or head of livestock benefitting from eco-schemes (0.8)  Number of hectares benefitting from support for areas facing natural or other specific constraints (0.12)  Number of hectares benefitting from support under Natura2000 or 2000/60/EC (0.13)  Number of supported by supported CAP risk management tools (0.9)  Number of actions or units supported in the wine sector (0.36)  Number of actions or units supported for beekeeping preservation or improvement (0.37)  Result variable R005 (for 1.2.1) (Annex IV, Regulation (EU) 2022/1475)  Data on interventions in certain sectors (Annex V, Regulation (EU) 2022/1475 and especially data from Forms B1, B2 and B3)	> CAP indicators and data explorer > Data for monitoring and evaluation > FADN/FSDN



#### For 1.2.1

- > Share of farms with supported CAP risk management tools (R.5)
- Hectares covered with insurance by sector (A1211)\*\*
- > Capital insured (A1212)\*\*
- Average level of income without CAP support by Member State, region, territories (ANC, Natura 2000, WFD) and by TF, farm size (economic and/or physical), extensive/intensive farming (FADN/FSDN)\*
- Share of farms with negative factor income without CAP support by Member State, region, territories (ANC, Natura 2000, WFD) and by TF, farm size (economic and/or physical), extensive/intensive farming (FADN/FSDN)\*

#### For 1.2.2

- > Percentage of additional direct payments per hectare for eligible farms below average farm size (compared to average) (R.6)
- > Percentage of additional support per hectare in areas with higher needs (compared to average) (R.7)

#### **Impact**

#### For 1.2.1

- > Share of farms with current ratio (current assets/current liabilities) <1 by Member State, region, territories (ANC, Natura 2000, WFD) and by TF, farm size (economic and/or physical), extensive/intensive farming (FADN/FSDN)\*
- > For sectors supported by coupled payments, comparison of current ratio in Member State supporting/not supporting the sectors (FADN/FSDN)\*
- > Frequency of farm income occurrences laying below a given threshold by Member State, region, territories (ANC, Natura 2000, WFD) and by TF, farm size (economic and/or physical), extensive/intensive farming with and without CAP support (FADN/FSDN)\*

#### For 1.2.2

- > Distribution of CAP support (I.26)
- > Concentration of income (Gini coefficient) with and without CAP support (FADN/FSDN)\*
- > Distribution of income (median, IQ range) with and without CAP support (FADN/FSDN)\*
- > Comparison of the level of farm income without support (often referred as market income) with the relative importance of the CAP support <sup>17</sup> (FADN/FSDN)\*



<sup>&</sup>lt;sup>17</sup> The relative importance of CAP support in relation to income can be calculated as the ratio CAP support/farm income.

### Context

- > Farming in Natura2000 areas (C.19)
- > Areas facing natural and other specific constraints (C.20)
- > Farm income by TF, region, farm size, in areas facing natural or specific constraints (C.27)
- > Gross fixed capital formation in agriculture (C.28)

### Related to SO2

Factors of success	Indicators	Data sources
2.1 Enhanced market orientation: To what extent have the CAP Strategic Plans interventions contributed to enhance market orientation?		
2.1.1 The competitive position of EU agri-food sector on the internal and on the international market is improving.	Output  Pevolution of the value of production of the EU farm sector (Eurostat, AACT_EAAO1)*  Evolution of value of imports from third countries to EU (Eurostat, EXT_ST_EU27_2020SITC)*  Evolution of value of EU exports (Eurostat, EXT_ST_EU27_2020SITC)*  Evolution of value of exports of all Member States (Eurostat, DEF_DISS_DS-059301)*  Result  Evolution of the degree of self-sufficiency given by the ratio between the value of production and the value of consumption 10 dagri-food products (Eurostat, calculation based on AACT_EAAO1 and EXT_ST_EU27_2020SITC)*  Evolution of value of EU exports of agri-food products compared to the value of exports of agri-food products from all countries (Eurostat, calculation based on AACT_EAAO1 and EXT_ST_EU27_2020SITC)*  Ratio of the value of imports of agri-food products from third countries to the value of EU consumption (Eurostat, calculation based on AACT_EAAO1 and EXT_ST_EU27_2020SITC)*  Impact  Agri-food imports and exports (I.7) and its sub-indicators  Context  Evolution of the global trade of agri-food products (FAOSTAT)*  Evolution of the USD/EUR exchange rate (ECB Data Portal, EXR.M.USD.EUR.SP00.A)*	<ul> <li>CAP indicators and data explorer</li> <li>Eurostat</li> <li>FAOSTAT</li> <li>European Central Bank Data Portal</li> </ul>

Consumption can be calculated as value of production + value of imports - value of exports, assuming no changes in stock (i.e. assumption very common when data on stocks are not available).



Factors of success	Indicators	Data sources
2.1 Enhanced market orientation: To what extent have the CAP Strategic Plans interest		
2.1.2 The EU internal price volatility relative to international prices volatility is reducing.	Output  Number of interventions implemented to reduce price volatility (CSPs)*  Result  EU commodity price volatility compared to international price volatility (coefficient of variation) taking into account volatility of USD/EUR exchange rates (Agri-food Markets, FAO)*  Share of production traded on futures markets (A2121)**  Impact  Reduced price volatility (EU commodity price variability – I_O4_PI)  Comparison between EU and world commodity prices for the products interested by market measures (R_O8_PI)	<ul> <li>CAP indicators and data explorer</li> <li>CSPs</li> <li>Agri-food markets</li> <li>FAO - Markets and Trade - Commodities</li> </ul>

Factors of success	Indicators	Data sources
2.2 Farm competitiveness  To what extent have the CAP Strategic Plans interventions contributed to improving the competitiveness of the farm sector?		
2.2.1 Productivity in farms is increasing.	Output  Number of supported on-farm productive investment operations or units (0.20)  Number of hectares/heads of livestock benefitting from coupled income support (0.10-0.11)  Number of supported producer groups and producer organisations (PO) (0.28)  Number of supported operational programmes (0.35)  Result variable R009 (Annex IV, Regulation (EU) 2022/1475)	<ul> <li>CAP indicators and data explorer</li> <li>Eurostat</li> <li>FADN/FSDN</li> </ul>



- > Share of farmers receiving investment support to restructure and modernise, including to improve resource efficiency (R.9)
- > Evolution of costs of inputs by TF (FADN/FSDN)\*
- > Evolution of farms total output/total input ratio (FADN/FSDN)\*
- > Evolution of yields for selected crops (Eurostat, APRO\_CPSH1)\*
- > Evolution of gross investments in fixed assets of agricultural holdings (FADN/FSDN)\*
- > Average total asset value per farm by TF (FADN/FSDN)\*
- > Farm net worth (assets liabilities) by TF (FADN/FSDN)\*

### Impact

> Total factor productivity in agriculture (I.6)

#### Context

- > Evolution of land productivity (part of the calculation of I.6)\*
- > Farm labour force (C.13)
- > Evolution of labour productivity (C.30)
- Evolution of capital productivity (part of the calculation of I.6)\*
- > Gross fixed capital formation in agriculture (C.28)

Factors of success	Indicators	Data sources
2.2 Farm competitiveness  To what extent have the CAP Strategic Plans inte	rventions contributed to improving the competitiveness of the farm sector?	
2.2.2 Agricultural output value is increasing in	Output	> CAP indicators and data explorer
sectors with difficulties.	> Number of hectares/heads of livestock benefitting from coupled income support (0.10-0.11)	> FADN/FSDN
	Result	
	<ul> <li>Share of farms benefitting from coupled income support for improving competitiveness, sustainability or quality (R.8)</li> </ul>	
	Impact	
	> Evolution of agricultural output value by Member State, TF, farm size (economic and/or physical) and type of livestock with and without coupled support (FADN/FSDN)*	



Factors of success	Indicators	Data sources
2.2 Farm competitiveness		
To what extent have the CAP Strategic Plans i	nterventions contributed to improving the competitiveness of the farm sector?	
2.2.3 Farm modernisation was fostered.	Output  Number of supported on-farm productive/non-productive investment operations or units (0.20-0.21)  Number of EIP Operational Group (0G) projects (0.1)  Number of advice actions or units to provide innovation support for preparing or implementing EIP 0G projects (0.2)  Number of supported training, advice and awareness actions or units (0.38)  Result variables R001, R003 and R009 (Annex IV, Regulation (EU) 2022/1475)  Data on EIP 0Gs (Annex VI, Regulation (EU) 2022/1475)  Result  Share of farms receiving investment support to restructure and modernise, including to improve resource efficiency (R.9)  Number of persons benefitting from advice, training, knowledge exchange or participation in EIP 0Gs supported by the CAP (R.1)  Share of farms benefitting from support for digital farming technology through CAP (R.3)  Share of farmers in OGs under EIP (calculation based on data for monitoring and evaluation-EIP)  Share of the farm investments in digital technologies by TF <sup>19</sup> (FSDN)*  Share of farms using Financial Instruments (based on fi-compass)*  Maximum portfolio volume of Financial Instruments supported by EAFRD (based on fi-compass)*  Impact  Total factor productivity in agriculture (I.6)	<ul> <li>CAP indicators and data explorer</li> <li>Data for monitoring and evaluation</li> <li>fi-compass</li> </ul>
	> Share of CAP budget for knowledge sharing and innovation (I.1)	
	Context	
	> Agricultural training of farm managers (C.15)	
	> Financing gap (based on fi-compass)*	

 $<sup>^{19}</sup>$  The indicator 'Farm investment in digital technologies' has been proposed to be included in the new FSDN.



Factors of success	Indicators	Data sources
<b>2.2 Farm competitiveness</b> To what extent have the CAP Strategic Plans inter	ventions contributed to improving the competitiveness of the farm sector?	
2.2.4 Price and cost competitiveness of the agri-food sector is improving.	Output  Number of hectares/heads of livestock benefitting from coupled income support [0.10-0.11]  Number of supported on-farm productive/non-productive investment operations or units (0.20-0.21)  Number of supported operational programmes (0.35)  Result  Ratio between national, EU and world agricultural commodity prices (agri-food markets, FAO)*  Evolution of cost and revenue structure of agricultural income (FADN/FSDN)*  Context  Evolution of EU commodity prices (Agri-food markets)*  Evolution of world commodity prices (FAO)*  Agricultural production expenses in USA by TF (USDA)*  Agricultural production costs in Australia by TF (DAFF)*  World agricultural production costs by TF (ICFN, Agri-Benchmark)*	<ul> <li>CAP indicators and data explorer</li> <li>Agri-food markets</li> <li>FAO - Markets and Trade - Commodities</li> <li>FADN/FSDN</li> <li>USDA - Farm Income and Wealth Statistic</li> <li>DAFF - Farm Data Portal</li> <li>ICFN</li> <li>Agri-Benchmark</li> </ul>



## **Related to SO3**

Factors of success	Indicators	Data sources
	ventions contributed to improving the farmers' position in the value chain? d in the Regulation (EU) 1308/2013 and the Directive (EU) 2019/633, must be taken into account.	
1.1 Share of production marketed by producer ganisations (POs) and other forms of rmers organisations and gross added value r farmers in POs and other forms of farmer ganisations are increasing.	Output  Output  Output  Number of supported producer groups and POs (0.28)  Number of supported other cooperation operations or units (0.32)  Number of supported other cooperation operations or units (0.32)	<ul> <li>CAP indicators and data explorer</li> <li>External study on POs (DG AGRI, 2019)/a hoc surveys</li> <li>USDA, agricultural cooperative statistics</li> </ul>
	Result  > Better supply chain organisation: Share of farms participating in producer groups, POs, local markets, short supply chain circuits and quality schemes supported by the CAP (R.10)  > Concentration of supply: share of value of marketed production by POs or producer groups with operational programmes in certain sectors (R.11)	
	<ul> <li>Impact</li> <li>Value added for primary producers in the food chain (I.8)</li> <li>Share of marketed production by recognised POs (CAP indicators and data explorer) (Fruits and Vegetables: OIM_05_1a, Milk: OIM_05_1b)*</li> <li>Difference in price level obtained when selling in cooperatives compared to selling on the market by sector (A3111)**</li> </ul>	
	<ul> <li>Context</li> <li>Share of farms participating in recognised POs (A3112)**</li> <li>Degree of use of EU market observatories and interactive data portal by farmers (A3113)**</li> <li>Number of cases for unfair trading practices submitted and judged after Directive (EU) 2019/633 and corresponding market share (A3114)**</li> <li>Share of production traded on futures market and comparison with the US (A3115)**</li> <li>Share of marketed production by and gross value added for primary producers participating in collective farmer schemes in the USA (USDA, agricultural cooperative statistics)*</li> </ul>	



Factors of success	Indicators	Data sources
3.2 Farmers' response to market driven opportu	nities: rventions contributed to improving farmers' response to market driven opportunities stemming fro	nm new consumer profesonoes?
3.2.1 Share of marketed production and gross		> CAP indicators and data explorer
added value by quality schemes and organic production is increasing.	Output  Number of beneficiaries receiving support to participate in official quality schemes (0.29)	<ul> <li>CAP indicators and data explorer</li> <li>Eurostat</li> <li>Member State registers</li> </ul>
	<ul> <li>Number of hectares or number of other units benefitting from support for organic farming (0.17)</li> </ul>	> USDA, organic survey
	> Result variables R010 and R029 (Annex IV, Regulation (EU) 2022/1475)	
	Result	
	<ul> <li>Better supply chain organisation: Share of farms participating in producer groups, POs, local markets, short supply chain circuits and quality schemes supported by the CAP (R.10)</li> </ul>	
	<ul> <li>Share of UAA supported by the CAP for organic farming with a split between maintenance and conversion (R.29)</li> </ul>	
	Impact	
	> Value of production under EU quality schemes and of organic production (1.29)	
	Context	
	> Agricultural area under organic farming (C.33)	
	> Distribution of agricultural holdings based on B090 (Annex IV, Regulation (EU) 2022/1475)	
	> Share of organic livestock in all livestock (Eurostat, ORG_LSTSPEC)*	
	<ul> <li>Certified organic sales as percent of market value of all agricultural products in the USA (USDA, Organic Survey)*</li> </ul>	
3.2.2 Creation and development of shorter value	Output	> CAP indicators and data explorer
chains is increasing.	Number of hectares or of livestock units benefitting from eco-schemes (0.8), marketed under specific labelled schemes, if any 20	
	<ul> <li>Number of supported local development strategies (LEADER) or preparatory actions (0.31), related to the development of short supply chains and local markets</li> </ul>	
	<ul> <li>Number of supported training, advice and awareness actions or units (0.33), related to the development of short supply chains and local markets</li> </ul>	
	> Result variables R001, R009, R010 and R038 (Annex IV, Regulation (EU) 2022/1475)	

 $<sup>^{\</sup>rm 20}$   $\,$  Ex: Haute Valeur Environnementale (HVE) in France or Organic.



- > Number of persons benefitting from advice, training, knowledge exchange, or participating in EIP Operational Groups supported by the CAP in order to enhance sustainable economic, social, environmental, climate and resource efficiency performance (R.1)
- > Share of farmers receiving investment support to restructure and modernise (R.9)
- > Better supply chain organisation: share of farms participating in producer groups, POs, local markets, short supply chain circuits and quality schemes supported by the CAP [R.10]
- > Share of rural population covered by local development strategies (R.38)

### Impact

> Evolution of production value sold in short and local supply-chains and relative importance compared to the total value of production by sector (A3221)\*\*



## 3.2.2 General objective 2

GO2 aims "to support and strengthen environmental protection, including biodiversity, and climate action and to contribute to achieving the environmental and climate-related objectives of the Union, including its commitments under the Paris Agreement" (Article 5 and 6 of Regulation (EU) 2021/2115).

It includes three SOs:

- SO4 to contribute to climate change mitigation and adaptation, including by reducing greenhouse gas emissions and enhancing carbon sequestration, as well as to promote sustainable energy.
- ii. S05 to foster sustainable development and efficient management of natural resources such as water, soil and air, including by reducing chemical dependency.

iii. S06 - to contribute to halting and reversing biodiversity loss, enhance ecosystem services and preserve habitats and landscapes.

The contribution of the different CSP interventions to these SOs depends on the farming practices that are targeted. An effort has been made to include certain practices in the factors of success and outputs, but for a more systematic and consistent link between farm practices and CAP objectives please refer to the work done by the JRC under the iMAP project (https://wikis.ec.europa.eu/display/IMAP/IMAP+Home+page)

<u>Table 3</u> presents the key evaluation elements for assessing the effectiveness of GO2 covering its three SOs.



### Table 3: Evaluation framework – general objective 2

EQ1: To what extent have the CAP Strategic Plans interventions contributed to supporting and strengthening environmental protection, including biodiversity, and climate action and to achieving the environmental and climate-related objectives of the Union, including its commitments under the Paris Agreement?

#### Related to SO4

controllina:

Factors of success	Indicators	Data sources
4.1 Climate change mitigation  To what extent have the CAP Strategic Plans interventions contributed in achieving the objective for a climate-neutral EU by 2050, primarily by reducing GHG emissions, increasing carbon sequestration, and promoting production and use of sustainable energy?		
4.1.1. Greenhouse gas (GHG) emissions from agriculture are decreasing.  This decrease is expected by reducing and	Number of hectares or of livestock units benefitting from eco-schemes (0.8)     Number of hectares (excluding forestru) or number of other units covered by environmental	<ul> <li>Eurostat <sup>22</sup></li> <li>National and EU Implementation Reports (NIR) and Common Reporting Format (CRF)</li> </ul>

- > methane emissions from livestock, manure management and rice cultivations;
- nitrous oxide emissions from organic and mineral nitrogen fertilisation and manure management;
- carbon dioxide from agricultural land management, including land use change and burning of agricultural residues.

- > Number of hectares (excluding forestry) or number of other units covered by environmental or climate-related commitments going beyond mandatory requirements (0.14)
- > Number of livestock units (LU) benefitting from support for animal welfare, health or increased biosecurity measures (0.18)
- > Number of supported on-farm productive investment operations or units (0.20)
- Number of supported on-farm non-productive investment operations or units (0.21)
- Result variables R013, R014, R016 and R027, R028, R043 and corresponding break down (R143 - R543) (Annex IV, Regulation (EU) 2022/1475)

Indicative farm practices that could be related to the indicators above may include 21:

- use of enhanced efficiency fertilisers;
- fertilisation using green manure;
- livestock dietary manipulation techniques;
- livestock housing techniques;
- manure land application techniques;
- manure processing techniques;

- (NIR) and Common Reporting Format (CRF) tables
- CAP indicators and data explorer
- National Energy and Climate Plan, especially the chapters on 'National Objectives and Targets' and 'Policies and Measures'
- FAOSTAT

For the quantity of reduced emissions to be used as the denominator for cost-effectiveness under the efficiency analysis, the evaluators can use the National Inventory Reports (NIR) or the corresponding Common Reporting Tables (CRF), which include the coefficients that convert physical quantities into abated GHGs.

Greenhouse gas emissions by source sector (ENV\_AIR\_GGE) Eionet: Central Data Repository (CDR).

Manure storage facilities by NUTS 3 regions (AEL\_FM\_MS) last reported in 2010. Important: Maybe reported again in the third guarter of 2023 by FSS. The National and EU Implementation Reports (NIR) and CRFs (Table 3.B(a).s2) are good sources reporting the percentage allocation of manure management to various systems and indicating the national data sources.

Consumption of inorganic fertilisers (AEI\_FM\_USEFERT). Warning: This is the quantity consumed (purchased), not applied.

The National and EU Implementation Reports (NIR) and the CRFs (Tables 3.D and 3.G-1) are good sources reporting quantities of nitrogen within categories of inorganic and organic nitrogen fertilisers and other activities and amounts of carbon-containing fertilisers. FADN: Variable SE295 records expenditure for fertilisers but not quantities, except in some Member States.

Energy supply and use by NACE Rev. 2 activity (ENV\_AC\_PEFASU) separately for agriculture and forestry-logging.

Based on the iMAP project https://wikis.ec.europa.eu/pages/viewpage.action?pageld=44167087.

Crop production in EU standard humidity (APRO\_CPSH1). This source also includes information on rice cultivation. The National and EU Implementation Reports (NIR) and CRFs (Table 3.C) report data on rice harvested areas. Main livestock indicators by NUTS 2 regions (EF\_LSK\_MAIN) or (EF\_KVFTAA). The National and EU Implementation Reports (NIR) and CRFs (Table 3.A.s.1) are good sources reporting the activity data per animal and indicating the national data sources. Livestock density index (tai09) or (EF\_KVFTAA) for both LSUs and UAA.

- > manure storage techniques;
- > organic farming;
- > organic fertilisation.

## Especially for CO<sub>2</sub>

> Number of hectares subject to GAEC 3 (national data in IACS)\*

#### Result

- > Reducing emissions in the livestock sector (R.13)
- > Carbon storage in soils and biomass (R.14)
- > Investments related to climate (R.16) (of interest are investments that treat or manage livestock wastes or are used for the application of wastes)
- > Sustainable nutrient management: share of UAA under supported commitments related to improved nutrient management (R.22)
- > Environmental or climate-related performance through investment in rural areas (R.27)
- > Environmental or climate-related performance through knowledge and innovation (R.28)

#### **Impact**

> GHG emissions from agriculture (I.10)

### Especially for CO<sub>2</sub>

> The reduced emissions due to the enforcement of GAEC 3 as detailed in the NIR\*

#### Context

- > Utilised agricultural area (C.17)
- > Livestock units (C.23)
- > Livestock density: the number of livestock units (LSU) per hectare of UUA (C.24)
- > Manure management systems (Eurostat, AEI\_FM\_MS)\*
- > Manure application (NIR)\*
- > Use of fertilisers (Eurostat, AEI\_FM\_USEFERT and NIR/CRF tables)\*
- > The climate change and emission objectives of the National Energy and Climate Plans in relation to attained reductions (NECPs) 23\*
- > GHG emissions from agriculture in other countries (FAOSTAT, emissions totals)\*

## Especially for CO<sub>2</sub>

> The area burned for agricultural residues (CRF tables)\*

Alternatively, certain outputs may be converted into GHG reduction following average coefficients reported by iMAP or CLIMAP, coefficients used in the UN emissions coefficients database or coefficients used in models and their associated software (e.g. GAINS).



<sup>23</sup> This indicator can also be used for evaluating relevance. Here the focus is on effectiveness and thus, on the quantitative level of the NEC targets attained by the CSP.

> The area under GAECs 6 and 7 (national IACS)\*



- > Carbon storage in soils and biomass (R.14)
- > Improving and protecting soils (R.19)
- > Afforested land (R.17)
- > Environmental or climate-related performance through knowledge and innovation (R.28)
- > Supporting sustainable forest management (R.30)
- > The ratio of area subject to GAEC 6 i.e. the area of minimum soil cover to avoid bare soil in most sensitive periods relative to total UAA (national IACS)\*
- > The ratio of area subject to GAEC 7 i.e. the area subject to crop rotation in arable land, relative to total UAA (national IACS)\*

### Impact

- > Soil organic carbon in agricultural land (I.11 and C.40)
- > Area of grassland (B141), arable (B142) and permanent crops (B143) in wetland and peatlands which are subject to GAEC 2 to total area of grassland, arable and permanent crops in wetlands.
- > Change in permanent grassland: total and share of UAA by categories of land cover (C.17.2)
- > Change in permanent grassland in Natura 2000 areas: share of agricultural area and natural grassland under Natura 2000 (C.19.3)
- > Soil organic carbon in forest land (LUCAS)\*

#### Context

> Area of permanent grassland (C.17)

	Factors of success	Indicators	Data sources
4.1 Climate change mitigation  To what extent have the CAP Strategic Plans interventions contributed in achieving the objective for a climate-neutral EU by 2050, primarily by reducing GHG er sequestration, and promoting production and use of sustainable energy?		ucing GHG emissions, increasing carbon	
	4.1.3 The capacity of renewable energy production in rural areas is increasing.	<ul> <li>Output</li> <li>Number of supported on-farm productive and non-productive investment operations or units (0.20 and 0.21)</li> <li>Investment in bio-methane (M210) and result variables R015, R016, R027, R028 and R039 (Annex IV, Regulation (EU) 2022/1475)</li> </ul>	<ul> <li>Eurostat (supply, transformation and consumption of renewables and wastes (NRG_CB_RW); Simplified energy balances (nrg_bal_s)</li> <li>CAP indicators and data explorer</li> <li>CSPs</li> </ul>



- > Renewable energy from agriculture, forestry and from other renewable sources (R.15)
- > Investments related to climate (R.16) (of interest are investments related, separately, to the production of renewable energy)
- > Environmental or climate-related performance through investments in rural areas (R.27) to the extent that these concerned with investments in renewable energy production
- > Environmental or climate-related performance through knowledge and innovation (R.28) to the extent that these concerned with actions for renewable energy production
- > Developing the rural economy (R.39) for investments concerned with the production of renewable energy

### Impact

> Sustainable production of renewable energy from agriculture and forestry (I.12 and C.42)

Factors of success	Indicators	Data sources
4.1 Climate change mitigation  To what extent have the CAP Strategic Plans interventions contributed in achieving the objective for a climate-neutral EU by 2050, primarily by reducing GHG emissions, increasing carbon sequestration, and promoting production and use of sustainable energy?		
4.1.4 Energy consumption in rural areas is decreasing.	<ul> <li>Output</li> <li>Number of supported on-farm productive and non-productive investment operations or units (0.20 and 0.21)</li> <li>Result variables R016, R026, R027 and R028 (Annex IV, Regulation (EU) 2022/1475)</li> <li>Result</li> <li>Investments related to climate (R.16) (investments related to energy savings)</li> <li>Investments related to natural resources (R.26) to the extent that these investments concerned with sectoral investments in energy saving</li> <li>Environmental or climate-related performance through investment in rural areas (R.27) to the extent that concerned with investments in energy saving</li> <li>Environmental or climate-related performance through knowledge and innovation (R.28) to the extent that these concerned with actions for energy saving</li> </ul>	<ul> <li>Eurostat (supply, transformation and consumption of renewables and wastes (NRG_CB_RW); Simplified energy balances (nrg_bal_s)</li> <li>CAP indicators and data explorer</li> </ul>



#### Impact

- > Energy savings per year due to supported projects (A4141)\*\*
- > Energy savings as percentage of total energy requirements in agriculture (calculation based on A4141 and ENV\_AC\_PEFASU)\*\*

#### Context

> Energy use in agriculture, forestry and food industry (C. 43), including its three specific indicators on direct use of energy in agriculture and forestry in total and per hectare and in the food processing industry

Factors of success Indicators Data sources

### 4.2 Climate change adaption

To what extent have the CAP Strategic Plans interventions supported the Union's agriculture, forestry and rural areas to reduce vulnerability, strengthen resilience, and enhance adaptive capacity to climate change?

4.2.1 Vulnerability, resilience and adaptation of the agricultural and forestry sector and rural areas.

The vulnerability of the agricultural and forestry sector and rural areas to the adverse effects of climate change is decreasing.

The short-term and long-term resilience of the agricultural and forestry sectors and rural areas from climate change impacts is improving.

The capacity of the agricultural and forestry sectors and rural areas to adapt to the uncertainties of the changing climate in the long-term and take advantage of climate change opportunities is enhanced.

#### Output

- > Number of EIP Operational Group projects (0.1) related to climate adaptation based on data from Annex VI of Regulation (EU) 2022/1475
- Number of advice actions or units to provide innovation support for preparing or implementing EIP Operational Group projects (0.2) related to climate adaptation based on data from Annex VI of Regulation (EU) 2022/1475
- > Number of hectares (excluding forestry) covered by environmental or climate-related commitments going beyond mandatory requirements (0.14)
- > Number of hectares (forestry) covered by environmental or climate-related commitments going beyond mandatory requirements (0.15)
- > Number of operations or units supporting genetic resources (0.19)
- > Number of supported on-farm productive and non-productive investment operations or units (0.20 and 0.21)
- > Number of supported infrastructure investment operations or units (0.22)
- > Number of supported off-farm productive and non-productive investment operations or units (0.23 and 0.24)
- > Number of supported training, advice and awareness actions or units (0.33)
- > Number of supported operational programmes (0.35)
- > Number of actions or units supported in the wine sector (0.36)
- > Number of actions or units for beekeeping preservation or improvement (0.37) those related to training and knowledge.
- Result variables R012, R016, R017, R027, R028 and R035 (Annex IV, Regulation (EU) 2022/1475)

- Eurostat (climate related economic losses (SDG\_13\_40)
- > CAP indicators and data explorer
- SENDAI framework analytics, categories of Global Target C.
- > EEA:
  - > Potential flood-prone area extent
  - Data for the geographical distribution of the share of agricultural land in floodplain areas
- > The adaptation preparedness scoreboard country fiches
- Eionet: Floods Directive Reporting, Flood Risk Management Plans
- LUCAS-Soil dataset (2015) and (2018) and high-resolution map (100 m) of SOC stock in agricultural soils based on 2010 data



#### Result

- Adaptation to climate change (R.12) [For sectoral types of interventions, area in which damage caused by adverse climatic events is prevented or by e.g. promoting the development and use of varieties, breeds and management practices adapted to changing climate conditions (Article 47(1)(a)(iii))]]
- Investments related to climate (R.16) (of interest are investments related to on-farm water savings and adapting to changing climate conditions) such as, for example, those flagged by M170, M180 or M190 of Regulation (EU) 2022/1475
- > Afforested land (R.17)
- > Investment support to the forest sector (R.18)
- > Environmental or climate-related performance through investment in rural areas (R.27) especially for genetic resources commitments (Article 70) or the improvement of existing irrigation infrastructure
- > Environment or climate performance through knowledge and innovation (R.28)
- > Preserving beehives (R.35), especially the support granted directly to beekeepers under Article 55(1)(b) for preventing damage caused by adverse climatic events and promoting the development and use of management practices adapted to changing climate conditions

#### **Impact**

> Agricultural sector resilience progress indicator (I.9 and C.45)

#### Context

- > Agricultural sector resilience progress indicator (C.45)
- > Agricultural factor income stability (C.25)
- > Water exploitation index plus (WEI+) regionally and monthly for the agricultural sector (from C.38 data, supplemented with model results)
- Soil organic carbon in agricultural land (from C.40 data), including regional changes of modelled carbon stocks.
- > The value of climate-related economic losses (SDG\_13\_40)\*
- > Direct agricultural loss attributed to disasters (C. 46)
- > The share of agriculture in the value of climate-related economic losses (calculation as the ratio of C.46 to SDG\_13\_40)\*
- > The extent of the potential flood-prone area from the National Adaptation Plans (NAPs) and/or National Adaptation Strategy (NAS). Geographical distribution of the share of agricultural land in floodplain areas (flood hazard and risk maps intersected by LPIS)\*



## **Related to S05**

Factors of success	Indicators	Data sources
<b>5.1 A. Efficient management of natural resources</b> To what extent have the CAP Strategic Plans inter	(particularly air) ventions advanced air quality, including a reduction in chemical substances?	
5.1.1 Air quality is improving.	Output  Number of hectares or of livestock units benefitting from eco-scheme (0.8)  Number of hectares (excluding forestry) or number of other units covered by environmental or climate-related commitments going beyond mandatory requirements (0.14)  Number of supported on-farm productive and non-productive investment operations or units (0.20 and 0.21)  Result variable R009, R020 (Annex IV, Regulation (EU) 2022/1475)  Result  Improving air quality (R.20)  Share of farms receiving investment support to restructure and modernise, including to improve resource efficiency (R.9)  Impact  Ammonia emissions from agriculture (I.14) by the source of activity  Other pollutants of agricultural origin: NOx, NMVOC, SOx (national emissions inventories)*  Particulate matter (PM) of an agricultural origin: PM2.5, PM10, TSP (national emissions inventories)*  Context  Manure management systems (Eurostat, AEI_FM_MS)*  Manure application (NIR)*	<ul> <li>Eurostat <sup>24</sup></li> <li>CAP indicators and data explorer</li> <li>Data for monitoring and evaluation</li> <li>National and EU Implementation Reports (NIR) and CRFs</li> <li>Eionet: CDR National Emission Ceiling Directive (NECD 2016/2284/EU)</li> <li>National emission inventories</li> </ul>



Manure storage facilities by NUTS 3 regions (AEI\_FM\_MS) last reported in 2010. Important: Maybe reported again in the third quarter of 2023 by FSS. The National and EU Implementation Reports (NIR) and CRFs (Table 3.B(a).s2) are good sources reporting the percentage allocation of manure management to various systems and indicating the national data sources.

Consumption of inorganic fertilisers (AEI\_FM\_USEFERT). Warning: This is the quantity consumed (purchased), not applied.

The National and EU Implementation Reports (NIR) and the CRFs (Tables 3.D and 3.G-1) are good sources reporting quantities of nitrogen within categories of inorganic and organic nitrogen fertilisers and other activities and amounts of carbon-containing fertilisers. FADN: Variable SE295 records expenditure for fertilisers but not quantities, except in some Member States.

Factors of success	Indicators	Data sources
<b>B. Efficient management of natural resource</b> what extent have the CAP Strategic Plans inte	<b>s (particularly water resources)</b> erventions fostered sustainable development and effective management of water resources includi	ng a reduction in chemical dependency?
I.2 Water quality management is improving.	Output  Number of hectares or of livestock units benefitting from eco-scheme (0.8)  Number of hectares benefitting from support under Natura 2000 or Directive 2000/60/EC (0.13)  Number of hectares (excluding forestry) or number of other units covered by environmental or climate-related commitments going beyond mandatory requirements (0.14)  Number of supported on-farm and off-farm productive investment operations or units (0.20 and 0.21)  Result variables R016, R021, R022 and R024 (Annex IV, Regulation (EU) 2022/1475)  Result  Use of fertilisers (Eurostat, AEI_FM_USEFERT and NIRs/CRFs)*  Protecting water quality (R.21)  Sustainable nutrient management (R.22)  Sustainable and reduced use of pesticides (R.24)  Percentage water bodies with detected priority substances from agriculture per type of water body (WISE)*  Impact  Gross nutrient balance (I.15) – gross nutrient balance for nitrogen and phosphorus  Nitrates in groundwater (I.16)  Risk, use and impacts of pesticides (I.18)  Water bodies in good chemical status by surface and groundwater (WISE)*  Water bodies in good and above ecological status for surface water (WISE)*  Context  Irrigable area (C.18)  Agricultural area under organic farming (C.33)  UAA under SMR1 (WFD) and SMR2 (Nitrates Directive) obligations (vectors of river basins and nitrate zones intersected by LPIS)*  UAA affected by GAEC 4 (national IACS)*  Nitrate vulnerable zones (Eionet and WISE)*  Biochemical oxygen demand in rivers (Eurostat, SDG_06_30)*	<ul> <li>Eurostat</li> <li>CAP indicators and data explorer</li> <li>National and EU Implementation Reports (NIR) and the CRFs</li> <li>Eionet: Central Data Repository (CDR) – Nitrates Directive Report (91/676/EEC) and EEA: WISE WFD protected area spatial dosets</li> <li>EEA: Water Quality ICM</li> <li>EEA: WISE WFD Database</li> <li>National estimates</li> <li>European Commission: Trends in Harmon Risk Indicators for Member States and To (related to I.18)</li> </ul>

Factors of success	Indicators	Data sources
<b>5.1 B. Efficient management of natural resources</b> To what extent have the CAP Strategic Plans inte	(particularly water resources) rentions fostered sustainable development and effective management of water resources include	ing a reduction in chemical dependency?
5.1.3 Water quantity management is improving	Output  Number of hectares or of livestock units benefitting from eco-scheme (0.8)  Number of hectares (excluding forestry) or number of other units covered by environmental or climate-related commitments going beyond mandatory requirements (0.14)  Number of supported on-farm and off-farm productive investment operations or units (0.20 and 0.21)  Investments in water management (M170, M180 and M190) and result variables R016, R023 and R026 (Annex IV, Regulation (EU) 2022/1475)  Data for monitoring and evaluation (Annex V, Form B1.d.(i), Regulation (EU) 2022/1475)  Result  Farm modernisation (R.9) – for 'new irrigation' installations on farm leading to a net increase in irrigated area identified by a combination of M170 and M180.  Percentage of farms with various Irrigation methods (Eurostat, EF_POIRRIG)*  Percentage of farms using surface or groundwater sources (Eurostat, EF_POIRRIG)*  Use of fertilisers (Eurostat, AEI_FM_USEFERT, and NIRs/CRFs)*  Investments related to water savings (R.16)  Sustainable water use (R.23)  Investments related to natural resources (R.26) – improvement of existing irrigation  Developing the rural economy (R.39) - Investments in 'new irrigation' infrastructure leading to a net increase in irrigated area  Impact  Water exploitation index+ (I.17)	<ul> <li>Eurostat <sup>25</sup></li> <li>CAP indicators and data explorer</li> <li>National and EU Implementation Reports (NIR) and the CRFs</li> <li>EEA: WISE WFD protected area spatial data sets</li> <li>EEA: WISE Water Framework Directive Database</li> <li>National IACS</li> </ul>

Share of irrigable and irrigated areas in UAA by NUTS 2 regions (tai03) Irrigation facilities by NUTS 3 regions (Eurostat, EF\_POIRRIG) last reported in 2010. Important: Maybe reported again in the third quarter of 2023 by FSS.
Consumption of inorganic fertilisers (AEL\_FM\_USEFERT). Warning: This is the quantity consumed (purchased), not applied.
The National and EU Implementation Reports (NIR) and the CRFs (Tables 3.D and 3.G-1) are good sources reporting quantities of nitrogen within categories of inorganic and organic nitrogen fertilisers and other activities and amounts of carbon-containing fertilisers. FADN: Variable SE295 records expenditure for fertilisers but not quantities, except in some Member States.
Gross nutrient balance on agricultural land (t2020\_rn310).

Irrigation facilities by NUTS 3 regions (EF\_POIRRIG) reported in 2010. Maybe reported again in the third quarter of 2023 by FSS.

EIA: Waterbase - Water Quantity with many gaps hydrological models based on land use - land cover maps river basin management plans.

Water exploitation index, plus (WEI+) (SDG\_06\_60) complemented by other data since the indicator is not fully developed yet.



Context	
> Irrigable area (C.18)	
> Agricultural area under organic farming (C.33)	
> Water use in agriculture (C.38)	
> UAA affected by GAEC 4 (national IACS)*	
Water abstraction in agriculture (Eurostat, ENV_WAT_ABS)*	

Factors of success	Indicators	Data sources
<b>5.1 C. Efficient management of natural resou</b> To what extent have the CAP Strategic Plans in	ces (particularly soil resources) nterventions fostered sustainable development and effective management of soil resources, including	g a reduction in chemical dependency?
5.1.4 Soil management is improving	Output  Number of hectares or of livestock units benefitting from eco-schemes (0.8)  Number of hectares (excluding forestry) or number of other units covered by environmental or climate-related commitments going beyond mandatory requirements (0.14)  Number of hectares (forestry) covered by environmental or climate-related commitments going beyond mandatory requirements (0.15)  Result variables R014, R019 and R024 (Annex IV, Regulation (EU) 2022/1475)  Result  Carbon storage in soils and biomass (R.14)  Improving and protecting soils (R.19)  Sustainable and reduced use of pesticides (R.24)  Impact  Soil organic carbon in agricultural land (I.11)  Soil erosion by water (I.13)	<ul> <li>CAP indicators and data explorer</li> <li>LUCAS-Soil dataset (2015) and (2018) and high-resolution map (100 m) of SOC stock in agricultural soils based on 2010 data</li> <li>EEA: degree and extent of soil compaction in Europe based on 2009 LUCAS-Soil survey</li> <li>JRC: ESDAC raster map showing areas with a potential threat to soil biodiversity</li> <li>2019 study on 'Pesticide residues in European agricultural soils'</li> <li>JRC: ESDAC raster map showing the area distribution of saline, sodic and potentially salt affected areas in the EU (2008)</li> </ul>
	<ul> <li>Risk, use and impacts of pesticides (I.18)</li> <li>Soil compaction of agricultural land (EEA: degree and extent of soil compaction in Europe based on 2009 LUCAS-Soil survey)*</li> <li>Soil biodiversity (ESDAC)*</li> <li>Pesticide residues in soils (2019 study)*</li> <li>Soil salinisation (ESDAC)*</li> </ul>	



# Context > Soil organic carbon in agricultural land (C.40) > Soil erosion by water (C.41)

## **Related to S06**

Factors of success	Indicators	Data sources
<b>6.1 Reversing and halting biodiversity loss</b> To what extent have the CAP Strategic Plans interv	rentions contributed to halting and reversing biodiversity loss in agricultural and forest land and t	to preserving habitats and landscapes?
6.1.1 The contextual factors which could favourably influence biodiversity and habitats on agricultural land are improving.  These factors may, indicatively, include:  Farming intensity (decrease);  The extent of farmland or forest land managed under Natura 2000 rules (increase);  The size of organic farming (increase);  The extent and importance of semi-natural permanent pasture (increase);  The extent of High Nature Value (HNV) farming or other farming systems and practices beneficial to biodiversity (increase)  Pressures and threats on biodiversity from agriculture (decrease);  Agroforesty systems (increase).	Output  The conditionality requirements have created the setting for many contextual factors to show a positive progress. Examples include:  GAEC 9 (B170-172) and all GAECs (B180) for protecting grasslands and GAEC 8 (B150-B162) on landscape features (Annex IV, Regulation (EU) 2022/1475)  Share of agricultural land covered with landscape features (I.21)  Result  Share of UAA under supported commitments for managing landscape features, including hedgerows and trees (R.34)  Context  The land under GAEC 9 relative to the total UAA (B170, B171, B172) (Annex IV, Regulation (EU) 2022/1475)  Land cover (C.05)  Permanent grassland as percentage of UAA (C.05)  Farming in Natura 2000 areas (C.19)  Enhancing provision of ecosystem services (C.21)  Livestock density (C.24)  Agricultural area under organic farming (C.33)  Farming intensity (C.34)	> CAP indicators and data explorer > Data for monitoring and evaluation > EEA Natura 2000 database
	<ul> <li>Sustainable and reduced use of pesticides (C.49)</li> <li>Pressures and threats from agriculture in Natura 2000 (EEA Natura 2000 database)*</li> </ul>	



Factors of success	Indicators	Data sources
<b>6.1 Reversing and halting biodiversity loss</b> To what extent have the CAP Strategic Plans inter	ventions contributed to halting and reversing biodiversity loss in agricultural and forest land and	to preserving habitats and landscapes?
6.1.2 Agro-biodiversity (biodiversity on agricultural land) is improving or, at least, biodiversity loss is being halted.  This can be depicted by:  Fauna indicators on agricultural land;  Flora indicators on agricultural land;  The dynamics of the populations of wild pollinators;  The preservation of agricultural species and varieties and breeds;  The increase in habitat connectivity.  6.1.3 Biodiversity on forest land is improving or, at least, biodiversity loss is being halted.  This can be depicted by:  Extent of forests under sustainable; management  Trends in tree species composition;  Extent of natural regeneration;  Preservation of deadwood in forests;  Forest Bird Index.  6.1.4 Species and habitats of community interest related to agriculture are increasing or	Output  Result variable R017, R018, R019, R025, R027, R030, R031, R032, R033 and R034 (Annex IV, Regulation (EU) 2022/1475)  For agricultural land  Number of hectares or of livestock units benefitting from eco-schemes (0.8)  Number of hectares benefitting from support under Natura 2000 or Directive 2000/60/EC (0.13)  Number of hectares (excluding forestry) or number of other units covered by environmental or climate-related commitments going beyond mandatory requirements (0.14)  Number of supported on-farm productive and non-productive investment operations or units (0.20 and 0.21)  Number of supported infrastructure investment operations or units (0.22)  Number of supported off-farm productive and non-productive investment operations or units (0.23 and 0.24)  Number of operations or units supporting genetic resources (0.19)  For forest land  Number of hectares benefitting from support under Natura 2000 or Directive 2000/60/EC (0.13)  Number of hectares (forestry) or number of other units covered by environmental climate-related commitments going beyond mandatory requirements (0.15)  Number of hectares or number of other units under maintenance commitments for afforestation and agroforestry (0.16)  Result  Afforested land (R.17)	<ul> <li>Eurostat</li> <li>Forest Europe <sup>26</sup></li> <li>SEBI</li> <li>CAP indicators and data explorer</li> <li>EEA Natura 2000 database</li> <li>Eionet, Article 17 web tool</li> </ul>
remaining stable.	<ul> <li>Improving and protecting soils including soil biodiversity (R.19)</li> <li>Environmental performance in the livestock sector especially support to endangered breeds (R.25)</li> </ul>	
	<ul> <li>Environmental or climate-related performance through investment in rural areas (R.27)</li> <li>Supporting sustainable forest management (R.30)</li> </ul>	

https://foresteurope.org/state-of-europes-forests/.



- > Preserving habitats and species (R.31)
- > Investments related to biodiversity (R.32)
- > Improving Natura 2000 management (R.33)
- > Preserving landscape features (R.34)

## Impact

## For agricultural land

- > Enhancing provision of ecosystem (I.21) also Streamlining European Biodiversity Indicators (SEBI) 020
- > Enhancing biodiversity protection (I.20)
- > Farmland Bird Index (I.19)
- > Crop diversity (I.22)
- > Grassland butterfly index (Eurostat, SDG\_15\_61)\*

#### For forest land

- > Diversity of tree species (Forest Europe, FE\_C.4.1)\*
- > Forest regeneration (Forest Europe, FE\_C.4.2)\*
- > Forest Bird Index (Eurostat, ENV\_BIO3)\*
- > Forest: growing stock, increment and fellings (SEBI, SEBI\_017)\*
- > Deadwood volume (SEBI, SEBI\_018)\*

#### Context

## For agricultural land

- > Permanent grassland as percentage of UAA (C.05)
- > Farming in Natura 2000 areas (C.19)
- > Enhancing provision of ecosystem services (C.21)
- > Agricultural area under organic farming (C.33)
- > Farming intensity (C.34)
- > Enhancing biodiversity protection (C.37)
- > Pressures and threats for agriculture in Natura 2000 decrease (EEA Natura 2000 database)\*
- > Reporting based on Article 17 of the Habitats Directive (Council Directive 92/43/EEC) (Eionet, Article 17 web tool)

#### For forest land

- > Forests (C.05)
- > Forests within Natura 2000 (C.19\_4 and C.19\_5)



Factors of success	Indicators	Data sources
5.2 Ecosystem services		
o what extent have the CAP Strategic Plans inte	rventions contributed to enhancing ecosystem services?	
6.2.1 Pollinator species of community interest	Output	> CAP indicators and data explorer
related to agriculture are increasing or remaining stable.	> Number of hectares benefitting from support under Natura 2000 or Directive 2000/60/EC (0.13)	> Copernicus
	> Number of hectares or livestock units benefitting from eco-schemes (0.8)	
	<ul> <li>Number of hectares (excluding forestry) or number of other units covered by environmental or climate-related commitments going beyond mandatory requirements (0.14)</li> </ul>	
	> Number of hectares (forestry) or number of other units covered by environmental climate-related commitments going beyond mandatory requirements (0.15)	
	> Number of hectares or number of other units under maintenance commitments for afforestation and agroforestry (0.16)	
	> Number of actions or units for beekeeping preservation or improvement (0.37) for managed pollinators	
	> Number of supported on-farm and off-farm productive investment operations or units (0.20 and 0.21)	
	> Result variable R034 (Annex IV, Regulation (EU) 2022/1475)	
	Result	
	> Sustainable and reduced use of pesticides (R.24)	
	> Supporting sustainable forest management (R.30)	
	> Preserving habitats and species (R.31)	
	> Improving Natura 2000 management (R.33)	
	> Preserving landscape features (R.34)	
	> Preserving beehives (R.35) for managed pollinators	
	Impact	
	> Enhancing biodiversity protection (the sub-indicator on pollinators) (I.20)	
	Context	
	> Number of hectares or number of other units benefitting from support for organic farming (there is evidence that organic farming is positively related to wild pollinators) (0.17)	
	> Environmental or climate-related performance through knowledge and innovation (R.28) > Development of organic agriculture (R.29)	



Factors of success	Indicators	Data sources
.2 Ecosystem services o what extent have the CAP Strategic Plans inter	ventions contributed to enhancing ecosystem services?	
6.2.2 The area covered with various landscape features is increasing or remaining stable.	<ul> <li>Output</li> <li>Number of hectares or livestock units benefitting from eco-schemes (0.8)</li> <li>Number of hectares (excluding forestry) or number of other units covered by environmental or climate-related commitments going beyond mandatory requirements (0.14)</li> <li>Number of hectares (forestry) or number of other units covered by environmental climate-related commitments going beyond mandatory requirements (0.15)</li> <li>Number of hectares or number of other units under maintenance commitments for afforestation and agroforestry (0.16)</li> <li>Number of supported on-farm and off-farm productive investment operations or units (0.20 and 0.21)</li> <li>Result variables R026, R027, R028 and R034 (Annex IV, Regulation (EU) 2022/1475)</li> <li>Result</li> <li>Investments related to natural resources (R.26)</li> <li>Environmental or climate-related performance through investment in rural areas (R.27)</li> <li>Environmental or climate-related performance through knowledge and innovation (R.28)</li> <li>Preserving landscape features (R.34)</li> </ul>	<ul> <li>CAP indicators and data explorer</li> <li>Copernicus</li> <li>LUCAS</li> </ul>
	Impact  > Agricultural land covered with landscape features (I.21 and C.21)	
	Context  > GAEC 8 from B150 to B162 (Annex IV, Regulation (EU) 2022/1475)	



Factors of success	Indicators	Data sources
6.2 Ecosystem services To what extent have the CAP Strategic Plans int	erventions contributed to enhancing ecosystem services?	
6.2.3 The provision of ecosystem services is	Output	> PMEF indicators and data explorer
enhanced.	An indicator of provisioning or regulating 'output'. Examples: The area managed for the production of wild berries or mushrooms in managed forests and semi-wilderness areas (provisioning service). The are managed for avoidance (as reduction) of soil erosion and sediment transfer (regulating service). Such an indicator may be depicted by the Member State in:	
	<ul> <li>Number of hectares or of livestock units benefitting from eco-schemes (0.8)</li> <li>Number of hectares (excluding forestry) or number of other units covered by environmental or climate-related commitments going beyond mandatory requirements (0.14)</li> </ul>	
	<ul> <li>Number of hectares (forestry) or number of other units covered by environmental climate-related commitments going beyond mandatory requirements (0.15)</li> </ul>	
	<ul> <li>Number of hectares or number of other units under maintenance commitments for afforestation and agroforestry (0.16)</li> </ul>	
	<ul> <li>Number of supported on-farm and off-farm productive investment operations or units (0.20 and 0.21)</li> </ul>	
	Result	
	The area (or livestock) devoted to the 'provisioning' or 'regulating' ecosystem services, if such a record is kept by the Member State (A6231)**	
	Impact	
	<ul> <li>A measure of the provision (e.g. kg of mushrooms or berries) or of the regulation (tonnes of soil not eroded) ecosystem service (A6232)**</li> </ul>	



## 3.2.3 General objective 3

GO3 aims "to strengthen the socio-economic fabric of rural areas" (Article 5 and 6 of the Regulation (EU) 2021/2115).

It includes three SOs:

- S07 to attract and sustain young farmers and new farmers and facilitate sustainable business development in rural areas.
- ii. S08 to promote employment, growth, gender equality, including the participation of women in farming, social inclusion and local development in rural areas, including the circular bio-economy and sustainable forestry.
- iii. SO9 to improve the response of Union agriculture to societal demands on food and health, including high-quality, safe and nutritious food produced in a sustainable way, to reduce food waste, as well as to improve animal welfare and to combat antimicrobial resistance.

<u>Table 4</u> presents the key evaluation elements for assessing the effectiveness of GO3 covering its three SOs.



## Table 4: Evaluation framework – general objective 3

EQ1: To what extent have the CAP Strategic Plans interventions contributed to strengthening the socio-economic fabric of rural areas?

## **Related to S07**

Factors of success	Indicators	Data sources
<b>7.1 Farmers renewal:</b> To what extent have the CAP Strategic Plans in	AP Strategic Plans interventions contributed to support the setting up of young farmers and new farmers and the continuity of their operations?	
7.1.1 Number of young and new farmers is increasing.	<ul> <li>Number of hectares benefitting from basic income support (0.4)</li> <li>Number of hectares benefitting from support for areas facing natural or other specific constraints (0.12)</li> <li>Number of young farmers receiving setting up support (0.25)</li> <li>Number of new farmers receiving setting-up support (other than young farmers reported under 0.25) (0.26)</li> <li>Number of supported operations or units for generational renewal (excluding setting-up support) (0.30)</li> <li>Number of hectares benefitting from complementary income support for young farmers (0.6)</li> <li>Number of supported training, advice and awareness actions or units (0.33) (if the disaggregated data related to code B030 (Annex IV, Regulation (EU) 2022/1475) can be applied: setting-up training and advice for young farmers)</li> <li>Amounts paid per intervention (M050, M060, M070) where the beneficiary is a young farmer (B030) (Annex IV, Regulation (EU) 2022/1475)</li> <li>Result variable R036 (Annex IV, Regulation (EU) 2022/1475)</li> <li>Number of CSPs with preferential arrangements for young farmers (e.g. for investments, distribution of entitlements, CIS etc) (CSPs)*</li> <li>Result</li> <li>Number of young farmers benefitting from setting up with support from the CAP, including a gender breakdown (R.36)</li> <li>Number of young farmers benefitting from upskilling and sustainable farm business development for setting-up (A7111)** (if this aspect cannot be captured by 0.33, an additional result indicator is recommended)</li> <li>Average CAP income support per hectare by age of the farm manager (FADN/FSDN)*</li> </ul>	<ul> <li>CAP indicators and data explorer</li> <li>CSPs,</li> <li>Eurostat,</li> <li>USDA, National Agricultural Statistics Service (NASS)</li> <li>Survey</li> </ul>



Impact
> Improvement of the ratio between young and better trained farm managers to older and less trained ones (C.14, C.15)
Context
> Agricultural holdings (C.12)
Average farm size (physical and economic) by age of the manager (Eurostat, EF_M_FARMANG, FADN/FSDN)*
Average total assets and liabilities by age of the farm manager (FADN/FADN)*
> Average Farm Net Value Added/AWU by age of the farm manager (FADN/FSDN)*
Improvement of the ratio between young and better trained farm managers to older and less trained ones in the USA (USDA NASS)*

Factors of success	Indicators	Data sources
<b>7.2 Business development:</b> To what extent have the CAP Strategic Plans interv	entions contributed to facilitate non-agricultural business development (including start-ups) in ru	ral areas? (overlapping with S008)
7.2.1 Number of rural businesses is increasing.	Output  Number of rural businesses receiving support for start-up (0.27)  Result variable R037 and R039 (Annex IV, Regulation (EU) 2022/1475)  Result  Number of rural businesses including bio-economy businesses developed with CAP support (R.39)	<ul> <li>CAP indicators and data explorer</li> <li>Data for monitoring and evaluation</li> <li>Eurostat</li> </ul>
	<ul> <li>New jobs supported in CAP projects (R.37)</li> <li>Impact</li> <li>Employer business demography by NACE Rev. 2 and NUTS 3 regions (Eurostat) (BD_ENACE2_R3)*</li> </ul>	



## **Related to SO8**

Factors of success	Indicators	Data sources
1 Rural sustainable economy:		
what extent have the CAP Strategic Plans intervelline and loss of employment and by promoting	ventions contributed to sustainable rural economy by enhancing economic growth and promoting e the bioeconomy and sustainable forestry?	employment or by weakening economic
B.1.1 Rural areas' economy is growing or, at least, remaining stable and urban-rural gap is decreasing. (consider all CSP interventions)	Output  > Realised expenditure per intervention (consider all CSP interventions)  > Number of supported on-farm productive investment operations or units (0.20)	<ul> <li>CAP indicators and data explorer</li> <li>Data for monitoring and evaluation</li> </ul>
t.1.2 Employment rate in rural areas is mproving (ratio of the employed to the working ge population).	<ul> <li>Number of supported infrastructure investment operations or units (0.22)</li> <li>Number of supported off-farm productive investment operations or units (0.24)</li> <li>Number of young farmers receiving setting up support (0.25)</li> <li>Number of new farmers receiving setting-up support (other than young farmers reported</li> </ul>	
(Consider all CSP interventions)	under 0.25) (0.26)  Number of rural businesses receiving support for start-up (0.27)  Number of supported local development strategies (LEADER) or preparatory actions (0.31)  Total number of operations implemented by the Local Action Groups (LAGs) (L700 - Annex VII of Regulation 2022/1475)  Number of supported other cooperation operations or units (0.32)  Number of supported operational programmes (0.35)  Number of actions or units supported in the wine sector (0.36)  Number of actions or units for beekeeping preservation or improvement (0.37)  Information related to expenditure of sectoral interventions (forms B1, B2 and B3, Annex V of Regulation (EU) 2022/1475)	
	For 8.1.1  Share of farms receiving investment support to restructure and modernise, including to improve resource efficiency (R.9)  Number of rural businesses, including bio-economy businesses, developed with CAP support (R.39)  Number of supported smart-village strategies (R.40)  Share of rural population benefitting from improved access to services and infrastructure through CAP support (R.41)	



For 8.1.2  New jobs supported in CAP projects (R.37), gender breakdown	
Impact	
For 8.1.1  > Evolution of GDP per capita in rural areas (I.25), also compared to the urban areas  > Gross value added by sector, by type of region, in agriculture and for primary producers (C.11, I.8)  > Evolution of agricultural income compared to the general economy (I.2; C26)  > Evolution of poverty index in rural areas (I.27)	
For 8.1.2 > Evolution of the employment rate in rural areas, including a gender breakdown (1.24 and C.06)	
Context	
<ul> <li>Unemployment rate in rural areas (C.07)</li> <li>Employment (C.08)</li> </ul>	

Factors of success	Indicators	Data sources
	nterventions contributed to sustainable rural economy by enhancing economic growth and promoting e ting the bioeconomy and sustainable forestry?	employment or by weakening economic
8.1.3 Bioeconomy related business are increasing. (Consider all CSP interventions)	Output  Realised expenditures  Number of supported bioeconomy related businesses, identified through variable M210 and/or result variables R009, R015, R016, R018, R026, R027, R039 (Annex IV, Regulation (EU) 2022/1475)  Result  Number of rural businesses, including bioeconomy businesses, developed with CAP support (R.39)  Impact  Value added of biomass producing and converting sectors (JRC - Bioeconomics)*  Number of people employed in biomass producing and converting sectors (JRC - Bioeconomics)*	<ul> <li>CAP indicators and data explorer</li> <li>Data for monitoring and evaluation</li> <li>JRC - Bioeconomics <sup>27</sup></li> </ul>

<sup>&</sup>lt;sup>27</sup> <u>Jobs and Wealth in the EU Bioeconomy (europa.eu)</u>.



Factors of success	Indicators	Data sources
3.1 Rural sustainable economy: To what extent have the CAP Strategic Plans interv decline and loss of employment and by promoting t	entions contributed to sustainable rural economy by enhancing economic growth and promoting e he bioeconomy and sustainable forestry?	employment or by weakening economic
8.1.4 Sustainable forestry is increasing (climate change adaption, protection against natural nazards, conflicts of use, value creation, ncome).	Output  Number of hectares (forestry) or number of other units covered by environmental or climate-related commitments going beyond mandatory requirements (0.15)  Number of hectares or number of other units under maintenance commitments for afforestation and agroforestry (0.16)  Number of supported infrastructure investment operations or units (0.22)  Number of supported off-farm productive investment operations or units (0.24)  Number of supported other cooperation operations or units (0.32)  Result variable R017, R018, R030 (Annex IV, Regulation (EU) 2022/1475)  Result  Afforested land (R.17)  Investment support to the forest sector (R.18)  Supporting sustainable forest management (R.30)  Impact  Forest Europe indicators on forest biological diversity and socioeconomic functions (Forest Europe, FE_C.4 and C.6)*	<ul> <li>CAP indicators and data explorer</li> <li>Data for monitoring and evaluation</li> <li>Forest Europe</li> </ul>
Page 2 Local development:  What extent have the CAP Strategic Plans intervented in the CAP Strategic Plans intervented in the CAP Strategic Plans in the CAP	rentions contributed to local development and the provision of local services and infrastructure?	
8.2.1 Local services and infrastructures are improving, and a higher share of population is benefiting from improved local services and infrastructure.	Output  Number of supported local development strategies (LEADER) or preparatory actions (0.31)  Number of supported on-farm non-productive investment operations or units (0.21)  Number of supported infrastructure investment operations or units (0.22)  Number of supported off-farm productive investment operations or units (0.24)  Monitoring variable M200 and result variable R038, R040, R041, R037, R039, R042 (Annex IV, Regulation (EU) 2022/1475)  Data on LAGs and their activities for LEADER (Annex VII, Reg 2022/1475)	<ul> <li>CAP indicators and data explorer</li> <li>Data for monitoring and evaluation</li> <li>Rural Observatory</li> <li>Eurobarometer</li> <li>Eurostat</li> </ul>



Res	sult
>	Percentage of rural population covered by local development strategies (R.38)
>	Number of supported smart-village strategies (R.40)
	Share of rural population benefitting from improved access to services and infrastructuthrough CAP support (R.41)
>	New jobs supported in CAP projects (R.37)
	Number of rural businesses, including bioeconomy businesses, developed with CAP support (R.39)
>	Investments in broadband/high-speed internet (M200)
>	Number of persons covered by supported social inclusion projects (R.42)
lmį	pact
	Improvement of social capital and local governance in rural areas (an EU-wide survey or meta-analysis of existing evaluations at Member State level) (A821)
>	Improvement of job opportunities in rural areas (Eurobarometer)*
>	Access to high-speed broadband (Rural Observatory)*
	Increase in the number of households that are connected to broadband in rural areas (Eurostat, isoc_ci_it_h)*
>	Better access to leisure and cultural activities in rural areas (Eurobarometer)*
	Evolution of poverty index in rural areas (I.27)

Factors of success	Indicators	Data sources
<b>8.3 Gender equality and social inclusion:</b> To what extent have the CAP Strategic Plans inter	ventions contributed to the promotion of gender equality (on-farm and off-farm), income equity and	d poverty reduction?
8.3.1 Women employment and participation in farming is improving. (Consider all CSP interventions)	<ul> <li>Output</li> <li>Number of CAP support beneficiaries (0.3) with gender breakdown (B020) (Annex IV, Regulation (EU) 2022/1475)</li> <li>Number of young farmers receiving setting-up support (0.25), gender breakdown (B020)</li> <li>Number of new farmers receiving setting-up support (0.26), gender breakdown (B020)</li> <li>Number of rural businesses receiving support for start-up (0.27), gender breakdown (B020)</li> <li>Number of supported training, advice and awareness actions or units (0.33), gender breakdown (B020)</li> <li>Result variable R002, R028, R036 (Annex IV, Regulation (EU) 2022/1475)</li> </ul>	<ul> <li>CAP indicators and data explorer</li> <li>Data for monitoring and evaluation</li> <li>Eurostat</li> </ul>



Result	
<ul> <li>Number of young farmers benefitting from setting up with support from the CAP, including a gender breakdown (R.36)</li> </ul>	
<ul> <li>Number of advisors receiving support to be integrated within Agricultural Knowledge and Innovation Systems (AKIS) (R.2), gender breakdown</li> </ul>	
<ul> <li>Number of persons benefitting from advice, training, knowledge exchange, or participating in EIP Operational Groups supported by the CAP related to environmental or climate-related performance (R.28), gender breakdown</li> </ul>	
Impact	
<ul> <li>Women employment in the agricultural sector, proportion of farm managers who are women (related to C.14 and C.08)</li> </ul>	
<ul> <li>Population by educational attainment level, sex, age and degree of urbanisation (%) (Eurostat, EDAT_LFS_9913)*</li> </ul>	

Factors of success	Indicators	Data sources
8.3 Gender equality and social inclusion: To what extent have the CAP Strategic Plans interv	entions contributed to the promotion of gender equality (on-farm and off-farm), income equity and	poverty reduction?
8.3.2 CAP Strategic Plans support is more fairly distributed.  (Not SO8 specific; related to all CSP interventions. It can be assessed in combination with 1.1.4 and 1.2.2).	Output  Realised expenditure  Number of farmers subject to capping or degressivity  Result  Percentage of additional direct payments per hectare for eligible farms below average farm size (compared to average) (R.6)  Percentage of additional support per hectare in areas with higher needs (compared to average) (R.7)  Impact  Distribution of CAP support (I.26)	<ul> <li>CAP indicators and data explorer</li> <li>Data for monitoring and evaluation</li> </ul>



Factors of success	Indicators	Data sources
<b>8.3 Gender equality and social inclusion:</b> To what extent have the CAP Strategic Plans in	terventions contributed to the promotion of gender equality (on-farm and off-farm), income equity and	d poverty reduction?
8.3.3 Rural poverty is decreasing. (Consider all relevant CSP interventions).	Output  > Realised expenditures > Result variable R042 (Annex IV, Regulation (EU) 2022/1475)	<ul> <li>CAP indicators and data explorer</li> <li>Data for monitoring and evaluation</li> </ul>
	Result  Number of persons covered by supported social inclusion projects (R.42)  Population by educational attainment level, sex, age and degree of urbanisation (%) (Eurostat, EDAT_LFS_9913)*	
	Impact > Evolution of poverty index in rural areas (I.27)	

## Related to SO9

Factors of success	Indicators	Data sources
9.1 A. Quality and safety food (quality, safe and no To what extent do CAP Strategic Plans intervention	<b>stritious food):</b> s respond to societal demands on food and health, including high-quality, safe and nutritious food	produced in a sustainable way?
9.1.1 A higher level of quality, safe and nutritious food is delivered.	Output  Number of beneficiaries receiving support to participate in official quality schemes (0.29)  Number of hectares or number of other units benefitting from support for organic farming (0.17)  Result variable R029 (Annex IV, Regulation (EU) 2022/1475)  Result  Share of UAA supported by the CAP for organic farming (R.29)	<ul> <li>CAP indicators and data explorer</li> <li>Eurostat</li> <li>External study on the economic value of quality schemes and Member State databases</li> <li>EFSA: Foodborne outbreaks dashboard</li> <li>EFSA: multiannual national control programmes</li> </ul>
	<ul> <li>Increase in the production of food under quality schemes (A9111)**</li> <li>Increase in the production of organic food (Eurostat, ORG_CROPPRO and ORG_LSTSPEC)*</li> </ul>	



Impact
> Value of production under Union quality schemes and of organic production (1.29)
Change in the occurrence and significance of food safety issues and crop diseases (EFSA: Foodborne outbreaks dashboard)*
> Time series of percentage of analysed food sample containing:
> no quantifiable levels of residues (EFSA: multiannual national control programmes)*
one or more residues in concentrations below or equal to permitted levels residues exceeding the legal maximum (EFSA: Multiannual national control programmes)*

Factors of success	Indicators	Data sources							
9.1 B. Quality and safety food (animal welfare): To what extent have the CAP Strategic Plans interventions contributed to animal welfare improvements?									
9.1.2 The conditions of animal welfare are improving.	Output  Number of livestock units benefitting from eco-schemes (0.8) for animal welfare  Number of livestock units (LU) benefitting from support for animal welfare, health or increased biosecurity measures (0.18)  Result variable R044 and corresponding breakdown (R144, R244, R344, R444, R544) (Annex IV, Regulation (EU) 2022/1475)  Result  Improving animal welfare (R.44)  Impact  Mortality rate per species (A9121)**  Absence of injuries per species (A9122)**  Absence of diseases per species (A9123)**  Change in the occurrence and significance of animal diseases (EFSA)*	<ul> <li>CAP indicators and data explorer</li> <li>Data for monitoring and evaluation</li> <li>EFSA site for reports on country assessments of progress as concerns animal welfare measures</li> </ul>							



Factors of success	Indicators	Data sources
9.1 C. Quality and safety food (antimicrobial us To what extent have the CAP Strategic Plans into	e): erventions contributed to decreasing antimicrobial resistance?	
9.1.3 The sales and use of antimicrobials for food-producing animals are decreasing.	Output  Number of livestock units benefitting from eco-schemes (0.8) for AMR  Number of livestock units (LU) benefitting from support for animal welfare, health or increased biosecurity measures (0.18)  Result variable R043 and corresponding breakdown (R143, R243, R343, R443, R543) (Annex IV, Regulation (EU) 2022/1475)  Result  Share of livestock units (LU) concerned by supported actions to limit the use of antimicrobials/ Limiting antimicrobial use (R.43)  Impact  Sales/use of antimicrobials for food-producing animals (I.28)	<ul> <li>CAP indicators and data explorer</li> <li>Data for monitoring and evaluation</li> </ul>
9.2 Food loss and waste: To what extent have the CAP Strategic Plans int	erventions contributed to reducing food loss and waste?	
9.2.1 Food loss and waste is decreasing.	Output  Number of supported on-farm productive investment operations or units (0.20)  Number of supported operational programmes (0.35)  Number of actions or units supported in the wine sector (0.36)  Number of actions or units for beekeeping preservation or improvement (0.37)  Result  Farm modernisation (R.9):  Investments related to climate (R.16)  Investments related to natural resources (R.26)  Developing the rural economy (R.39)	<ul> <li>CAP indicators and data explorer</li> <li>Eurostat: Food waste and food waste prever tion by NACE Rev. 2 activity - tonnes of fresh mass (Eurostat variable: ENV_WASFW). Last year available: 2020</li> <li>FAO: Food Loss and Waste Database by country and commodity (cpc2.0). Last year available: 2020</li> </ul>
	<ul> <li>Impact</li> <li>Food loss and waste as a percentage of domestic production (FAO)*</li> <li>Food waste and food waste prevention by NACE Rev. 2 activity in tonnes of fresh mass (Eurostat, ENV_WASF)*</li> </ul>	



Factors of success	Indicators	Data sources
9.3 European society's perceptions towards agric To what extent there is a shift of the perceptions of the role of agriculture for food security, climat the importance and performance of the CAP.	European society regarding:	
9.3.1 Society has shifted focus to issues related to food security, climate change, the environment, and the situation in rural areas.	Impact  Time series of percentage of European citizens in total and per Member State showing their temporal perception of the following problems:  > food security and risks to food security  > climate change impacts on food production  > impacts of agriculture on climate change  > the situation in rural areas (Eurobarometer)*	> Rolling bi-annual opinion polls of Eurobarom- eter on: "Europe, Agriculture and the CAP"
9.3.2 The perception of society has changed for issues related to the performance, importance and contribution of the CAP.	Impact  Time series of percentage of European citizens perceiving the CAP as:  important and performing towards the EU targets;  contributing to the nine SOs (Eurobarometer)*	> Rolling bi-annual opinion polls of Eurobarom- eter on: "Europe, Agriculture and the CAP"



# 3.2.4 Cross-cutting objective

The CCO focuses on "modernising agriculture and rural areas through fostering and sharing knowledge, innovation and digitalisation, and by encouraging their uptake by farmers through improved access to research, innovation, knowledge exchange and training" (Article 5 and 6 of the Regulation (EU) 2021/2115).

<u>Table 5</u> presents the key evaluation elements for assessing the effectiveness of the CCO.



## Table 5: Evaluation framework - cross-cutting objective

EQ1: To what extent have the CAP Strategic Plans interventions contributed to modernising agriculture and rural areas by fostering and sharing knowledge, innovation and digitalisation, and by encouraging their uptake by farmers through improved access to research, innovation, knowledge exchange and training?

Factors of success	Indicators	Data sources
<b>10.1 Agricultural Knowledge and Innovation Syste</b> To what extent have the CAP Strategic Plans intervuptaking of knowledge and innovation by farmers?	rentions supported the AKIS strategic actions and related AKIS interventions that contribute to str	rengthening interactions within the AKIS and
10.1.1 Financial support for knowledge sharing and innovation:  CSP's expenditure supporting creation of innovation and knowledge sharing is increasing.	<ul> <li>Output</li> <li>Number of supported training, advice and awareness actions or units (0.33)</li> <li>Number of European Innovation Partnership (EIP) Operational Group projects (0.1)</li> <li>Number of advice actions or units to provide innovation support for preparing or implementing European Innovation Partnership (EIP) Operational Group projects (0.2)</li> <li>Number of supported other cooperation operations or units (excluding EIP reported under 0.1) (0.32)</li> <li>Number of supported on-farm productive investment operations or units (0.20)</li> <li>Number of supported infrastructure investment operations or units (0.22), investments in broadband (M200, Regulation 2022/1475)</li> <li>Number of supported off-farm productive investment operations or units (0.24)</li> <li>Data on European Innovation Partnership for agricultural productivity and sustainability (EIP) OGs (Annex VI, Reg 2022/1475)</li> <li>Impact</li> <li>Share of CAP Strategic Plan's budget for knowledge sharing and innovation (I.1)</li> </ul>	<ul> <li>CAP indicators and data explorer</li> <li>CSPs</li> </ul>
10.1.2 Interactions within the AKIS: Interactions between the AKIS actors are increasing and strengthened.	Output  Number of interactive <sup>28</sup> events interconnecting the AKIS actors by type of event (e.g. networking activities, demonstration farms, specific actions to support interactive knowledge exchange) (A10121)**	<ul> <li>CAP indicators and data explorer</li> <li>CSPs</li> <li>Survey</li> </ul>



<sup>&</sup>lt;sup>28</sup> For example, in the i2connect (H2020) project, the characteristics of an interactive innovation process are as follows:

<sup>&</sup>gt; Addresses a real challenge - Takes up real problems faced by farmers/foresters to which there is no simple solution.

<sup>&</sup>gt; Multi-actor based - Brings together diverse people from various sectors (e.g. advisors, researchers, farmers/foresters, NGOs, private companies).

<sup>&</sup>gt; Collaborative - Requires frequent interactions among the partners throughout the process where members actively share their knowledge, skills and expertise.

<sup>&</sup>gt; Shares power and responsibility - Requires sharing of power and responsibility in recognition of the different areas of expertise.

- Number of actors involved in interactive events or processes by types (e.g. advisors, farmers, experts/researchers, "hard-to-reach" farmers <sup>29</sup>) (A10122)\*\*
- > Number of specific action undertaken by the CAP Network a to support interactive innovation (A10123)\*\*
- > Number of collaborations/joint actions between the National CAP Network and the Horizon National Contact Point/the RIS3 contact point/other relevant networking bodies (A10124)\*\*
- > Number of digital platforms for knowledge exchange amongst AKIS actors (A10125)\*\*
- > Result variable R002 (Annex IV, Regulation (EU) 2022/1475)
- > CAP Strategic Plan's expenditure supporting AKIS related interventions (monitoring variables to report amounts spent (M050 to M070 Annex IV, Reg (EU) 2022/1475))
- > Data on European Innovation Partnership (EIP) for agricultural productivity and sustainability Operational Groups (Annex VI, Reg 2022/1475)

#### Result

- > Share of AKIS actors supported by the AKIS interventions by type (e.g. typologies: advisors, farmers, SMEs) (A10126)\*\*
- > Number of advisors receiving CAP support to be integrated within the AKIS (R.2)
- Number of new interactions established within the AKIS through the CAP support by level of interaction (individual, group, organisation) and formality (formal, informal) (A10127)\*\*
- > Number of existing interactions strengthened within the AKIS through the CAP support (A10128)\*\*

## Impact

- Quality of AKIS actors' participation in knowledge flows (qualitative assessment of their active participation) (A10129)\*\*
- Number of cooperation agreements between the AKIS actors (if these are formalised) (A101210)\*\*
- Number of joint activities/projects stemming from the cooperation agreements between the AKIS actors (if these are formalised) (A101211)\*\*

- 29 For example:
- > Farmers at the extremes of the age spectrum (i.e. older and younger) are often 'hard-to-reach' for advisory services (Kinsella, 2018).
- > Farmers operating smaller-scale farms also find it harder to access advisory services (Labarthe and Laurent, 2013), and are similarly not considered to be 'good clients' to private advice providers.
- > The same applies for some new entrants to farming (Sutherland et al., 2017).
- Female farmers may not be identified as priority cohorts or 'authentic' farmers by advisory services (Prager et al., 2017; Trauger, 2010).



Factors of success	Indicators	Data sources
10.1 Agricultural Knowledge and Innovation Systowhat extent have the CAP Strategic Plans into uptaking of knowledge and innovation by farmer	erventions supported the AKIS strategic actions and related AKIS interventions that contribute to st	crengthening interactions within the AKIS and
10.1.3 Farm advisory and training services: The skills of the advisors are strengthened.	Outputs:  Number of peer-to-peer learning actions that involve advisors and/or farmers (A10131)**  Number of vocational training actions that involve advisors and/or farmers (A10132)**  Number of advisors participating in peer-to-peer learning and vocational training activities (A10133)**  Number of trained advisors (or number of advisors that have participated in training), taking into account the duration of the events (A10134)**  Number of cross-border visits of advisors (A10135)**  Number (and territorial/thematic coverage) of specialists serving in advisory back-offices (A10143)**  Number of knowledge sharing models/tools supported (e.g. AKIS platforms, knowledge reservoirs, etc.] (A10151)**  Result variable R002 (Annex IV, Regulation (EU) 2022/1475)  Results:  Number of advisors receiving CAP support to be integrated within AKIS (R.2)  Frequency and intensity of training and skills upgrading (by type of skills: communication, facilitation and networking) for advisors (A10136)**  Number of methods for spreading the knowledge acquired (A10137)**  Impacts:  Assessment of training received (as assessed by advisors), in relation to content and scope, methods used, frequency, timing etc. (A10138)**	<ul> <li>CAP indicators and data explorer</li> <li>CSPs</li> <li>Survey</li> </ul>



Factors of success	Indicators	Data sources				
. <mark>0.1 Agricultural Knowledge and Innovation Syst</mark> To what extent have the CAP Strategic Plans intel uptaking of knowledge and innovation by farmers	ventions supported the AKIS strategic actions and related AKIS interventions that contribute to str	engthening interactions within the AKIS and				
10.1.4 Farm advisory and training services:	Outputs: > Survey					
The quality of advice provided by the farm advisors is improved.	<ul> <li>Range of topics on which advisors provided advice (A10141)**</li> <li>Range of methods and tools used by advisors to provide advice and frequency of use (A10142)**</li> <li>Number (and territorial/thematic coverage) of communication, facilitation and networking specialists serving in advisory back-offices (A10143)**</li> <li>Number of knowledge sharing models/tools supported (e.g. AKIS platforms, knowledge reservoirs, etc.) (A10151)**</li> <li>Results:         <ul> <li>Number of methods/tools for satisfaction assessments of advice put in place on a regular basis (A10144)**</li> <li>Number/range of farmers/foresters/SMEs using advisory services (A10145)**</li> </ul> </li> <li>Impacts:         <ul> <li>Assessment of the quality of advice provided (based on a Likert scale <sup>30</sup>) (A10146)**</li> </ul> </li> </ul>					
10.1.5 Knowledge and innovation sharing and uptake: An increasing number of rural actors participate in training programmes and/or make use of farm advice and change their production practices.	<ul> <li>Outputs:</li> <li>Number of supported training, advice and awareness actions or units (0.33)</li> <li>Number of EIP OG projects (0.1)</li> <li>Number of advice actions or units to provide innovation support for preparing or implementing EIP OG projects (0.2)</li> <li>Number of knowledge sharing models/tools supported (e.g. AKIS platforms, knowledge reservoirs, etc.) (A10151)**</li> <li>Number (and type) of National CAP Network activities supporting knowledge sharing (e.g. disseminating results from cooperation projects) (A10152)**</li> <li>Number of farmers participated in the preparation and implementation of EIP projects (Eurostat)*</li> <li>Number of farmers having learnt from the outcomes of EIP OG innovative projects (Eurostat)*</li> </ul>	<ul> <li>CAP indicators and data explorer</li> <li>CSPs</li> <li>Eurostat <sup>31</sup></li> <li>Survey</li> </ul>				

The Likert scale is a five (or seven) point scale which is used to allow the individual to express how much they agree or disagree with a particular statement. Therefore, the quality of advice can be assessed through a survey.

The Eurostat indicators will be include in the IFS from 2026 onwards.



- > Number of farmers participated in training (any kind of group training, e-learning, learning through on-farm demonstration or other knowledge exchange events) (Eurostat)\*
- Number of farmers receiving targeted on-farm advice (one-to-one advice given on the farm and specifically targeting the specific farm/farmers' issues – using Article 78 Regulation 2021/2115) (Eurostat)\*
- > Data on EIP OGs (Annex VI, Regulation (EU) 2022/1475)
- > Result variable R001, R028 (Annex IV, Regulation (EU) 2022/1475)

#### Results:

- > Number of persons benefitting from advice, training, knowledge exchange or participating in EIP OGs supported by the CAP (R.1)
- Number of persons benefitting from advice, training, knowledge exchange, or participating in EIP OGs supported by the CAP related to environmental or climate-related performance (R.28)
- > Share of farmers using support for advice, training and knowledge exchange (may also distinguish for young/new farmers, women, etc.) (A10153)\*\*
- Number of new practices and new production systems, by Member State/region, identified after participating in training programmes and/or making use of farm advice (A10154)\*\*
- > Number of farmers acquiring knowledge from other farmers which participated in training programmes and/or made use of farm advice (A10155)\*\*
- > Number of new cooperation activities based on practical innovation-oriented research approaches applied between farmers and researchers (A10156)\*\*
- > Number of pilot actions or related actions (e.g. feasibility study/analysis) to facilitate the introduction of new practices and new production systems by farmers (A10157)\*\*
- > Share of different actors included in OGs by types (e.g. advisors, farmers, researchers, 'hard-to-reach' farmers) (A10158)\*\*

#### Impacts:

- > Number of farmers participating in training programmes compared to the previous period (CAP indicators and data explorer, data for monitoring and evaluation)\*
- > Number/range of farmers/foresters/SMEs using advisory services (A10159)\*\*
- > New <sup>32</sup> or hard-to-reach famers reached through training and knowledge sharing programmes (A101510)\*\*



<sup>&</sup>lt;sup>32</sup> 'New' refers to farmers that have never participated in training and knowledge sharing programmes. For 'hard-to-reach' farmers see footnote 30.

- Number of new practices and new production systems introduced by farmers after participating in training and/or using farm advice (also compared to farmers that did not benefit from training programmes and/or farm advice) (A101511)\*\*
- Quality of AKIS actors' participation in OGs (qualitative assessment of their proactive and positive work and work ethics, based on a Likert scale) (A101512)\*\*

Factors of success	Indicators	Data sources
10.2 Digital strategy:  To what extent have the CAP Strategic Plans interv	al areas and uptaking of digital solutions by farmers?	
To what extent have the CAP Strategic Plans interval 10.2.1 Digital support:  An increasing number of farmers and rural areas are supported for introducing digital technology through a CAP Strategic Plan.	Outputs:  Number of supported training, advice and awareness actions or units (0.33)  Number of EIP OG projects (0.1)  Number of advice actions or units to provide innovation support for preparing or implementing EIP OG projects (0.2)  Number of supported other cooperation operations or units (excluding EIP reported under 0.1) (0.32)  Number of supported on-farm productive investment operations or units (0.20) specific for digitilisation, identified using result variable R003  Number of supported infrastructure investment operations or units (0.22), investments in broadband (M200, Regulation (EU) 2022/1475)  Number of supported off-farm productive investment operations or units (0.24)  Number of hectares or livestock units benefitting from eco-schemes (0.8), for support to farm practices implying the use of digital tools  Number of hectares (excluding forestry) covered by environmental or climate-related commitments going beyond mandatory requirements (0.14), for support to farm practices implying the use of digital tools  Number of supported operational programmes (0.35) with interventions fostering digitalisation, identified using result variable R003  Number of actions or units supported in the wine sector (0.36) with interventions fostering digitalisation, identified using result variable R003  Data on EIP for agricultural productivity and sustainability OG (Annex VI, Regulation (EU)	> CAP indicators and data explorer > CSP > Rural Observatory > Survey
	fostering digitalisation, identified using result variable R003	



- > Result variable R003, R040, R041 (Annex IV, Regulation (EU) 2022/1475)
- > Number of digital platforms for knowledge exchange amongst AKIS actors (A10125)\*\*

#### Results:

- > Digitalising agriculture: Share of farms benefitting from support for digital farming technology through CAP (R.3)
- > Share of farmers participating in training programmes or using support for advice and knowledge exchange on digitalisation by type (typology: young/new farmers, small farmers, women) (A10211)\*\*
- > Smart transition of the rural economy: number of supported smart-village strategies (R.40)
- > Share of rural population benefitting from improved access to services and infrastructure through CAP support (R.41), in particular, broadband, identified through R041 and M200
- > Number of farmers supported by digital farming technology after testing in OG projects (A10212)\*\*

#### Impacts:

> Number of new digital methods/tools used by farmers and/or advisors (A10213)\*\*

#### Context:

> Access to high-speed broadband (Rural Observatory)\*



Table 6. Overview of non-PMEF indicators for which there is no EU-level data source

Key element	Factor of success	Code	Indicator	Indicator type
1.2 Resilience		A1211	Hectares covered with insurance by sector**	Result
	sector is improving.	A1212	Capital insured**	Result
2.1 Enhanced market orientation	2.1.2 The EU internal price volatility relative to international prices volatility is reducing.	A2121	Share of production traded on futures market**	Result
2.2 Farm competitiveness	2.2.3 Farm modernisation was fostered.	A2231	Share of farms adopting innovative solutions**	Result
3.1 Farmers'	3.1.1 Share of production marketed	A3111	Difference in price level obtained when selling in cooperatives compared to selling on the market**	Context
position in the food chain	by producer organisations (POs) and other forms of farmers organisations and gross added value for farmers in POs and other forms of farmer organisations are increasing.	A3112	Share of farms participating in recognised POs**	Context
		A3113	Degree of use of EU market observatories and interactive data portal by farmers**	Context
		A3114	Number of cases for unfair trading practices submitted and judged after Regulation (EU) 2019/633 and corresponding market share**	Context
		A3115	Share of production traded on futures market and comparison with the US**	Context
3.2 Farmers' response to market driven opportunities	3.2.2 Creation and development of shorter value chains is increasing.	A3221	Evolution of production value sold in short and local supply chains**	Impact
4.1 Climate change mitigation	4.1.6 Energy consumption in the agri-sector is decreasing.	A4141	Energy savings per year due to supported projects**	Impact
6.2 Ecosystem services	6.2.3 The provision of ecosystem services is enhanced as depicted by:	A6231	The area (or livestock) devoted to the 'provisioning' or 'regulating' ecosystem services, if such a record is kept by the Member State**	Result
	<ul> <li>Increasing provisioning services;</li> <li>Increasing regulating and supporting services.</li> </ul>	A6232	A measure of the provision (e.g. kg of mushrooms or berries) or of the regulation (tonnes of soil not eroded) ecosystem service**	Impact



Key element	Factor of success	Code	Indicator	Indicator type
7.1 Farmers renewal	7.1.1 Number of young and new farmers is increasing.	A7111	Number of young farmers benefitting from upskilling and strategic farm business development for starting-up** (if this aspect cannot be captured by 0.33, an additional result indicator is recommended)	Result
8.2 Local development	8.2.1 Local services and infrastructures are improving and a higher share of population is benefiting from improved local services and infrastructure.	A8211	Improvement of social capital and local governance in rural areas**	Impact
9.1 A. Quality and safety food	9.1.1 A higher level of quality, safe and nutritious food is delivered.	A9111	Increase in the production of food under quality schemes**	Result
9.1 B. Quality and	9.1.2 The conditions of animal	A9121	Mortality rate per species**	Impact
safety food	welfare are improving.	A9122	Absence of injuries per species**	Impact
		A9123	Absence of disease per species**	Impact
10.1 Agricultural Knowledge	10.1.2 Interactions between the AKIS actors are increasing and strengthened.	A10121	Number of interactive events interconnecting AKIS actors (e.g. networking activities, demonstration farms, specific actions to support interactive knowledge exchange)**	Output
and Innovation System (AKIS)		A10122	Number of actors involved in interactive forms of exchange, events or processes by types (e.g. advisors, farmers, experts/researchers, 'hard-to-reach' farmers)**	Output
		A10123	Number of specific actions undertaken by the National CAP Network to support interactive innovation**	Output
		A10124	Number of collaborations/joint actions between the National CAP Network and the Horizon National Contact Point/the RIS3 contact point/other relevant networking bodies**	Output
		A10125	Number of digital platforms for knowledge exchange among AKIS actors**	Output
		A10126	Share of AKIS actors supported by AKIS interventions by type (e.g. advisors, farmers, SMEs)**	Result
		A10127	Number of new interactions established within the AKIS through CAP support by level of interaction (individual, group, organisation) and formality (formal, informal)**	Result
		A10128	Number of existing interactions strengthened within the AKIS through CAP support**	Result



Key element	Factor of success	Code	Indicator	Indicator type
10.1 Agricultural Knowledge	10.1.2 Interactions between the AKIS actors are increasing and	A10129	Quality of AKIS actors' participation in knowledge flows (qualitative assessment of their active participation)**	Impact
and Innovation System (AKIS)	strengthened.	A101210	Number of cooperation agreements between AKIS actors (if these are formalised)**	Impact
		A101211	Number of joint activities/projects stemming from the cooperation agreements between AKIS actors**	Impact
	10.1.3 The skills of farm advisors are	A10131	Number of peer-to-peer learning actions that involve advisors and/or farmers**	Output
	strengthened.	A10132	Number of vocational training actions that involve advisors and/or farmers**	Output
		A10133	Number of advisors and/or farmers participating in peer-to-peer learning and vocational training activities**	Output
		A10134	Number of trained advisors (or number of advisors that have participated in training), taking into account the duration of the events**	Output
		A10135	Number of cross-border visits of advisors**	Output
		A10136	Frequency and intensity of training and skills upgrading (by type of skills: communication, facilitation and networking) for advisors**	Result
		A10137	Number of methods for spreading acquired knowledge**	Result
		A10138	Assessment of training received (as assessed by advisors), in relation to content and scope, methods used, frequency, timing etc.**	Impact
	10.1.4 The advice provided by the	A10141	Range of topics on which advisors provided advice**	Output
	farm advisors is improved.	A10142	Range of methods and tools used by advisors to provide advice and frequency of use**	Output
		A10143	Number (and territorial/thematic coverage) of communication, facilitation and networking specialists serving in advisory back-offices**	Output
		A10144	Number of methods/tools for satisfaction assessments of advice put in place on a regular basis**	Result
		A10145	Number/range of farmers/foresters/SMEs using advisory services**	Result
		A10146	Assessment of the quality of advice provided (based on a Likert scale)**	Impact



Key element	Factor of success	Code	Indicator	Indicator type				
10.1 Agricultural	10.1.5 An increasing number of	A10151	Number of knowledge sharing models/tools supported (e.g. platforms, etc.)**	Output				
Knowledge and Innovation System (AKIS)	rural actors participate in training programmes and/or make use of farm advice and change their	A10152	Number (and type) of National CAP Network activities supporting knowledge sharing (e.g. disseminating results from cooperation projects)**	Output				
	production practices.	A10153	Share of farmers participating in training programmes or using support for advice and knowledge exchange on digitalisation by typology: young/new farmers, small farmers, women, etc.**	Result				
		A10154	Number of new practices and new production systems, by Member State/region, introduced by farmers after participating in training and/or using farm advice**	Result				
		A10155	Number of farmers acquiring knowledge from other farmers which participated in training programmes and/or made use of farm advice	Result				
						A10156	Number of new cooperation activities based on practical innovation-oriented research approaches applied between farmers and researchers**	Result
			A10157	Number of pilot actions or related actions (e.g. feasibility study/analysis) to facilitate the introduction of new practices and new production systems by farmers**	Result			
						Share of different actors included in OGs by types (e.g. advisors, farmers, researchers, 'hard-to-reach' farmers)**	Result	
		A10159	Number/range of farmers/foresters/SMEs using advisory services**	Impact				
			A101510	New or hard-to-reach famers reached through training and knowledge sharing programmes**	Impact			
			A101511 Number of new practices and new production systems identified after pa programmes and/or making use of farm advice**	Number of new practices and new production systems identified after participating in training programmes and/or making use of farm advice**	Impact			
		A101512	Quality of AKIS actors' participation in OGs (qualitative assessment of their proactive and positive work and work ethics, based on a Likert scale)**	Impact				
10.2 Digital strategy	10.2.1 An increasing number of farmers are introducing digital farming tools.	A10211	Share of farmers participating in training programmes or using support for advice and knowledge exchange by typology: young/new farmers, small farmers, women, etc.**	Result				
		A10212	Number of farmers supported by digital farming technology after testing in OG projects**	Result				
		A10213	New digital methods/tools introduced by farmers and/or advisors, supported by training or advice**	Impact				



# 3.3 Horizontally applied evaluation criteria

The other four evaluation criteria are mainly addressed horizontally by proposing evaluation questions, sub-questions, factors of success and data sources that can be applicable to all GOs and CCO.

The following tables present the main evaluation elements to assess the relevance, efficiency, coherence and EU added value of CSP interventions, including:

- > key evaluation elements;
- > evaluation sub-questions;
- > factors of success;
- > indicators or topics to be assessed; and
- > data sources.

Relevant sources have been consulted such as the Better Regulation Guidelines (November 2021), Impact Assessment (SWD (2018) 301 final, 2018), Mapping and analysis of the implementation of the CAP (2016) and other sources.

## 3.3.1 Efficiency

According to paragraph 3 of Article 1, Regulation (EU) 2022/1475, "When assessing the efficiency of their CAP Strategic Plans Member States shall analyse whether the effects or benefits of the CAP Strategic Plans were achieved at a reasonable cost and shall assess simplification both for beneficiaries and for the administration, with special focus on administrative costs and on the use of digital tools and satellites".

Based on this, the proposed evaluation framework for efficiency is built around two main evaluation questions:

- EQ1: To what extent were the CAP Strategic Plans implemented efficiently in terms of level and proportionality of the resources used and effects achieved?
- EQ2: To what extent has the implementation of the CAP Strategic Plans been simplified in terms of reduced costs for beneficiaries and administrations and increased adoption of simplification measures?

The corresponding key elements to be assessed, evaluation subquestions, factors of success, indicators or topics to be assessed and data sources are presented in <u>Table 7</u> and <u>Table 8</u>.



# Table 7. Evaluation framework for efficiency: cost-effectiveness

EQ1: To what extent were the CAP Strategic Plans implemented efficiently in terms of level and proportionality of the resources used and effects achieved?

#### **Related to all SOs**

Indicative factors of success	Indicators or topics to be assessed	Data sources
Cost-effectiveness:		
To what extent the costs of the CAP Strategic Pla	ins implementation are justified and proportionate given the effects it has achieved?	
E.1.1 The implementation of the CAP Strategic	Effect-cost ratio calculated by:	> Data on impacts from effectiveness analysis
Plans interventions is cost-effective.	Net effects or calculated potential effects (based on the results of the effectiveness analysis and measured via impact or, in some cases, result indicators in their units of measurement).	<ul> <li>Data on full implementation costs to generat an achievement</li> </ul>
	> Cost of interventions related to the net or potential impacts, including:	
	financial support paid to beneficiaries of the interventions;	
	> adjustment costs for the administration to comply with the new legal requirements;	
	<ul> <li>administrative costs for the administration, including technical assistance, regarding the management, monitoring and evaluation of the interventions;</li> </ul>	
	<ul> <li>administrative costs for beneficiaries to submit their applications for support, implement the operations/commitments and claim the support</li> </ul>	
	<ul> <li>enforcement costs for the administration regarding the control, monitoring and evaluation of the interventions.</li> </ul>	
	Effect-cost ratio should be calculated for different levels of analysis, such as:	
	> at the level of individual interventions to compare:	
	<ul> <li>different interventions of the same type, for example commitments targeting the same greenhouse gas, such as alternative practices for treating manure (targeting methane) or alternative practices for applying fertilizers (targeting nitrous oxide);</li> </ul>	
	<ul> <li>identical interventions in the current and previous programming period (interventions continuing across periods).</li> </ul>	
	<ul> <li>at the level of types of interventions, for example to compare eco-schemes to environment-climate commitments or sectoral interventions.</li> </ul>	
	<ul> <li>At the CSP level to compare different forms of support (financial instruments, repayable grants, non-repayable grants etc.).</li> </ul>	
	> at the EU level to compare:	
	> similar effects (e.g. jobs created/€) between CAP and other EU funds;	
	> similar types of interventions across Member States	

Although the cost-effectiveness ratio can be calculated also for output and results, efforts should be made to be always calculated at the level of net impacts, as this shows the efficiency of contributing to the achievement of CAP objectives.



Indicative factors of success	Indicators or topics to be assessed Data sou			
Cost-effectiveness: To what extent the costs of the CAP Strategic Plar	ns implementation are justified and proportionate given the effects it has achieved?			
E.1.2 The cost of the delivery of the CAP for beneficiaries and administration is proportionate to size of the CAP budget.	<ul> <li>Percentage of the cost of the delivery of the CAP to the total CAP budget;</li> <li>Percentage of the cost of the delivery of the CAP compared to other EU funds;</li> <li>Percentage of the cost of the delivery of the CAP compared to the cost of agricultural policy delivery in other countries (e.g. USA, Australia, New Zealand).</li> </ul>	<ul> <li>Study to assess the costs of managing and implementing the CAP</li> <li>Studies or evaluations of cost of agriculture policy delivery in other countries</li> </ul>		
Financial instruments: To what extent are financial instruments more cos	st-effective than other forms of support?			
E.2.1 Financial instruments achieved high leverage of EAFRD resources in a cost-effective way.	<ul> <li>Maximum portfolio volume of financial instruments (FI) supported by EAFRD, by FI type (fi-compass);</li> <li>Maximum EAFRD contribution, by FI type;</li> <li>Realised portfolio volume of FI supported by EAFRD, by FI type (fi-compass);</li> <li>Realised EAFRD contribution, by FI type (survey among programmes);</li> <li>Ratio of proceeds of operations to realised EAFRD contribution, by FI type (survey among programmes);</li> <li>Management cost and fees to realised portfolio volume, by FI type (survey among programmes).</li> </ul>	<ul> <li>CAP indicators and data explorer</li> <li>CSPs</li> <li>fi-compass</li> <li>Survey among programmes</li> </ul>		
Enhanced conditionality: To what extent has enhanced conditionality affect	ted differently the compliance costs of different farms and increased production costs or supply	of agricultural land		
E.3.1 The cost of agricultural production increased due to enhanced conditionalities.	The share of adjustments costs attributed to compliance with enhanced conditionality at the level of beneficiaries as:  > percentage of total costs;  > percentage of total costs by economic size and sector (TF).	There are no data sources available, but a Cumulative Cost Assessment (CCA) study can be undertaken based on FADN data, complimented by data on the level of adjustment costs for enhance conditionality.  CCAs are retrospective studies which have been performed for several European industrices especially when there are indications or hints that the EU regulation increases the operation (or entrance) costs in a given sector.		



Indicative factors of success	Indicators or topics to be assessed	Data sources
Enhanced conditionality: To what extent has enhanced conditionality affect	ed differently the compliance costs of different farms and increased production costs or supply o	of agricultural land
E.3.2 The cost of production in areas and regions intensely regulated by GAECs relative to other areas and regions, for the same farm size and sector, increased after the imposition of GAECs.  Indicative geographical areas regulated by GAECs which may affect production costs, may include:  > Peatlands and wetlands;  > Mountainous or hilly areas with moderate or high slopes;  > Areas with a dense surface water network or dense irrigation and drainage network;  > Areas in nitrate vulnerable zones (NVZs), or under special management plans such as WFD for water management or Natura 2000 for biodiversity management.	Time series of indicators of the average cost of production before and after the imposition of enhanced GAECs in areas more intensely regulated by GAECs and other areas.  These indicators may include:  Production cost per hectare (physical measure of input);  Production cost per livestock unit;  Production cost per unit of production (physical measure of output).  The evaluator should search for anomalies in the time series of the indicators which may signify a change related to the CSP. The time series of an indicator does not establish causality and thus, interpretation of such evidence should be cautious and supported by triangulation.	<ul> <li>Published research or other scientific evidence on cost of production data from areas having the largest share of their land cover regulated by GAECs.</li> <li>Eurostat: Crop production in EU standard humidity (APRO_CPSH1) for estimates of physical production and of corresponding UAA.</li> <li>Eurostat: Economic accounts for agriculture by NUTS 2 regions (AGR_R_ACCTS) indicator on total cost of crop and livestock production or FADN regional data on cost of production. The prevailing land cover of the NUTS2 region or the FADN region to be regulated by GAECs, e.g. a mountainous region with enhanced conditionalities for soil erosion or a region with dense surface water network.</li> </ul>
<ul> <li>E.3.3 GAECs decrease agricultural land supply by imposing restrictions on land use.</li> <li>Indicative geographical areas probably regulated by production cost increasing GAECs may include:</li> <li>Areas with a dense surface water network (example of GAEC that may withdraw additional land from production i.e. buffer strips);</li> <li>Areas in NVZs or under special management plans such as WFD for water management or Natura 2000 for biodiversity (example of GAEC that may withdraw additional land from production: compulsory rotation with fallow land).</li> </ul>	Time series of indicators of land use before and after the imposition of enhanced GAECs in areas more intensely regulated by GAECs and other areas.  These indicators may include:  Declared UAA within time invariant (constant) spatial boundaries (physical measure of land supply), e.g. UAA within a spatially delineated river basin, NVZ, Natura 2000 or other similar areas where enhanced conditionality was imposed;  Declared fallow land;  Abandoned land;  Land rents or land prices for land planted with indicative cultivations.  The evaluator should search for anomalies in the time series of the indicators which may signify a change related to the CSP. The time series of an indicator does not establish causality and thus, interpretation of such evidence should be cautious and supported by triangulation.	<ul> <li>Published research or other scientific evidence on the land markets including areas having the largest share of their land cover regulated by GAECs. Research may point to possible land market distortions due to GAECs.</li> <li>Eurostat: UAA including fallow land in spatially delimited areas (administrative areas, Natura 2000, WFD river basins, etc.)</li> <li>FADN: Land rents in areas highly regulated by GAECs, e.g. a region with dense surface water network</li> </ul>



Indicative factors of success	Indicators or topics to be assessed	Data sources
ost-effectiveness of eco-schemes, and environm		<ul> <li>CSPs or other policy documents setting quantifiable impact objectives</li> <li>Studies commissioned by MAs or paying agencies for the quantification of costs for the participation to environment and climate-related commitments including income forgone, additional costs incurred and transaction costs</li> <li>Calls for participation that may include payment variation, costs eligibility and payment schemes to collective entities</li> <li>Academic studies concerning the cost-</li> </ul>
results are sought at field-parcel or land- scape level;  Acknowledgement and consideration of behavioural responses in payment design, such as farmers' environmental preferences and risk profiles, to increase participation and render payment schemes more effective;  Assurance of strong additionality that contributes to budgetary cost-effectiveness by limiting budgetary outlays that do not directly deliver environmental benefits.	Budgetary costs are strictly linked to the delivery of environmental benefits and limit the possibility of use elsewhere.	efficient design, delivery and implementat of environment and climate-related commitments



A recent OECD study identifies seven dimensions of payment design that are important for achieving cost-effectiveness. Six of them can serve as indicative factors of success and translated into indicators reflecting cost efficiency. OECD 2022, Making Agri-Environmental Payments More Cost Effective, OECD Publishing, Paris, <a href="https://doi.org/10.1787/4cf10d76-en">https://doi.org/10.1787/4cf10d76-en</a>).

# Table 8. Evaluation framework for efficiency: simplification

EQ2: To what extent has the implementation of the CAP Strategic Plans been simplified in terms of reduced costs for beneficiaries and administrations and increased adoption of simplification measures 35?

### **Related to all SOs**

Indicative factors of success	Indicators or topics to be assessed	Data sources
Reduced costs: To what extent the costs for the delivery of the CA	P have been limited to the absolutely necessary?	
E.5.1 The costs of the delivery of the CAP Strategic Plans, for beneficiaries and administration, that are not strictly necessary to reach the policy objectives, are minimised.	<ul> <li>Changes, compared to the previous programming period, in:</li> <li>adjustment costs for the administration to comply with the new legal requirements;</li> <li>administrative costs for the administration, regarding the management of the interventions;</li> <li>administrative costs for beneficiaries to submit their applications for support, implement the operations/commitments and claim the support;</li> <li>enforcement costs for the administration regarding the control, monitoring and evaluation of the interventions.</li> <li>Changes in the above costs that can be attributed to the application of the new delivery model.</li> <li>Changes in the above costs than can be attributed to digitalisation.</li> </ul>	<ul> <li>CSPs (including descriptions of the approaches to simplify and reduce the administrative burden in Section 3.9)</li> <li>Study to assess the costs of managing and implementing the CAP</li> <li>CAP indicators and data explorer</li> <li>Data from Tools4CAP project</li> </ul>
Simplification measures: To what extent simplification measures have been	used in the implementation of the CAP Strategic Plans?	
E.6.1 The adoption of simplification measures is increasing.	<ul> <li>Number and type of operations/commitments delivered with reduced costs due to digitalisation.</li> <li>Share of payments processed with reduced costs due to digitalisation.</li> <li>Number and type of operations/commitments delivered using simplified cost options.</li> <li>Share of payments processed using simplified cost options.</li> <li>Number and type of operations/commitments delivered using simplified mechanisms as a response to crises.</li> <li>Share of payments processed using simplified mechanisms as a response to crises.</li> </ul>	<ul> <li>CSPs (including descriptions of the approaches to simplify and reduce the administrative burden)</li> <li>Study to assess the costs of managing and implementing the CAP</li> <li>CAP indicators and data explorer</li> <li>Data from Tools4CAP project</li> </ul>



Forms of support defined in points (b), (c) and (d) of paragraph 1 of Article 44, Regulation (EU) 2021/2115.

#### 3.3.2 Relevance

CSP interventions (and their design) remain relevant in addressing:

- > the current needs:
- the EU's overarching policy priorities; and
- > the future and changing needs.

Current needs are the needs at the time of the evaluation.

#### **EU's overarching policy priorities** include, indicatively:

- The EU Green Deal and its targets (e.g. GHG emissions targets), including the Farm to Fork and Biodiversity Strategies, Organic Action Plan, Soil Strategy and other relevant strategies;
- The long-term vision for rural areas and its four pillars (stronger, connected, resilient and prosperous rural areas) (COM (2021) 345 final);
- Accelerating the green and digital transition;
- Addressing specific needs of women in agriculture and rural areas and ensuring gender equality (Gender Equality Strategy COM (2020)152 final).

Future and changing needs include, indicatively, those described in:

- > The Megatrend Hub 36;
- > The Sustainable Food Systems Framework;

- > The revision of the Sustainable Use of Pesticides Directive (SUD);
- > The revision of the existing animal welfare legislation;
- The EU Code of Conduct on Responsible Food Business and Marketing Practices;
- > The revision of the EU marketing standards;
- > EU level targets for food waste reduction;
- Demographic trends (e.g. depopulation of rural areas which leads to future labour and skills shortages, changing age structures);
- Reskilling and upskilling of the workforce (e.g. in the context of AKIS, relevant skills needed for farmers, etc.);
- Social challenges and resilience.

The assessment of **relevance in addressing the current needs should build on the individual findings** obtained during the analysis of the financial allocations and the evolution of outputs and results, based on the factors of success (see <a href="https://chapter.new.org/chapter.new.org/">chapter 3.2</a>).

An overview of the identified needs, factors of success and SOs is provided in Table 10.

<u>Table 9</u> presents the evaluation framework for 'relevance'.



<sup>36</sup> The Megatrends Hub | Knowledge for policy (europa.eu).

### Table 9. Evaluation framework for 'relevance'

EQ1: To what extent do the CAP Strategic Plans remain relevant to the existing and changing needs in addressing the CAP objectives and the EU's overarching policy priorities?

### **Related to all SOs**

Indicative factors of success	Indicators or topics to be assessed	Data sources
Relationship between initial and current needs <sup>97</sup> To what extent do the needs identified when the n		
R.1.1 The general context of the agri-food sector and rural areas evolved according to the initial assumptions and projections.	<ul> <li>Evolution of context indicators.</li> <li>Assumptions and projections of the EU Agricultural Outlook 2017-2030 that proved to be valid/invalid.</li> </ul>	<ul> <li>CAP indicators and data explorer</li> <li>EU Agricultural Outlook 2017-2030</li> </ul>
Relevance to current needs: To what extent do the CAP Strategic Plans' object	ives and interventions as well as their design respond to the current needs?	
R.2.1 The CAP Strategic Plans objectives and interventions remain relevant in addressing the current needs.	<ul> <li>Evolution of output and result indicators towards responding to current needs (see <u>Table 12</u> in Annex 1 for a correspondence between needs and success factors).</li> <li>Qualitative analysis of current needs that were not sufficiently addressed by the CAP Strategic Plans objectives.</li> </ul>	<ul> <li>CAP indicators and data explorer</li> <li>Surveys/interviews</li> </ul>
R.2.2 The design of the CAP Strategic Plans and its interventions is responsive to the current needs.	<ul> <li>&gt; Financial allocations per need.</li> <li>&gt; Evolution of output and result indicators towards responding to current needs (see Table 12 in Annex 1 for a correspondence between needs and success factors).</li> </ul>	<ul> <li>CSPs</li> <li>CAP indicators and data explorer</li> <li>Surveys/interviews</li> </ul>
The design features may include:	> Qualitative analysis of the design features that promote/undermine CSPs	our regermiter vierte
> The level of available financial resources;	responsiveness to current needs.	
<ul> <li>The decision to use CAP vs national resources for addressing the needs;</li> </ul>		
> The basic requirements introduced at EU-level (e.g. a single strategic plan for each Member State and for both pillars, enhanced conditionality, capping and degressivity, ring-fencing, links to non-CAP legislation on environment and climate etc);		
The enhanced flexibility provided to Member State;		



 $<sup>^{37}</sup>$  The key existing needs are identified in the intervention logic diagrams in chapter 2.

- The time span for the implementation of each type of interventions (annual or multi-annual);
- The form of support (i.e. additional cost and income forgone, flat rate, hectare reference for the disbursement of funding, other);
- The targeting (i.e. territorial/spatial variation or according to farm and farmer characteristics).

Indicative factors of success	Indicators or topics to be assessed	Data sources			
Relevance to EU's overarching policy priorities:  To what extent do the CAP Strategic Plans' interventions remain relevant in addressing the EU's overarching policy priorities?					
R.3.1 CAP Strategic Plans interventions remain relevant in addressing the EU's overarching policy priorities.	<ul> <li>Number and type of interventions that respond to the EU's overarching policy.</li> <li>Financial allocations of interventions that respond to EU's overarching policy.</li> <li>Evolution of output and result indicators that are relevant to the EU policy priorities.</li> <li>(Net) change in the values of impact indicators that are relevant to the EU policy priorities.</li> <li>Qualitative analysis of the design features that promote/undermine CSPs responsiveness to EU policy priorities.</li> </ul>	<ul> <li>CSPs</li> <li>CAP indicators and data explorer</li> <li>Surveys/interviews</li> </ul>			
Relevance to future and changing needs:  To what extent is the CAP Strategic Plans' design still relevant in the light of future needs and changing priorities which may occur during the programme implementation?					
R.4.1. CAP Strategic Plans interventions remain relevant in addressing the future and changing needs.	<ul> <li>Number and type of interventions that respond to future and changing needs.</li> <li>Financial allocations of interventions that respond to future and changing needs.</li> <li>Evolution of output and result indicators that are relevant to responding to future and changing needs.</li> <li>Qualitative analysis of the design features that promote/undermine CSPs responsiveness to future and changing needs</li> </ul>	<ul> <li>CSPs</li> <li>CAP indicators and data explorer</li> <li>Surveys/interviews</li> </ul>			



# 3.3.3 Coherence

Table 10. Evaluation framework for 'coherence'

EQ1: To what extent were the CAP Strategic Plans internally and externally coherent?

Indicative factors of success	Indicators or topics to be assessed	Data sources			
Internal coherence: To what extent did the CAP Strategic Plans' interv	Internal coherence: To what extent did the CAP Strategic Plans' interventions complement each other and achieve synergies under various specific objectives?				
C1.1. The integration of EAGF and EAFRD interventions under a single CAP Strategic Plan improved the internal coherence of the CAP.	<ul> <li>Number and type of interventions that jointly contribute to more than one SO and GO.</li> <li>Contribution of each type of interventions (direct payments, sectoral interventions, rural development) to the development of each result indicator.</li> </ul>	<ul> <li>CSPs</li> <li>CAP indicators and data explorer</li> </ul>			
C.1.2. The CAP Strategic Plans instruments and interventions that aim to improve economic performance of the agricultural sector work synergistically and complementarily with the ones aiming to improve environmental and climate performance.	<ul> <li>Changes in the net values of impact indicators used for the effectiveness analysis of GO1 and GO2.</li> <li>Change in the gross value added/hectare between similar farms that received more/less payments for commitments that improve the environmental and climate performance.</li> <li>Change in the gross value added/hectare between similar farms with increased/unchanged/decreased environmental and climate performance, based on corresponding variables that are part of the new FSDN.</li> </ul>	> Effectiveness analysis > FADN/FSDN			
C.1.3. The CAP Strategic Plans instruments and interventions that aim to improve productivity and growth do not have any negative effect on employment.	<ul> <li>Changes in I.24 and I.25 in rural areas.</li> <li>Changes in I.6 and C.13</li> </ul>	> Effectiveness analysis			
C.1.4. CAP interventions for SO4, SO5 and SO6 show a high degree of spatial complementarity and coexistence.	<ul> <li>Colocation quotient statistic between (or among):</li> <li>Interventions contributing to the same objective. For example, investments for manure management, agri-environment and manure application or investments for manure management and investment for renewable energy generation. Another example may address measures for climate commitments targeting nutrient balance and investments targeting irrigation water efficient use in NVZ or in river basins.</li> <li>Interventions contributing to different objectives. For example, measures to increase soil organic carbon in SO4 may coexist with measures to protect soil from erosion in SO5 or increase soil biodiversity in SO6.</li> </ul>	> The geographical location of the farmer (B040, Annex IV, Regulation (EU) 2022/1475) can be aggregated to administrative units and related to measures and result indicators within and across S04, S05 and S06 for the estimation of corresponding Moran I alike spatial correlation indicators			



Indicative factors of success	Indicators or topics to be assessed	Data sources
External coherence:	antions complement athor FILington and (FILington and a state of the CAR Object of the River of the CAR Object of the Ca	i0
To what extent aid the GAP Strategic Plans Interve	entions complement other EU instruments/EU funds outside the CAP Strategic Plans to achieve sy	ynergies?
C.2.1. The CAP Strategic Plans assure the external coherence, throughout the whole period, with other European instruments/funds and with international obligations, including the Sustainable Development Goals.	<ul> <li>Number and type of interventions with potential synergies, overlaps or gaps with:</li> <li>ERDF funded programmes related to rural development interventions;</li> <li>Horizon Europe (Cluster 6 of Food, Bioeconomy, Natural Resources, Agriculture and Environment) related to EIP-Agri and AKIS;</li> <li>Single Market Programme 2021-2027 (particularly under the food chain pillar managed</li> </ul>	<ul> <li>CSPs (analysis of the provisions set out in the CSPs to assure external coherence)</li> <li>Analysis of the policy framework at EU level</li> </ul>
	by the European Health and Digital Executive Agency/HaDEA) related to food safety  > ESF+ (in particular the measures focused on improving employment conditions in rural	
	<ul> <li>areas) related to qualification and capacity building in rural areas;</li> <li>The EU Green Deal, including the Farm to Fork and Biodiversity Strategies and actions thereof, such as the Organic Action Plan, the Contingency Plan, the Soil Strategy and other relevant strategies and actions;</li> </ul>	
	> The Council Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources;	
	> The Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora;	
	> The Council Directive 2000/60/EC establishing a framework for Community action in the field of water policy;	
	> The Council Directive 2008/50/EC on ambient air quality and cleaner air for Europe;	
	The Council Directive 2009/28/EC on the promotion of the use of energy from renewable sources;	
	The Council Directive 2009/128/EC establishing a framework for Community action to achieve the sustainable use of pesticides;	
	> The Council Directive 2009/147/EC on the conservation of wild birds;	
	> The Directive (EU) 2016/2284 on the reduction of national emissions of certain atmospheric pollutants;	
	The Regulation (EU) 2018/841 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework;	
	> The Regulation (EU) 2018/842 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement;	



>	The Directive	(EU	2018/2002 on energy efficiency;
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- > The Regulation (EU) 2018/1999 on the governance of the energy union and climate action;
- > The long-term vision for rural areas and its four pillars (stronger, connected, resilient and prosperous rural areas) (COM (2021) 345 final);
- > Accelerating the green and digital transition;
- Addressing specific needs of women in agriculture and rural areas and ensuring gender equality (Gender Equality Strategy COM (2020)152 final);
- > Other national policies related to land use and management and/or rural areas (other than the ones listed in the next factor of success).

Indicative factors of success	Indicators or topics to be assessed	Data sources		
To what extent did the CAP Strategic Plans interventions complement plans and policies for climate mitigation and adaptation and the decarbonisation of the economy?				
C.2.2. The CAP Strategic Plans interventions complement national plans related to climate.	> The number of interventions (or measures) which are linked (directly or indirectly) to the action or management plans.	<ul> <li>Data are not ready to use. Evaluation data may be generated from 'case studies' in</li> </ul>		
These plans may include indicatively:	> The area or number of animal units to be addressed by these interventions as	selected Member States involving desk research.		
the National Energy and Climate Plans (NECPs);	<ul><li>a percentage of all interventions.</li><li>The public expenditure devoted to these interventions.</li></ul>	research.		
the National Adaptation Plans or Strategies (NAPs);				
> The River Basin Management Plans;				
the 5th and 6th Flood Risk Management Plans;				
> the Drought Management Plans.				



# 3.3.4 Union added value (applicable to all GOs and CCO)

## Table 11. Evaluation framework for 'Union added value'

EQ1: To what extent have the CAP Strategic Plans interventions produced results in agriculture and rural areas beyond what would have been achieved by Member States acting alone?

Indicative factors of success	Indicators or topics to be assessed	Data sources
Governance: To what extent did EU actions improve governance	e of the CAP?	
V.1.1. National support through the CAP Strategic Plans is better aligned with the EU horizontal principles: gender equality, non-discrimination and sustainability (related to all SOs).	<ul> <li>Number of CSPs addressing the EU horizontal principles (gender equality, non-discrimination, sustainability) in programming, implementation and monitoring.</li> </ul>	> CAP National Strategic Plans
V.1.2. EU action promotes better governance and coordination in the delivery of the CAP support (related to all SOs).	<ul> <li>Number and types of new governance and coordination structures established at EU level.</li> <li>Number and types of new governance and coordination structures established at Member State level.</li> <li>Number and type of new members of the Monitoring Committees compared to the previous programming period.</li> </ul>	> Survey, interviews
V.1.3. The increased subsidiarity, including the performance-based delivery of the policy, simplified the implementation of the CAP Strategic Plans and allowed better targeting and adaptability of the support (related to all SOs).	<ul> <li>Number of current and future needs and wider EU priorities supported by the CSPs' interventions.</li> <li>Changes in the costs of the delivery of the policy.</li> </ul>	> Assessment will be based on the outcome of the efficiency and relevance analyses
Ensuring a level playing field for all farmers in the To what extent has EU action helped Member Stat	Member State: es ensure a common safety net for all farmers and mitigate the pressures arising from the single	market from goods and services?
V.2.1. EU action ensures a system of support that avoids potential distortions of competition and improves competitiveness and position of farmers in the value chain (related to GO1 and CCO).	<ul> <li>Number and type of EU level basic requirements with positive or negative effects on ensuring a common income safety net for all farmers.</li> <li>Change in farm income in the absence of CAP support.</li> <li>Change in agricultural production (total output) in the absence of CAP support.</li> <li>Change in UAA in the absence of CAP support.</li> <li>Change in production intensity (total input/hectare) in the absence of CAP support.</li> </ul>	<ul> <li>Based on evaluation findings of 'effectiveness'</li> <li>MAGNET, CAPRI, IFM-CAP</li> </ul>



Indicative factors of success	Indicators or topics to be assessed	Data sources
<b>Ensuring a level playing field for all farmers in the</b> To what extent has EU action helped Member State	Member State: es ensure a common safety net for all farmers and mitigate the pressures arising from the single r	market from goods and services?
V.2.2. Food security and food safety in the EU were maintained due to CAP Strategic Plans interventions and single market (related to SO1 and SO9).	<ul> <li>Indicators on food security provided by the Commission's dashboard on food security in the EU, taking into account the SWD(2023) 4 final - 'Drivers of food security'</li> <li>Price volatility (see SO2) assessing the CAP contribution to price stabilisation of agricultural products in the EU compared to the world market.</li> <li>Indicator on food safety used for assessing 'effectiveness' (e.g. under SO9).</li> </ul>	<ul> <li>European Commission's dashboard on food security in the EU <sup>38</sup></li> <li>Based on evaluation findings of 'effectiveness'</li> </ul>
Responding to environment-climate challenges: To what extent has the EU action ensured an ambi	tious joint effort towards increasing environment-climate performance, tailored to the potential a	and specificities of each Member State?
V.3.1. EU action incentivised Member State to increase their environmental and climate ambition through:  > the green architecture of the CSPs,  > the incorporation of relevant environmental legislation and action plans (nitrates, NEC and SUD); and  > the endorsement of EU broad activities on conservation and biodiversity (Natura 2000 and EU Biodiversity Strategy), water management (WFD) and climate action (Effort Sharing Regulation)  (Related to GO2 and CCO.)	<ul> <li>Number and type of EU level basic requirements with positive or negative effects on enhancing environment-climate ambition.</li> <li>Change in the values of result indicators compared to the previous programming period, where relevant.</li> <li>Change in the (net) values of impact indicators compared to the previous programming period, where relevant.</li> <li>Contribution of the CSPs to the EU Green Deal, Fit for 55, Renewable Energy Directive and RePowerEU targets.</li> <li>Number and type of conditionalities used in a synergistic way.</li> <li>Number and type of conditionalities building on one and another.</li> <li>Number and type of conditionalities delivering a particular environmental outcome.</li> <li>Number of CSPs which are better aligned with relevant action plans such as nitrates, NEC and SUD action plans, which set an EU broad level of measures and activities ensuring a significant level of environmental protection.</li> <li>Number of interventions taking account of synergies with other Member States (e.g. maintenance of migratory corridors for European bird species).</li> <li>Number of interventions invoking EU obligations for water management and water quality standards.</li> <li>Number of interventions concerning management of species in the European red list.</li> </ul>	<ul> <li>Based on evaluation findings of 'effectiveness' and 'coherence'</li> <li>CSPs</li> <li>Natura 2000 CSP intervention logic</li> <li>Natura 2000 areas with habitats and special threatened at European level</li> <li>Transboundary management of water resources</li> </ul>



 $<sup>{}^{38} \</sup>quad \underline{\text{https://agriculture.ec.europa.eu/news/european-commission-launches-dashboard-food-security-eu-2022-12-08\_en.}$ 

Indicative factors of success	Indicators or topics to be assessed	Data sources
Responding to socioeconomic challenges faced by To what extent EU action has ensured a joint effort	y the rural areas: towards improving socioeconomic conditions in rural areas and decreasing inequalities between	regions?
<ul> <li>V.4.1. EU action ascertains the advancement of social and human capital in rural areas and supports regional convergence by:</li> <li>coordinating and tailoring responses to socioeconomic challenges;</li> <li>supporting solidarity and limiting gaps between the regions;</li> <li>supporting the protection of the rights of Europe's farm workers; and</li> <li>furnishing knowledge sharing and innovation, including the digital transition of agriculture and rural areas.</li> <li>(Related to GO3 and CCO.)</li> </ul>	<ul> <li>Number and type of EU level basic requirements with positive or negative effects on enhancing the ability of Member States to address socio-economic challenges in rural areas.</li> <li>Share of the total CAP support directed to:         <ul> <li>less developed regions, outermost regions and the small Aegean islands;</li> <li>transition regions within the meaning of Article 108(2), first subparagraph, point (b), of Regulation (EU) 2021/1060.</li> </ul> </li> <li>Percentage of the total public and private expenditure of the CAP Strategic Plans to the corresponding regional GDP for:         <ul> <li>less developed regions, outermost regions and the small Aegean islands,</li> <li>transition regions within the meaning of Article 108(2), first subparagraph, point (b), of Regulation (EU) 2021/1060;</li> <li>other rural regions.</li> </ul> </li> <li>Number of CSPs applying social conditionality.</li> <li>Number of CSPs demonstrating increased effort into advice, coaching and training to help farmers and other rural actors embrace the necessary changes.</li> </ul>	<ul> <li>Based on evaluation findings of 'effectiveness'</li> <li>CSPs</li> </ul>



# 4. Annexes

# 4.1 Annex 1: Overview of the factors of success

Table 12: Comparison table of factors of success for 'effectiveness' and related needs

SO		y elements to assess ulation (EU) 2022/1475)		mmended factors of success egulation (EU) 2022/1475)		aluation sub-questions and key lements to assess (this report)	Rela	ted recommended factors of success (this report)	<b>Related no</b> (see Table	
							1.1.1	Agricultural income level in farms supported is increasing.	GO1.2 Address strong variability	
		Viable farm income:		Agricultural income level in farms supported is increasing		1.1.2	Variability of agricultural income level is decreasing.	of farm income		
	1.1	Viable farm income means not only stable income but also fairly distributed income.	1.1.1	or, at least, is stable and disparities between farms and to other economic sectors are decreasing, taking into account general	1.1	Viable farm income: To what extent have the CAP Strategic Plans interventions ensured viable farm income?	1.1.3	Income disparities between the farming sector and other economic sectors are decreasing.	GO1.3 Address low profitability	G01.1
1				economy trends.			1.1.4	Income disparities among farms and territories are decreasing.	of farming	Ensure food security
	1.2	Resilience: Resilience encompasses supporting farmers facing potential risks	1.2.1	Income support is distributed	1.2	Resilience: To what extent have the CAP Strategic Plans interventions supported the resilience of the	1.2.1	The resilience of the farming sector is improving.	GO1.4 Address unfair	
	1.2	and specific limitations which can force them to stop agricultural activity.	1.2.1	to farmers most in need.	1.2	agricultural sector and ensured the economic sustainability of agricultural production?	1.2.2	Income support is distributed to farmers most in need.	distribution of support	
2	2.1	Enhanced market orientation: Based on agri-food	2.1.1	Agri-food trade is increasing.	2.1	Enhanced market orientation: To what extent have the CAP Strategic Plans interventions	2.1.1	The competitive position of EU agri-food sector on the internal and on the international market is improving.		GO1.1 Ensure
		rade balance (import- export).  Contributed to enhance market orientation?	2.1.2	The EU internal price volatility relative to international prices volatility is reducing.		food security				



SO		<b>y elements to assess</b> ulation (EU) 2022/1475)		mmended factors of success legulation (EU) 2022/1475)		aluation sub-questions and key lements to assess (this report)	Rela	ted recommended factors of success (this report)	<b>Related ne</b> (see Table				
							2.2.1	Productivity in farms is increasing.					
		Farm competitiveness: Based on increased				B. J	Productivity in farms		Farm competitiveness: To what extent have the CAP	2.2.2	Agricultural output value is increasing.	GO1.5 Address	GO1.1 Ensure
2	2.2	capital, labour and land 2.2.1 supported is increasing.	Strategic Plans interventions contributed to improving the competitiveness of the farm	2.2.3	Farm modernisation was fostered.	low productivity gains	food security						
		imovution				anatarO	2.2.4	Price and cost competitive- ness of the agri-food sector is improving.					
			3.1.1	Share of marketed production by quality schemes and organic production is increasing.									
	3.1	Farmer's position in the food chain: Integration of farmers within the food chain and participating in quality schemes and	3.1.2	Share of marketed production by producer organisations (POs) and other forms of farmers organisations supported is increasing.	3.1	Farmers' position in the food chain: To what extent have the CAP 3.1 Strategic Plans interventions contributed to improving the	food chain: To what extent have the CAP Strategic Plans interventions contributed to improving the	Share of production marketed by producer organisations (POs) and other forms of farmers organisations and gross added value for farmers in POs and other forms of					
3		organic production to increase added value.	3.1.3	Gross added value for farmers in POs and other forms of farmer organisations or participating in quality schemes and organic production is increasing.		farmers' position in the value chain?		farmer organisations are increasing.	GO1.6 Address asymmetry of bargaining power in food chain	G01.1 Ensure food security			
				Not addressed in Regulation (EU) 2022/1475.	3.2	Farmers' response to market driven opportunities: To what extent have the CAP Strategic Plans interventions contribut-	3.2.1	Share of marketed production and gross added value by quality schemes and organic production is increasing.					
						ed to improving farmers' response to market driven opportunities stemming from new consumer preferences? (additional)	3.2.2	Creation and development of shorter value chains is increasing.					



SO	<b>Ke</b> (Reg	y elements to assess ulation (EU) 2022/1475)		mmended factors of success egulation (EU) 2022/1475)		aluation sub-questions and key lements to assess (this report)	Rela	ted recommended factors of success (this report)	<b>Related needs</b> (see Table 11)
			4.1.1	GHG emissions in agriculture are decreasing.		Climate change mitigation:	4.1.1	GHG emissions from agriculture are decreasing.	
	4.1	Climate change mitigation: Based on greenhouse gas emissions	4.1.2	Soil organic carbon sequestration is increasing or maintained.	To what extent have the CAP Strategic Plans interventions contributed in achieving the objective for a climate-neutral EU by 2050, primarily by reducing GHG emissions, increasing carbon sequestration, and promoting production and use of sustainable	4.1.2	'Carbon farming' and carbon sequestration is increasing temporarily or permanently on the EU's agricultural and forest land.	GO2.2 Reduce emissions from agriculture (mitigation)	
		(GHG) and carbon sequestration.	4.1.3	Renewable energy production		sequestration, and promoting	4.1.3	The capacity of renewable energy production in rural areas is increasing.	
				capacity is increasing.		energy :	4.1.4	Energy consumption in rural areas is decreasing.	
4								The vulnerability of the agricultural and forestry sector and rural areas to the adverse effects of climate change is decreasing	
	4.2	Climate change adaptation: Based on the resilience of agriculture to climate change.	4.2.1	Resilience of agriculture to climate change is increasing.	4.2	Climate change adaption: To what extent have the CAP Strategic Plans interventions supported the EU's agriculture, forestry and rural areas to reduce vulnerability, strengthen resilience and enhance adaptive capacity to climate change?	4.2.1	The short-term and long-term resilience of the agricultural and forestry sectors from climate change impacts is improving, and the whole agro-ecological systems show a rapid recovery from fires, floods, diseases, etc.  The capacity to adapt to the uncertainties of the changing climate in the long-term and take advantage of climate change opportunities is enhanced.	G02.1 Reduce impact of climate change on agriculture (adaptation)



SO		ey elements to assess Julation (EU) 2022/1475)		mmended factors of success Regulation (EU) 2022/1475)		aluation sub-questions and key lements to assess (this report)	Rela	ted recommended factors of success (this report)	Related needs (see Table 11)	
			5.1.1	Ammonia emissions in agriculture, nutrient leakage and soil erosion are decreasing.		A. Efficient management of natural resources (particularly air): To what extent have the CAP Strategic Plans interventions advanced air quality, including a reduction in chemical substances?	5.1.1	Air quality is improving.		
		Efficient management	5.1.2	Nutrient balance on agricultural land is improving, thus reducing nutrient losses.	D Efficient management of natural	5.1.2	Water quality management is improving.			
		of natural resources: Based on preserving or enhancing natural	5.1.3	Pressure on natural water reservoirs is decreasing.		To what extent have the CAP Strategic Plans interventions fostered sustainable development			GO2.4 Improve the preservation and/or	
5	5.1	resources quality and quantity by reducing pollutants and exploitation.			C. Eff natur resou To wh Strat foste and e	5.1	and effective management of water resources including a reduction in chemical dependency?	5.1.3	Water quantity management is improving.	enhancement of natural resources' quality
		εχμοιατίση.	5.1.4	The use and risk of chemical pesticides and the use of more hazardous pesticides is decreasing.		C. Efficient management of natural resources (particularly soil resources): To what extent have the CAP Strategic Plans interventions fostered sustainable development and effective management of soil resources, including a reduction in chemical dependency?	5.1.3	Soil management is improving.		
6	6.1	Reversing biodiversity loss: Based on biodiversity and habitats in agricultural land or other areas affected by agricultural or forestry practices.	6.1.1	Biodiversity related to agricultural land is improving or, at least, biodiversity loss is halted.	6.1	Reversing and halting biodiversity loss: To what extent have the CAP Strategic Plans interventions contributed to halting and reversing biodiversity loss in agricultural and forest land and to preserving habitats and landscapes?	6.1.1	The contextual factors which could favourably influence biodiversity and habitats on agricultural land are improving.	GO2.6 Diminish and halt bio- diversity loss in agricultural areas or other areas affected by agricultural or forestry practices GO2.7 Promote sustainable farming practices including organic production, integrated pest management, agro- forestry and precision farming	



SO		y elements to assess ulation (EU) 2022/1475)		mmended factors of success regulation (EU) 2022/1475)		aluation sub-questions and key lements to assess (this report)	Rela	ted recommended factors of success (this report)	<b>Related needs</b> (see Table 11)
	Reversing biodiversity		6.1.2	Agro-biodiversity is increasing.		Reversing and halting biodiversity loss:	6.1.2	Agro-biodiversity (biodiversity on agricultural land) is improv- ing or, at least, biodiversity loss is being halted.	GO2.6 Diminish and halt bio- diversity loss in agricultural areas or other areas affected
	6.1 Based on biod and habitats in agricultural la other areas a	Based on biodiversity and habitats in agricultural land or other areas affected by	0.1.2	Agro-bloulversity is increasing.	6.1	reversing biodiversity loss in agricultural and forest land and to preserving habitats and landscapes?	6.1.3	Biodiversity on forest land is improving or, at least, biodiversity loss is being halted.	by agricultural or forestry practices G02.7 Promote sustainable farming practices including
6		agricultural or forestry practices.	6.1.3	Biodiversity in Natura 2000 areas affected by agriculture or forestry is improving or, at least, biodiversity loss is halted.			6.1.4	Species and habitats of community interest related to agriculture are increasing or remaining stable.	organic production, integrated pest management, agro- forestry and precision farming
		Ecosystem services: Based on landscape features that contribute to ecosystem services	6.2.1	Trends of pollinators are improving, or, at least, stable.			6.2.1	Pollinators species of community interest related to agriculture are increasing or remaining stable.	
	6.2	by hosting relevant species (e.g. through pollination, pest control), by biophysical processes (e.g. through	6.2.2	The area covered by landscape features in	Ecosystem services: To what extent have the CAP 6.2 Strategic Plans interventions contributed to enhancing ecosystem services?	6.2.2	The area covered with various landscape features is increasing or remaining stable.	GO2.3 Increase ecosystem services	
		erosion control, water quality maintenance), or by cultural values (e.g. aesthetic value).	U.L.L	agricultural land is increasing or maintained.			6.2.3	The provision of ecosystem services is enhanced.	
7	7.1	Farmers renewal: Based on supporting young farmers and new farmers setting up and continuity.	7.1.1	Number of young and new farmers are increasing.	7.1	Farmers renewal: To what extent have the CAP Strategic Plans interventions contributed to support the setting up of young farmers and new farmers and the continuity of their operations?	7.1.1	Number of young and new farmers is increasing.	GO3.1 Attract more new and young farmers



SO		y elements to assess ulation (EU) 2022/1475)		mmended factors of success egulation (EU) 2022/1475)		aluation sub-questions and key lements to assess (this report)	Rela	ted recommended factors of success (this report)	Related needs (see Table 11)
7	7.2	Business development: Based on supporting rural business start-ups and farm diversification.	7.2.1	Number of rural businesses are increasing.	7.2	Business development: To what extent have the CAP Strategic Plans interventions contributed to facilitate non- agricultural business development (including start-ups) in rural areas (overlapping with SO8)?	7.2.1	Number of rural businesses is increasing.	G03.2 Support business development, employment and economic growth in rural areas
			8.1.1	Rural areas' economy is growing or, at least, is stable and urban-rural gap is decreasing.		Rural sustainable economy: To what extent have the CAP	8.1.1	Rural areas' economy is growing or, at least, remaining stable and urban-rural gap is decreasing.	GO3.3 Achieve or maintain
	8.1 Based on economic growth and promoting employment  8.1.2 area  8.1.3 Bio-	Employment rate in rural areas is improving.	8.1	Strategic Plans interventions contributed to sustainable rural economy by enhancing economic growth and promoting employment or by weakening economic decline	8.1.2	Employment rate in rural areas is improving (ratio of the employed to the working age population).	sustainable economic growth		
		8.1.3	Bio-economy related business are increasing.		and loss of employment and by promoting the bioeconomy and sustainable forestry?	8.1.3	Bio-economy related business are increasing.	G03.4 Promote bio-economy, the circular economy,	
			8.1.4	Sustainable forestry is increasing.	- S	sustainable forestry:	8.1.4	Sustainable forestry is increasing.	ecotourism and sustainable forestry in rural areas
8	8.2	Local development: Provision of local services and infrastructure	8.2.1	Local services and infrastructures are improving.	8.2	Local development: To what extent have the CAP Strategic Plans interventions contributed to local development and the provision of local services and infrastructure?	8.2.1	Local services and infrastructures are improving, and a higher share of population is benefiting from improved local services and infrastructure.	G03.6 Improve services in rural areas
	8.3	Gender equality and social inclusion: Promotion of participation of women in farming and the economy, income equity and poverty reduction	8.3.1	Women employment and participation in farming is improving.	8.3	Gender equality and social inclusion: To what extent have the CAP Strategic Plans interventions contributed to the promotion of gender equality (on-farm and offfarm), income equity and poverty reduction?	8.3.1	Women employment and participation in farming is improving.	G03.5 Fulfil gender equality and equal possibilities for women



SO	<b>Ke</b> (Reg	y elements to assess ulation (EU) 2022/1475)		mmended factors of success egulation (EU) 2022/1475)		aluation sub-questions and key lements to assess (this report)	Rela	ted recommended factors of success (this report)	Related needs (see Table 11)
		Gender equality and social inclusion: Promotion of participation of women	8.3.2	CAP Strategic Plan support is more fairly distributed.	i -	Gender equality and social inclusion: To what extent have the CAP	8.3.2	CAP Strategic Plans support is more fairly distributed.	GO3.5 Fulfil gender equality and equal possibilities for women
8	8.3	in farming and the economy, income equity and poverty reduction	8.3.3	Rural poverty is decreasing.	8.3	Strategic Plans interventions contributed to the promotion of gender equality (on-farm and offfarm), income equity and poverty reduction?	8.3.3	Rural poverty is decreasing.	GO3.2 Support business development, employment and economic growth in rural areas
		<b>Quality and safety food:</b> Based on fostering	9.1.1	Value of production marketed under quality schemes is increasing.		A. Quality and safety food: To what extent do CAP Strategic Plans interventions respond to societal demands on food and health, including high-quality, safe and nutritious food produced in a sustainable way?	9.1.1	A higher level of quality, safe and nutritious food is delivered.	GO1.1 Ensure food security
9	9.1	quality schemes, promoting animal welfare and combatting antimicrobial resistance.	9.1.2	Animal welfare is improving and antimicrobial use is	9.1 B. Quality and safety food: To what extent have the CAP Strategic Plans interventions contributed to animal welfare improvements?	To what extent have the CAP Strategic Plans interventions contributed to animal welfare	9.1.2	The conditions of animal welfare are improving.	G03.7 Reduce use of antimicrobials and improve animal welfare
			9.1.2	decreasing.		C. Quality and safety food: To what extent have the CAP Strategic Plans interventions contributed to decreasing antimicrobial resistance?	9.1.3	The sales and use of antimicrobials for food-producing animals are decreasing.	GO2.5 Increase animal welfare
				Not addressed in Regulation (EU) 2022/1475.	9.2	Food loss and waste: To what extent have the CAP Strategic Plans interventions contributed to reduce food waste?	9.2.1	Food loss and waste is decreasing.	GO1.1 Ensure food security



SO		y elements to assess ulation (EU) 2022/1475)		mmended factors of success egulation (EU) 2022/1475)		aluation sub-questions and key lements to assess (this report)	Rela	ted recommended factors of success (this report)	Related needs (see Table 11)
9				Not addressed in Regulation		European society's perceptions towards agriculture and the CAP: To what extent has European society changed its perception overtime as concerns:	9.3.1	Society has shifted focus to issues related to food security, climate change, the environment, and the situation in rural areas.	GO1.1 Ensure food security
				(EU) 2022/1475.		<ul> <li>the importance, responsibilities and objectives of agriculture; and</li> <li>the CAP's contribution to various agricultural-related issues.</li> </ul>	9.3.2	The perception of society has changed for issues related to the performance, importance and contribution of the CAP.	
			10.1.1	CAP Strategic Plan's expenditure supporting creation of innovation and knowledge sharing is increasing.			10.1.1	Financial support for knowledge sharing and innovation: CAP Strategic Plan's expenditure supporting creation of innovation and knowledge sharing is increasing.	CCO1. support the AKIS strategic approach and related interventions that strengthen links and
		Agricultural Knowledge and Innovation system			Agricultural Knowledge and Innovation System (AKIS): To what extent have the CAP Strategic Plans interventions supported the AKIS strategic		10.1.2	Interactions within AKIS: Interactions between AKIS actors are increasing and strengthened.	interaction within the AKIS
10	101	(AKIS) and digital strategy: Based on the support to AKIS strategic				10.1.3	Farm advisory and training services: The skills of farm advisors are strengthened.	0005 01 11 6	
10	10.1	actions, the AKIS related interventions, and the digital strategy and their impact on innovation uptake by			10.1	actions and related AKIS interventions that contribute to strengthening interactions within the AKIS and uptaking of knowledge and innovation by	10.1.4	Farm advisory and training services: The quality of advice provided by the farm advisors is improved.	CCO5. Strengthen farm advisory and training services
		farmers.	10.1.2	An increasing number of farmers participate in training programmes and/or make use of farm advice.		farmers?	10.1.5	Knowledge and innovation sharing and uptake: An increasing number of rural	CCO4. Improve knowledge exchange and transfer in agriculture and rural areas
		1	10.1.3	Farmers change farming practices after participating in training programmes and/or making use of farm advice.				actors participate in training programmes and/or make use of farm advice and change their production practices.	CCO2. Foster innovation and support its uptake by farmers



SO	Key elements to assess (Regulation (EU) 2022/1475)		Recommended factors of success (Regulation (EU) 2022/1475)		Evaluation sub-questions and key elements to assess (this report)		Rela	ted recommended factors of success (this report)	<b>Related needs</b> (see Table 11)
10	10.1	Agricultural Knowledge and Innovation system (AKIS) and digital strategy: Based on the support to AKIS strategic actions, the AKIS related interventions, and the digital strategy and their impact on innovation uptake by farmers.	10.1.4	An increasing number of farmers are supported for digital farming technology through CAP Strategic Plans.	10.2	Digital strategy: To what extent have the CAP Strategic Plans interventions supported the digital strategy that contribute to fostering digitalisation in agriculture and rural areas and uptaking of digital solutions by farmers?	10.2.1	Digital support: An increasing number of farmers and rural areas are supported for introducing digital technology through CAP Strategic Plan.	CCO3. Foster digitalisation in agriculture and rural areas, improve farmers' digital literacy and support the uptake of digital solutions by farmers

# Table 13: Overview of needs according to the intervention logic (Figures 1, 2, 3, 4) $\,$

CAP ge	eneral objective 1
G01.1	Ensure food security (cross-cutting)
G01.2	Address strong variability of farm income
G01.3	Address low profitability of farming
G01.4	Address unfair distribution of support
G01.5	Address low productivity gains
G01.6	Address asymmetry of bargaining power in food chain

CAP ge	eneral objective 2
G02.1	Reduce impact of climate change on agriculture (adaptation)
G02.2	Reduce emissions from agriculture (mitigation)
G02.3	Increase ecosystem services
G02.4	Improve the preservation and/or enhancement of natural resources' quality
G02.5	Increase animal welfare
G02.6	Diminish and halt biodiversity loss in agricultural areas or other areas affected by agricultural or forestry practices
G02.7	Promote sustainable farming practices including organic production, integrated pest management, agro-forestry and precision farming

G03.1	Attract more new and young farmers
G03.2	Support business development, employment and economic growth in rural areas
G03.3	Achieve or maintain sustainable economic growth
G03.4	Promote bioeconomy, the circular economy, ecotourism and sustainable forestry in rural areas
G03.5	Fulfil gender equality and equal possibilities for women
G03.6	Improve services in rural areas
G03.7	Reduce use of antimicrobials and improve animal welfare

CAP cross-cutting objective	
CC01.	Support the AKIS strategic approach and related interventions that strengthen links and interaction within the AKIS
CC02.	Foster innovation and support its uptake by farmers
CC03.	Foster digitalisation in agriculture and rural areas, improve farmers' digital literacy and support the up- take of digital solutions by farmers
CCO4.	Improve knowledge exchange and transfer in agriculture and rural areas
CC05.	Strengthen farm advisory and training services



# 4.2 Annex 2: Detailed framework for a quantitative assessment of relevance of CAP Strategic Plans interventions to environment and climate priorities

Factors of success	Indicators	Data sources
Quantitative relevance to European strategic objectives:  To what extent do the CAP interventions remain relevant in addre resilience and adapt to the changing climate? (Related to SO4.)	essing the need to decrease GHG emissions and increase removals, o	lecarbonise the energy sector and support agriculture to build
CAP Strategic Plans interventions remain relevant to achieve the 2030 emission reduction targets of the EU Green Deal (Fit for 55) or the 45% overall reduction target of the UN Net-Zero coalition and serve the long-term objective of climate neutrality by 2050.	<ul> <li>EU Green Deal targets are translated into proposals putting forward a need for a 40% reduction of emissions from agriculture by 2030 vs.</li> <li>Forecasted achievements in the reduction of GHG from agriculture</li> </ul>	<ul> <li>EU Green Deal and Fit for 55 package targets and revised National Energy and Climate Plans (NECPs)</li> <li>vs.</li> <li>A forecast of I.10 for GHG emissions from agriculture</li> </ul>
CAP Strategic Plans interventions remain relevant to support the 2030 renewable energy Directive targets of at least 32% energy from renewables by 2030 and Commission's May 2022 plan REPowerEU which raises the target to 45% by 2030.	<ul> <li>Renewable energy production targets by 2030     vs.</li> <li>Forecasted achievements in renewable energy production     from agriculture and forestry</li> </ul>	<ul> <li>Renewable Energy Directive and RePowerEU targets (with specific reference to the Biomethane Action Plan and other agricultural related renewables)</li> <li>vs.</li> <li>A forecast of sustainable production of renewable energy from agriculture and forestry (I.12 and C.42)</li> </ul>
CAP Strategic Plans interventions remain relevant to support the 2030 Energy Efficiency Directive targets of at least 32.5%, the recast of the EU Green Deal to 36% and even higher 2030 proposals in the Commission's May 2022 plan REPowerEU.	<ul> <li>Increase in energy efficiency needs by 2030     vs.</li> <li>Forecasted achievements in energy efficiency in agriculture and forestry</li> </ul>	<ul> <li>Energy Efficiency Directive and RePowerEU targets vs.</li> <li>A forecast of agriculture's energy efficiency targets, or</li> <li>demand for energy efficiency investments in agriculture, forestry and the food sector</li> </ul>
CAP Strategic Plans interventions remain relevant to achieve the carbon sink targets for 2030 that will assist the GHG emissions reduction to 57%.	<ul> <li>Increase in carbon sinks by 2030         vs.</li> <li>Forecasted achievements in carbon sink in agriculture         and forestry</li> </ul>	<ul> <li>Carbon sink targets to support a total GHG reduction target of 57% (Fit for 55 proposals of increasing removals by 310 million tonnes of CO2 equivalent by 2030 and to achieve climate neutrality in the combined land use, forestry and agriculture sector by 2035 at EU level)</li> <li>vs.</li> <li>A forecast of I.10 for GHG emissions (chapter on carbon sinks)</li> </ul>



Factors of success	Indicators	Data sources
Quantitative relevance to European strategic objectives:  To what extent do the CAP Strategic Plans interventions remain soil and air resources, the antimicrobial protection and animal w	relevant in addressing the need to reach the Farm to Fork Strategy relfare? (Related to SO5.)	y targets related to the protection and management of water,
CAP Strategic Plans interventions remain relevant to support the 2030 target for reducing nutrient losses by at least 50% while ensuring no deterioration in soil fertility. The target will reduce the use of fertilisers by at least 20% by 2030.	<ul> <li>The "Farm-to-Fork" objective vs.</li> <li>Achievements in the reduction of fertilisers</li> </ul>	<ul> <li>&gt; Farm to Fork Strategy objectives: Average of 20%</li> <li>&gt; Context indicator C.41</li> <li>&gt; Sales of fertilisers sources (FADN SE295 on fertilisers expenditures and Eurostat - Economic Accounts for Agriculture Products: 19030 - Fertilisers and Soil Improvers)</li> <li>&gt; Gross nutrient balance - nitrogen and phosphorus (I.15 and C.39)</li> </ul>
CAP Strategic Plans interventions remain relevant to support the 2030 target of reaching 25% of agricultural land under organic farming by 2030.	<ul> <li>The Farm to Fork Strategy objective vs.</li> <li>Achievements in increasing the land under organic agriculture</li> </ul>	<ul> <li>&gt; Farm to Fork Strategy objectives of 25% of UAA under organic agriculture</li> <li>&gt; Agricultural area under organic farming (C.33)</li> <li>&gt; Eurostat: Organic crop area by agricultural production methods and crops (ORG_CROPAR)</li> </ul>
CAP Strategic Plans interventions remain relevant to support the 2030 target of a reduction by 50% of the use and risk of chemical pesticides and the use of more hazardous pesticides by 50% by 2030.	<ul> <li>&gt; The Farm to Fork Strategy objective vs.</li> <li>&gt; 1) the quantities of active substances contained in the pesticides which are placed on the market (sold)</li> <li>&gt; 2) the hazard properties of these active substances</li> <li>&gt; 3) the quantities of more hazardous active substances, the so called 'candidates for substitution'</li> </ul>	<ul> <li>&gt; Farm to Fork Strategy objectives</li> <li>&gt; Sales of pesticides (I.18 and C.49)</li> <li>&gt; The Harmonised Risk Indicator 1 (I.18 and C.49)</li> <li>&gt; Sales of more hazardous pesticides (I.18 and C.49)</li> <li>&gt; Eurostat will publish by the end of 2022 sales of pesticides for each Member State by the following categorisation 'Group 1-low-risk active substances, 'Group 2 - active substances', 'Group 3-active substances candidates for substitution', 'Group 4 - non-approved active substances, Categories A and C - non-chemical active substances and Categories B, D, E and F - chemical active substances'. This series is currently available only at EU level as pesticide sales by categorisation of active substances (Eurostat, AEI_PESTSAL_RSK)</li> <li>&gt; FADN SE300 'expenditures on crop protection substances'</li> </ul>



Factors of success	Indicators	Data sources
Quantitative relevance to European strategic objectives:  To what extent do the CAP Strategic Plans interventions remain r	elevant in addressing the need to protect and manage water, soil and	d air resources? (Related to S05.)
CAP Strategic Plans interventions remain relevant in addressing the need to protect and manage water resources.	<ul> <li>The need for confronting emerging threats recorded in current and forthcoming (2023-2024) River Basin Management Plans (RBMs)     vs.</li> <li>Achievements in the reduction of diffused and point-source pollution (nutrients and pesticides) and managing stress on water resources</li> </ul>	<ul> <li>The needs expressed in the CSPs and the RBMs vs.</li> <li>Forecasted:         <ul> <li>Sales of fertilisers sources</li> <li>Gross nutrient balance - nitrogen and phosphorus (I.15 and C.39)</li> <li>Water use in agriculture (I.17 and C.38)</li> <li>Sales of pesticides (I.18 and C.49)</li> </ul> </li> </ul>
The CAP instruments remain relevant in addressing the need to protect and manage soil resources.	<ul> <li>The soil needs as expressed in the vision and targets of the proposal for a soil strategy by 2030 vs.</li> <li>Achievements by the CSPs</li> </ul>	<ul> <li>The needs expressed in the CSPs and the proposals for a Soil Strategy's medium-term objectives by 2030 and long-term objectives by 2050 and especially those related to:</li> <li>Soil degradation</li> <li>limit drainage of wetlands and organic soils and to restore managed and drained peatlands</li> <li>enhance biodiversity in agricultural land that would contribute to conserving and increasing soil organic carbon and join the international initiative '4 per 1000' to increase the soil carbon in agricultural land vs.</li> <li>Progress on corresponding soil context and impact indicators and especially I.11 (C.40) and I.13 (C.41)</li> <li>Protection of wetlands and peatlands from the UAA under GAEC 2 (B141-B143 of Annex IV of R1475/2022)</li> <li>GAEC 8 beneficial to soils and especially soil erosion and soil organic matter (B152: number of hectares of hedgerows, individual or group of trees, trees rows; B153: number of hectares of field margins, patches or buffer strips; B156: number of hectares of stonewalls; B158: number of hectares of terraces; B161: number of hectares of catch crops cultivated without the use of plant protection products; B162: number of hectares of nitrogen fixing crops cultivated without the use of plant protection products of Annex IV of Regulation (EU) 1475/2022</li> </ul>

Factors of success	Indicators	Data sources
<b>Quantitative relevance to European strategic objectives:</b> To what extent do the CAP Strategic Plans interventions remain	n relevant in addressing the need to protect and manage water, soil a	nd air resources? (Related to SO5.)
CAP Strategic Plans interventions remain relevant in addressing the need to protect air from pollution due to agricultural activities.	> The measures contained in the CSPs are relevant to address the needs for controlling emissions of ammonia, particulate matter expressed by National Air Pollution Control Programmes (NAPCPs) of the NEC Directive.	<ul> <li>NAPCPs needs.</li> <li>vs.</li> <li>Progress and forecast of ammonia emissions reduction (I.14 and C.47)</li> </ul>
CAP Strategic Plans interventions remain relevant in addressing the need for the sustainable use of pesticides.	> The measures contained in the CSPs are relevant to address the needs for the sustainable use of pesticides expressed by the National Action Plans for the SUD Directive.	<ul> <li>The needs expressed in the National Action Plans vs.</li> <li>Forecasted progress on "Risk, use and impacts of pesticides" (I.18 and C.49)</li> </ul>
Quantitative relevance to European strategic objectives: To what extent do the CAP Strategic Plans interventions remain	relevant in addressing the need to reach the EU Green Deal (Farm to	Fork and Bindiversity Strategies 2020) targets related to
	sity landscape features by 2030, and achieve at least 25% of the EU's	





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