**Terms of Reference**

**Development of Serbian Agricultural Information and Reporting Platform**

**June 30, 2022**

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# Background information (Context of the project)

Serbia requested the support of the World Bank to strengthen its agriculture monitoring and evaluation (M&E) systems and capacity. Recognizing the limitations in the current M&E framework, the Ministry of Agriculture, Forestry and Water Management (MAFWM) requested support for improving sector-related data collection and analyses to better inform policy actions and monitor the progress of ongoing (and future) agriculture programs and projects. To this end, Japan’s Policy and Human Resources Development Fund Technical Assistance (PHRD TA) Grants Program under the Performance and Results with Improved Monitoring and Evaluation (PRIME) Window approved a grant to support this general goal.

The improvement of M&E systems and capacity is imperative for Serbia as the country prepares for EU accession. Serbia has made progress towards its European Union (EU) membership. The prospects for EU accession are providing an important impetus for reforms in the Serbian public sector. In November 2007, Serbia initiated a Stabilization and Association Agreement with the EU and in 2012, Serbia was granted EU candidate status. Since the formal start of accession negotiations in 2014, progress is moving largely as planned. As of July 2017, Serbia opened 14 out of 35 chapters of the EU’s acquis Communautaire. The European Commission (EC) declared Serbia as a “frontrunner” able to join EU by 2025 if all conditions are met. The rapid progress towards EU accession has accelerated the need for adequate alignment to EU regulatory frameworks, requiring the formulation of compliance mechanisms and evidence of their functionality.

Specifically, the goal relevant this assignment, is to support the recent Common Agriculture Policy (CAP) reform towards results-based programming which requires that future member states have the capacity to formulate indicators and monitor results. The MAFWM is viewed as a strong candidate for the PHRD support due to its demonstrated commitment to policy reform, its awareness of the need to improve its capacity for policy analysis and policy formulation, and its recent efforts to strengthen its capacity for M&E. New MAFWM software system dedicated to support the evidence-based policy process and serving as M&E tool is viewed as an important, outcome of the grant support. The PHRD activities will build on the World Bank's ongoing engagement with the MAFWM under a new Commercial Agriculture Project (P167634).

## Sectoral and Institutional Context

Agriculture continues to play an important role in the economy of Serbia, contributing 9% to GDP, high in comparison to the EU-average of 2%. With 45% of the population of the country living in rural areas, the sector provides formal full-time employment to 20% of the population, with the share of part-time and informal employment in the sector being very high. The agri-food sector is the only sector in the Serbian economy with a continuous positive trade balance since 2005, accounting for about 20% of total exports and 8% of total imports.

In general, the prospect of EU membership has improved area of agriculture, by promise of EU budget support for agriculture and rural development and access to the large EU market. In practice, trade liberalization and access to broader markets has already begun, and EU budget support is available through the Instrument for Pre-Accession Assistance in Rural Development (IPARD)[[1]](#footnote-1). Parts of the sector have already benefitted from trade liberalization, with strong growth in response to a rapid increase in exports (cereals, oilseeds, fresh fruit and vegetables); while other sub-sectors are having a harder time adapting (dairy and meat production). These less competitive components of Serbian agriculture are struggling to modernize and invest and are contracting.

Three bodies were established within MAFWM in 2009: the Administration of Agrarian Payments, the Administration for Agricultural Land, and the Directorate for National Reference Laboratories. The Strategy for Agriculture Development, prepared with EU assistance, was adopted in 2005, defining the general strategic goals and recognizing development of institutional capacity as one of the key issues in future steps towards the EU and the World Trade Organization (WTO) memberships. Rural development measures were applied and the Ministry of Agriculture, together with the Ministry of Finance, introduced programs to increase the availability of agricultural credit through preferential credit rates and loan guarantees. Renting of agricultural land was also supported and a register of agricultural holdings established.

The Ministry of Agriculture continued with capacity building, recruitment of new and young people and separating policy from implementation and control. The new structure of the Ministry included agricultural policy, rural development, implementation, control, and legal and financial affairs as well as the Veterinary, Phytosanitary, Forestry and Water Management Administrations.

The global economic and financial crisis had a strong impact on the Serbian economy from late 2008 until 2014. This period saw a general decrease in prices of agricultural products, falling more sharply than either agricultural input prices or final food products. Also, the demand for premium agricultural and food products (those with perceived higher standards of quality, safety or environmental protection) decreased, slowing or reversing a trend towards higher-value products. Credit availability was reduced for all sectors. In this context, direct payments per hectare became the main form of support, although the implementation mechanisms, procedures and eligibility criteria were changed frequently in response to budget pressures and to changing political priorities as to which groups should be supported.

The Department for Rural Development (DRD) of the Ministry of Agriculture, Forestry and Water Management (MAFWM) is currently in charge for the design, monitoring and implementation of rural development (RD) measures as well as for the EU-funded IPARD II program. Following the commitments of the Republic of Serbia assumed in the Framework Agreement and Sectoral Agreement between the Government of Serbia and European Commission (EC), the Group for Monitoring, Evaluation and Reporting (GMER) was established within the DRD in 2015. The GMER carries out activities related to establishment of monitoring, evaluation and reporting system for the implementation of the IPARD II program. The Directorate for Agrarian Payments is responsible for provision of reporting on progress of RD measures, and consequently provides data to the DRD.

Further, the Managing Authority (MA), i.e. Sector for Agricultural Policy of the Ministry, and the IPARD II Monitoring Committee (MC) monitor the effectiveness, efficiency and the quality of the implementation of the IPARD II Program. The Managing Authority is responsible to set up a system to gather financial and statistical information on progress of the IPARD II Program and to forward this data to the IPARD II Monitoring Committee, which is in line with arrangements agreed with the EC. The MC comprises representatives from the relevant public authorities and bodies, appropriate economic, social and environmental partners, as well as representatives from the national academia, i.e. Agriculture Faculties of University of Belgrade, University of Novi Sad, and University of Kragujevac, and Institute for Science Application in Agriculture. As evident from the above, the Ministry’s M&E capacity is, however, limited with assessing performance of RD measures (both EU and national) only, and the Ministry continues to lack a monitoring system for other agricultural and rural development policies, making it difficult to assess the effects of these policies on the entire sector’s performance.

At present, there are no donor agencies that support the Ministry’s M&E capacity. The Vertical Functional Review of the MAFWM completed by the World Bank Group (2018), identified policy and data as two of the most critical areas in need for improvement, without which the sector will never fulfil its potential. To this end, the key recommendation was to establish an independent “Group for policy evaluation” to comment on policy proposals, assess the impact of operating policies, and monitor progress towards strategic goals. This Working group is established in 2022 (please see text below).

The MAFWM allocates a lot of resources to policies designed to change farmers’ behavior and businesses – to increase investment, productivity and profitability – yet little is known about the actual impact of these policies in practice. Measuring the impact of agricultural policies is not straightforward, given the variations in weather, market conditions, pest and disease challenges, among others. Effective policy monitoring and evaluation approaches should be an integral part of strategy documents to enable effective targeting for achieving the desired results and adequate follow up on the ministry’s actions as compared to proposed strategic directions. In Q1 2022, the EC adopted IPARD III program of Serbia, for period 2021-2027, including support for measures 1, 3, 4, 5, 6, 7 and 9.

The reform of agricultural institutions and policy will be of critical importance for positioning the sector vis-a-vis these processes. Evidence-based programming is becoming a key element of the agricultural development agenda in the EU (under the Common Agricultural Policy, CAP) and is a critical requirement for the development of the agricultural sector in Serbia. It will ensure that the government has the “evidence-base” needed, both in terms of having appropriate indicators for monitoring policy inputs and outputs, and in having the capacity for rigorous, objective analysis of this information to evaluate and strengthen policy outcomes. To be fully effective, support for evidence-based decision making should also include extensive training in policy analysis and policy formulation.

With this understanding, policies can be good at the start and become better over time, allowing the MAFWM to use its limited resources much more effectively and to get maximum benefit from the EU accession process. The monitoring and evaluation (M&E) capacity building agenda in the agricultural sector also includes specific measures to better understand gender inequalities. Rural women are considered to be especially vulnerable because they are often not legal owners of land or agribusiness, and tend to be employed as lower-skill laborers.

These measures could include, for example, development of specific mixed-method indicators to track gender (surveys, specific evaluations), gender-specific impact evaluation and use of diagnostics/thematic studies to recognize gender-specific constraints or opportunities and design corresponding activities.

The reforms of the Common Agricultural Policy of the EU towards results-based programming require that future member states have the capacity to formulate indicators and monitor results. The project’s objective is in line with the broad objective of the PRIME window, which is to enhance the use evidence-based decision making in government systems, by strengthening the M&E systems of recipient ministries in priority sectors, including agriculture. The MAFWM was viewed as a strong candidate for the PHRD support due to its demonstrated commitment to policy reform, its awareness of the need to improve its capacity for policy analysis and policy formulation, and its recent efforts to strengthen its capacity for monitoring and evaluation. Strengthened government ownership of the policy process is viewed as an important, outcome of the grant support.

## Objective

The objective of the project is to strengthen the M&E capacity and systems of the MAFWM and its decentralized services for evidence-based strategic planning in agriculture and rural development. Government ownership of the evidence-based policy process is viewed as an important outcome of grant support, along with better prioritization of programs and beneficiaries, and sector impact. Key Results Evidence-based decision making ensures that policies respond to the needs of the constituency for which they are designed and leads to better long-term policy outcomes. It also helps to highlight an issue or problem that requires specific attention and strengthens the case for securing funding and resources for an effective public response. Ultimately, the proposed project will help improve capacity of the MAFWM to optimize government expenditure by ensuring that resources, both domestic and external (EU grant financing), are directed to the most effective policies and programs and improve service delivery and the outcomes of public programs and investments, including, among others, MAFWM’s subsidy programs, implementation of the ongoing IPARD program, etc.

# Institutional arrangement

## Sector for Agricultural Policy (MAFWM) as key unit for evidence based policy implementation

The Sector for Agricultural Policy performs activities related to: monitoring of domestic and world production, consumption, processing, prices and trade in primary agricultural products, organic products, fishery products and products of the mentioned products; preparation of expert bases for drafting regulations in the field of agricultural and fisheries policy as well as their harmonization with the *acquis communautaire*, WTO rules, principles and agreements and standards of international organizations and international agreements; preparation of the balance of basic agricultural products; participation in the development of strategic documents in the field of plant and animal production, organic production, processing and quality of agricultural products, as well as in the field of agricultural statistics; making analyzes of the situation and giving projections of the development of the food industry; drafting proposals for the distribution of budget funds for incentives in agriculture and rural development; proposing measures of agricultural policy and fisheries policy as well as monitoring and analysis of the achieved effects of the measures; monitoring and analysis of customs policy in the field of agri-food products and proposing measures to improve foreign trade in agri-food products of the Republic of Serbia; participation in the preparation of information and documents and for cooperation at the bilateral level and negotiations and cooperation with the EU, WTO and international organizations as well as participation in the preparation, coordination and implementation of projects from EU funds and other sources of funding in areas within the Sector; analysis of the effects of climate change on the agricultural sector and the impact of agricultural production on climate change; proposing measures for adaptation and mitigation of climate change of importance for agricultural policies as well as monitoring and analysis of the achieved effects of measures; performs other tasks in this area.

The following internal units are being formed in the Sector for Agricultural Policy:

* Group for production and market of field products
* Group for the production and marketing of fruits, vegetables and spirits
* ***Department of Analytics and Statistics***
* Department of Food Labeling, Quality Schemes of Agricultural and Food Products and Organic Production
* Food labeling group, quality schemes of agricultural and food products
* Organic Production Group
* Group for livestock and processing of livestock products
* Viticulture and Enology Group
* ***Group for monitoring the impact of climate change on the agricultural sector.***

1. The Group for Production and Market of Field Products performs activities related to: monitoring and analysis of domestic and world production, processing, consumption, trade and prices of cereals, fodder, industrial plants and processed products, in order to propose measures for market regulation, public warehousing and strategic development in individual areas of field production and processing as well as the preparation of balance sheets of the most important products; preparation of the Annual Report on the situation on the market of cereals, oilseeds, sugar beet and sugar and tobacco, as parts of the *Annual Report on the situation in agriculture in the Republic of Serbia - Green Paper*; participation in the preparation of strategic documents related to the process of negotiations on EU membership; participation in the preparation of professional bases for drafting regulations in the field of direct payments and regulation of the market of field products and their harmonization with the Acquis Communautaire; participation in the preparation of international agreements in the field of field production and processing; participation in the preparation of the program for the use of budget funds in the part of support to field production and food industry; participation in the preparation, coordination and implementation of projects from EU funds and other sources of funding in the field of field production; performs other tasks in this area.

2. The group for production and market of fruits, vegetables and alcoholic beverages performs activities related to: monitoring and analysis of domestic and world production, processing, consumption, trade and prices of vegetables, fruits, medicinal, aromatic, spicy and ornamental plants and flowers, spirits and ethanol as well as keeping the Register of fruit and vegetable traders, the Register of spirits and the Register of geographical indications for spirits in order to propose measures of agricultural policy and market regulation and strategic development of these areas and the balance of these products; participation in the preparation of the Annual Report on the Situation on the Vegetable and Fruit Market, as part of the Annual Report on the Situation in Agriculture in the Republic of Serbia - Green Paper; participation in the preparation of professional bases for drafting regulations in the field of vegetables, fruit growing, spirits and ethanol and their harmonization with the acquis communautaire and relevant international organizations and international agreements; participation in the preparation of international agreements in these areas; participation in the preparation of technical regulations in this area; participation in the preparation of the program for the use of budget funds in the part of support to vegetable, fruit production and production of strong alcoholic beverages, as well as the promotion of strong alcoholic beverages; organizing implementation of procedures for recognition of labels for spirits with a geographical indication, procedures for production and control of production of spirits with a geographical indication, as well as procedures for meeting the conditions for the use of labels for spirits with a geographical indication; participation in the preparation, coordination and implementation of projects related to vegetables, fruits, medicinal, aromatic, spicy and ornamental plants and flowers, as well as spirits; performs other tasks in this area.

3. The Department of Analytics and Statistics performs activities related to: analysis of the effects of agricultural policy measures on the efficiency and competitiveness of agricultural production; analysis of budget support in order to assess the impact of support levels on the volume, structure of production of agri-food products; preparation of proposals for the distribution of budget funds for incentives in agriculture and rural development; collection, processing and analysis of statistical data on production, prices, foreign trade and other economic indicators of certain agri-food products, for the purposes of the Annual Report on Agriculture in the Republic of Serbia - Green Paper, as well as other analytical documents; proposing measures and participating in the development of strategic documents for the purpose of defining medium-term and long-term directions of agricultural development; analysis of customs duties and alleviation of their effects on trends in foreign trade in the field of agriculture; preparation of proposals and documents required for the accession process and WTO membership; participation and preparation of information and documents for negotiations on the membership of the Republic of Serbia in the EU in the field of agriculture; analysis of the compliance of agricultural policy measures with the measures of the Common Agricultural Policy of the EU in the field of direct payments and the Common Market Organization; ***functioning of integrated******agricultural information systems such as the*** ***System of collecting accounting data on agricultural holdings - FADN and the Agricultural Market Information System of Serbia - STIPS***; participation in the preparation, coordination and implementation of projects from EU funds and other sources of funding in the field of agricultural policy; performs other tasks in this area.

4. The Department for Food Labeling, Quality Schemes of Agricultural and Food Products and Organic Production performs activities related to: defining agricultural policy and proposing measures in the areas of organic production and promotion of agricultural and food products, fruit and vegetable processing, beer, quality and labeling food, quality scheme of agricultural and food products except wine and spirits; participation and preparation of information and documents for negotiations on the membership of the Republic of Serbia in the EU; participation in the preparation of professional bases for drafting regulations in the field of organic production, quality schemes for agricultural and food products, except wine and spirits, regulations on the quality of certain categories of food regulated at EU level, regulations on general declaration, labeling and advertising of food and regulations for the promotion of agricultural and food products and their harmonization with the acquis communautaire and relevant international organizations and international agreements, as well as regulations on the quality of individual food categories (non-harmonized area); monitoring and analysis of production and trade of food industry products in the sectors of fruit and vegetable processing, production of beer and soft drinks, sugar, coffee and chocolate products, organic products, as well as other food industry products except milk, meat and honey; participation in the preparation of measures and programs for the development of certain branches of the food industry and organic production, as well as programs for the use of budget funds in support of improving competitiveness and achieving quality standards of agricultural and food products, organic production and promotion of agricultural and food products; supervises and implements the procedure of authorizing bodies for conformity assessment, control of fulfillment of conditions for use of geographical indications for agricultural and food products, control organizations in organic production and approval of requests for issuing control stamps to authorized users of agricultural and food products with geographical indications; preparation of information on the situation in the areas of production of agricultural and food products with geographical indications, organic products, except wine and spirits; participation in the preparation, coordination and implementation of projects from EU funds and other sources of funding in the field of quality policy, organic production and promotion of agricultural and food products; performs the activities of the national contact point for Codex Alimentarius in the Republic of Serbia (Food Code); monitors and coordinates the activities of all Codex committees in the EU level in the Republic of Serbia as well as participation in the work of the Expert Council for Organic Production; performs other tasks in this area.

5. The Group for Livestock and Processing of Livestock Products performs activities related to: monitoring and analysis of domestic and world production, processing, consumption, trade and prices of primary agricultural products of animal origin, as well as processed animal products, keeping records of livestock numbers, livestock improvement programs, import of breeding material; preparation of the balance of production and consumption of the most important products of livestock production and analysis of the effects of measures in the field of livestock production; keeping the register of breeding organizations and organizations with special authorizations as well as the register of artificial insemination providers; analysis of the situation and giving a projection of livestock development; participation in the preparation of expert bases for drafting regulations in the field of direct payments and market organization in the field of livestock, fisheries, beekeeping and food industry, primary livestock production and processing, and their harmonization with the acquis communautaire and relevant international organizations and international agreements; implementation of the policy of improving the quality of livestock products; preparation of proposals for long-term, medium-term and annual development policy in the field of livestock production and processing industry; participation in the preparation of international agreements in the field of agriculture and fisheries; participation in the preparation of parts of the Annual Report on the Situation in Agriculture in the Republic of Serbia - Green Paper; participation in the preparation, coordination and implementation of projects from EU funds and other sources of funding in the field of livestock and fisheries; performs other tasks in this area.

6. The Group for Viticulture and Enology performs activities related to: monitoring and analysis of production, processing, consumption, trade and prices of grapes and wine, ie grape and wine products and aromatized wine products, in order to propose policy measures and market regulation, quality policies and strategic development of wine and aromatized wine products; analysis of the state of development of viticulture and winemaking; participation in the preparation of strategic documents related to the process of negotiations on EU membership; preparation of professional bases for drafting regulations in the field of market organization and quality policy of wine and aromatized wine products and their harmonization with the acquis communautaire and relevant international organizations and international agreements, as well as preparation of technical regulations in this area; participation in the preparation of strategic measures and programs for the use of budget funds in the part of support to viticultural and wine production; participation in the preparation of parts of the Annual Report on the Situation in Agriculture in the Republic of Serbia - Green Paper; establishment of geographical indications (PDO/PGI; PDO *– Protected designation of origin (*food *and wine);* PGI *– Protected* geographical *indication (*foodand wine*); GI –* Geographical *indication)* for wines and aromatized wine products and production and control of production of wine and aromatized wine products with geographical indication, fulfillment of conditions for use of designations for wines with geographical origin and issuance of registration stamps for wines with geographical origin origin; authorization of Control Organizations, laboratories for testing the quality parameters of grapes, wine and other products and the Professional Organization for the Viticultural Register, as well as maintaining the List of sensory evaluators of wine; establishing and maintaining the Viticulture Register and the Wine Register; conducting data analysis for wine declaration; keeping records in viticulture and winemaking; participation in the preparation of international agreements and projects related to viticulture and winemaking; performs other tasks in this area.

7. **The Group for Monitoring the Impact of Climate Change on the Agricultural Sector** performs activities related to: analysis of the effects of climate change on the agricultural sector; analysis of the effects of agricultural production on climate change; analyzes of the inclusion of aspects of climate change in agricultural policies and measures; preparation of proposals for the integration of climate change aspects into agricultural programs, policies and measures; proposing measures for adaptation and mitigation of climate change of importance for agricultural policies as well as monitoring and analysis of the achieved effects of measures; proposing measures and participating in the development of strategic documents for the purpose of defining medium-term and long-term directions of agricultural development; participation and preparation of information and documents relevant to the negotiations on the membership of the Republic of Serbia and the EU in the field of agriculture; participation in the analysis of the compliance of agricultural policy measures with the measures of the EU Common Agricultural Policy from the aspect of climate change; participation in the preparation, coordination and implementation of projects from EU funds and other sources of funding in the field of the impact of climate change on the agricultural sector; preparation of a program to promote the importance of climate change for the development of the agricultural sector; performs other tasks in this area.

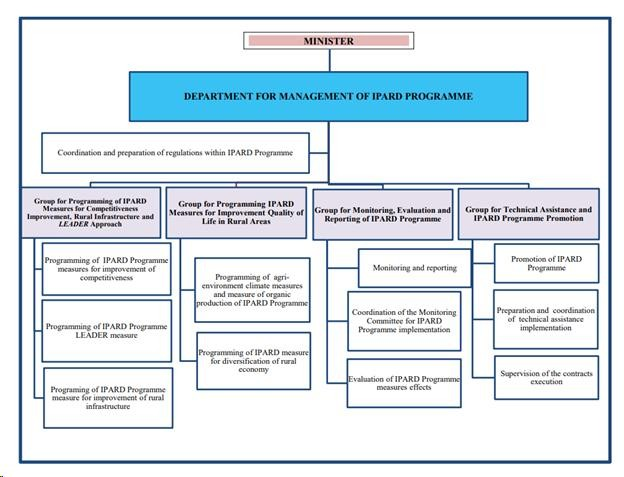
## Department for rural development

The Department for Rural Development performs activities related to: development, promotion, **monitoring, evaluation and implementation of the IPARD program and the National Rural Development Program** in order to increase efficiency, improve the effectiveness of rural development measures and socioeconomic aspects of rural life, increase competitiveness of agricultural production and forestry sector, environmental protection, support for the diversification of the rural economy and the creation of conditions for the expansion of the non-agricultural economy in rural areas; support for the establishment of public-private partnerships and the improvement of working and living conditions in rural areas; reporting on the process of implementation of rural development programs; identification, definition and modification of criteria and indicators of effectiveness of measures and quality of programs; implementation of cooperation with international and national organizations and institutions in the field of rural development in order to harmonize support measures, provide donor assistance for the implementation of development programs and projects in the field of rural development; monitoring and reporting on the implementation of the IPARD program, in accordance with EU requirements; establishing the activities and processes of the Managing Authority for the implementation of the IPARD program; supervision over the implementation of the activities of the Managing Authority; coordination of the work of the IPARD Monitoring Committee; establishing a comprehensive system of internal controls in order to use the funds intended for the financing of the IPARD program and the National Rural Development Program correctly, transparently, ethically, economically and efficiently; monitoring the situation and proposing measures for the revitalization and improvement of the development of agricultural cooperatives, performs other tasks in this area.

## Managing Authority (MAFWM)

The Mission of IPARD Managing Authority is to improve conditions for better life in villages and well-being of rural population according to the needs of men and women, taking care of all aspects of the sustainable development, with professional capacities of IPARD Managing Authority and funds of European Union and national budget intended for agriculture and rural development. Organizational schema of Managing Authority is given in figure below. IPARD Managing Authority is worked intensively on the preparation of the IPARD III program, which should succeed the IPARD II program that is currently in force in Serbia. The basis for the preparation of the IPARD III program was the analysis of agricultural production and processing, as well as the analysis of financial instruments, local government capacity and the impact of the Green Agenda. A two-way process is enabled, with the participation of all stakeholders in the programming and evaluation of the Program. As part of the drafting for the period 2021-2027 detailed analyzes of strengths, weaknesses, opportunities for each area and sector have been prepared.

Figure 1 Managing Authority organizational sub-units



## Working Group of MAFWM for monitoring and evaluation of programs

**MAFWM established a WG for monitoring and evaluation of programs, which will contribute to project realization as a key success factor**. Namely, WG is in charge of: monitoring of status of agricultural policy in the Republic of Serbia based on reports and indicators; exchange of periodical reports; management of indicators within SAIRP; preparation and execution of evaluation plan; tracking of recommendations implementation of individual evaluations; other questions and issues in field of agricultural policy and rural development policy relevant for monitoring and evaluation in MAFWM.

# Legal framework

Current agricultural policy is based on several documents governing the operationalization of agricultural and rural development support:

* **Law on Agricultural and Rural Development Subsidies (LARDS) (adopted in 2013)** - defines the types of agricultural and rural development subsidies (direct payments, rural development measures and special grants), eligibility requirements, and minimum amounts per subsidy.
* **The Agricultural and Rural Development Strategy for 2014-2024 (ARDS**) (adopted in 2014). The ARDS defines the direction of Serbian agricultural and rural development over the next ten-year period, considering the EU integration process. The following development goals are defined:

i) Increasing production stability and producers’ income;

ii) Increasing competitiveness and adjustments to the requirements of the domestic and international markets;

iii) Ensuring the sustainable management of natural resources and environment,

iv) Improving quality of life in rural areas and poverty alleviation, and

v) Enhancing public policy management and improving institutional framework for agricultural and rural development.

In January 2015 the European Commission has adopted Instrument for Pre-Accession Assistance for Rural Development (IPARD) for Serbia, which paves the way for the EU support to Serbia's rural development over the next six years. Of the various support measures offered to pre-accession countries by the EU under the IPARD, the program is built around six measures: i) investments in physical assets of agricultural holdings - grants for farmers producing milk, meat, fruit and vegetables (43% of the IPARD 2014-2020 allocation), ii) investments in physical assets for processing and marketing of agricultural and fishery products for micro, small and medium-sized enterprises processing milk, meat, fruit and vegetables (36%), iii) Agro-environmental measures – for organic farmers and growers (5%), iv) Implementation of local development strategies (3%), v) The development of private rural tourism facilities (10%) and vi) Technical assistance (3%). Though the policy objectives and key priorities of ARDS (Agricultural and Rural Development Strategy) and IPARD are in the line with CAP framework and reflect the national priorities, their realization remains problematic. The main factors contributing to this are disharmonized dynamics in legal and policy framework adjustments and lack of horizontal coordination of various agricultural policy mechanisms.

Relevant legislation for design of SAIRP is listed below:

* **Law on Agriculture and Rural Development (“Official Gazette of RS” No. 41/2009, 10/2013 - state law, 101/2016 and 67/2021 - state law);**
* **Law on Subsidies in Agriculture and Rural Development ("Official Gazette of RS" No. 10/2013, 142/2014, 103/2015 and 101/2016);**
* Law on Budget System (“Official Gazette of RS”, No. 54/2009, 73/2010, 101/2010, 101/2011, 93/2012, 62/2013, 63/2013 - amended, 108/2013, 142/2014, 68/2015 - state law, 103/2015, 99/2016, 113/2017, 95/2018, 31/2019, 72/2019 and 149/2020);
* Law on the Budget of the Republic of Serbia for 2021 ("Official Gazette of the RS", No. 149/2020, 40/2021 and 100/2021); draft law on the budget for 2022;
* Law on Ministries ("Official Gazette of RS", No. 128/2020);
* Law on General Administrative Procedure (“Official Gazette of RS”, No. 18/2016 and 95/2018 - 18/2016 and 95/2018 - authentic interpretation);
* Law on State Administration (“Official Gazette of RS”, No. 79/2005, 101/2007, 95/2010, 99/2014, 47/2018 and 30/2018 - state law);
* Law on State Aid Control (“Official Gazette of RS” No. 73/2019);
* **Law on State Survey and Cadastre ("Official Gazette of RS" No. 72/2009, 18/2010, 65/2013, 15/2015 - CC decision, 96/2015, 47/2017 - authentic interpretation, 113/2017 - others. law, 27/2018 - state law, 41/2018 - state law and 9/2020 - state law);**
* **Law on Agricultural Land (“Official Gazette of RS”, No. 62/2006, 65/2008 - state law, 41/2009, 112/2015, 80/2017 and 95/2018 - state law);**
* **Law on Animal Husbandry ("Official Gazette of RS", No. 41/2009, 93/2012 and 14/2016);**
* **Law on Veterinary Medicine ("Official Gazette of RS", No. 91/2005, 30/2010, 93/2012 and 17/2019 - state law);**
* Law on Strong Alcoholic Beverages ("Official Gazette of RS", No. 92/2015);
* Law on Wine ("Official Gazette of RS", No. 41/2009 and 93/2012);
* Law on Genetically Modified Organisms ("Official Gazette of RS", No. 41/2009);
* Law on Health Care ("Official Gazette of RS", No. 25/2019)
* Law on Employees in Public Services ("Official Gazette of RS", No. 113/2017, 95/2018 and 86/2019);
* **Law on Electronic Administration ("Official Gazette of RS", No. 27/2018), with bylaws**
* **Law on Personal Data Protection ("Official Gazette of RS", No. 87/2018), with bylaws**
* **Law on Electronic Document, Electronic Identification and Trust Services in Electronic Business ("Official Gazette of RS", No. 94/2017, 52/2021), with bylaws**
* **Law on Information Security ("Official Gazette of RS", No. 6/2016, 94/2017, 77/2019), with bylaws**
* Law on the Business Registers Agency ("Official Gazette of RS", No. 55/2004, 111/2009 and 99/2011);
* Law on Companies ("Official Gazette of RS", No. 36/2011, 99/2011, 83/2014 - state law, 5/2015, 44/2018, 95/2018 and 91/2019);
* **Law on Food Safety ("Official Gazette of RS" No. 41/2009 and 17/2019);**
* **Law on Organic Production (“Official Gazette of RS” No. 30/2010 and 17/2019 - state law);**
* **Law on Environmental Protection ("Official Gazette of RS", No. 135/2004, 36/2009, 36/2009-state law, 72/2009-state law, 43/2011- CC decision, 14/2016, 76/2018 and 95/2018 - state law);**
* Law on Waters ("Official Gazette of RS", No. 30/2010, 93/2012, 101/2016 and 95/2018);
* Law on the Procedure for Registration in the Real Estate and Cable Duct Cadastre ("Official Gazette of RS", No. 41/2018, 95/2018, 31/2019 and 15/2020)
* **Law on Regulation of the Market of Agricultural Products ("Official Gazette of RS", No. 67/2021);**
* **Law on Ratification of the Framework Agreement between the Republic of Serbia and the European Commission on the Rules for Implementing European Union Financial Assistance to the Republic of Serbia under the Instrument for Pre-Accession Assistance (IPA II) (Official Gazette of RS - International Agreements No. 19/2014);**
* Regulation on Rules for Granting State Aid (“Official Gazette of RS”, No. 13/2010, 100/201,91/2012, 37/2013, 97/2013 and 119/2014);
* **Regulation on the Distribution of Subsidies in Agriculture and Rural Development in 2021 ("Official Gazette of RS", No. 159/2020, 15/2021, 32/2021, 46/2021, 64/2021 and 90/2021);**
* Regulation on the Distribution of Subsidies in Agriculture and Rural Development in 2019 ("Official Gazette of RS", No. 3/2019, 12/2019, 29/2019, 40/2019,57/2019, 69/2019, 80/2019, 88/2019 and 94/2019);
* Regulation on the Distribution of Subsidies in Agriculture and Rural Development in 2020 ("Official Gazette of RS", No. 1/2020, 13/2020, 27/2020, 52/2020, 75/2020, 106/2020, 118/2020, 124/2020, 140/2020 and 152/2020);
* Regulation on Office Operations of State Administration Bodies ("Official Gazette of RS", No. 21/2020 and 32/2021);
* Regulation on Budget Accounting ("Official Gazette of RS", No. 125/2003, 12/2006 and 27/2020)
* Regulation on Establishing the Program of Financial Support to Agricultural Producers Through the Purchase of Market Surpluses of Fattening Cattle in Difficult Economic Conditions Due To the COVID-19 Pandemic Caused by the SARS-CoV-2 Virus ("Official Gazette of RS", No. 113/2020, 115/2020, 118/2020 and 126/2020);
* Regulation on determining the Annual Program for the Development of Agricultural Advisory Affairs for 2021 ("Official Gazette of the RS", No. 30/2021);
* Rulebook on the Content of the Tourism Register and Documentation Required for Registration and Records ("Official Gazette of RS", No. 55/2012, 4/2016, 81/2019 and 13/2020);
* Rulebook on Control and Certification in Organic Production and Methods of Organic Production ("Official Gazette of RS", No. 95/2020 and 24/2021)
* Rulebook on Conditions and Manner of Performing Catering Activities, as Well as on the Manner of Providing Catering Services in Facilities of Domestic Handicrafts and Rural Tourist Household ("Official Gazette of RS", No. 13/2020);
* **Rulebook on Entry in the Farm Register and Renewal of Registration, as Well as on the Conditions for Passive Status of Farms ("Official Gazette of RS", No. 17/2013, 102/2015, 6/2016, 46/2017, 44/2018 - state law, 102/2018 and 6/2019);**
* Rulebook on Determining Areas with Difficult Working Conditions in Agriculture ("Official Gazette of RS", No. 102/2018);
* Rulebook on Conditions, Manner and Form of Application for Exercising the Right to Milk Premium ("Official Gazette of RS", No. 28/2013, 36/2014, 44/2018 - state law, 56/2020, 159/2020 and 93/2021);
* **Rulebook on the Manner of Exercising the Right to Basic Subsidies in Plant Production and the Form of Requests for Exercising These Subsidies ("Official Gazette of RS", No. 29/2013, 9/2016, 44/2018 - state law and 38/2020);**
* Rulebook on Conditions and Manner of Exercising the Right to Subsidies in Animal Husbandry for Fattening Cattle, Fattening Pigs, Fattening Lambs and Fattening Kids ("Official Gazette of RS", No. 104/2018 and 3/2019);
* Rulebook on Conditions and Manner of Exercising the Right to Subsidies in Animal Husbandry for Quality Breeding Heads ("Official Gazette of RS", No. 26/2017, 20/2018, 34/2018, 44/2018 - state law, 104/2018 and 24/2021);
* Rulebook on Subsidies for Programs for Investments in Agriculture to Improve Competitiveness and Achieve Quality Standards Through Support for Improving the Quality of Wine and Brandy ("Official Gazette of RS", No. 48/2013, 33/2016, 18/2018 and 44/2018 - state law);
* Rulebook on Conditions and Manner of Exercising the Right to Subsidies in Animal Husbandry for Suckler Cows ("Official Gazette of RS", No. 46/2015, 26/2018 and 44/2018 - state law);
* Rulebook on Subsidies for Programs for Improving Competitiveness for Investments in Physical Assets of Farms Through Support for the Establishment of Perennial Production Plantations of Fruit and Hops ("Official Gazette of RS", No. 41/2021);
* Rulebook on Conditions and Manner of Exercising the Right to Subsidies in Animal Husbandry per Beehive ("Official Gazette of RS", No. 33/2015, 14/2016, 20/2018, 44/2018 - state law, 27/2019 and 76/2020);
* Rulebook on the Manner of Exercising the Right to Subsidies in Animal Husbandry for the Production of Consumer Fish ("Official Gazette of RS", No. 61/2013, 44/2014 and 44/2018 - state law);
* Rulebook on Subsidies for Improving Economic Activities in Rural Areas through Support to Non-Agricultural Activities ("Official Gazette of RS", No. 54/2019);
* Rulebook on Conditions and Manner of Exercising the Right to Subsidies in Animal Husbandry for Cows for Breeding Calves for Fattening ("Official Gazette of RS", No. 25/2018 and 44/2018 - state law)
* Rulebook on Subsidies for Improving the System of Creation and Transfer of Knowledge Through the Development of Technical-Technological, Applied, Development and Innovative Projects in Agriculture and Rural Development ("Official Gazette of RS", No. 76/2020);
* Rulebook on Subsidies for the Conservation of Animal Genetic Resources ("Official Gazette of the RS", No. 83/2013, 35/2015, 28/2016, 44/2018-state law, 104/2018 and 16/2021);
* Rulebook on Subsidies for Conservation of Plant Genetic Resources ("Official Gazette of RS", No. 85/2013 and 44/2018 - state law);
* Rulebook on Conditions and Manner of Exercising the Right to Loan Support ("Official Gazette of RS", No. 48/2017, 88/2017, 84/2018, 23/2019, 27/2020 and 36/2021);
* Rulebook on Subsidies for Investments in Processing and Marketing of Agricultural and Food Products and Fishery Products for the Procurement of Equipment in the Department of Milk, Meat, Wine, Beer and Spirits ("Official Gazette of RS", No. 35/2019, 25/2020, 87/2020 - other ordinances and 133/2020 - other ordinances);
* Rulebook on Subsidies for Investments in Physical Assets of Farms for the Purchase of a New Tractor ("Official Gazette of RS", No. 96/2019 and 13/2020);
* Rulebook on Subsidies for Programs for Income Diversification and Improvement of the Quality of Life in Rural Areas Through Support to Young Farmers ("Official Gazette of RS", No. 46/2018, 50/2018, 35/2019 and 78/2019);
* Rulebook on Subsidies for Investments in Physical Assets of Farms for the Purchase of New Machines and Equipment for the Improvement of Primary Production of Plant Crops ("Official Gazette of RS" No. 48/2018, 29/2019 and 78/2020);
* Rulebook on Subsidies for Investments in Physical Assets of Farms for the Purchase of New Machines and Equipment for the Improvement of Primary Agricultural Production in Animal Husbandry ("Official Gazette of RS", No. 48/2018, 23/2019 and 78/2020);
* Rulebook on Subsidies for Investments in Physical Assets of Farms for the Purchase of New Machines and Equipment for the Improvement of Digitalization of Livestock Agricultural Production ("Official Gazette of RS", No. 46/2019 and 87/2020);
* Rulebook on Subsidies for Investments in Physical Property of Agricultural Farms for Electrification of Fields ("Official Gazette of RS", No. 25/2020);
* Rulebook on Subsidies for Investments in Physical Assets of Farms for the Purchase of Quality Breeding Animals for the Improvement of Primary Livestock Agricultural Production ("Official Gazette of RS", No. 48/2018, 29/2019, 48/2019 and 25/2020);
* Rulebook on Conditions, Manner and Form of Application for Exercising the Right to Subsidies for Insurance Premium for Crops, Fruits, Perennial Crops, Nurseries and Animals ("Official Gazette of RS" No. 61/2017, 44/2018 - state law and 36/2019)
* Rulebook on the Use of Subsidies for Organic Livestock Production ("Official Gazette of RS" No. 25/2020);
* Rulebook on the Use of Subsidies for Organic Plant Production ("Official Gazette of RS", No. 31/2018, 23/2019, 20/2020 and 44/2021);
* Rulebook on the Use of Subsidies for Promotional Activities in Agriculture and Rural Development ("Official Gazette of RS", No. 72/2017);
* Rulebook on Subsidies for the Production of Planting Material and Certification and Clonal Selection of Fruit Trees, Vines and Hops ("Official Gazette of RS", No. 58/2017 and 25/2018);
* Rulebook on Subsidies for Investments in Physical Assets of Farms for the Construction and Equipping of Facilities for the Improvement of Primary Agricultural Production ("Official Gazette of RS", No. 29/2018, 30/2018, 23/2019, 27/2019, 40/2019 and 84/2020);
* Rulebook on Subsidies for the Implementation of Activities Aimed at Raising Competitiveness Through the Certification of Food Quality Systems, Organic Products and Products with a Geographical Indication ("Official Gazette of RS", No. 39/2018 and 17/2021);
* Rulebook on Subsidies for Conservation of Animal Genetic Resources in Gene Banks ("Official Gazette of RS", No. 110/2017 and 44/2018 - state law);
* Rulebook on Subsidies for Investments in Physical Assets of Farms for the Purchase of New Machines and Equipment for the Improvement of Digitalization of Livestock Agricultural Production ("Official Gazette of RS", No. 46/2019);
* Rulebook on Determining the Program of Plant Health Protection Measures for 2021 ("Official Gazette of RS", No. 51/2021)
* Rulebook on IPARD Subsidies for Investments in Physical Assets Related to Processing and Marketing of Agricultural and Fishery Products ("Official Gazette of RS", No. 84/2017, 23/2018, 98/2018, 82/2019 and 74/2021);
* Rulebook on IPARD Subsidies for Investments in Physical Assets of Farms ("Official Gazette of RS", No. 84/2017, 112/2017, 78/2018, 67/2019 and 53/2021);
* Rulebook on IPARD Subsidies for Diversification of Farms and Business Development ("Official Gazette of RS", No. 76/2020 and 87/2021);
* Rulebook on Subsidies for Implementation of Activities in Order to Increase Competitiveness Through Diversification of Economic Activities Through Support for Investments in Processing and Marketing on Farms ("Official Gazette of RS", No. 88/2017 and 44/2018 - state law);
* Rulebook on Subsidies for Investments in Processing and Marketing of Agricultural and Food Products in the Wine Production Department ("Official Gazette of RS", No. 87/2020 and 94/2020);
* Rulebook on Subsidies for Investments in Physical Assets of Farms Through Support for the Establishment of Perennial Production Vineyards ("Official Gazette of RS", No. 84/2020 and 94/2020);
* Rulebook on the Content and Form of Requests for the Issuance of Water Documents, the Content of Opinions in the Procedure of Issuing Water Conditions and the Content of Reports in the Procedure of Issuing Water Permits ("Official Gazette of RS", No. 72/2017);
* Rulebook on the Maximum Permitted Amounts of Residues of Plant Protection Products in Food and Feed and on Food and Feed for Which the Maximum Permitted Amounts of Residues of Plant Protection Products Are Determined ("Official Gazette of RS", No. 29/2014, 37/2014 - amended, 39/2014, 72/2014, 80/2015, 84/2015, 35/2016, 81/2016, 21/2017 and 81/2017)
* Rulebook on the Conditions to Be Met by Facilities for Animal Waste and Plants for Processing and Treatment of Animal Waste ("Official Gazette of RS" No. 94/2017)
* Rulebook on the Form and Content of Support Programs for the Implementation of Agricultural and Rural Development Policy and the Form of the Report on the Implementation of Agricultural and Rural Development Policy Measures ("Official Gazette of RS", No. 24/2015, 111/2015, 110/2016 and 16/2018)
* Rulebook on Conditions Regarding Breeding and Trade of Autochthonous Breeds of Domestic Animals, as Well as the Content and Manner of Keeping the Register of Breeders of Autochthonous Breeds of Domestic Animals ("Official Gazette of RS", No. 58/2016 and 16/2018);
* **Rulebook on the Methodology for Determining the Reference Prices of Investments for the Calculation of IPARD Subsidies ("Official Gazette of RS" No. 84/2018);**
* Rulebook on Conditions and Manner of Exercising the Right to Loan Support ("Official Gazette of RS", No. 48/2017, 88/2017 and 84/2018);
* Rulebook on Registration, i.e. Approval of Facilities for Collection, Processing and Destruction of By-Products of Animal Origin ("Official Gazette of RS", No. 12/2019);
* Rulebook on Determining the Program of Animal Health Protection Measures for 2021 ("Official Gazette of RS", No. 36/2021);
* Rulebook on the Award of Grants Within the Project for Competitive Agriculture ("Official Gazette of RS", No. 30/2021);
* **Rulebook on Subsidies for Improving Economic Activities in Rural Areas through Support to Non-Agricultural Activities ("Official Gazette of RS", No. 92/2021);**
* **Rulebook on Investment Subsidies for the Improvement and Development of Rural Public Infrastructure ("Official Gazette of the RS", No. 67/2021 and 83/2021);**
* **LAW ON 2023 CENSUS OF AGRICULTURE ("Official Gazette of the RS", No. 76 of July 28, 2021);**
* **LAW ON 2021 CENSUS OF POPULATION, HOUSEHOLDS AND DWELLINGS "Official Gazette of the RS", No. 9 of February 4, 2020;**
* **LAW on official statistics ("Official Gazette of RS" No. 104/2009);**
* REGULATION ОN DEFINING THE PLAN OF OFFICIAL STATISTICS FOR 2021 (Official Gazette of the RS, no. 55/21);
* DECISION ОN THE PROGRAM OF THE OFFICIAL STATISTICS OVER 2021 - 2025 (Official Gazette of RS no. 24/21);
* Agricultural statistics development strategy for the Republic of Serbia, 2014 – 2018;
* Rulebook on the manner of keeping and appearance of records of landfills and dumps in the area of ​​the local self-government unit ("Official Gazette of RS", No. 18/18);
* Rulebook on the form of the Document on the movement of hazardous waste, the form of prior notification, the manner of its submission and instructions for their completion ("Official Gazette of RS", No. 17/17);
* Decree on the list of industrial plants and activities in which the emission of volatile organic compounds is controlled, on the values ​​of emission of volatile organic compounds at a certain solvent consumption and total allowable emissions, as well as emission reduction schemes ("Official Gazette of RS", No. 100/2011);
* Rulebook on technical measures and requirements related to permitted emission factors for recyclable organic compounds originating from the process of storage and transport of gasoline ("Official Gazette of RS", No. 1/2012, 25/2012, 48/2012);
* Rulebook on the document on waste movement ("Official Gazette of RS", No. 114/13);
* Rulebook on the methodology for the preparation of the national and local register of pollution sources, as well as the methodology for the types, methods and deadlines of data collection ("Official Gazette of RS", No. 91/2010, 10/2013 and 98/2016);
* Rulebook on amendments to the Rulebook on the form of daily records and annual report on waste with instructions for its completion ("Official Gazette of RS", No. 79/2021);
* Rulebook on amendments to the Rulebook on the form of daily records and annual report on waste with instructions for its completion ("Official Gazette of RS", No. 79/2021)
* Rulebook on amendments to the Rulebook on the form of daily records and annual report on waste with instructions for its completion ("Official Gazette of RS", No. 79/2021)
* Decree on determining the program of works on the protection, arrangement and use of agricultural land for 2021 ("Official Gazette of RS", No. 76/2020 and 146/2020)
* Rulebook on geodetic and technical norms, methods and manner of work in the field of land consolidation ("Official Gazette of RS", No. 122/2020)
* Rulebook on conditions for performing fertility control of arable agricultural land ("Official Gazette of RS", No. 115/2020)
* Rulebook on the type and content of measures that the user of arable agricultural land is obliged to apply when using it ("Official Gazette of RS", No. 49/92)
* Rulebook on parameters of ecological and chemical status of surface waters and parameters of chemical and quantitative status of groundwater ("Official Gazette of RS", No. 74/11);
* Rulebook on permitted quantities of hazardous and harmful substances in soil and irrigation water and methods for their testing ("Official Gazette of RS", No. 23/94);
* Rulebook on the manner and conditions for measuring the quantity and testing the quality of wastewater and the content of the report on the performed measurements ("Official Gazette of RS", No. 33/16);
* Decree on limit values ​​for the emission of pollutants into water and deadlines for their achievement ("Official Gazette of RS", No. 67/11, 48/12 and 1/16);

National Legislative Database (in Serbian: “Pravno-informacioni system”) [www.pravno-informacioni-sistem.rs](http://www.pravno-informacioni-sistem.rs) contains all the relevant legal documents as well as strategies mentioned in this documents. Also, we strongly advice the bidders to review the following relevant documents:

* IPARD Programme (<http://uap.gov.rs/ipard-ii-u-srbiji/>, http://www.minpolj.gov.rs/ipard-program-2014-2020/)
* National Programme for Agriculture (<http://www.minpolj.gov.rs/nacionalni-program-za-poljoprivredu-za-period-2022-2024-godine/?script=lat> )
* National Programme for Rural Development (<http://www.minpolj.gov.rs/nacionalni-program-ruralnog-razvoja-za-period-2022-2024-godine/?script=lat> )

# Project scope

## Measuring the Agricultural and Rural Development Strategy for 2014-2024 (ARDS)

In accordance with the vision and the principles of the STRATEGY of Agriculture and Rural Development of the Republic of Serbia for the period 2014-2024, the following **strategic development goals** have been determined:

1. growth of production and stability of producers' income;
2. growth of competitiveness with adjustment to the requirements of the domestic and foreign markets and technical-technological improvement of the agricultural sector;
3. sustainable resource management and environmental protection;
4. improving the quality of life in rural areas and reducing poverty;
5. efficient management of public policies and improvement of the institutional framework for the development of agriculture and rural areas.

Growth of production and stability of producers' income is one of the primary goals of Serbian agriculture. Achieving this goal means that agricultural production must be competitive, economically efficient, based on the application of high technologies, respect for veterinary and phytosanitary standards, environmental standards and animal welfare.

In order for farmers and other actors in the production chain to successfully meet this challenge, agricultural policy must commit to providing and implementing an appropriate set of measures to successfully ensure income stability and security of agricultural workers. The essence of sustainable development and efficient restructuring of the agricultural sector is to achieve adequate, competitive and stable income of agricultural holdings. Therefore, the goal of the policy is to provide farmers with production conditions that enable efficient and rational decision-making, with minimal risks and the possibility of earning income competitive with other parts of the economy.

Growing competitiveness while adapting to the requirements of domestic and foreign markets and technical and technological improvement of the agricultural sector is a permanent goal of the agricultural policy of the Republic of Serbia, for which there is a strong foothold in rich resources, importance of the sector for national economy and rural development. During the past decade, the agri-food sector of the Republic of Serbia has made significant progress in positioning itself on the international market. Regional competitiveness of the agricultural sector within the CEFTA countries' markets is at a high level. On the other hand, in trade with the EU and other markets, despite the trade surplus, the structure of exports is not satisfactory. In addition, further liberalization of trade and globalization of the agricultural market require more effective measures to support the growing competitiveness of Serbian agriculture and greater ability of producers to meet the demands of modern consumers, especially those with high incomes.

Meeting the strategic goals requires efficient management of public policies and improvement of the institutional framework for the development of agriculture and rural areas. Achieving the set strategic goals requires different types of interventions, which can be classified into several *pillars of reforms*:

1) improvement of the natural resources management system;

2) modernization of facilities and equipment;

3) strengthening the food chain and bodies and organizations for logistical support to the agricultural sector;

4) establishing more efficient and operational systems for the implementation of existing and the creation of new knowledge and its transfer;

5) improving the quality of life in rural areas by diversifying the rural economy and strengthening the social structure;

6) modernization of bodies and organizations and adjustment of agricultural policy to the CAP model.

**Priority areas** **of strategic change**

By realizing the concept of sustainable development of agriculture and achieving the set strategic goals, interventions in several priority areas of agricultural policy will be achieved, such as:

1. stabilization of income of agricultural producers;

2. financing of agriculture and rural development and risk management;

3. efficient land management and increasing the availability of land resources;

4. improving the state of physical resources;

5. improvement of the knowledge transfer system and development of human resources;

6. adapting and mitigating the effects of climate change;

7. technological development and modernization of agricultural production and processing;

8. development of market chains and logistical support to the agricultural sector;

9. protection and improvement of the environment and preservation of natural resources;

10. conservation of agriculture, natural and human resources in the POURP;

11. diversification of the rural economy and preservation of cultural and natural heritage;

12. improving the social structure and strengthening social capital;

13. modernization and adjustment of bodies and organizations and legislation;

14. improving product quality and safety.

The selection of priority areas of intervention arose from the analysis of the situation and the identified external and internal challenges facing the sector. The selected priorities are significantly adjusted to the structure of budget support by pillars and groups of measures, presented in this strategy in the subsection Budget Plan 2014-2024 years. **Selected priority areas for action can be accompanied by a combination of different budget support measures.** **Given that the legal and substantive frameworks of agricultural policy are subject to frequent changes, conceptual definitions are given here, which have a long-term strategic effect and can be applied even to expected changes in agricultural policy in the next ten years**.

## Operational objectives by priority areas

### Priority area 1 - Stabilization of income of agricultural producers

The issue of stabilizing the income of employees in agriculture is the key to agricultural policy. This problem is solved by supporting the development of the agricultural sector, but the nature and specifics of agricultural production require other forms of state intervention in the field of care for the income of farmers. Namely, high instability of production and prices caused by natural conditions and global economic trends, low competitiveness of some products or one part of producers, require a more complex system of income stability support than spontaneous market mechanisms and standard package of measures for production growth can provide. Agricultural producers in the Republic of Serbia lack the stability of production conditions and income. Apart from the stated risks, their income is also exposed to other uncertainties that come with an insufficiently regulated business environment. In order to ensure fairer, equal production conditions for domestic producers, the state must initiate permitted mechanisms to support their income. Such an obligation is also part of the adjustment to EU policy, which has its own ways and mechanisms of income policy to which the country must adapt.

The envisaged **operational goals** for achieving a more stable agricultural income are:

1.1. ensuring equal competitive conditions for domestic producers in accordance with the envisaged solutions contained in the foreign trade agreements of the Republic of Serbia;

1.2. support for market regulation in times of market disruption (safety net measures).

***Principles and mechanisms of action - The two basic mechanisms for achieving the stated objectives that will be applied are: various forms of direct and indirect income support to agricultural producers (direct payments) and market intervention***. In the field of market support measures, the basic principle will be compliance with the WTO criteria of permitted support and gradual adjustment to the principles of the CAP, with a clear development note of incentive measures. The new support measures that will be introduced will respect the stated principles, while the measures that are not compatible with the WTO and EU rules will be gradually abolished. In relation to the existing support system, this would mean a reorientation towards less production-related payments, which have a developmental effect on agriculture, and enable efficient adjustment to EU accession.

### Priority Area 2 - Financing Agriculture and Rural Development and Risk Management

Systemic interventions in the existing model of support for agriculture and rural development and the creation of an efficient model of agricultural financing must become a priority of agricultural policy. In order for them to be successfully implemented, a broader social consensus is needed on the need for greater investment in the development of agriculture and rural areas as important segments of the national economic, economic and social structure. Long-term stability of available financial resources to support agriculture and rural development, as well as equal and unhindered access of all potential beneficiaries to the financial market, are the basic preconditions for the growth of investment activity in the agricultural sector. Without specific financial products and services that enable insurance against production and market risks and motivate agricultural holdings to new investments, rural households, agricultural holdings and other economic entities remain left to borrow under the terms of commercial loans. The absence of competitive savings instruments and other financial services in rural areas leads to less profitable forms of savings, which further reduces the prospects for their development.

The proposed **operational objectives** for establishing a more efficient financing model are:

2.1. increasing the number of available support schemes for different purposes;

2.2. increasing the number of users and the volume of available financial capital intended for the development of agriculture and rural areas;

2.3. developing the credit market and providing better access to credit for farmers, including new forms of credit;

2.4. improving the insurance and risk management system adapted to the solutions allowed by international agreements.

**Principles and mechanisms of action - Establishing an efficient system of support for agriculture requires significant institutional adjustments in the direction of building and reforming agriculture-friendly financial organizations (strengthening guarantee funds) and financial products (insurance, credit).** The task of the state is to adjust the legal framework for easier provision of collateral, to enable the creation of ideas logo and the promotion of innovative solutions in the financial market, but, above all, to provide efficient and stable budget support.

### Priority Area 3 - Effective land management and increasing the availability of land resources

Land is a basic and objectively given resource for agricultural production. The scope of this resource is limited, and its qualitative properties can be corrected only to a certain extent, not without significant costs and consequences for the environment. On the other hand, the development of the agri-food sector directly depends on the availability of factors of production, especially land, and the possibility of equal access of all economic entities to this resource under equal conditions.

During the last two decades, agricultural production in the Republic of Serbia has been based on excessive land depletion. The use of manure is insufficient, as well as investments in the repair of physical and chemical properties of the soil and the arrangement of land infrastructure. As a consequence, the main threats to the preservation of land potential have been identified: permanent soil loss, reduction of organic matter, acidification, compaction, erosion, pollution, salinization, flooding and loss of biodiversity. In addition, the lack of funds for the expansion and arrangement of holdings, inadequate tax policy, incomplete restitution proceedings and relatively lengthy probate proceedings, further slowdown the process of changing the agricultural structure and increasing the average size of holdings.

In accordance with the above, preserving and improving the fertility of agricultural land, as well as creating an efficient land management system, are one of the priorities of agricultural policy. The defined **operational objectives** are:

3.1. higher use of agricultural land;

3.2. increasing land holdings and enlarging plots;

3.3. establishing a functioning land market;

3.4. improvement of land infrastructure;

3.5. increasing ameliorated areas and improving soil fertility;

3.6. accelerating the return of property, i.e. restitution (including cooperative property) and (re) privatization;

3.7. reduction of land loss and degradation;

3.8. controlled conversion of agricultural land;

3.9. more efficient use of land of lower quality, i.e. uncultivated agricultural land;

3.10. systematic monitoring of soil quality;

3.11. establishing an efficient land management system (Cadastre, GIS, and LPIS).

**Principles and mechanisms of action** - Achieving these operational objectives requires significant changes in legislation, tax policy and budgetary incentives.

Adoption and adjustment of legal frameworks will regulate relations in the field of trade, lease and inheritance of land, but also the obligation to maintain land in good production conditions. Special emphasis will be placed on the protection of agricultural land, in the sense of limiting the conversion of the highest quality agricultural land into land for other purposes. Tax policy and budget incentives will encourage the increase and consolidation of land of sustainable agricultural holdings and the establishment of a more active land market. Also, special attention will be paid to improving the quality of land and its production capabilities. In addition to conditioning support to producers by respecting agricultural practices that help preserve land in good agricultural conditions, projects for land reclamation and improvement of land infrastructure will be supported and financed.

A special set of activities is envisaged on strengthening institutional capacities for efficient land management, such as the **establishment of functional systems of records, registers and databases (LPIS, land books, pedological maps, etc.).**

### Priority area 4 - Improving the state of physical resources

The current state of physical resources (machinery, equipment, plantations, livestock and facilities) is unfavorable. They are technologically outdated to the extent that they cannot ensure the growth of productivity in the agricultural sector and the fulfillment of environmental and hygiene standards. In addition, a successful response of the agricultural sector to the challenges of climate change is impossible without technical and technological improvement of resources, use of new better plant varieties, which should contribute to changes in production structure, production technologies and agro-technical measures. In that sense, it is necessary to envisage rational, standard solutions for technical-technological innovation of mechanization, equipment and facilities, adjusted to the size of the agricultural farm, standards of health safety and animal welfare, as well as climate change. Investments in new plantations must follow the recommendations of the regionalization of fruit and vineyard production areas, while in livestock production attention must be paid to improving the racial composition of livestock and improving selection.

The **operational objectives** for the realization of this priority are:

4.1. technical-technological modernization of facilities and equipment;

4.2. increase livestock, improve the racial structure of the herd and make better use of the genetic potential of domestic animals;

4.3. increase of areas under perennial plantations (plantation and parent plantations);

4.4. adapting the assortment of fruit and vines to production conditions and improving production technology;

4.5. improvement of the entire system of production and distribution of planting and seed material;

4.6. establishing a more efficient system of services in plant and animal production;

4.7. improving the system of protection of animal health and welfare and plant health.

**Principles and mechanisms of action** - Support for technical and technological improvement of the agricultural sector will be provided with incentives for modernization of facilities, mechanization and equipment, increase of basic herd and improvement of racial composition of livestock, as well as incentives for revitalization of old and new perennials. Special attention will be paid to the implementation of innovative technological solutions and production systems. In addition to investments in improving the state of physical capital, significant attention will be paid to improving standards, both in terms of adjusting the legislative framework and in terms of establishing an effective control system.

### Priority area 5 - Improving the knowledge transfer system and human resources development

The creation and transfer of knowledge and technologies in agriculture are important for increasing the competitiveness of Serbian agriculture. The state must participate in the proposal and selection of scientific projects in which domestic researchers should create world-competitive knowledge and technologies in the field of agriculture, and which must be harmonized with the real needs of users.

Technological improvement of the agricultural sector, investments in new knowledge and technologies and their transfer to direct users are a necessary precondition for reducing the technological backwardness of agriculture and combating two major challenges of agriculture and food industry of the Republic of Serbia - productivity growth and climate change adaptation.

The **operational objectives** that should contribute to the reform of the knowledge creation and transfer system are:

5.1. improving the educational structure of the workforce on agricultural holdings;

5.2. strengthening and reorganizing institutional capacities;

5.3. strengthening and functional connection of all actors of the system for creation and transfer of knowledge;

5.4. technical and personnel improvement of institutions and organizations involved in the system of creation and transfer of knowledge in accordance with the needs of agricultural development and implementation of the Strategy;

5.5. expanding the offer of educational and training programs of all levels and types of education;

5.6. strengthening the capacity to absorb knowledge, through developing awareness and motivation for education.

**Principles and mechanisms of action** - Improving the system of knowledge creation and transfer will be encouraged through general measures to support agriculture, as well as funds from other line ministries.

Legal solutions and reforms of the institutional framework will support the creation of an efficient system of knowledge and information transfer, which will be able to respond to the problems and needs of users. The development of a system for monitoring and evaluating knowledge transfer, as well as the functional connection of all actors in this system will enable better and more efficient use of resources. Special attention will be paid to the development of mechanisms and procedures for the participation of representatives of the agricultural sector in deciding on projects of special national interest in cooperation with relevant ministries, both in the field of applied research and in educational programs and advisory services.

Affirmation of agricultural education and professional development of farmers will have special attention, as well as their motivation to improve and adopt new solutions, which will be especially encouraged. The promotion of advisory work in agriculture will be carried out in order to affirm and recognize the role of PSSS.

### Priority area 6 - Adaptation and mitigation of climate change impacts

The development of agriculture in the future will be even more faced with the consequences of climate change. It is expected that higher concentrations of carbon dioxide and other greenhouse gases, rising temperatures, changes in annual and seasonal precipitation and higher frequency of extreme temperatures, will inevitably affect the volume of production and food quality, yield stability and the environment. In addition, consequences are expected in the form of reduced water availability, frequent occurrences of diseases and pests, as well as reduced soil quality. All these effects will have significant consequences for yields, agricultural production structure, and thus food security and safety. In such circumstances, the risks to farm incomes, quality of life and socio-economic status of rural households inevitably increase.

The **operational objectives** to help address food production more effectively with this challenge are:

6.1. monitoring of climate change, creation of adaptation measures and adequate measures aimed at reducing greenhouse gas emissions from agricultural production;

6.2. improvement and adaptation of production technology;

6.3. technical improvements of land, facilities and equipment;

6.4. raising awareness of climate change, its consequences and the need to address them.

**Principles and mechanisms of action** - A major challenge for agricultural policy will be to find adequate mechanisms to support technical and technological solutions that prevent or reduce the effects of climate change, as well as to respond to the challenge of the need to grow food production.

Adaptation of agriculture to the effects of climate change will be encouraged by institutional solutions in the field of defining standards and systems for permanent monitoring of the effects of climate change, support for scientific innovations and dissemination of knowledge and information in this area. Support for investment in the agricultural sector will pay particular attention to the application of low-impact technologies and global warming. Technologies and practices (application of agro-technical measures, assortment, cultivation and management systems) that contribute to reducing the impact of global warming will have priority, and innovative solutions will be especially rewarded and encouraged.

### Priority area 7. - Technological development and modernization of agricultural production and processing

Improving the competitiveness of the agri-food sector requires support for restructuring, development and innovation along the entire food chain. Modernization and technological development of the sector (apart from capital investments in resources, physical capital and knowledge transfer), implies the application of modern production technologies in the processing sector. Of special importance for the agriculture of the Republic of Serbia is the improvement of the competitiveness of the processing sector, which should be as much as possible based on domestic raw materials and achieving as much added value as possible, in order to increase export competitiveness.

**Operational objectives** leading to the realization of this priority are:

7.1. advancing technology and a more efficient system for transferring experience and innovation;

7.2. creating new knowledge, technologies, products and services adapted to local conditions;

7.3. growth of production volume and quality of all inputs of domestic origin;

7.4. increasing productivity and efficiency in production at all levels in the food production chain;

7.5. strengthening the ability of the food industry to create more added value with the use of domestic raw materials;

7.6. system improvement and promotion of products with quality labels;

7.7. technical and technological improvement of storage and processing capacities of cooperatives with the aim of producing recognizable cooperative products of standard quality;

7.8. improving the technical and technological performance of the food sector and creating new products in the food chain.

**Principles and mechanisms of action** - The main support mechanisms in this area will be focused on increasing productivity and efficiency in food production and processing. The support will be intended to increase the capacity of the agro-industry in order to meet quality standards and enable producers to participate in quality schemes and promotional activities. Incentives will be available to producers who voluntarily participate in EU or national programs designed to improve the quality of agricultural products and production processes, which guarantee the quality of their products in terms of: protected geographical indications and designations of origin for agricultural and food products, certificates of specific agricultural characteristics food products, organic production and appropriate indications for it, etc. In addition, support will be possible for the activities of producer groups aimed at informing consumers and promoting products produced under quality schemes.

### Priority area 8 - Development of market chains and logistical support to the agricultural sector

The growth of agricultural competitiveness is strongly dependent on the formation of an efficient market chain, which includes a wide range of new products, services and actors. The development and improvement of the market chain in all its segments should contribute to strengthening the efficiency of the agricultural sector and its ability to deliver quality and safe food to consumers. The goal is to form an efficient system of links in the production chain, which will guarantee and promote best production practices and enable efficient management of products after the harvest. Modern retail systems are fundamentally changing the technical infrastructure and entrepreneurial behavior of participants in the agri-food sector. The food chain in the Republic of Serbia is currently extremely fragmented and insufficiently organized, both on the production side and on the processing side, with an obvious deficit of organs and organizations to provide adequate and sophisticated logistical support. As such, it certainly poses a threat to further growth in the competitiveness of the agri-food sector.

**Operational objectives** leading to the realization of this priority are:

8.1. development of new services in the food chain and strengthening of logistics infrastructure in food production;

8.2. increasing the capacity of agricultural holdings to join global market chains (supply trade chains);

8.3. strengthening the motivation of producers for various forms of association;

8.4. strengthening the capacity of cooperatives to become financial, market and advisory services to cooperatives;

8.5. strengthening the visibility and recognizability of domestic products on the market;

8.6. strengthening the export performance of the agricultural sector;

8.7. strengthening horizontal and vertical links in the production chain, based on market principles;

8.8. reducing the presence of the gray economy;

8.9. strengthening and development of market organizations.

**Principles and mechanisms of action** - The task of agricultural policy is to formulate and implement measures and solutions that will contribute to improving the efficiency of the market chain. In this regard, the state will undertake a number of activities to improve the institutional framework and support all forms of business connections and associations. State support to strengthen the production chain will be implemented through support to strengthen the capacity and efficiency of market organizations and their infrastructure, development of market information systems, as well as support to producers in the field of aggregation, marketing and post-harvest process management. State support for strengthening the integration of the production chain will be aimed at helping to co-finance the initial administrative costs and marketing activities. Special attention should be paid to the support of producer associations and training for participation in quality schemes. With a set of legal solutions and control mechanisms, the state will permanently work on suppressing the gray economy.

### Priority area 9 - Protection and improvement of the environment and conservation of natural resources

A clear strategy and policy for natural resource management are crucial for sustainable environmental management and for long-term and stable economic growth. An appropriate policy framework and incentive programs contribute to greater accountability and more rational use of natural resources, as well as more active participation in the implementation of activities related to environmental problems. As a rule, transition societies, such as Serbia, lack clear political frameworks that would adequately incorporate environmental issues into economic activities, including, above all, agriculture. It is the responsibility of the state to ensure the establishment of appropriate legal frameworks, implementation mechanisms and incentive measures, and to ensure that they are coherent with international commitments. In this regard, this strategy pays special attention to the reforms that need to be implemented in order to promote sustainable agricultural practices (agri-environmental measures, agroforestry, integrated natural resource management, integrated pest management, soil fertility, sustainable water management, organic agriculture), law enforcement and regulations for the prevention of pollution, preservation of land and water, control of non-selective conversion of agricultural land for other purposes, protection of forests and areas with high-value natural resources.

The envisaged **operational objectives** for the realization of the priority area related to the protection and improvement of the state of the environment are:

9.1. protection of waters from negative impacts of agriculture;

9.2. greater application of agricultural practices (application of agro-technical measures and technology) environmentally friendly;

9.3. establishing and promoting integrated production systems;

9.4. improvement of organic production, control, certification and supervision systems in organic production;

9.5. raising awareness of the importance of using renewable energy sources and energy crop production;

9.6. controlled management of waste from primary agricultural production;

9.7. development and improvement of the food by-products management system;

9.8. conservation and sustainable management of plant and animal genetic resources;

9.9. preservation of landscapes, agricultural areas of high natural value and their resources.

**Principles and mechanisms of action** - Addressing the issue of protection and improvement of the environment is one of the universal, general principles that are introduced in all measures and all areas of intervention of the new agricultural policy. Within the framework of agri-environmental policy, financial incentives will be used, as well as activities to strengthen the awareness of producers about the need to protect and improve the state of natural resources in the areas they manage. This includes the protection and preservation of land, air quality, groundwater and surface water, habitats and wildlife, traditional rural areas and agricultural land of high natural value. Agri-environmental requirements and payments will be adapted to the characteristics of certain agricultural systems and environmental conditions, and agri-environmental policies will be designed according to specific national, regional and local needs. This problem will be solved by the synergetic effect of a number of measures, such as: setting special criteria for investment support, special incentive programs in the field of energy, technological improvement of production processes, as well as special incentives for the introduction of environmental technology.

### Priority area 10 - Preservation of agriculture, natural and human resources in the POURP

A significant part of the rural area of ​​the Republic of Serbia is faced with low agricultural productivity and socio-economic marginalization, caused by geographical or other restrictions. At the same time, these areas often fall into the category of HNVF areas (High nature value farmlands) and are characterized by greater application of traditional agricultural practices that contribute to better environmental protection. Farmers in these areas need help to remain in the agricultural sector, continue to use the land and maintain it in good production conditions, to contribute to the preservation of rural landscapes, apply and promote traditional production systems.

**Operational objectives** for the implementation of this priority area are:

10.1. preserving and strengthening the vital social structure in the POURP;

10.2. equalization of economic conditions of agricultural producers in POURP with those of producers in other areas;

10.3. revitalization and preservation of pastures (as an element of landscape and production resources).

**Principles and mechanisms of action** - Support to agriculture in the POURP should ensure an equal economic position of producers in these areas compared to those in other areas. The support will be based on compensations for higher production costs, i.e. lost revenues due to unfavorable production conditions. The goal of the support will be to ensure the competitiveness of agricultural production in those areas as well.

### Priority area 11 - Diversification of the rural economy and preservation of cultural and natural heritage

Diversification of economic activities and income transforms the rural economy by moving it away from the activities of the primary agricultural sector, to industry and tertiary activities. Greater job and employment opportunities in activities outside agriculture will open space for structural changes and growth of agricultural productivity. At the same time, the diversification of the rural economy and the reduction of dependence on agricultural income provide conditions for a more stable income of those agricultural farms whose survival in agriculture is uncertain. In this way, rural areas become economically and socially less vulnerable.

On the other hand, the diversification of economic activities in rural areas expands the range of services available to the rural population, as well as services and products based on traditional knowledge, technologies, natural resources and cultural heritage, which rural areas provide on the market. Agricultural policy alone is insufficiently effective in addressing the growing social problems of rural areas, which is partly due to the changing functions of agriculture in general.

### Priority area 12 - Improving the social structure and strengthening social capital

The social structure of rural areas reflects the relationships of different entities or groups in rural areas, their patterns of behavior and role, and as such significantly affects many important aspects of rural development. The goal of improving the social structure and social opportunities of rural areas is to strengthen the internal potentials of rural communities, i.e. to strengthen their capacity for joint organization and action. In this way, local communities are trained to independently manage their own development, better articulate the development problems of their communities, advocate for the interests of their citizens with greater lobbying potential and offer innovative solutions to improve the quality of life of their citizens. By creating a critical mass of local actors trained to take responsibility for creating the development of their community and to take an active part in the process, the social structure of rural communities and their internal development potential is strengthened. Accordingly, the set **operational objectives** are:

12.1. stopping negative demographic trends in rural areas;

12.2. mobilizing local human and social resources by organizing local action groups and LEADER approaches;

12.3. promoting cooperative organization and inclusion of cooperatives in local action groups;

12.4. strengthening regional cross-border cooperation to promote socio-economic development;

12.5. greater availability of social services to the rural population;

12.6. reducing rural poverty and improving the situation of deprived sections of the rural population;

12.7. improving the social status of the agricultural workforce;

12.8. inclusion of small farms in support systems;

12.9. affirmation of women's and youth entrepreneurship in rural areas;

12.10. ensuring the affirmation of diversity (national, religious, cultural, social, etc.) in rural areas.

**Principles and mechanisms of action** - In defining activities and measures to achieve this goal, special attention will be paid to strengthening local action groups, in terms of improving their resources and expertise. These types of support will introduce innovative management opportunities through strengthening local initiative and bottom-up approaches to rural development. All types of local partnerships related to the promotion and activation of local values ​​and products, improving the social status of deprived parts of rural communities and addressing social exclusion, will be promoted and financially encouraged in cooperation with other state bodies. In addition, the creation of local development strategies and action plans to solve development problems and achieve better links between urban and rural areas will be encouraged.

### Priority Area 13 - Modernization and adaptation of bodies and organizations and legislation

Building new and adapting existing bodies and organizations are part of the necessary reforms that should contribute to strengthening the capacity to manage public policies in agriculture and rural development. Despite significant progress, especially in the area of ​​legislative reform, institutional capacity, their infrastructure and control, implementation and evaluation systems remain low. Reform of the institutional framework and building an efficient system for the implementation of complex public policies in agriculture and rural areas are especially important in the preparations for the adoption and absorption of EU pre-accession assistance.

In addition to building and adjusting institutional structures, permanent efforts are needed to train staff, especially for the management of EU pre-accession funds, in accordance with accounting and auditing standards, as well as the timely adoption of appropriate legislation. The envisaged **operational goals** in terms of modernization of bodies and organizations include:

13.1. speeding up the transposition of the EU acquis;

13.2. building missing and strengthening existing bodies and organizations;

13.3. modernization of administration in terms of improving professionalism, application of information technologies and new management practices;

13.4. strengthening the partnership between governmental and non-governmental structures, participatory decision-making systems and decentralization of decision-making and funds.

Principles and mechanisms of action - Meeting the objectives of the Strategy requires reforming institutional structures, developing appropriate information and communication systems, and adopting a number of legal regulations. In a word, adequate institutional capacity integrated into a functional system. In that sense, the organizational structure of MAFWM and internal units will be organized in such a way as to ensure efficient realization of set goals, introduction and implementation of new policy (primarily in the field of agri-environmental measures, achieving higher quality standards and implementation of new rural development policy measures). In addition, it is necessary **to establish IACS** whose purpose is to manage and control the system of payments to producers, including checks on the correctness of such payments. Like permanent activities of all actors involved in the implementation of agricultural policy will remain efforts to strengthen the human capacity of the administration and all other supporting bodies and organizations and actors, with the potential to help adopt the EU model of agricultural support.

### Priority area 14 - Improving product quality and safety

Despite the growing awareness of food safety as a priority in preserving public health and an important factor in food trade, investment in this area is still insufficient. The reason for that is not only the lack of financial resources, but also the poor knowledge of the concept of food safety and the consequences that result from it. The issue of improving food quality and safety has a crucial impact on the ability of the food sector to face competition in local, regional and international markets. Improving food safety and quality systems and capacities means creating an environment in which all relevant actors in the production chain (government bodies and organizations, food industry, academia and consumers) respect Codex alimentarius standards, taking responsibility and guaranteeing safety and quality food.

The identified **operational goals** for the agricultural policy of the Republic of Serbia in the coming period are:

14.1. continuous improvement of safety and quality of food and feed with continuous improvement of the overall food safety system;

14.2. greater application of international standards in food and feed production;

14.3. establishing and strengthening a systemic framework for the implementation of quality schemes;

14.4. strengthening the capacity and effectiveness of the control and inspection infrastructure;

14.5. establishing an effective system of laboratory control of food and feed;

14.6. adjusting food hygiene standards for traditional and organic production facilities, as well as production in areas where there are special geographical restrictions.

**Principles and mechanisms of action** - Effective and sustainable capacity development in the field of food safety and quality must be encouraged by national policies and programs. It is the responsibility of the state in the field of food safety and quality to establish a clear institutional framework and administrative structures with clearly defined responsibilities.

# Introduction to CAP (Common Agricultural Policy)

The common agricultural policy (CAP) was created in 1962 by the six founding countries of the European Communities and is the longest-serving EU policy. Its aim is to:

* provide affordable, safe and high-quality food for EU citizens
* ensure a fair standard of living for farmers
* preserve natural resources and respect the environment

It is a dynamic policy which, through successive reforms, has adapted to new challenges faced by European agriculture. The EU has created and implemented the CAP to meet challenges such as:

* providing food security for all European citizens
* addressing global market fluctuations and price volatility
* maintaining thriving rural areas across the EU
* using natural resources in a more sustainable manner
* contributing to climate change mitigation

The CAP is divided into **two pillars and has three main areas** **of action**:

* **direct support (first pillar)**
* **market measures (first pillar)**
* **rural development (second pillar).**

The day-to-day running of the CAP is the responsibility of the Member States (MS), always in close cooperation with the EC, and the EU Court of Auditors as the guardian of EU finances**.**

## Direct support (first pillar)

Direct support consists in payments granted directly to farmers, providing them with a safety net.

The CAP guarantees EU citizens a dependable and plentiful supply of high-quality food as well as a healthy environment and exceptional landscapes.

Direct support ensures that:

* farmers receive income support in return for looking after their farmland and meeting food-safety, environmental and animal welfare standards
* Maintain farming activities adapted to their climatic or geographic situation
* producers respond to market signals so that they produce the goods demanded by consumers, allowing them to maximize their profits
* farmers who do not comply with certain requirements in the areas of public, animal and plant health, environment and animal welfare, may receive less or no support (cross compliance).

## Market measures (first pillar)

Many current and future challenges, including global competition, economic and financial crises, climate change and volatile costs of inputs such as fuel and fertilizer affect the agri-food sector. In order to counter-balance high price volatility in agricultural markets in the EU, a set of rules was established within the CAP.

The **Common market organization (CMO)** regulation involves:

* building on the rules for the common market in goods and services, creating specific policy tools that help to improve the functioning of agricultural markets
* setting out the parameters for intervening in agricultural markets and providing sector-specific support
* including rules on the marketing of agricultural products and the functioning of producer and inter-branch organizations
* issues related to international trade and competition rules
* By facilitating the smooth functioning of the single market, the CMO ensures the diversity, availability, affordability and safety of its agricultural products.

## Rural development (second pillar)

Predominantly rural areas make up half of Europe and are inhabited by around 20% of the EU population. Most of these areas are also among the least favored regions in the EU, with a GDP per capita significantly below the European average.

**Rural development measures contribute to**:

* modernizing farms, promoting the uptake of technology and innovation
* boosting rural areas, for instance through investments in connectivity and basic services
* increasing the competitiveness of the agricultural sector
* protecting the environment and mitigating climate change
* improving the vitality of rural communities
* ensuring generational renewal in farming

The CAP’s second pillar is co-financed by the MS. They also support their farmers with further measures financed from their national budget, such as, in particular, social security for farmers.

Rural development policy is a very important tool to support the sustainable development of the EU’s rural areas and agriculture, including organic farming. EU measures make it easier to modernize farms while encouraging the diversification of activities in rural areas.

**The Council has formally adopted the new common agricultural policy (CAP) which will apply for the period 2023-2027.**

The new CAP seeks to:

* enhance the contribution of agriculture to EU environmental and climate goals
* provide more targeted support to smaller farms
* allow greater flexibility for member states in adapting measures to local conditions

The three regulations that make up the CAP reform package were signed by both the Council and the Parliament and were published in the Official Journal on 6 December 2021. **The new policy will apply in full in 2023**.

For the period 2023-27, the common agricultural policy (CAP) will be built around **ten key objectives**. Focused on social, environmental and economic goals, these objectives will be the basis upon which EU countries design their CAP strategic plans.

The objectives are:

* to ensure a fair income for farmers
* to increase competitiveness
* to improve the position of farmers in the food chain
* climate change action
* environmental care
* to preserve landscapes and biodiversity
* to support generational renewal
* vibrant rural areas
* to protect food and health quality
* fostering knowledge and innovation.

## Evaluating the CAP 2023-2027

One of the most significant developments in the 2023-2027 CAP programming period is the **New Delivery Model (NDM)**, a new governance structure that will shift the present compliance-based approach to a **performance-based approach**. Future assessment requirements must be more succinct and must avoid overly general suggestions, as they risk undermining the evaluation commitment.

**The next CAP programming period (2023-2027) will be monitored and evaluated using the new Performance Monitoring and Evaluation Framework (PMEF).** The NDM will demand a robust governance system as is currently the case; but in addition, will require a reconciliation of expenditure incurred with impacts achieved, through a transparent performance reporting framework based on the reporting of outputs and results with milestones and programme targets.

MS will be required to **set for each intervention/scheme**:

* annual planned outputs (e.g. number of farmers to be supported, number of hectares etc.)
* annual planned unit amounts (e.g. €/ha, €/beneficiary etc.)
* annual indicative financial allocation for all interventions in the CAP Strategic Plan (i.e. annual planned outputs \* annual planned unit amounts)
* annual milestones and programme targets for result indicators (e.g. x% agricultural area under management commitment to reduce GHG emissions).

It is intended that the evaluators and future certification body be involved in the early phases of establishing the performance framework. This will ensure that the **specific objectives of the CAP are linked to relevant indicators which can be used to monitor and evaluate CAP performance**.

New performance framework for CAP will include the following:

(a) a **set of common context, output, result and impact indicators** which will be used as the basis for monitoring, evaluation and the annual performance reporting;

(b) **targets and annual milestones** established in relation to the relevant specific objective using the relevant result indicators;

(c) **data collection, storage and transmission**;

(d) regular reporting on performance, monitoring and evaluation activities;

(e) the ex-ante, interim, and ex post evaluations and all other evaluation activities linked to the CAP Strategic Plan.

This will be achieved by capturing and processing:

* **indicator data, internal IT systems and data sources**
* **monitoring and evaluation data from external sources**
* **other, more qualitative monitoring data, through alternative means or from other**
* **external sources, such as may be provided via the use of external expertise and evaluations**.

The CAP benefits agricultural and farming sector as well as rural development and has allowed it to become progressively more market oriented, which has led to an increase in the competitiveness and trade performance. The CAP also contributes significantly to the reduction of poverty, increased employment and the renewal of rural areas.

In order to increase transparency and facilitate the assessment of policy achievements, like those stated above, as well as to capitalize on the vast amount of information at its disposal, **the MFWAM will launch a new ‘CAP Indicator Dashboard’, part of the SAIRP, portal of selected CAP indicators presented visually and interactively.**

Dashboards will visualize the trends in the CAP indicators. They will be interactive and data on different levels (output, results, context and impact indicators) will be combined to allow for the visualization of indicators organized by specific topics.

These dashboards compile **different databases/sources (registers or official records) available in Serbian government entities in charge of relevant areas**, including those from Pillar I and II of the CAP (remark: more on particular indicator and data source is given in **Annex I**):

1. Statistical Office: databases (services and/or Excel spreadsheet (data exported from databases)) related to demographics, agriculture census, trade, Structure of agricultural production,
2. MAFWM: Directorate for Agrarian Payments (Register of Agricultural Holdings – new database to be established in 2022; data exported in Excel spreadsheet and/or service)
3. MAFWM: Directorate for agricultural land (Excel spreadsheets on quality of land)
4. MAFWM: FADN database and Market prices data (application “STIPS”) (export to Excel spreadsheet from databases FADN and STIPS)
5. MAFWM: Sector for Agricultural Policy (Excel spreadsheet, data on policy indicators)
6. MAFWM: Directorate for Plant Protection (Excel spreadsheet)
7. MAFWM: Directorate for Veterinary Medicine (database of marked animals)
8. MAFWM: Agricultural Land Administration (Excel spreadsheet on quality of land)
9. MAFWM: Directorate for Forests (database of forests structure)
10. MAFWM: Water Directorate (database on water management)
11. Institute for Nature Conservation of Serbia (Excel spreadsheet on protected species)
12. Agency for environmental protection: open data (Excel format/CSV format) related to environment and climate changes
13. Business Register Agency: open data on local incentives (Excel spreadsheet)
14. Development Fund (Excel spreadsheet on support of startup companies)
15. Disaster Risk Register (remark: will be launched in July 2022; in charge of Ministry of Interior, and hosted in Republican Geodetic Authority) – geo-referenced database on disaster risks including climatological risks (trends) grouped by LAU (Local Administrative Unit).

Each dashboard will be accompanied by a **fiche providing information on the indicator (metadata)**.

Open data collected within other projects useful for reporting purposes:

* United Nations – Statistical Division: country profile – indicators related to sustainable development goals <https://unstats.un.org/sdgs/dataportal/countryprofiles/srb>
* United Nations – FAO - Global Information System on Water and Agriculture, <https://www.fao.org/aquastat/statistics/query/index.html?lang=en> .

## Measuring Success

CAP indicator dashboards are made up of data from the common CAP indicators, which are used for the assessment of the CAP’s performance. MFWAM (through WG activities) will establish the common monitoring and evaluation framework (CMEF) in order to assess the performance, it has made in achieving the targets laid forth in the strategy to achieve smart, sustainable, and inclusive growth.

**The CMEF is a set of rules, procedures and indicators, which allows for the evaluation of the CAP (income support, market measures and rural development).** The EC and MS use the CMEF to assess whether the CAP is achieving the following objectives:

* viable food production, with a focus on agricultural income, agricultural productivity and price stability;
* sustainable management of natural resources and climate action, with a focus on greenhouse gas (GHG) emissions, biodiversity, soil and water;
* balanced territorial development, with a focus on rural employment, growth and poverty in rural areas.

The CMEF provides key information on the implementation of the CAP through the use of indicators and sub-indicators. These **indicator types** include:

* **Context indicators**
* **Output indicators**
* **Result indicators**
* **Target indicators**
* **Impact indicators.**

# Scope of Work: Development of SAIRP (Serbian Agriculture Information and Reporting Platform)

## Functional requirements

SAIRP should be developed as a software platform, modular, extendable and customizable for MAFWM to provide reports to meet the different needs of users. First of all, should be explained general purpose of the platform, i.e. to track performance against the strategic plan, possibility to change or monitor several strategies (at least two: EU and Serbian). Namely, Integrated **Planning Monitoring Evaluation & Learning** (**PMEL**) **framework** of the strategic plan will be developed aiming to track performances. Therefore, the system should keep track of the implementation of objectives and the indicator performance tracking throughout the life of the strategic plan and provide reports according to specific reporting needs and periods.

Enable tracking of performance of specific objectives against set objectives and targets and their contribution to the achievement of the Strategic plan. In addition, provide details of performance of every indicator and objective based on group of indicators. The system should enable:

* **Module for Strategic planning** with at least 3 levels (strategic development goals, area of actions and operational objectives) and flexible linkage between same levels.
* Functionalities: administration of strategy (create, read, update, delete[[2]](#footnote-2), so called CRUD operations); administration of strategy elements and links between them: goals, areas of action, operational objectives and special objectives, status, validity period) (CRUD operations); management of metadata on strategy. This means that codebook (look up) of strategies should enable configurability of the System, by providing options for preparation and administration of several strategies, old and new, in parallel. Reporting on funds should be enabled at several dimensions (i.e. data marts) like (non-exhaustive list) :
  + Origin of funds
  + Timeframe
  + Disbursement
  + Methodological differences in sampling and presentation (real-time data like Register of Agricultural Holdings, sampling made by Statistical Office, mixture of real-time and survey data like FADN).
* Enable sorting custom strategic plan indicators, but also to provide a report depicting all indicators across individual strategic goals.
* Should be scalable or easy to upgrade to accommodate increase in the number of users/new staff. Should generate reports for different purposes, including donor and management reports.
* Flexible and easily upgradable with future software upgrades. High level of configurability should be provided (new strategy will be created by avoiding programming or programming should be minimized). Simultaneously used by multiple user across the MAFWM. The System should be partially publicly available, and about separation of private (MAFWM) and public part of the System will be decided during the project implementation. It is clear that management of strategies and indicators, linkages and codebooks should be available to internal users. On the other hand, visualization of indicators and related data should be publicly available, in a same manner depicted is at Agri-food Data Portal of EU (Dashboard for 13 themes organized in 13 thematic indicators; Dashboard for CAP indicators-context indicators, organized in three thematic areas, including data explorer (download of publicly available data) and different graphs/diagrams).
* **Sub-Module for visualization of ADRS**

Mapping of ARDS with new CAP indicators is given Annex XI.

* **Sub-Module for linking result indicators and specific objectives**

Matrix linking result indicators and specific objectives is given in Annex VI.

* **Sub-Module for objectives impact and result indicators**

Mapping of objectives impact and result indicators is given in Annexes V and VI.

* **Module for indicator import** automatically, semi-automatically or manually depending of source of data

In this module import of data will be realized meaning that different ways of data provision will be used: a) web service (external institution will expose service) b) import for Excel spreadsheet (format will be fixed and defined in more details during the project implementation) c) manually entered, if not possible to provide other way. Data sources are stated in section above 5.4 Evaluating the CAP 2023-2027. More on indicators can be found in Annex XII-external spreadsheet (separate Excel file).

**Hierarchy of programmes**

1. National Strategy for Agriculture and Rural Development (would be substituted in the future by CAP Strategic Plan)
   1. National Programme for Agriculture (would be substituted in the future with Direct Payment Interventions and CMO interventions)
   2. National Programme for Rural Development (would be substituted in the future with Rural Development Interventions)
   3. IPARD Programme (To be substituted in the future with Rural Development Interventions)
   4. Local and Provincial Programmes (To be part of the *de-minimis* register in the future)

**Hierarchy of objectives**

Objectives of the strategy and programmes have a firm interconnected structure which can be presented in the following way (generic review):

1. Strategic objective
   1. Programme N, General Objective N
      1. Programme N, General Objective N, Specific Objective N
         1. Programme N, General Objective N, Specific Objective N, Measure N
            1. Operation (Project, beneficiary)
2. Strategic objective 1
   1. National programme 1, General Objective 1
      1. National Programme 1, General Objective 1, Specific Objective 1
         1. Measure 1
         2. Measure 2
      2. National Programme 1, General Objective 1, Specific Objective 2
         1. Measure 1
         2. Measure 2
   2. National Programme 1, General Objective 2
      1. National Programme 1, General Objective 2, Specific Objective 1
         1. Measure 1
         2. Measure 2
   3. National Programme 2, General Objective 1
      1. National Programme 2, General Objective 1
         1. Measure 1
         2. Measure 2
   4. IPARD Programme, General Objective 1
      1. IPARD Programme, General Objective 1, Specific Objective 1
         1. Measure 1
3. Strategic objective 2
   1. National Programme 2, General Objective 3
      1. National Programme 2, General Objective 3, Specific objective 1
         1. Measure 1
   2. IPARD Programme, General Objective 2
      1. IPARD Programme, General Objective 2, Specific Objective 1
         1. Measure 1
   3. Local Programme X, General Objective

**Hierarchy of indicators**

Each hierarchical layer should be connected with one or more indicators from the Register of Indicators:

* Strategic objectives – Impact Indicators
* Programme General Objectives – Impact indicators
* Programme Specific Objectives – Result Indicators
* Measures – Output Indicators

Structure complied with EU policy

Upon entry into the EU, the structure of the platform should accommodate the following structure:

1. CAP SP
   1. General Objective
      1. Specific Objective
         1. Type of Intervention
            1. Intervention

Operation (project, beneficiary)

This means that number of hierarchical levels should not be restricted, i.e. hierarchy shoud be configurable.

**Time bound**

Validity period of each document stated below should be configurable. Typical validity is given below:

* Applicability of the National Strategy is 10 years
* Applicability of the National Programme is 4 years
* Applicability of IPARD programme is 7 years
* Applicability of local/provincial programme is 1 year
* Applicability of the CAP SP is 7 years.

Frequency of data sets loads is typically annual meaning that majority of data will be updated once per year.

* **Register of Indicators**

All the data from the Indicator Fiche are given in more details in Annex I. Register of Indicators, as a sub-module, is a part of Strategy Management Module, and should be configurable aiming to enable handling with CAP indicators and separate indicators which are not a part of specific strategy. Those separate indicators will be used for measurement of performance of another programmes prepared by the MAFWM or performance of the system in the form of KPIs.

* **Avoidance of double counting**

System should enable mapping of those indicators which could/will create double records i.e. several output indicators are cumulated for the calculation of the same result indicator so system should be able to understand and eliminate double records. One beneficiary/parcel can have several commitments which are attributed to single result indicators. They are counted separately for the output indicators but system should be able to understand and delete those double records when they are counted for the result indicator. More details are given in Annex I.

* **Common management – metadata (around particular data: strategy, goals, objectives, indicator, area of interventions, reporting/analysis) and codebooks**
* Have metadata standards definition and implementation which shall include but not limited to the following key components; Data attributes, which identify technical specifications and parameters that inform how a piece of data is designed and generated within an information system.
* Metadata around data management, which conveys information about data meaning, availability, limitations, calculation, purpose, owner, steward, data source and target (operational), time parameter, access permissions, and security.
* Metadata around data analysis, reporting and use, focusing on data quality
* Codebooks management: create, read, update and soft deletion (put in passive status) of appropriate codes for particular shared attributes (Address register, comprising handling of administrative units; types of indicators; type of strategy; type of report; type of objectives; other codes necessary for provision of high level of configurability.
* **Module for visualization**
* **Dashboards** / generate automatic dashboards for selected objectives
* Result indicators have to be calculated or input manually
* The indicator dashboard is broken down into several themes (13 in total). Each theme consists of one interactive dashboard, which provides data and visualizations for an array of context, output, result and impact indicators. These dashboards are searchable and customizable and can be easily downloaded (Excel format).
* Each dashboard contains several data panels which can be filtered and viewed at the national level as well as by LAU when possible. Examples of dashboards are given in Figure 1-2 below. Data explorer (figure 5 below) should have option to choose methodology (EU or Serbian), indicators and sub-indicators, then timeline and to present selected data. Also, easily download of information should be provided (Excel format).
* **Module for training needs analysis**

The Training needs analysis (TNA) module should comprise of 2 sections – institutional TNA based on the Competency Framework approach and a survey based TNA for other stakeholders (e.g. Monitoring Committee) as follows:

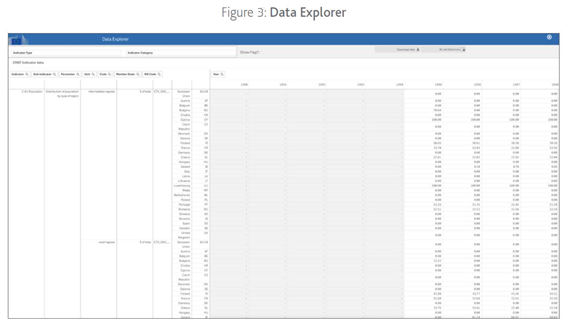
* Internal human resource TNA using a competency framework approach. This is a web-based self-assessment tool for human resources which allows each employee to define their proficiency on a scale of 0-4 in terms of tasks and sub-tasks related to 3 spheres of competence (operational, professional and managerial competencies). Excel templates are being developed for the key institutions involved in monitoring and evaluation and will provide the basis for the web-based tool. The tool allows employees to select their relevant job role, tasks and sub-tasks and based on this selection, it lists the competencies to be assessed according to the Competency Framework, allowing for a tailor-made assessment of the employee. The web-based tool should allow for a second level where employees with supervisory tasks over staff can also assess the competencies of the employees of their organizational unit. The supervisor will perform an independent assessment of the competencies of the employee which shall review the self-assessment score and adjust it according to the supervisor’s assessment.
* The results of individual self-assessments are recorded in the tool and can be used for analysis at institution level. The web-based tool shall offer two options for data analysis, respectively built-in functions for analyzing individual competencies and excel templates (to me imported and stored in a tool) for an overview of all the competencies of the institution. The outcomes of the above self-assessments will allow for the identification of individual Learning and Development plans for each employee as well as institutional level Learning and Development plans.
* The web-based tool should be designed with an “administration section” (functions to launch the assessment, monitor responses, and analyze results); landing page for employees and registration page; Self-Assessment Tool generating the list of competencies to be assessed, based on job role, tasks and subtasks; log-in for supervisors as a supervisor assessment on a different page of the individual employee’s Self-assessment Tool; generation of individual assessment reports; generation of institutional level assessment reports.
* External TNA (and other) surveys – this can also be extended to other relevant surveys handling of form for training needs assessment (cca 20-30 question, different types supported (open, closed, combination, Likert scale, rating scale, matrix questions), branching logic; introductory mail supported; optional anonymity (hidden identity and confidentiality); option for different visual design of survey; option for correlation between questions and response options; unique identification of survey, including basic attributes (type, group, year, identification number); archiving of data) and reporting on forms filled in and stored, including summary statistics and structure per separate question; export to Excel for statistical analysis.

![A screenshot of a computer

Description automatically generated with low confidence](data:image/jpeg;base64,/9j/4AAQSkZJRgABAQEAYABgAAD/4REARXhpZgAATU0AKgAAAAgABAE7AAIAAAASAAAISodpAAQAAAABAAAIXJydAAEAAAAkAAAQ1OocAAcAAAgMAAAAPgAAAAAc6gAAAAgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAG1fcnVyYWxldmFsdWF0aW9uAAAFkAMAAgAAABQAABCqkAQAAgAAABQAABC+kpEAAgAAAAMwOQAAkpIAAgAAAAMwOQAA6hwABwAACAwAAAieAAAAABzqAAAACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA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![Graphical user interface

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confidence](data:image/jpeg;base64,/9j/4AAQSkZJRgABAQEAYABgAAD/4REARXhpZgAATU0AKgAAAAgABAE7AAIAAAASAAAISodpAAQAAAABAAAIXJydAAEAAAAkAAAQ1OocAAcAAAgMAAAAPgAAAAAc6gAAAAgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAG1fcnVyYWxldmFsdWF0aW9uAAAFkAMAAgAAABQAABCqkAQAAgAAABQAABC+kpEAAgAAAAM5MgAAkpIAAgAAAAM5MgAA6hwABwAACAwAAAieAAAAABzqAAAACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA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[[3]](#footnote-3)

Mapping indicators for visualization are given in Annex X.

## Non-functional requirements

SAIRP should be developed in a manner of EU Agri-Food Data Portal, section CAP indicators. <https://agridata.ec.europa.eu/extensions/DataPortal/cmef_indicators.html> (remark: currently presents data complied with actual CMEF indicators, in use).

Have a user friendly interface i.e. easy to learn and to use, even by staff without ‘expert’ computer skills.

The Bidder must size the necessary infrastructure for the future system, in terms of the required performance for successful system operation: servers, physical and/or virtual machines, system software, permanent data storage (volume), and network equipment, following recommended security measures which envisages the technical solution offered by the Bidder (logical and physical architecture). Equipment will be provided by MAFWM.

***Development environment (infrastructure necessary for software development services) should be provided by the Bidder.***

### Business architecture

The business architecture according to which the proposal of logical and physical architecture should be made by the Bidder in the technical offer can be found in figure no. 4 below. The system should be based upon an Open System Architecture and Architecture of Interoperable Information System[[4]](#footnote-4), utilizing internationally accepted standards. This is to ensure independence from hardware suppliers, maximum choice of support products, ease of implementation, and system stability.

All end users' screens, online Help, reports, and documentation should be in the Serbian language (Serbian Cyrillic and Latin supported, English supported).

Bidders are requested to describe in sufficient detail:

* The project management, business analysis, design and development methodology, and standards were used in the development of proposed software items.
* The software development tools and programming language proposed for development work.
* The software product proposed for SAIRP: features and technical parameters; licenses offered (commercial software or third party software, or open source – community license or any other license necessary for SAIRP functioning) including two years warranty period supported/covered (perpetual license or paid license for following period: delivery of phase II – end of the project, plus 2-year warranty period); licenses, at minimum, should cover: relational database management system (unlimited number of users); solution for report server/services; and client application for business intelligence purposes for five end-users i.e. preparation and publish of different reports and visuals non necessarily by highly IT skilled staff (**to** easily connect to data sources, visualize and discover what's relevant, and share visuals).
* All security facilities proposed for the system, in particular the facilities for user administration and access management, and personal data protection (in accordance with GDPR and Serbian Law on personal data protection).
* The technical and user documentation listed, to be delivered with the software, and how the documentation will be developed.

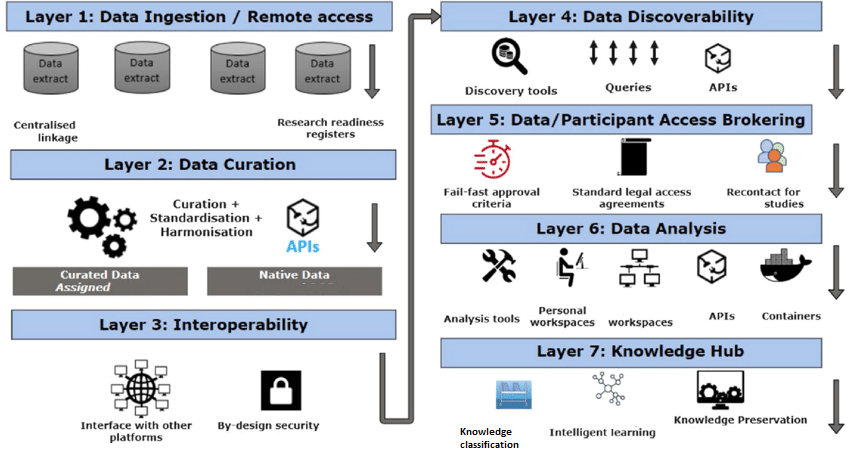


Figure 4: Business architecture of SAIRP as a basis for the System design [[5]](#footnote-5)

### Architecture and applications

The System should have following characteristics:

* Be highly usable and exhibit uniform “look and feel” characteristics consistent with standard GUI menu and command presentation.
* Be consistent with industry-standard conventions and interfaces which allow the system to be interfaced easily with other systems, and/or expanded by functional module or by capacity, and thus accommodate future changes in volumes, functionality, and user population.
* Provide for easily-implemented technical connections for new user sites
* Have high levels of trustworthiness with particular emphasis on data integrity and security, preventing unauthorized access.
* Have high levels of service availability utilizing appropriate failure recovery mechanisms and backup facilities and procedures.
* Allow for full audit trails and associated reporting for all activities within the system.
* Candidate for user application architecture with described concepts and functionalities is a web application. The decision on the choice is based on a careful analysis of the known advantages and assessment of the real needs of the described business environment in relation to these characteristics, and the need to support publicly available access to portal of CAP indicators.
* Databases should be Relational DataBase Management Systems (RDBMS).
* The application should be based on Client/Server architecture, with support for multiprocessor server technologies.
* The system should provide extensive and highly granular facilities for user management and access control. User administration should be effected centrally under high security and should include extensive audit trail and reporting capability.
* *Facilities for full or incremental database backup/recovery should be provided without loss in functionality for the central database(s).*
* *Data import/export should be simple and be available in a range of formats, including conversion to/from data formats of other popular DBMS.*
* Application development tools should be based on the use of contemporary programming languages.
* Database administration should be effected via a graphic user interface.
* Security and security settings will be managed centrally by MAFWM. All communications between SAIRP and other government institutions shall be encrypted. Data encryption technology is to be defined.
* Users and/or systems using SAIRP interfaces will authenticate themselves through digital certificates. Data is digitally signed as defined in the data security policy.
* All interface activities must be logged.
* Interfaces must provide data storage and data retention in accordance with business and security policies.
* Security architecture should be part of the technical proposal, architecture of the software solution offered.

### Licenses

The total number of MAFWM’s users of internal portal (SAIRP part available only to MAFWM) is up to 50. The expected maximum concurrent number of users is as follows: up to 50, in case of internal portal; up to 1000 in case of external (public) portal. Access to public portal should not be limited. This is especially important to note in order to properly calculate potential costs, if Bidders decide to use the platform or other licensed software of one of the manufacturers, as well as from the aspect of load of the System, which **must be designed so that the responsiveness is high** (internal portal: less than 3 sec in regular circumstances, up to 30 sec in case of complex reports load; external, public portal: less than 5 sec in regular circumstances, up to one minute in case of complex reports load).

### Development, testing, and production environments

The Bidder will install a separate test and development environment that will enable the development and testing of all requirements, both functional and non-functional. The test environment will be a mirror, i.e. it will not differ significantly from the production environment in terms of the application part, and the hardware part for testing does not have to have the same characteristics as the production solution. The development environment should be provided by the Bidder, while the test and production are provided by MAFWM.

All scenarios created on the system, as well as additional functionalities and updates, will be tested by the implementation of the User Acceptance Test (UAT) by the MAFWM. Scenarios for UAT will be created by the Bidder, and testing is conducted together. Only after accepting the request, the tested functionalities are implemented in the production environment.

The test platform used during system development remains operational even after the system is put into operational use. Their purpose is to be used to check new and change existing functionalities, so after the adoption by the MAFWM, the new functionalities are implemented in the production environment. The test system is also used to train system administrators and users.

### Additional requirements

#### Records of trails of performed actions and monitoring of system operation

Experience shows that creating and keeping records of trails of performed actions (so-called log records) is an important component of the development cycle. This allows designer to get a more precise context on the execution of the application, and once inserted into the code, generating a log record does not require additional intervention. In addition, log records should be saved to any medium for later analysis, to help identify problems that may arise in the production environment. In addition to using this technique in the development cycle, a functionally "rich log" can also be considered as a diagnostic tool.

A special implementation module can be used for the purpose of logging in and audit trail of the system, and a module located within the development environment of the platform on which the System is implemented can be used, in relation to the bid prepared by the Bidder. It is possible to use a separate component for certain specific needs, depending on the selected platform in which the System is implemented.

It is necessary that the system administrator can set the way the logging module works and connects in some known ways (filters, events by components, etc.).

The system should meet certain requirements (especially having in mind the sensitivity and security of personal data and related parties):

* Logging and tracking information will retain at least the following:
  + - A software component that generates tracking information;
    - Date/time
    - Level of importance of information (information or error; what type of error);
    - Identification of the user who initiated the processed request, including the IP workstations from which the request was initiated;
    - Activity information-user actions, entity and request covered, and other relevant information.
* Logging and tracking information will be stored in a database with the appropriate protocol and maintenance procedure
* Log record tracking will be specifically described in the ***System Administrator’s Manual***.
  + - The System will log all significant activities, as listed below, while other relevant logging events will be defined more precisely during the project (especially bearing in mind that the System must not crash by logging large amounts of data in parallel and real-time):
    - User login
    - Changes of personal data made by the System user (personal data set, if any, to be defined precisely during implementation).

#### Machine interface/Services

"Online" interface or interface that works synchronously in real-time is used for registration process including change of master data. Type of online interface that is unique for all institutions that need real-time communication with SAIRP will be precisely defined during implementation. External institutions will implement adapters to/from their systems.

The interface must provide real-time communication and adequate communication performance. The interface must use one of the standard communication protocols (for example https, SOAP, etc.) and some of standard formats like XML, CSV, JSON, etc.

The interface must provide at least the following control functions: Authentication of requests and/or files through standard methods (WS Security, Digital Certificates); Physical check of the validity of received data; Syntax and semantic checks; Logical validity checks for specific fields (i.e. in Serbian: PIB, JMBG). The interface must provide two-way communication and provide a response to the system which has initiated transactions demanding updates of or querying database.

The interface must provide processing in case of exception: Communication or system infrastructure failure, Errors noted during a physical check of the validity of data, Errors noted during syntax and semantic checks, Errors noted during logical controls. The interface must provide adequate recovery of exception cases (i.e. Update is recorded in the SAIRP database, but relevant institutions have not received updated data). The interface must provide adequate communication with monitoring and management systems for the purpose of managing interface status and basic operational statistics.

The complete interface format (including functionalities), message format as well as additional fields which are required for technical functions of the interface (i.e. headers) will be defined at the beginning of the SAIRP implementation.

#### User interface design

In general, user interface design must follow general principles:

* consistency (certain aspects of the interface will behave consistently at all times and in all views; terminology will be consistent between views; icons will be consistent among views; colors will be consistent among similar function views)
* simplicity (break complex tasks into simpler ones; long sequences will be broken down into individual steps; icons/objects that are somewhat familiar to the user will be used)
* limitations of human memory
* feedback (e.g. feedback with information confirming intent for action (e.g. highlighting a selected item from the list)
* system messages (ambiguous messages will not be used; the use of threatening or alarm messages will be avoided; specific words in messages will be indicated, etc.)
* modality (modes as processing types will be specifically indicated, e.g. those where the user has to complete tasks before he crosses on the next)
* attention (attention-grabbing techniques).

#### Help

The System will assist in the form of:

* **User guide** - an explanation of each menu item and other important objects in the application
* **Instructions for the administrator (System administrator’s manual)** - a detailed explanation of each menu item and other objects in the application related to application administration, as well as a detailed explanation of all relevant procedures for system administration (**backup; archiving; configuration**).

The System will provide a comprehensive help service, which will be used by registered users of the system and will include all types of user help (User's Guide/Manual, Administrator's Manual) according to the category of users logged on to the system. All contents will be connected according to semantics.

The language of help will be Serbian in the Cyrillic or Latin alphabet and English (MAFWM will decide on Serbian script/alphabet) unless terms in other languages and scripts appear in the application.

#### Security

Integrity: information must, at all times, be in the form in which it is expected. This means that it must not be exposed to unauthorized or unexpected modification or destruction.

Availability: information must be accessible at all times (to authorized recipients) when required. This means that all elements of the system must be available and operational whenever needed, including computers, telecommunications, and any other methods used to store and present information.

Confidentiality: information must be made available only to persons who are authorized to see it. This means that a sufficient level of authentication should be applied to all authorized users. It is expected that the strength of required authentication will vary according to the level of access involved.

Another important consideration is Accountability: all persons who have access to any element of the system are held responsible for the consequences of their own actions in relation to the information in the system.

The System should offer comprehensive facilities to enforce the above general principles. Given the very large and diverse user population that will have access to the system, this is particularly important when considering user registration, management, access control, and logging (audit trail) capabilities. Bid should contain details of all security capabilities offered.

Due to the reliability of the System and the importance of the data within the database, the security of the entire system is of primary importance. The system should be designed to establish strict security policies and to ensure the security of all operations, processes, and data in the system.

The system must provide high protection, both for servers and applications, as well as for all materials and other data, both from access by unauthorized users and from misuse by authorized users, as much as possible.

By choosing the architecture, the System will provide security of sensitive materials (personal data-personal, family and possibly available health status), through selective protection of all materials and other data and by the system users themselves, to whom authorizations are granted individually, according to degrees of confidentiality and user functions. It is, therefore, necessary to implement a system of roles and authorities in the System.

Access to data and files will be protected at the application level, as well as with additional elements of protection using digital certificates and cryptographic methods, in accordance with the regulations in the Republic of Serbia.

#### Reliability and availability

Before a system can be considered and declared reliable, each of the components covered and used by the System must be reliable. The System is as reliable as its weakest component. In order to meet the goals of creating a robust and scalable system, the Bidder should pay special attention to the fact that reliability is one of the important parameters of each of the components of the application software. All included components in the work provide parameters that contribute to the reliability and availability of the system.

Reliability depends not only on reducing the occurrence of system crashes but also on how further operation of the system is ensured in the event of its failure. With such consideration, reliable infrastructure reduces or eliminates critical points, usually through providing redundancy. Within the software architecture of the proposed system, the Bidder should demonstrate mechanisms that reduce the likelihood of system dysfunctions.

#### Application software

The application software will have a unified code basis in the broadest possible sense.

The development of the system will follow the existing standards and guidelines that are based on industry-standard conventions, tools, and methodologies, in relation to the selected tools and technology offered by the Bidder.

The possibility to dynamically reconfigure the system without prior and subsequent reboots is desirable, it can significantly increase the availability and reliability of the system, and this possibility is considered desirable.

##### Sustainability

Application will be implemented using the latest technologies that ensure long system life and sustainability on the target platform.

The System will be designed to provide the possibility of upgrading/ improving the System.

##### Compliance with standards

Database

The proposed solution involves the use of a relational database (more precisely Relational Database Management System). The following characteristics should be emphasized:

* Reference integrity
* Support for the creation and execution of stored procedures
* Advanced support to the concept and execution of transactions
* UTF character set support
* Advanced strategies and techniques for locking entities, syllables, and their parts
* Application development
* Reliable persistent storage, processing of a large amount of data in real-time
* Development packages (reporting, integration, analysis services, at least)
* Access, manage servers and use data through a web interface
* Business logic and the possibility of storing data in a cluster structure or similar solution
* Built-in support for advanced business reporting
* Reliable and fast access
* Always available data and fast response
* The minimal decline in performance in the event of an increase in the number of users
* High Information Integration
* Application and data integration
* Server Manageability
* Possibility to turn off services that are not needed
* Load balancing
* Data security
* Data Backup / Restore supported
* Tools for reporting and import and export of data in standard formats built-in
* Data replication capability supported.

After selecting the method of mapping the object to the relational data model, in the implementation phase of the system, the Bidder will ensure that it is clear from the documentation where and how the data is located in the database management system (which are concrete implementations of conceptual model elements).

W3C (The World Wide Web Consortium) standards

The system is based on W3C standards, such as HTML, XML, WSDL, SOAP, and others, included or based on the recommendations of this group.

#### Project implementation methodology and measures to ensure service quality

The entire project management methodology should be based on the principles of best practice of the classical PMI (Project Management Institute) or Prince2 approach or the equivalent of the world-wide known methodologies, where within the project management we highlight some of the importantknow-how areas/disciplines: integration management, coverage management, time management, cost management, quality management, human resource management, project communications management, risk management, contract, and procurement management. During the execution of projects, the Bidder should apply special techniquesde-facto standard software development methodologies.

#### Software development life cycle model

From a management perspective, the software lifecycle should be iterative and incremental. Each phase is basically a period between two key events. At the end of each phase, an assessment is performed to determine whether the objectives of that phase have been met. A positive assessment allows the project to move to the next phase.

Each phase decomposes into one or more iterations. One iteration consists of several consecutive activities within certain disciplines:

* + Business modeling
  + Request management
  + Analysis and design
  + Implementation
  + Installation
  + Testing
  + Scope configuration and change management
  + Project management
  + Environment management.

Incremental strategy is adopted within the project, which will determine the needs of users define the needs in terms of systems and implement other development activities in the form of a series of complete units. The first step introduces a part of the planned functionalities; the next one introduces additional functionalities, and so on until the system is completed.

##### Stages in software development

The Bidder should describe the approach to software development in accordance with the chosen methodology, agile type.

##### Key software development disciplines

Business process modeling

The purpose of business process modeling is:

* Understanding the structure and dynamics of the organization in which the system will be used (target organization)
* Understanding current problems in the target organization and identifying potential for improvement
* Ensuring that customers, end-users, and system development employees have a common perception of the target organization
* Creating systemic conditions necessary to support the target organization.

**Requirements management**

The purpose of requirements management is:

* To establish and maintain an agreement with clients and other stakeholders as to what the system should do.
* Ensuring that system developers better understand system requirements.
* Defining system constraints (boundaries).
* Providing a basis for planning the technical content of iterations.
* Defining the user interface of the system, **focusing on the needs and goals of users**.

It is necessary to create a **Use Case Model, required, and additional specifications *(*Supplementary Specification),** if needed, to define what the system will do - with the aim of involving all stakeholders, including customers and potential users, as important sources of information.

The use case model should be a means of communication and can serve as a kind of more detailed "agreement" between the client, users, and persons developing the system, in terms of system functionality, which allows:

* Clients and users to determine whether the system will be in line with their expectations.
* To the people who develop the system to do what is expected.

The use case model consists of [cases](file:///C:\Books\SRP%20guideline\RationalUnifiedProcess\RationalUnifiedProcess\process\artifact\ar_uc.htm) use and actors. Each use case in the Supplementary Specifications is an important addition to the use case model, as they together cover all software requirements [(functional and non-functional)](file:///C:\Books\SRP%20guideline\RationalUnifiedProcess\RationalUnifiedProcess\process\workflow\requirem\co_req.htm) to represent a complete specification of software requirements. The complete definition of software requirements described in the use cases and supplementary specifications together makes up the Software Requirements Specification**.**

Analysis and Design

The purpose of analysis and design is:

* Transforming requirements into the design of the future system
* Developing a stable system architecture
* Customize the design to suit the environment in which it will be used.

Implementation

The purpose of implementation is:

* Defining code organization (multilayer)
* Implementation of classes and objects in the form of components (source code, executable files, etc.)
* Testing of individually developed components
* Integration of the obtained components implemented by individual team members (or teams) into a viable system.

The implementation process limits its scope to how individual classes should be tested. System tests and integrative tests are performed through the testing process.

Testing

The purpose of testing is:

* To determine the interaction between objects
* To determine the adequate integration of all software components
* To determine whether all requirements have been adequately implemented
* To identify faults and ensure their elimination before using the software.

Well-designed tests, as well as their implementation at an early stage of the software life cycle, will significantly reduce the cost of finalizing and maintaining software. In addition, the risk of using poor quality software, such as poor user productivity, data entry, and calculation errors, and other operational problems, will be significantly reduced.

Deployment

The installation process includes activities related to ensuring the availability of the software product to end-users. The installation process includes a product commissioning model.

Configuration and change management

Configuration management and change request management (Configuration and Change Management) include:

* Identification of configuration elements
* Managing changes to these elements
* Change control
* Defining and managing the configuration of individual elements.

Project management

The goal of project management is:

* Providing a project management framework
* Providing practical guidance for planning, resource selection, execution, and monitoring
* Providing a risk management framework.

This process should mainly focus on important aspects of the iterative development process:

* Risk Management
* Planning an iterative project, through the life cycle for each iteration
* Monitoring the progress of an iterative project through clearly defined metrics.

Environment management

The environment management process focuses on the activities necessary to configure all the processes of a particular project. It describes the activities necessary to develop accompanying guidelines for a project.

#### Project organization

Organization structure

The required structure of the Project team consists of:

* Project management team
* Development team
* Administrative support team
* The project team of the MAFWM
* Joint testing team.
* Project management team

It is composed of the Project Manager (Executor) and the Project Manager (MAFWM). This project body will report monthly to the Supervisory Board. The basic competencies are:

* Business management (business planning, control, and evaluation)
* Control over all team members
* Reporting to the MAFWM (authorized and responsible persons) and the Supervisory Board.
* Engineering team:

This team is accountable to the Consultant’s Project Manager. The organization of the software part of the development team is presented in the Project Plan.

* Administrative support team

This team is accountable to the Project Manager and will provide support to project staff regarding all administrative matters (secretaries, organization of meetings).

* The project team of the MAFWM

The MAFWM's team is responsible to the MAFWM's Project Manager. It consists of experts in the field, system administrators (IT), and administrative support. This team will work on detailed specifications of user requirements in close collaboration with business analysts and the testing team.

* Joint testing team

This team is responsible for implementing testing, including designing and conducting tests, evaluating testing and debugging, as well as evaluating test results and sorting identified faults.

#### Project planning

The software development schedule is shown in this ToR, and Work Plan (Preliminary Project Plan) shall be submitted in the proposal. Also, it is necessary to briefly describe the plans of individual processes: risk management plan, quality assurance plan, communication plan, training plan, depending on the chosen methodology applied by the Bidder and offered in the Bid.

#### Quality policy

All project activities must include quality assessment, as an integral part of the process used to develop and complete the system. This policy provides for the following:

* Quality assurance objectives must be rational in order to be accepted and supported.
* Support for continuous improvement efforts is needed
* All quality control and measurement measures are documented
* Project management will be responsible for determining the quality
* Project management will control quality assessment activities
* The quality assessment plan will be standardized and brought under control
* Quality assessment will function to promote constructive communication, provide feedback to detect and prevent development problems, control risks, consider alternative solutions and ensure that quality is incorporated into every element of the solution and services provided to the Client.

The System must meet all the requirements specified in the Technical Specification, and then in the detailed Software Requirements Specification. Compliance of the product with the Software Requirements Specification will be checked with the help of qualitative tests. If all tests are found to be successful, the system will be considered to be of satisfactory quality. This means that the product meets all the requirements and that the MAFWM accepts it.

In particular, this means that the following problems, classified by types, may occur on the qualitative acceptance of each phase: critical, serious, noticeable, and secondary. Quality software minimally means avoided critical and serious errors, and less than ten noticeable errors, or twenty secondary errors.

|  |  |  |
| --- | --- | --- |
| **Problem type** | **Description** | **Number of problems in qualitative ACCEPTANCE** |
| **Critical** | Loss of key functions; errors that cause the system (computer) to restart; errors that cause data loss or data corruption; cessation of work; system malfunction that seriously affects the user’s work; non-existent obvious alternative solutions to circumvent software bugs | **0** |
| **A serious one** | The software is usable but with great limitations; the function does not work as documented; a malfunction that seriously affects the functioning of the system; non-existent obvious and/or simple alternative solutions to circumvent the observed software error; documentation problems related to software functionality and limitations. | **0** |
| **Noticeable** | The software is operational, has no functional flaws but has limitations in flexibility; the software is operational but there are drawbacks for which there are known and/or simple solutions; poor error message diagnostics. | **up to 10** |
| **Incidental** | The software is operational with minor inconveniences in use; missing text related to an error message; cosmetic defects in software; no loss of functionality; lower losses in terms of functionality; required software documentation changes. | **up to 30** |

Defects of the delivered elements or errors that can be attributed to the Bidder will be eliminated as soon as possible, at the expense of the Bidder. After the trial phase of each edition, acceptance tests will be performed (per applications, and for integration part). The proposal of the set of these tests is prepared by the Bidder, and the MAFWM will verify the set of tests and, if necessary, request its amendment or supplement, or make its amendment or supplement.

These tests will cover all technical (structural, functional, and other) requirements that can be verified by tests, which are foreseen by the realization in the Bidder's offer and the contract, including, if necessary, their special, irregular and borderline cases.

Acceptance tests will be done on time of a maximum of 15 days from completed installations and commissioning (putting into production/Go Live). The authorized person of the MAFWM, with the obligatory presence of the Bidder's representative, after the qualitative acceptance, will make a report in the form of certified and signed minutes, on both sides, in order to formally and legally confirm the delivery.

The Bidder is obliged to eliminate any objections stated in the minutes of the commission, which will previously perform testing by the MAFWM together with the Bidder’s team, within the period specified in the minutes. In the event that the quality control is not successfully completed, it is repeated within the above deadlines, which run from the submission of copies of the minutes to the Bidder.

After the acceptance, the Bidder will prepare the final documentation on the installation and configuration of the System and submit it to the MAFWM, together with the complete other project-technical documentation.

Completion of the installation and commissioning of the System implies successful completion of the Final Acceptance tests performed after acceptance of the previous phases of the project. Acceptance of the System takes place in the manner and time determined by the agreement, project plan between the Bidder and the MAFWM.

The system, i.e. its edition/version, is accepted if and only if it passes all acceptance tests (bearing in mind quality criteria above-stated on minor errors allowed). Minutes shall be kept of the performance of these tests. If the system does not pass some tests, the Bidder is provided with minutes with comments and tasks for corrections, as well as deadlines. Formal-legal relations in this process are determined by the Contract and Project plan.

#### Documentation

All project-technical documentation shall be in accordance with the appropriate standard in terms of content and form, and in Serbian. All documents will be uniquely marked and verified in accordance with audit and approval procedures. Reports required in section below “Reporting”, should be prepared in English. If needed, documentation prepared in Serbian should be translated into English by the Consultant upon request.

Necessary documents (and their content) will be identified in the relevant plans, and the Bidder is expected to create at least the following plans, within the Project Plan, that is, as its special parts, and deliver documents given in table below.

| Plan | Document category |
| --- | --- |
| Software development plan | * Specification of software requirements * Software Architecture Document * User manuals * Installation documents |
| Training Plan | * User training material |
| Delivery plan | * Technical specifications * User manuals * Certificates of approval |
| Quality assurance plan | * Procedures for managing and updating documentation |

Detailed System specification (functional description of the system and its elements, and non-functional characteristics) will be in Serbian.

As a result of the project, in addition to the development, implementation, installation, and startup of the information system, it includes the development of complete documentation (design, user, and administration), related to all elements of the information system, whether it is its design, implementation, installation, and configuration, or subsequent use and maintenance, i.e.: project documentation, user documentation, administrator documentation, deployment documentation, installation and configuration of the System, training plan for system users, specification of preventive and corrective maintenance procedures, specification of infrastructure configuration (backup, in accordance with MAFWM backup policy).

The source code and source code documentation (including all application components used) shall be delivered.

All documentation prepared by the Bidder is submitted in the electronic form to MAFWM, and if necessary, printed reports will be required, but not more than one copies (exceptionally, three copies).

The Project Management Team is required to submit a short monthly report to the Project Supervisory Board. The Supervisory Board will be composed of representatives of the MAFWM (three members) and representatives of the Bidder (two members), and if the World Bank decides, there will be a representative of the World Bank, who will be appointed at the beginning of the project, and which will be informed by the Bidder's project manager by known methods of regular reporting and escalation mechanisms.

#### Training

A detailed training plan shall be organized and implemented in accordance with the agreed and completed Project Plan. It is necessary to emphasize that non-functional requirements during the construction of the System, related to ergonomics and usability have a direct impact on the scope and content of the training.

The most important goal of the training is complete and adequate training of system users. On the one hand, training should provide a satisfactory level of knowledge and ability to successfully use and maintain the system. On the other hand, quality guidance must ensure efficient and effective training of new system users, even after the selected Bidder performs formal training. This includes clearly defined training requirements, with training appropriate to the general user profile, as well as training material requirements. **The training ensures that users can perform all tasks with the new system completely independently.**

Preparation for training and training materials will be prepared by the Bidder, in cooperation with the MAFWM. The training will be conducted at the premises of the MAFWM and/or the Bidder in accordance with the agreement reached during the verification of the Project Plan, with pre-prepared infrastructure appropriate to the target systems or online training, if not possible face to face (epidemic situation due to covid-19 pandemic). The data used will reflect the data that users will encounter during the actual use of the system. The training will be performed by the Bidder.

Training material and user instructions depend on the implemented functions and will include at least: instructions for user work on roles in the System and instructions for maintenance and monitoring of the System for IT staff of the MAFWM (administrators, business administrators; up to 10 people). Training is planned in small groups of users (up to 25) so that all users are trained.

Training program comprises: a) five sessions for end users on methodology and usage of the System (session lasts for three hours); b) three sessions for administrators of the System on handling of System, backup, restore, and similar common maintenance operations (session lasts for three hours). Additionally, MAFWM could require two more sessions for administrators and end users, depending on staff availability and needs assessment.

Training analysis should be executed after training sessions completion, and appropriate report on training results and recommendations for improvement of skills of users should be delivered.

#### Warranty services (24 months from the day of handover of the SAIRP and accompanying documentation and source code)

This part of the document presents the requirements related to the service level during the warranty period. The Bidder should describe in the bid how he plans to perform the work within the warranty period.

Integrated Help Desk / User Support Center

The Support Center is a unified center for the MAFWM Support for all services related to contact, resolution, and monitoring of services for users seeking support regarding the functioning of the delivered software and the warranty period. This service also includes the generation and, if necessary, escalation of reported problems, providing the MAFWM and service providers with information on the status of the system and alerts concern their systems. All problems should be reported by calling the Support Center **by phone or e-mail.**

**Once a month, a report will be prepared with a list of service/intervention calls and solutions to these problems.**

During **regular working hours** (from **08:00 to 16:00, Monday-Friday**), calls to the Support Center will be answered by experts for receiving calls, who will further contact the engineers of the Bidder if necessary.

After regular working hours, calls for support will be answered by the persons on duty at the Support Center. Escalation outside working hours includes the responsible person of the MAFWM who can decide on the escalation of urgent problems for engineers, even outside working hours.

***Response Time***

All reported highly critical problems (system dysfunction is complete) must be resolved within the first two hours after the call. Other categories of problems can be suggested by the Bidder in the technical bid, how he classifies and solves them, and what the responsiveness is.

***Escalation procedures***

To solve the client's problems, a three-level process based on the priority of the problem is used. The resolution process includes a Support Center team, a support team for MAFWM, and an engineering team.

During the **warranty period** (**for a period of 2 years**) the supplier will eliminate problems in the operation of the software solution, which arose as a result of errors in the work of Bidders or previous activities of Bidders (hidden flaws) in the implementation of the system, all in accordance with the Agreement to be concluded. Periodic inspection of the operation of the solution will include checking the operation of the software within the existing network environment and infrastructure, and control of databases through the database management system during the warranty period.

***Intervention/Corrective maintenance within the warranty period***

* + Intervention maintenance will be about solving critical problems
  + During the warranty period, the Bidder will ensure the normal functioning of the entire system
  + The Bidder will respond to the request for emergency maintenance when the problem is highly critical regardless of its working hours and the working hours of the MAFWM, engaging all possible resources. By signing the work order or minutes by the authorized person of the MAFWM, it will be considered that the intervention is completed.
  + The deadline for eliminating highly critical problems and ensuring the normal functionality of the system upon receipt of a request for emergency maintenance will not be longer than 48 hours.
  + At the beginning of the warranty period, the Bidder will submit a detailed procedure with the organization of its service for reporting and troubleshooting according to the principle of 5/8, as well as detailed procedures for emergency maintenance.

The Bidder is obliged to inform the MAFWM about new versions of the software during the warranty period. **The Bidder undertakes to bear all costs of software updates (licenses, patches, fixes) during the warranty period.**

## Project Phases

Project, development of SAIRP, will be executed in following manner:

1. **Phase I – Inception period**
2. **Phase II – Developing Detailed System Specification**
3. **Phase III – Implementation of SAIRP** **(design and development, implementation)**
4. **Phase IV – Testing of SAIRP and training of users, Deployment of SAIRP on production environment**
5. **Phase V - Final Report preparation**

## Testing and Quality Assurance Requirements

Acceptance Testing Requirements

The successful Bidder must ensure that its testing strategy is in line with the general project management methodology and that it meets international quality management standards. It is expected that the successful Bidder will assist the MAFWM adequately during the entire Acceptance testing phase. The following approach should be followed for test planning purposes:

* The Bidder and the MAFWM must agree the detailed acceptance criteria that will be used to determine whether the testing can pass from one phase to the other. These criteria must be agreed and mutually signed-off prior to the start of the SAIRP Applications Testing & Fixing phase
* It is expected that the successful Bidder will perform the initial unit and integration testing of the offered Solution/System (SAIRP) alone
* Once completed, the Bidder must test the Solution with the MAFWM assistance to ensure the functional and technical requirements are met – SAIRP Applications Testing & Fixing
* After the successful completion of the SAIRP Applications Testing & Fixing phase the successful Bidder must test the Solution with the MAFWM assistance on test data migrated into the database from authoritative sources of such data – Solution/System Testing
* After the successful completion of the SAIRP Solution Testing phase the MAFWM must test the Solution with the successful Bidder assistance on the final production environment based on a replica of migrated data – Final Acceptance Testing
* After the successful completion of the SAIRP Final Acceptance Testing phase the system will be accepted. The system acceptance as such will be a prerequisite for Go-live and will not depend on Go-live of the Solution itself.

**Services Acceptance Testing**

* All required System services are started automatically
* Each application's login screen can be invoked
* Users in scope are able to log in to any application with assigned access rights and review assigned menu options
* The administrators can add an additional users into the system and assign access rights
* Application transactions have a response time that is acceptable
* Application reports print successfully to networked printers
* Backup and recovery procedures have been documented and explained to MAFWM staff
* MAFWM staff are able to administer application software
* The Consultant's technical support staff can be reached and the user can log contact the Consultant support as specified in the support delivery documentation

**System Acceptance Testing**

* The System is operable on each planned business instance and hardware
* Data conversion routines have been coded and tested
* Acceptance Test scenarios developed by key user teams verifying functionality of each System's transaction processing and periodic processing, and of system performance under a variety of load and stress conditions have been reviewed and approved by MAFWM
* The System has passed acceptance testing based on execution of MAFWM's requested, scenarios.
* The System has passed acceptance testing based on test data that has been read into the database through successful execution of test data migration
* The Consultant is required to ensure that each module within scope passes acceptance testing based on test scenarios approved as a part of the Test plan. This testing also includes verification that conversion of data prior to Go-live was correctly performed. The testing includes functional testing of the application as well as testing of interfaces.

### Maintenance in Warranty period

The Consultant may, where acceptable, perform his service obligations under the warranty period maintenance via remote support. Remote support means that Consultant can access the equipment of the MAFWM remotely and correct defects directly within the application.

The Consultant shall only access the system of the MAFWM after prior notification to, and approval by, the MAFWM. The Consultant shall comply with the security directions of the MAFWM and shall protect the MAFWM’s data against any and all unauthorized access through third parties.

During the duration of the warranty period i.e. for 12 calendar months after the date of Solution acceptance the successful Bidder will provide application software upgrades for the Solution (enhancements, if any, provided by manufacturer as a regular update/patch/fix) and corrections that improve the software with respect to the basic existing functionality; e.g. performance and user interface.

**Only the following functional aspects shall be covered by warranty: a) preventive maintenance (regular, at least monthly health check b) corrective maintenance - all required adaptations to correct the bugs and errors caused by the contractor’s (selected Consultant’s) activities.**

## Work Plan (Preliminary Project Plan)

The Bidder must prepare a Preliminary Project Plan (i.e. **Work plan and schedule, including methodological aspects**) describing, among other things, the methods and human and material resources that the Bidder proposes to employ/hire in the design, management, coordination, and execution of all its responsibilities, if awarded the Contract, as well as the estimated duration and completion date for each major activity. The Preliminary Project Plan must also address the topics and points defined in **Part III:  Technology, Methodology and Work Plan.** The Preliminary Project Plan should also state the Bidder’s assessment of the major responsibilities of the MAFWM and any other involved third parties in System supply and installation, as well as the Bidder’s proposed means for coordinating activities by each of the involved parties to avoid delays or interference.

Note to Bidders: In addition, the Bidder may provide cross references to the relevant supporting information, if any, included in the bid (datasheet, brochures, catalogs, etc.). The cross reference should identify the relevant document(s), and page number(s).

Item-by-Item (paragraph-by-paragraph) Commentary on the Requirements

The Bidder must provide an item-by-item commentary on the requirements, **demonstrating the substantial compliance of the overall design of the System**.

Responsibility of the Bidder including supporting evidence of compliance is to prove compliance with the requirements in its bid. One or two-word responses (e.g. “Yes,” “No,” “Will comply,” etc.) are not sufficient to confirm compliance with the requirements.

## Equivalency of Standards and Codes

Wherever reference is made in the Contract to specific standards and codes to be met by Services or work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract.

Where such standards and codes are national, or relate to a particular country or region, other authoritative standards that ensure a substantially equal or higher quality than the standards and codes specified will be accepted subject to the MAFWM prior review and written consent. Differences between the standards specified and the proposed alternative standards shall be fully described in writing by the bidder and submitted to the MAFWM at least 28 days prior to the date when the bidder desires the MAFWM consent. In the event the MAFWM determines that such proposed deviations do not ensure substantially equal or higher quality, the bidder shall comply with the standards specified in the documents.

## Reporting

During Inception period the Consultant should prepare Inception Report describing Project plan, comprising activities and tasks and timeline as well as initial findings. Upon the completion of all activities envisaged under the assignment, the consultant firm shall submit a Final Report that should contain a summarized description of activities the Consultant firm carried out over the assignment period and the results achieved during the development of SAIRP. The Report should also include results from the feedback of training program and recommendations of further improvements.

All the activities under this assignment shall be coordinated by the M&E expert hired under the project. The reports shall be submitted to the PHRD Project Manager within MAFWM for the approval. Only approved reports and deliverables, and acceptable by the MAFWM, will be invoiced and paid.

## Deliverables, Tentative Timelines and Payment Schedule

|  |  |  |  |
| --- | --- | --- | --- |
| No. | *Deliverable* | *Deadline (tentative)* | *Payment Schedule (in % of professional fee)* |
| 1 | Inception Report submitted and approved | 15 days after the signing of the contract | 10 |
| 2 | Detailed System Specification (functional and non-functional requirements) – final version | 90 days after the signing of the contract | 20 |
| 3 | SAIRP developed and installed in test environment | 6.5 months after the signing of the contract | 50 |
| 4 | SAIRP tested, users trained and SAIRP installed in production environment | 7.5 months after the signing of the contract | 15 |
| 5 | Final Report submitted and approved | 8 months after the signing of the contract | 5 |

All deliverables must be submitted in English and Serbian. The reports should be submitted, in hardcopy (1 pcs) and in electronic format.

The MAFWM is obliged to provide feedback to reports within 1 week from delivery of draft report and/or documents.

All deliverables will be quality reviewed and approved by the PIU (M&E specialist) established under PHRD project within MAFWM in consultation with the World Bank.

All deliverables including source code developed under the contract belong to MAFWM.

# Qualifications

In order to be selected, the Consultant firm must possess, at the minimum, the following qualifications:

**Part I: Requirements:**

a) The Consultant firm must be a legal entity;

b) The Consultant firm must prove its capability by listing its experience in previous five (5) years (May 2017- May 2022) related to:

* Experience in IT projects in Public Sector – minimum 3 projects (development of software for public sector entity)

Advantage: experience in Serbia in software development projects in public sector (one, two or three projects additionally, in three projects stated above as mandatory)

* Experience in data portal development and/or business intelligence and/or data warehouse projects - at least one project successfully executed

Advantage: additionally, one or two project successfully executed, data portal development and/or business intelligence and/or data warehouse projects in public sector institutions, in Serbia

* Delivering training to public sector entities for usage of software solution – at least one project

Advantage: training delivered for data portals and/or business intelligence platforms, in Serbia, for public sector institutions, within software development project – one or two trainings

* Engagement on Public sector Projects financed by International Financial Institutions (IFIs)/ Donors – minimum one projects
* Project management and backstopping capacity that will secure successful execution of services.

As a proof, the Consultant firm shall prepare a table listing following information: name of the relevant assignments, short scope of work, year of contract’s implementation, country/region, contact reference (name, e-mail, phone number).

**Part II:  Team requirements**

The Consultant firm must ensure that the key staff that will perform the listed assignments possess the following qualifications:

**Team leader**

1. At least a Master Degree in organizational science, IT, management, technical sciences or equivalent field
2. Minimum fifteen (15) years of general work experience
3. At least 10 years of professional experience as a project manager working in a variety of functional domains and work environments; advantage: project management of eGovernment project in Serbia
4. At least 5 years of experience in software development projects in role of project manager; advantage: additional 5 years (or more) of experience, in Serbia, in role of project manager of software development projects
5. At least 5 years of experience in programs/projects in public sector; advantage: more than 10 years of experience in public sector
6. Participation on at least one public sector projects financed by IFIs/Donors and/or respective; advantage: project was related to software development in public sector, financed by IFIs/Donors and/or respective
7. High level of expertise and successful experience in Business Intelligence area and/or Data warehouse design and/or Data portal design with a substantial software component obtained in minimum one project in last five years; advantage: Business Intelligence area and/or Data warehouse design and/or Data portal design with a substantial software component project(s) experience in Serbia, in public sector
8. Excellent communication, organization and teamwork skills
9. Excellent knowledge of English language; advantage: Excellent knowledge of Serbian language

**Key expert - Senior Software Architect**

1. At least a Master Degree in organizational science, IT, technical sciences or equivalent field
2. Minimum fifteen (15) years of general work experience
3. At least 10 years of professional experience as a software architect working in a variety of functional domains and work environments; advantage: software architecture design and implementation in e-Government project in Serbia
4. At least 5 years of experience in software development projects in role of software architect; advantage: additional 5 years (or more) of experience, in Serbia, in role of software architect in software development projects
5. At least 5 years of experience in programs/projects in public sector; advantage: more than 10 years of experience in public sector
6. High level of expertise and successful experience in Business Intelligence area and/or Data warehouse design and/or Data portal design with a substantial software component obtained in minimum one project in last five years; advantage: Business Intelligence area and/or Data warehouse design and/or Data portal design with a substantial software component project(s) experience in Serbia, in public sector
7. Excellent communication, organization and teamwork skills
8. Excellent knowledge of English language; advantage: Excellent knowledge of Serbian language

**Key expert - Senior Quality assurance specialist**

1. At least a Master Degree in organizational science, IT, technical sciences or equivalent field
2. Minimum fifteen (15) years of general work experience
3. At least 10 years of professional experience as a quality assurance working in a variety of functional domains and work environments; advantage: quality assurance experience in e-Government project in Serbia
4. At least 5 years of experience in software development projects in role of quality assurance; advantage: additional 5 years (or more) of experience, in Serbia, in role of quality assurance in software development projects
5. At least 5 years of experience in programs/projects in public sector; advantage: more than 10 years of experience in public sector
6. High level of expertise and successful experience in Business Intelligence area and/or Data warehouse design and/or Data portal design with a substantial software component obtained in minimum one project in last five years; advantage: Business Intelligence area and/or Data warehouse design and/or Data portal design with a substantial software component project(s) experience in Serbia, in public sector
7. Excellent communication, organization and teamwork skills
8. Excellent knowledge of English language; advantage: Excellent knowledge of Serbian language

**Key expert - Senior Business Analyst**

1. At least a Master Degree in organizational science, IT, technical sciences or equivalent field
2. Minimum fifteen (15) years of general work experience
3. At least 10 years of professional experience as a business analyst (business process analyst) working in a variety of functional domains and work environments; advantage: business process analysis during software design and implementation in e-Government project in Serbia
4. At least 5 years of experience in software development projects in role of business analyst; advantage: additional 5 years (or more) of experience, in Serbia, in role of business process analyst in software development projects
5. At least 5 years of experience in programs/projects in public sector; advantage: more than 10 years of experience in public sector
6. High level of expertise and successful experience in Business Intelligence area and/or Data warehouse design and/or Data portal design with a substantial software component obtained in minimum one project in last five years; advantage: Business Intelligence area and/or Data warehouse design and/or Data portal design with a substantial software component project(s) experience in Serbia, in public sector
7. Excellent communication, organization and teamwork skills
8. Excellent knowledge of English language; advantage: Excellent knowledge of Serbian language

**Part III:  Technology, Methodology and Work Plan**

1. The Consultant firm is to ensure use of own development environment; tools and techniques provided by the Consultant and/or third party proper for SAIRP development
2. Cybersecurity Regulations: As a part of government information system online platform must meet cyber security requirement and appropriate industry security level.
3. Online learning platform must have implemented cyber security protection measures to ensure confidentiality, integrity and availability of online learning platform
4. Prove cybersecurity capacity and measures implemented in online learning platform.
5. The Consultant firm must provide detailed Methodology for implementation of the service as well as detailed team structure that will prove capabilities and expertise to deliver required scope in defined timeline. It is expected that relevant CVs of key experts (and non-key experts, but not mandatory named non-key experts; might be presented as pool of non-key experts) will be presented with detailed breakdown of relevant roles and responsibilities within the team structure.
6. The Consultant firm must provide detailed Work Plan for implementation of the service.

## Selection of the Consultant firm

The Consultant firm will be selected in accordance with **QCBS (Quality-and Cost-Based Selection) method** set out in the World Bank’s Procurement Regulations for IPF Borrowers (July 2016, revised November 2017 and August 2018).

Evaluation of the Proposals will be done in accordance with following criteria:

|  |  |  |
| --- | --- | --- |
| **#** | **Criteria** | **Weight** |
| 1 | Experience of the Consultant firm relevant to the assignment | **10** |
| 2 | Key Experts’ qualifications and competence for the assignment   1. Key Expert: Senior Project Manager [points 12] 2. Key Expert: Senior Software Architect [points 11] 3. Key Expert: Senior Quality Assurance Specialist [points 7] 4. Key Expert: Senior Business Analyst [points 10] | **40** |
| 3 | Adequacy and quality of the proposed Technology, Methodology and Work Plan in responding to the Terms of Reference | **50** |
| **The Key Experts’ qualifications shall be evaluated according to the following sub-criteria and their belonging weights:** | | |
| a) | General qualifications (general education and experience) | 10 |
| b) | Specific relevant experience required | 60 |
| c) | Transfer of knowledge and relevant experience in Serbia | 30 |

The minimum passing score is 75 points.

Each of the criteria and sub-criteria shall be evaluated according to the following point scale:

|  |  |
| --- | --- |
| **Points range** | **Label** |
| 0-40 | Unsatisfactory |
| 41-60 | Satisfactory |
| 61-80 | Very good |
| 81-100 | Excellent |

The score per each of the criteria and sub-criteria is calculated in the following manner: score = (0-100 points) \*weight.

QCBS uses a competitive process among short-listed firms that takes into account the quality of the proposal and the cost of the services in the selection of the successful firm.

**The MAFWM will publish Request for Expression of Interest and upon evaluation of received EoI, five to eight best evaluated firms will receive Request for Proposal. Those firms will be called to submit technical and financial proposals.**

## Timeframe and duration

Contract duration: up to 8 months

## Terms of Payment

The Contract will be the Standard World Bank Contract for consulting services. The payments for services will be based on the deliverables/reports approved by the Project Coordinator. The Contract costs will include remuneration and reimbursable costs referring to the assignment.

# Annex NO. 1: IMPACT, RESULT, OUTPUT AND CONTEXT INDICATORS

|  |  |
| --- | --- |
| Assessment of the performance of the policy (multi-annual) - IMPACT  Objectives and the corresponding impact indicators | Performance review - RESULT  Only based on interventions supported by the CAP |

|  |  |  |
| --- | --- | --- |
| **EU cross-cutting objective** | **Impact indicators** | **Result indicators** |
| Modernizing agriculture and rural areas by fostering and sharing knowledge, innovation and digitalization in agriculture and rural areas and by encouraging their uptake by farmers, through improved access to research, innovation, knowledge exchange and training | |  |  | | --- | --- | | I.1 | Sharing knowledge and innovation: Share of CAP budget for knowledge sharing and innovation | | |  |  | | --- | --- | | R.1PR | Enhancing performance through knowledge and innovation: Number of persons benefitting from advice, training, knowledge exchange or participating in European Innovation Partnership (EIP) operational groups supported by the CAP in order to enhance sustainable economic, social, environmental, climate-related and resource efficiency performance | | R.2 | Linking advice and knowledge systems: Number of advisors receiving support to be integrated within the Agricultural Knowledge and Innovation Systems (AKIS) |  |  |  | | --- | --- | | R.3 | Digitalizing agriculture: Share of farms benefitting from support for digital farming technology through CAP | |

|  |  |  |
| --- | --- | --- |
| **EU specific objective** | **Impact indicators** | **Result indicators** |
| To support viable farm income and resilience of the agricultural sector across the Union in order to enhance long-term food security and agricultural diversity as well as to ensure the economic sustainability of agricultural production in the Union | |  |  | | --- | --- | | I.2 | Reducing income disparities: Evolution of agricultural income compared to the general economy |  |  |  | | --- | --- | | I.3 | Reducing farm income variability: Evolution of agricultural income |  |  |  | | --- | --- | | I.4 | Supporting viable farm income: Evolution of agricultural income level by type of farming (compared to the average in agriculture) |  |  |  | | --- | --- | | I.5 | Contributing to territorial balance: Evolution of agricultural income in areas with natural constraints (compared to the average) | | |  |  | | --- | --- | | R.4 | Linking income support to standards and good practices: Share of utilized agricultural area (UAA) covered by income support and subject to conditionality |  |  |  | | --- | --- | | R.5 | Risk management: Share of farms with supported CAP risk management tools |  |  |  | | --- | --- | | R.6PR | Redistribution to smaller farms: Percentage of additional direct payments per hectare for eligible farms below average farm size (compared to average) |  |  |  | | --- | --- | | R.7PR | Enhancing support for farms in areas with specific needs: Percentage of additional support per hectare in areas with higher needs (compared to average) | |
| To enhance market orientation and increase farm competitiveness both in the short and long term, including greater focus on research, technology and digitalization | |  |  | | --- | --- | | I.6 | Increasing farm productivity: Total factor productivity in agriculture |  |  |  | | --- | --- | | I.7 | Harnessing agri-food trade: Agri-food imports and exports | | |  |  |  |  | | --- | --- | --- | --- | | R.8 | Targeting farms in specific sectors:   |  |  | | --- | --- | |  | Share of farms benefitting from coupled income support for improving competitiveness, sustainability or quality | |  |  |  | | --- | --- | | R.9PR | Farm modernization: Share of farms receiving investment support to restructure and modernize, including to improve resource efficiency | |
| To improve the farmers’ position in the value chain | |  |  | | --- | --- | | I.8 | Improving farmers’ position in the food chain: Value added for primary producers in the food chain | | |  |  | | --- | --- | | R.10PR | Better supply chain organization: Share of farms participating in producer groups, producer organizations, local markets, short supply chain circuits and quality schemes supported by the CAP |  |  |  | | --- | --- | | R.11 | Concentration of supply: Share of value of marketed production by producer organizations or producer groups with operational programmes in certain sectors | |
| 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 | |  |  | | --- | --- | | I.9 | Improving the resilience of agriculture to climate change: Agricultural sector resilience progress indicator |  |  |  | | --- | --- | | I.10 | Contributing to climate change mitigation: Greenhouse gas emissions from agriculture |  |  |  | | --- | --- | | I.11 | Enhancing carbon sequestration: Soil organic carbon in agricultural land |  |  |  | | --- | --- | | I.12 | Increasing sustainable energy in agriculture: Sustainable production of renewable energy from agriculture and forestry | | |  |  | | --- | --- | | R.12 | Adaptation to climate change: Share of utilized agricultural area (UAA) under supported commitments to improve adaptation to climate change |  |  |  | | --- | --- | | R.13PR | Reducing emissions in the livestock sector: Share of livestock units (LU) under supported commitments to reduce emissions of greenhouse gases and/or ammonia, including manure management |  |  |  | | --- | --- | | R.14PR | Carbon storage in soils and biomass: Share of utilized agricultural area (UAA) under supported commitments to reduce emissions or to maintain or enhance carbon storage (including permanent grassland, permanent crops with permanent green cover, agricultural land in wetland and peatland) |  |  |  | | --- | --- | | R.15 | Renewable energy from agriculture, forestry and from other renewable sources: Supported investments in renewable energy production capacity, including bio-based (in MW) |  |  |  | | --- | --- | | R.16 | Investments related to climate: Share of farms benefitting from CAP investment support contributing to climate change mitigation and adaptation, and to the production of renewable energy or biomaterials |  |  |  | | --- | --- | | R.17PR | Afforested land: Area supported for afforestation, agroforestry and restoration, including breakdowns |  |  |  | | --- | --- | | R.18 | Investment support for the forest sector: Total investment to improve the performance of the forestry sector | |
| To foster sustainable development and efficient management of natural resources such as water, soil and air, including by reducing chemical dependency | |  |  | | --- | --- | | I.13 | Reducing soil erosion: Percentage of agricultural land in moderate and severe soil erosion |  |  |  | | --- | --- | | I.14 | Improving air quality: Ammonia emissions from agriculture |  |  |  | | --- | --- | | I.15 | Improving water quality: Gross nutrient balance on agricultural land |  |  |  | | --- | --- | | I.16 | Reducing nutrient leakage: Nitrates in ground water – percentage of ground water stations with nitrates concentration over 50 mg/l under Directive 91/676/EEC |  |  |  | | --- | --- | | I.17 | Reducing pressure on water resource: Water Exploitation Index Plus (WEI+) |  |  |  | | --- | --- | | I.18 | Sustainable and reduced use of pesticides: Risks, use and impacts of pesticides | | |  |  | | --- | --- | | R.19PR | Improving and protecting soils: Share of utilized agricultural area (UAA) under supported commitments beneficial for soil management to improve soil quality and biota (such as reducing tillage, soil cover with crops, crop rotation included with leguminous crops) |  |  |  | | --- | --- | | R.20PR | Improving air quality: Share of utilized agricultural area (UAA) under supported commitments to reduce ammonia emission |  |  |  | | --- | --- | | R.21PR | Protecting water quality: Share of utilized agricultural area (UAA) under supported commitments for the quality of water bodies |  |  |  | | --- | --- | | R.22PR | Sustainable nutrient management: Share of utilized agricultural area (UAA) under supported commitments related to improved nutrient management |  |  |  | | --- | --- | | R.23PR | Sustainable water use: Share of utilized agricultural area (UAA) under supported commitments to improve water balance |  |  |  | | --- | --- | | R.24PR | Sustainable and reduced use of pesticides: Share of utilized agricultural area (UAA) under supported specific commitments which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides such as pesticides leakage |  |  |  | | --- | --- | | R.25 | Environmental performance in the livestock sector: Share of livestock units (LU) under supported commitments to improve environmental sustainability |  |  |  | | --- | --- | | R.26 | Investments related to natural resources: Share of farms benefitting from CAP productive and non-productive investment support related to care for the natural resources |  |  |  | | --- | --- | | R.27 | Environmental or climate-related performance through investment in rural areas: Number of operations contributing to environmental sustainability and the achievement of climate mitigation and adaptation goals in rural areas |  |  |  | | --- | --- | | R.28 | Environmental or climate-related performance through knowledge and innovation: Number of persons benefitting from advice, training, knowledge exchange, or participating in European Innovation Partnership (EIP) operational groups supported by the CAP related to environmental or climate-related performance | |
| To contribute to halting and reversing biodiversity loss, enhance ecosystem services and preserve habitats and landscapes | |  |  | | --- | --- | | I.19 | Increasing farmland bird populations: Farmland Bird Index |  |  |  | | --- | --- | | I.20 | Enhancing biodiversity protection: Percentage of species and habitats of Community interest related to agriculture with stable or increasing trends, with a breakdown of the percentage for wild pollinators species |  |  |  | | --- | --- | | I.21 | Enhancing provision of ecosystem services: Share of agricultural land covered with landscape features |  |  |  | | --- | --- | | I.22 | Increasing agro-biodiversity in farming system: Crop diversity | | |  |  | | --- | --- | | R.29PR | Development of organic agriculture: Share of utilized agricultural area (UAA) supported by the CAP for organic farming, with a split between maintenance and conversion |  |  |  | | --- | --- | | R.30PR | Supporting sustainable forest management: Share of forest land under commitments to support forest protection and management of ecosystem services |  |  |  | | --- | --- | | R.31PR | Preserving habitats and species: Share of utilized agricultural area (UAA) under supported commitments for supporting biodiversity conservation or restoration including high-nature-value farming practices |  |  |  | | --- | --- | | R.32 | Investments related to biodiversity: Share of farms benefitting from CAP investment support contributing to biodiversity |  |  |  | | --- | --- | | R.33 | Improving Natura 2000 management: Share of total Natura 2000 area under supported commitments |  |  |  | | --- | --- | | R.34PR | Preserving landscape features: Share of utilized agricultural area (UAA) under supported commitments for managing landscape features, including hedgerows and trees |  |  |  | | --- | --- | | R.35 | Preserving beehives: Share of beehives supported by the CAP | |
| To attract and sustain young farmers and other new farmers and facilitate sustainable business development in rural areas | |  |  | | --- | --- | | I.23 | Attracting young farmers: Evolution of the number of new farm managers and the number of new young farm managers, including a gender breakdown | | |  |  | | --- | --- | | R.36PR | Generational renewal: Number of young farmers benefitting from setting up with support from the CAP, including a gender breakdown | |
| 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 | |  |  | | --- | --- | | I.24 | Contributing to jobs in rural areas: Evolution of the employment rate in rural areas, including a gender breakdown |  |  |  | | --- | --- | | I.25 | Contributing to growth in rural areas: Evolution of gross domestic product (GDP) per capita in rural areas |  |  |  | | --- | --- | | I.26 | A fairer CAP: Distribution of CAP support |  |  |  | | --- | --- | | I.27 | Promoting rural inclusion: Evolution of poverty index in rural areas | | |  |  | | --- | --- | | R.37 | Growth and jobs in rural areas: New jobs supported in CAP projects |  |  |  | | --- | --- | | R.38 | LEADER coverage: Share of rural population covered by local development strategies |  |  |  | | --- | --- | | R.39 | Developing the rural economy: Number of rural businesses, including bio-economy businesses, developed with CAP support |  |  |  | | --- | --- | | R.40 | Smart transition of the rural economy: Number of supported smart-village strategies |  |  |  | | --- | --- | | R.41PR | Connecting rural Europe: Share of rural population benefitting from improved access to services and infrastructure through CAP support |  |  |  | | --- | --- | | R.42 | Promoting social inclusion: Number of persons covered by supported social inclusion projects | |
| 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 resistances | |  |  | | --- | --- | | I.28 | Limiting antimicrobial use in farmed animals: Sales/use of antimicrobials for food-producing animals |  |  |  | | --- | --- | | I.29 | Responding to consumer demand for quality food: Value of production under Union quality schemes and of organic production | | |  |  | | --- | --- | | R.43PR | Limiting antimicrobial use: Share of livestock units (LU) concerned by supported actions to limit the use of antimicrobials (prevention/reduction) |  |  |  | | --- | --- | | R.44PR | Improving animal welfare: Share of livestock units (LU) covered by supported actions to improve animal welfare | |

## Annual performance clearance - OUTPUT

### Types of intervention and their output indicators

|  |  |
| --- | --- |
| **Types of intervention** | **Output indicators** |
| Cooperation (Article 77) | |  |  | | --- | --- | | O.1 | Number of European Innovation Partnership (EIP) operational group projects | |
| Knowledge exchange and dissemination of information (Article 78) | |  |  | | --- | --- | | O.2 | Number of advice actions or units to provide innovation support for preparing or implementing European Innovation Partnership (EIP) operational group projects | |
| Horizontal indicator | |  |  | | --- | --- | | O.3MO | Number of CAP support beneficiaries | |
| Basic income support (Article 21) | |  |  | | --- | --- | | O.4 | Number of hectares benefitting from basic income support | |
| Payment for small farmers (Article 28) | |  |  | | --- | --- | | O.5 | Number of beneficiaries or hectares benefitting from payments for small farmers | |
| Complementary income support for young farmers (Article 30) | |  |  | | --- | --- | | O.6 | Number of hectares benefitting from complementary income support for young farmers | |
| Redistributive income support (Article 29) | |  |  | | --- | --- | | O.7 | Number of hectares benefitting from redistributive income support | |
| Eco-schemes (Article 31) | |  |  | | --- | --- | | O.8 | Number of hectares or of livestock units benefitting from eco-schemes | |
| Risk management tools (Article 76) | |  |  | | --- | --- | | O.9 | Number of units covered by supported CAP risk management tools | |
| Coupled income support (Article 32) | |  |  | | --- | --- | | O.10 | Number of hectares benefitting from coupled income support | |
| |  |  | | --- | --- | | O.11 | Number of heads benefitting from coupled income support | |
| Natural or other area-specific constraints (Article 71) | |  |  | | --- | --- | | O.12 | Number of hectares benefitting from support for areas facing natural or other specific constraints, including a breakdown per type of area | |
| Area-specific disadvantages resulting from certain mandatory requirements (Article 72) | |  |  | | --- | --- | | O.13 | Number of hectares benefitting from support under Natura 2000 or Directive 2000/60/EC | |
| Environmental, climate-related and other management commitments (Article 70) | |  |  | | --- | --- | | O.14 | Number of hectares (excluding forestry) or number of other units covered by environmental or climate-related commitments going beyond mandatory requirements | |
| |  |  | | --- | --- | | O.15 | Number of hectares (forestry) or number of other units covered by environmental or climate-related commitments going beyond mandatory requirements | |
| |  |  | | --- | --- | | O.16 | Number of hectares or number of other units under maintenance commitments for afforestation and agroforestry | |
| |  |  | | --- | --- | | O.17 | Number of hectares or number of other units benefitting from support for organic farming | |
|  | |  |  | | --- | --- | | O.18 | Number of livestock units (LU) benefitting from support for animal welfare, health or increased biosecurity measures | |
| |  |  | | --- | --- | | O.19 | Number of operations or units supporting genetic resources | |
| Investments (Articles 73 and 74) | |  |  | | --- | --- | | O.20 | Number of supported on-farm productive investment operations or units | |
| |  |  | | --- | --- | | O.21 | Number of supported on-farm non-productive investment operations or units | |
| |  |  | | --- | --- | | O.22 | Number of supported infrastructure investment operations or units | |
| |  |  | | --- | --- | | O.23 | Number of supported off-farm non-productive investment operations or units | |
| |  |  | | --- | --- | | O.24 | Number of supported off-farm productive investment operations or units | |
| Setting-up of young farmers and new farmers and rural business start-up (Article 75) | |  |  | | --- | --- | | O.25 | Number of young farmers receiving setting-up support | |
| |  |  | | --- | --- | | O.26 | Number of new farmers receiving setting-up support (other than young farmers reported under O.25) | |
| |  |  | | --- | --- | | O.27 | Number of rural businesses receiving support for start-up | |
| Cooperation (Article 77) | |  |  | | --- | --- | | O.28 | Number of supported producer groups and producer organizations | |
| |  |  | | --- | --- | | O.29 | Number of beneficiaries receiving support to participate in official quality schemes | |
| |  |  | | --- | --- | | O.30 | Number of supported operations or units for generational renewal (excluding setting-up support) | |
| |  |  | | --- | --- | | O.31 | Number of supported local development strategies (LEADER) or preparatory actions | |
| |  |  | | --- | --- | | O.32 | Number of supported other cooperation operations or units (excluding EIP reported under O.1) | |
| Knowledge exchange and dissemination of information (Article 78) | |  |  | | --- | --- | | O.33 | Number of supported training, advice and awareness actions or units | |
| Horizontal indicator | |  |  | | --- | --- | | O.34MO | Number of hectares under environmental practices (summary indicator on physical area covered by conditionality, eco-schemes, agri- and forest-environment-climate management commitments) | |
| Types of intervention in certain sectors (Article 47) | |  |  | | --- | --- | | O.35 | Number of supported operational programmes | |
| Types of intervention in the wine sector (Article 58) | |  |  | | --- | --- | | O.36 | Number of actions or units supported in the wine sector | |
| Types of intervention in the apiculture sector (Article 55) | |  |  | | --- | --- | | O.37 | Number of actions or units for beekeeping preservation or improvement | |

## CONTEXT INDICATORS

|  |  |  |
| --- | --- | --- |
|  | **Indicator number** | **Context indicator** |
| Population | C.01 | Total population |
| C.02 | Population density |
| C.03 | Age structure of the population |
| Total area | C.04 | Total area |
| C.05 | Land cover |
| Labor market | C.06 | Employment rate in rural areas |
| C.07 | Unemployment rate in rural areas |
| C.08 | Employment (by sector, by type of region, by economic activity) |
| Economy | C.09 | GDP per capita |
| C.10 | Poverty rate |
| C.11 | Gross value added by sector, by type of region, in agriculture and for primary producers |
| Farms and farmers | C.12 | Agricultural holdings (farms) |
| C.13 | Farm labor force |
| C.14 | Age structure of farm managers |
| C.15 | Agricultural training of farm managers |
| C.16 | New farm managers and new young farm managers |
| Agricultural land | C.17 | Utilized agricultural area |
| C.18 | Irrigable land |
| C.19 | Farming in Natura 2000 areas |
| C.20 | Areas facing natural and other specific constraints |
| C.21 | Agricultural land covered with landscape features |
| C.22 | Crop diversity |
| Livestock | C.23 | Livestock units |
| C.24 | Livestock density |
| Agricultural and farm income | C.25 | Agricultural factor income |
| C.26 | Comparison of agricultural income with non-agricultural labor cost |
| C.27 | Farm income by type of farming, by region, by farm size, in areas facing natural and other specific constraints |
| C.28 | Gross fixed capital formation in agriculture |
| Agricultural productivity | C.29 | Total factor productivity in agriculture |
| C.30 | Labor productivity in agriculture, in forestry and in the food industry |
| Agricultural trade | C.31 | Agricultural imports and exports |
| Other gainful activities | C.32 | Tourism infrastructure |
| Farming practices | C.33 | Agricultural area under organic farming |
| C.34 | Farming intensity |
| C.35 | Value of production under Union quality schemes and of organic production |
| Biodiversity | C.36 | Farmland Bird Index |
| C.37 | Percentage of species and habitats of Community interest related to agriculture with stable or increasing trends |
| Water | C.38 | Water use in agriculture |
| C.39 | Water quality |
| Gross nutrient balance – nitrogen |
| Gross nutrient balance – phosphorus |
| Nitrates in ground water |
| Soil | C.40 | Soil organic carbon in agricultural land |
| C.41 | Soil erosion by water |
| Energy | C.42 | Sustainable production of renewable energy from agriculture and forestry |
| C.43 | Energy use in agriculture, forestry and food industry |
| Climate | C.44 | Greenhouse gas emissions from agriculture |
| C.45 | Agricultural sector resilience progress indicator |
| C.46 | Direct agricultural loss attributed to disasters |
| Air | C.47 | Ammonia emissions from agriculture |
| Health | C.48 | Sales/use of antimicrobials for food-producing animals |
| C.49 | Risk, use and impacts of pesticides |

## Indicators for the European Agriculture Guarantee Fund (EAGF) and the European Agriculture Fund for Rural Development (EAFRD)

**\*NOTE:** Serbia is not a MS, so these indicators will be used as a template for design of Serbian common agricultural policy framework – common fund for agriculture will be monitored by using indicators below, adapted to Serbian needs (summary monitoring and evaluation of all programs: national budget, IPARD and other sources (local and regional, startups and eventual donor programs))

|  |  |
| --- | --- |
| **Objective** | **Core set of indicators** |
| To support viable farm income and resilience of the agricultural sector across the Union in order to enhance long-term food security and agricultural diversity as well as to ensure the economic sustainability of agricultural production in the Union | |  |  | | --- | --- | | O.3 | Number of CAP support beneficiaries |  |  |  | | --- | --- | | C.25 | Agricultural factor income |  |  |  | | --- | --- | | R.6 | Redistribution to smaller farms: Percentage of additional direct payments per hectare for eligible farms below average farm size (compared to average) | |
| To enhance market orientation and increase farm competitiveness both in the short and long term, including greater focus on research, technology and digitalization | |  |  | | --- | --- | | R.9 | Farm modernization: Share of farms receiving investment support to restructure and modernize, including to improve resource efficiency | |
| To improve the farmers’ position in the value chain | |  |  | | --- | --- | | R.10 | Better supply chain organization: Share of farms participating in producer groups, producer organizations, local markets, short supply chain circuits and quality schemes supported by the CAP | |
| 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 | |  |  | | --- | --- | | I.10 | Contributing to climate change mitigation: Greenhouse gas emissions from agriculture |  |  |  | | --- | --- | | R.14 | Carbon storage in soils and biomass: Share of utilized agricultural area (UAA) under supported commitments to reduce emissions or to maintain or enhance carbon storage (including permanent grassland, permanent crops with permanent green cover, agricultural land in wetland and peatland) |  |  |  | | --- | --- | | R.17 | Afforested land: Area supported for afforestation, agroforestry and restoration, including breakdowns | |
| To foster sustainable development and efficient management of natural resources such as water, soil and air, including by reducing chemical dependency | |  |  | | --- | --- | | O.34 | Number of hectares under environmental practices (summary indicator on physical area covered by conditionality, eco-schemes, agri- and forest-environment-climate management commitments) | | I.15 | Improving water quality: Gross nutrient balance on agricultural land |  |  |  | | --- | --- | | I.16 | Reducing nutrient leakage: Nitrates in ground water - percentage of ground water stations with nitrates concentration over 50 mg/l under Directive 91/676/EEC |  |  |  | | --- | --- | | I.18 | Sustainable and reduced use of pesticides: Risks, use and impacts of pesticides |  |  |  | | --- | --- | | R.19 | Improving and protecting soils: Share of utilized agricultural area (UAA) under supported commitments beneficial for soil management to improve soil quality and biota (such as reducing tillage, soil cover with crops, crop rotation included with leguminous crops) | | R.20 | Improving air quality: Share of utilized agricultural area (UAA) under supported commitments to reduce ammonia emission | | R.21 | Protecting water quality: Share of utilized agricultural area (UAA) under supported commitments for the quality of water bodies | | R.22 | Sustainable nutrient management: Share of utilized agricultural area (UAA) under supported commitments related to improved nutrient management | | R.24 | Sustainable and reduced use of pesticides: Share of utilized agricultural area (UAA) under supported specific commitments which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides such as pesticides leakage | |
| To contribute to halting and reversing biodiversity loss, enhance ecosystem services and preserve habitats and landscapes | |  |  | | --- | --- | | C.33 | Agricultural area under organic farming | | I.21 | Enhancing provision of ecosystem services: Share of agricultural land covered with landscape features | | R.29 | Development of organic agriculture: Share of utilized agricultural area (UAA) supported by the CAP for organic farming, with a split between maintenance and conversion | | R.34 | Preserving landscape features: Share of utilized agricultural area (UAA) under supported commitments for managing landscape features, including hedgerows and trees | |
| To attract and sustain young farmers and new farmers and facilitate sustainable business development in rural areas | |  |  | | --- | --- | | R.36 | Generational renewal: Number of young farmers benefitting from setting up with support from the CAP, including a gender breakdown | |
| 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 | |  |  | | --- | --- | | R.37 | Growth and jobs in rural areas: New jobs supported in CAP projects | | R.38 | LEADER coverage: Share of rural population covered by local development strategies | | R.41 | Connecting rural Europe: Share of rural population benefitting from improved access to services and infrastructure through CAP support | |
| 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 resistances | |  |  | | --- | --- | | I.28 | Limiting antimicrobial use in farmed animals: Sales/use of antimicrobials for food-producing animals | | R.43 | Limiting antimicrobial use: Share of livestock units (LU) concerned by supported actions to limit the use of antimicrobials (prevention/reduction) | | R.44 | Improving animal welfare: Share of livestock units (LU) covered by supported actions to improve animal welfare | |
| Modernizing agriculture and rural areas by fostering and sharing of knowledge, innovation and digitalization in agriculture and rural areas and by encouraging their uptake by farmers, through improved access to research, innovation, knowledge exchange and training | |  |  | | --- | --- | | R.1 | Enhancing performance through knowledge and innovation: Number of persons benefitting from advice, training, knowledge exchange or participating in European Innovation Partnership (EIP) operational groups supported by the CAP in order to enhance sustainable economic, social, environmental, climate and resource efficiency performance | |

Context indicators which incorporate CAP impact indicators are marked with an asterisk (\*)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Context indicator Code**   **PMEF CMEF** | | | **Impact indicator code** | **Indicator name** |
| Population | C.01 | C.01 |  | Population numbers |
| C.02 | C.04 |  | Population density |
| C.03 | C.02 |  | Age structure of the population |
| Total area | C.04 | C.03 |  | Total area |
| C.05 | C.31 |  | Land cover |
| Labor market | C.06 | C.05 | I.24 | Employment rate (\*) |
| C.07 | C.07 |  | Unemployment rate |
| C.08 |  |  | Employment |
| C. 11 |  | By sector |
|  | By type of region |
| C. 13 |  | By economic activity |
| Economy | C.09 | C.08 | I.25 | GDP per capita (\*) |
| C.10 | C.09 | I.27 | Poverty rate (\*) |
| C.11 |  | I.8 | Gross value added |
| C.10 | By sector |
| C.10 | By type of region |
|  | In agriculture |
| R.O3\_PI | For primary producers (\*) |
| Farms and  farmers | C.12 | C.17 | I.23 | Agricultural holdings (farms) |
| c.13 | C.22 | Farm labor force |
| C.14 | C.23 | Age structure of farm managers |
| c.15 | C.24 | Agricultural training of farm managers |
| c.16 |  | New farmers (\*) |
| Agricultural  land | C.17 | c.18 |  | Agricultural area |
| c.18 | C.20 |  | Irrigated land |
| C.19 | C.34 |  | Farming in Natura 2000 areas |
| C.20 | C.32 |  | Areas facing natural and other specific constraints |
|  | (ANCs) |
| C.21 |  | I.21 | Agricultural land covered with landscape features (\*) |
| C.22 | R.11 | I.22 | Crop diversity |
| Livestock | C.23 | C.21 |  | Livestock units |
| C.24 |  |  | Livestock density |
| Agricultural and farm income | C.25 | C.25 | I.3 | Agricultural factor income (\*) |
| c.26 | C.26 | I.2 | Comparison of agricultural income with non-agricultural labor costs |
|  | C.27 |  | Farm net value added |
| I.4 | by type of farming (\*) |
|  | by region (\*) |
|  | by farm size (\*) |
| I.5 | in Areas facing natural and other specific constraints (\*) |
|  | C.28 | C.28 |  | Gross fixed capital formation in agriculture |
| Agricultural  productivity | C.29 | C.27 | I.6 | Total factor productivity in agriculture (\*) |
| C.30 | C. 14  c.15  c.16 |  | Labor productivity |
| in agriculture |
| in forestry |
| in the food industry |
| Agricultural  trade | C.31 | I.06 | I.7 | Agricultural imports and exports (\*) |
| Other gainful  activities | C.32 | C.30 |  | Tourism infrastructure |
| Farming  practices | C.33 | C.19 |  | Agricultural area under organic farming |
| c.34 | c.33 |  | Farming intensity |
| C.35 | R.O9\_PI | I.29 | Value of production under EU quality schemes (\*) |
| Biodiversity | C.36 | C.35 | I.19 | Farmland birds index (FBI) (\*) |
| C.37 |  | I.20 | Percentage of species and habitats of Community |
| interest related to agriculture with stable or increasing trends (”) |
| Water | C.38 |  | I.17 | Water use in agriculture (\*) |
| C.39 | C.40  C.40 | I.15 | Water quality |
|  | Gross nutrient balance — nitrogen (\*) |
|  | Gross nutrient balance — phosphorus |
|  |  |  | Nit rates in ground water (\*) |
| SoiI | C.40 | C.41 | I.11 | Soil organic matter in arable land (\*) |
| C.41 | C.42 | I.13 | Soil erosion by water (\*) |
| Energy | C.42 | C.43 | I.12 | Production of renewable energy from agriculture and  forestry (\*) |
| C.43 | C.44 |  | Energy use in agriculture, forestry and food industry |
| Climate | C.44 | C.45 | I.10 | Greenhouse gas emissions (\*) |
| C.45 |  | I.9 | Agricultural sector resilience  progress indicator |
| C.46 |  |  | Direct agricultural loss attributed to disasters |
| Air | C.47 | C.45 | I.14 | Ammonia emissions (\*) |
| Health | C.48 |  | I.28 | Sales/use of antimicrobials in  food producing animals (\*) |
| C.49 |  | I.18 | Risk and impacts of pesticides (\*) |
| Fairness |  |  | I.26 | Distribution of CAP support |

### INDICATOR C. 0 1

|  |  |
| --- | --- |
| INDICATOR C. 0 1 | CURRENT CNIEF: C.01 |
| Indicator Name | Population numbers |
| Definition | This indicator refers to the population on 1st of  January of any given year and consists of 3 specific  indicators:  total population  share of total population by type of region (predominantly rural, intermediate and predominantly urban) and by degree of urbanization (cities, towns and suburbs, rural areas)  share of total population by sex |
| Unit of measurement | 1. number of persons (in thousands)  2. %  3. % |
| Data source | Statistical Office of the Republic of Serbia — population statistics  Statistical Office of the Republic of Serbia —national data by urban-rural typology |
| References/location of the data | National data: Table Population change - Demographic balance and crude rates at  national level [Population change - Demographic balance and crude rates at national level]  National data, by typology: table Demographic balance and crude rates by other typologies [Demographic balance and crude rates by other typologies] |
| Data collection  level | National (NUTS 0)(NUTS- Nomenclature of territorial units for statistics) |
| Frequency | Annual |
| Delay | 1 year |
| Comments/caveats | The distribution of population by type of region has been calculated using the urban-rural typology, which classifies regions into predominantly rural, intermediate and predominantly urban. |

### INDICATOR C.02

|  |  |
| --- | --- |
| **INDICATOR** C.02 | CURRENT CMEF: C.04 |
| Indicator Name | Population density |
| Definition | This indicator is calculated as the annual average population divided by the land area and refers to the number of inhabitants per km2.  It consists of 2 specific indicators:  1. population density  2. population density by type of region  (predominantly rural, intermediate and urban regions) |
| Unit of measurement | * 1 – 2: Number of persons/km2 |
| Data source | Statistical Office of the Republic of Serbia — population statistics |
| References/location  of the data | National data: Table: Population density calculation  Regional data: Table: Population density by LAU region or, in case of missing data:  Most recent urban-rural typology |
| Data collection  level | LAU |
| Frequency | Annual |
| Delay | 2 years |
| Comments/caveats | The distribution of population by type of region has been calculated using the  urban-rural typology, which classifies regions into predominantly rural, intermediate and predominantly urban.  Total area (including inland waters) is used when land area is not available. |

### INDICATOR C.03

|  |  |
| --- | --- |
| INDICATOR C.03 | CURRENT CMEF: C.02 |
| Indicator Name | Age structure of the population |
| **Definition** | This indicator refers to the age structure of the EU population on 1st of January of any given year. It consists of 3 specific indicators:  1. share of total population by broad age groups (less than 15 years / from 15 to 64 years/65 years or over)  2. share of population by sex and by broad age groups (less than 15 years / from 15 to 64 years/65 years or over)  3. share of population by broad age groups (less than 15 years / from 15 to 64 years / 65 years or over) and by type of region (predominantly rural, intermediate and predominantly urban). |
| Unit of measurement | Total and in each type of region:   * persons in each age group * % of total population |
| Data source | Statistical Office of the Republic of Serbia - population statistics  Statistical Office of the Republic of Serbia - regional statistics by urban-rural typology |
| References/location of the data | National data: Table Population on 1 January by broad age group and sex  Regional data: Table Population on 1 January by broad age group, sex and NUTS 3 region  National data, by typology: Table Population by sex and age groups on 1 January |
| Data collection  level | LAU |
| Frequency | Annual |
| Delay | 1 year |
| Comments/caveats | The age structure by type of region has been calculated using the Commission's  urban-rural typology, which classifies regions into predominantly rural, intermediate and predominantly urban. |

### INDICATOR C.04

|  |  |
| --- | --- |
| INDICATOR C.04 | CURRENT CMEF: C.03 |
| Indicator Name | Total area |
| Definition | This indicator refers to the total area, with 2 specific  indicators:  1. total area (including inland waters)  2. share of total area by type of region (predominantly rural, intermediate and  predominantly urban) and by degree of urbanization (cities, towns and suburbs, rural areas) |
| Unit of measurement | Total area:  1. km2  2. In each type of region:   * % of total area |
| Data source | Statistical Office of the Republic of Serbia - population statistics  Statistical Office of the Republic of Serbia - regional statistics by urban-rural typology |
| References/location of the data | Regional data: Table: Area by LAU region |
| Data collection  level | LAU |
| Frequency | Annual |
| Delay | 1 year |
| Comments/caveats | In case of missing data, land area has been used instead of total area.  The distribution of territory by type of region has been calculated using the Commission's urban-rural typology, which classifies regions into predominantly rural, intermediate and predominantly urban. |

### INDICATOR C. 05

|  |  |
| --- | --- |
| INDICATOR C. 05 | CURRENT CMEF: C.3 1 |
| Indicator Name | Land Cover |
| Definition | The indicator measures the area in the different categories of land cover:   * + total agricultural area (agricultural area and natural grassland);   + total forest area (forest area and transitional woodland-shrub);   + natural area;   + artificial area;   + other area (includes sea and inland water).   Land cover is the actual distribution of forests, water, desert, grassland and other physical features of the land, including those created by human activities. Land use, on the other hand, characterizes the human use of a land cover type.  The data source used  1 Artificial surfaces  1.1 Urban fabric Artificial  1.2 Industrial, commercial and transport units Artificial  1.3 Mine, dump and construction sites Artificial  1.4 Artificial, non-agricultural vegetated areas Artificial  2 Agricultural areas  2.1 Arable land Agricultural  2.2 Permanent crops Agricultural  2.3 Pastures Agricultural  2.4 Heterogeneous agricultural areas Agricultural  3 Forest and semi natural areas  3.1 Forests Forest  3.2 Scrub and/or herbaceous vegetation associations  3.2.1 Natural grasslands Agricultural  3.2.2 Moors and heathland Natural  3.2.3 Sclerophyllous vegetation Natural  3.2.4 Transitional woodland-shrub Forest  3.3 Open spaces with little or no vegetation Natural  4 Wetlands  4.1 Inland wetlands Natural  4.2 Maritime wetlands Sea  5 Water bodies  5.1 Inland waters Inland water  5.2 Marine waters Sea |
| Unit of  measurement | % of total area |
| Data source | Statistical Office |

### INDICATOR C. 06

|  |  |
| --- | --- |
| INDICATOR C. 06 | CURRENT CMEF: C.05  Indicator I.24 Contributing to jobs in rural areas: Evolution of the employment rate in rural areas, including a gender breakdown |
| Indicator Name | Employment rate in rural areas |
| Definition | Employed persons aged 15-64 years and 20-64 years' as a share of the total population of the same age group in thinly populated areas (used as proxy for rural areas):  Employed persons are all persons aged 15-20 years and over who, during the reference week, worked at least one hour for pay or profit or were temporarily absent from such work. Employed persons comprise employees, self-employed and family workers.  Population covers persons aged 15-20 years and over living in private households. This comprises all persons living in the households surveyed during the reference week. This definition also includes persons absent from the households for short periods (but having retained a link with the private household) owing to studies, holidays, illness, business trips, etc. Persons on compulsory military service are not included.  There are 3 specific indicators:  1. total employment rate and by age groups  2. total employment rate by sex and by age groups  3. total employment rate by age groups in rural areas  Methodology: The rural employment rate is calculated at national level using Labor Force Survey (LFS) data aggregated by degree of urbanization. This degree of urbanization classifies the territory (Local Administrative Units (LAU)) into rural areas, towns and suburbs and cities. The rural employment rate of each Member State would then correspond to the employment rate of rural areas; this rate could be compared with the employment rates in the other two types of areas or with the employment rate for the whole country. Additionally, employment rates could also be calculated for men and women and even for other age groups, if needed for a better analysis. |
| Unit of measurement | Total and in each type of area:  - % of total population of the same age class and sex |
| Data source | Statistical Office of the Republic of Serbia — Labor Force Survey  Statistical Office of the Republic of Serbia — Degree of urbanization |
| References/location of the data | National data, by degree of urbanization  Regional data, by degree of urbanization |
| Data collection level | LFS data are collected at LAU level (LAU2), with a sample defined to be  significant at NUTS 2 level and at national level. |
| Frequency | For the LFS: annually, in the second half of the year.  For the aggregates by degree of urbanization: depending on the availability of the new data. |
| Delay | 1 year |
| Comments/caveats | Although the use of the degree of urbanization has been selected as the most appropriate for the indicator "rural employment rate", the urban/rural typology is the one to be used when the information is available at NUTS level 3  (for example, for the indicator "Rural GDP per capita") |

### INDICATOR C. 07

|  |  |
| --- | --- |
| INDICATOR C. 07 | CURRENT CMEF: C.07 |
| Indicator Name | Unemployment rate in rural areas |
| Definition | This indicator provides the number of unemployed persons aged 15-24 years (youth unemployment rate) and 15-74 years (total unemployment rate) as a share of the total economically active population of the same age class. It consists of 6 specific indicators, expressed as a share of total active population of the same age class:  1. total unemployment rate  2. youth unemployment rate  3. total unemployment rate in rural areas  4. youth unemployment rate in rural areas  5. total unemployment rate by sex  6. youth unemployment rate by sex  Unemployed persons comprise persons who were (all three conditions must be fulfilled simultaneously):  without work during the reference week,   1. available for work at the time, 2. actively seeking work.   Economically active population is employed plus unemployed.  Methodology: Based on the Labor Force Survey (LFS), the total/youth unemployment rate of each country can be disaggregated by degree of urbanization. The degree of urbanization classifies the territory (Local Administrative Units (LAU)) into ‘rural areas’, ‘towns and suburbs’ and ‘cities’. |
| Unit of measurement | Total and in the thinly-populated areas:  - % of total active population of the same age class |
| Data source | Statistical Office of the Republic of Serbia - Labor Force Survey  Statistical Office of the Republic of Serbia - Degree of urbanization |
| References/location of the data | National data, by degree of urbanization:  Regional data (NUTS I and 2):  Regional data, by degree of urbanization: |
| Data collection  level | LAU |
| Frequency | Annual |
| Delay | 1 year |
| Comments/caveats | For the unemployment rate by type of area, the degree of urbanization  classification, which classifies Local Administrative Units (LAU2) into thinly populated areas (rural areas), intermediate density areas (towns and suburbs) and densely-populated areas (cities), is used.  A change in the methodology to classify local areas from 2012 onwards has produced a break in Statistical Office of the Republic of Serbia series by type of area The age classes 15-74 and 15-24 are used both for national and regional tables. |

### INDICATOR C. 08

|  |  |
| --- | --- |
| INDICATOR C. 08 | CURRENT CNIEF: C.11 |
| Indicator Name | Employment  by sector and by type of region and by economic activity |
| Definition | This indicator shows employment figures for 4 specific  indicators:  1. total employment and by sex  2. share of total employment by sector (primary, secondary, tertiary) and by sex  3. share of total employment by type of region (predominantly rural, intermediate and predominantly urban)  4. share of total employment by economic activity (agriculture, forestry, the food industry, tourism) and by sex.  The absolute change and the annual growth of employment by economic activity at national level are calculated as three-year averages. If the available data allow, the calculation of five-year averages is also possible. |
| Unit of measurement | Total employment:   * 1000 persons For each sector: * % of total employment In each type of region: * % of total employment |
| Data source | Statistical Office of the Republic of Serbia — National and Regional Economic Accounts |
| References/location of the data | National data: table  Regional data: table  National and regional data, by typology:  Most recent urban-rural typology: |
| Data collection  level | LAU |
| Frequency | Annual |
| Delay | 1 year (national data) |
| Comments/caveats | Sectors in NACE rev.2:  Primary sector = branch A (agriculture, forestry and fishing); Secondary sector = branches B-E + F (industry + construction); Tertiary sector = branches G-I + J + K + L + M-N + 0-Q + R-U.  The distribution of employment by type of region has been calculated using the Commission's urban-rural typology, which classifies NUTS 3 regions into predominantly rural, intermediate and predominantly urban. |

### INDICATOR C.09

|  |  |
| --- | --- |
| INDICATOR C.09 | CURRENT CMEF: C. 13  Indicator I.25 Contributing to growth in rural areas: Evolution of Gross Domestic Product (GDP) per capita in rural areas |
| Indicator Name | GDP per Capita |
| Definition | Gross Domestic Product (GDP) per capita in rural  regions, in Purchasing Power Standard (PPS)2  The index of GDP per capita in Purchasing Power  Standards (PPS) is expressed in relation to the European  Union average set to equal 100.  In particular, the following 2 specific indicators are  calculated:  1. Index of GDP expressed in PPS per inhabitant at national level  2. Index of GDP expressed in PPS per inhabitant |
| Unit of  measurement | index of GDP in PPS per inhabitant |
| Data source | Statistical Office of the Republic of Serbia — National and Regional Economic Accounts |
| References/location  of the data |  |
| Data collection level | LAU |
| Frequency | Regional data at NUTS 2 level are published as annual averages of quarterly data.  The calculation of the indicator is made on a yearly basis. |
| Delay | 1 year |
| Comments/caveats | As an average, this indicator does not measure the distribution of income within a given geographical area. Furthermore, non-monetary exchanges (production for  self- consumption; public goods and externalities; barter; unpaid family labor) are not taken into account but can be substantial in some sectors (especially in agriculture)  and regions |

### INDICATOR C. 10

|  |  |
| --- | --- |
| **INDICATOR** C. 10 | CURRENT CMEF: C.09  Indicator I.27 Promoting rural inclusion: Evolution of poverty index in rural areas |
| **Indicator** Name | Poverty rate |
| **Definition** | The indicator is defined as the share of population at risk of poverty or  social exclusion in thinly populated areas (rural areas), as defined in the classification of the degree of urbanization. It is calculated as the percentage of people who are at risk of poverty or severely deprived or living in a household with low work intensity over the total population.  The at-risk-of-poverty rate is the share of people with an equalized disposable income (after social transfer) below the at-risk-of-poverty threshold, which is set at 60 % of the national median equalized disposable income after social transfers  The degree of rural poverty (share of population at risk of poverty) can be compared to the overall Serbian average, to the respective national average. |
| Unit of measurement | Total and in the thinly-populated areas:  - % of total population |
| Data source | Statistical Office of the Republic of Serbia — Survey on income and living conditions (SILC)  Statistical Office of the Republic of Serbia — Degree of urbanization |
| References/location of the data | National data: table  Regional data: table National data, by degree of urbanization:  Regional data, by degree of urbanization: |
| Data collection  level | LAU |
| **Frequency** | Annual |
| Delay | 2 years |
| **Comments/caveats** | The indicator is available by degree of urbanization (Statistical Office of the Republic of Serbia explanation):  I. Densely populated area (cities): at least 50 % lives in high-density clusters; in addition, each high-density cluster should have at least 75 % of its population in densely-populated local administrative units (LAU2);   1. Intermediate density area (towns and suburbs): less than 50 % of the population lives in rural grid cells and less than 50 % live in high-density clusters; 2. Thinly-populated area (rural area): more than 50 % of the population lives in rural grid cells.   This indicator is also used for the reporting on UN Sustainable Development Goals. |

### INDICATOR C. 11

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| INDICATOR C. 11 | CURRENT CNIEF: C.10  Indicator I.8 Improving farmers’ position in the food chain: Value added for primary producers in the food chain |
| Indicator Name | Gross value added by sector and by type of region , in agriculture and for primary producers |
| Definition | The Total Gross Value Added (GVA) (at basic prices), is defined as the value of output less the value of intermediate consumption Output is valued at basic prices, GVA is valued at basic prices and intermediate consumption is valued at purchasers’ prices.  It consists of 5 specific indicators:  1. total GVA  2. GVA by sector (primary, secondary, tertiary), total and share of total GVA  3. GVA by type of region (predominantly rural, intermediate and predominantly urban), total and share of total GVA  4. GVA in agriculture  5. Indicator I.8: GVA of primary producers, total and share of the primary production on the total value added generated by different participants of the food chain (primary production, food manufacturing, food distribution and food service activities) |
| Unit of measurement | 1: EUR million  2: EUR million and %  3: EUR million and %  4: EUR million  5: EUR million and % |
| Data source | Statistical Office of the Republic of Serbia — National and Regional Economic Accounts  Economic accounts for agriculture and Structural Business Statistics |
| References/location of the data | National data: table  1: Gross value added and income by A\*10 industry breakdowns  2: National data, by typology: table Gross value added at basic prices by other typologies  3: Regional data: table Gross value added at basic prices by NUTS 3 regions  4: Gross value added and income by A\*64 industry breakdowns  5: For agriculture and primary producers (I.8):  Gross value added at basic prices  + subsidies on production  -other taxes on production  Value added of the food and beverages manufacturing (food manufacturing)  Manufacture of food products (C10)  + beverages (C11)  + tobacco products (C12)  Value added of the food and beverages distribution (food distribution)  Agents involved in the sale of food, beverages and  tobacco (G4617)  + Wholesale of food, beverages and tobacco (G463)  + Retail sale in non-specialized stores with food, beverages or tobacco predominating (G4711)  + Retail sale of food, beverages and tobacco in specialized stores (G472)  + Retail sale via stalls and markets of food, beverages and tobacco products (G4781)  Value added of the food and beverages consumer services (food service activities)  Food and beverage service activities |
| Data collection  level | LAU |
| Frequency | Annual |
| Delay | 1 year (national data) and 3 years (regional data) |
| Comments/caveats | Sectors in NACE rev.2:  Primary sector = branch A (agriculture, forestry and fishing); Secondary sector = branches B-E + F (industry + construction); Tertiary sector = branches G-I + J + K + L + M-N + 0-Q + R-U.  The distribution of GVA by type of region has been calculated using the Commission's urban-rural typology, which classifies NUTS 3 regions into predominantly rural, intermediate and predominantly urban.  For the primary producers:  The whole food manufacturing is covered as well as the food distribution of three products (food, beverages, tobacco). However, the share is still an over-estimate, as  the value-added of the primary production includes also other products (e.g. textiles and bio-industries outlets, which have been excluded, when possible, in the rest of  the food chain added value). |

### INDICATOR C.12

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| INDICATOR C.12 | CURRENT CMEF: C. 17 |
| Indicator Name | Agricultural holdings (farms) |
| Definition | This indicator consists of five sub-indicators:   * Number of agricultural holdings * Agricultural size of the holdings - in utilized agricultural area (UAA) size classes * Economic size of the holdings - in standard output (SO) classes * Labor force - in persons and in annual work units (AWU) * Average size of the holdings - physical (UAA), economic (standard output), labor in persons and AWU |
| Unit of measurement | Farms: number of farms  UAA: number of ha  Labor force: number of AWU, number of persons  Average physical farm size: ha/farm  Average economic farm size: EUR/farm  Average labor force size: person/holding; AWU/holding |
| Data source | Statistical Office of the Republic of Serbia — Farm Structure Survey (FSS) and DAP (Directorate for Agrarian Payments) |
| References/location of the data | For number of farms, for the physical size (ha of UAA) and for the  economic size of farms  For the labor force size:  For regional data: |
| Data collection level | LAU |
| Frequency | FSS: full census every 10 years, intermediate surveys 2/3 times in-  between. |
| Delay | 2-3 years |
| Comments/caveats | Persons include regular labor force only. |

### INDICATOR C.13

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| INDICATOR C.13 | CURRENT CMEF: C.22 |
| **Indicator** Name | Farm labor force |
| **Definition** | The indicator shows the labor force directly employed by the  agricultural holding and working regularly, in persons and in Annual Work Units (AWU).  The farm labor force of the holding includes all persons having completed their compulsory education (having reached school-leaving age) who carried out farm work on the holding during the 12 months ending on the reference day of the survey. All persons of retirement age who continue to work on the holding are included in the farm labor force.  Total and by sex for the different categories of farm labor force:   * regular labor force:   family labor force (sole holders working in the farm + members of the sole holder's family working in the farm)  non-family labor force   * non-regular labor force (only AWU) |
| Unit of measurement | 1000 persons or AWU |
| Data source | Statistical Office of the Republic of Serbia — Farm Structure Survey (FSS) and DAP |
| References/location  of the data | For national data:  For regional data and labor force by sex: |
| Data collection level | LAU |
| Frequency | FSS: full census every 10 years, intermediate surveys 2/3 times in- between. |
| Delay | 2-3 years |
| Comments/caveats | Due to the high share of part-time work in agriculture, labor input can  be better assessed in terms of AWU than in terms of persons. |

### INDICATOR C.14

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| INDICATOR C.14 | CURRENT CMEF: C.23 |
| Indicator Name | Age structure of farm managers |
| **Definition** | The indicator shows the distribution of the farm managers by age groups. It consists of 3 specific indicators:  1. total number of farm managers, including a breakdown by sex  2. number and share of farm managers by age group  3. ratio between young farm managers (less than 40 years) and farm managers of 55 years or older  The manager of the holding is the natural person responsible for the normal daily financial and production routines of running the holding concerned. The holder is the natural person, group of natural persons or legal person on whose account and in whose name the holding is operated and who is legally and economically responsible for the holding, i.e. who takes the economic risks of the holding. The manager and the holder can be the same person. |
| Unit of measurement | Number of managers, % of total farm managers, ratio of young  managers to elderly |
| Data source | Statistical Office of the Republic of Serbia — Farm Structure Survey (FSS) |
| References/location  of the data | National data:  Regional data on special request to Statistical Office of the Republic of Serbia |
| Data collection level | LAU |
| Frequency | FSS: full census every 10 years, intermediate surveys 2/3 times in- between. |
| Delay | 2-3 years |
| Comments/caveats | Data at regional level (NUTS 1 or 2) on the age of farm managers are  not available in the Statistical Office of the Republic of Serbia public database and need to be requested from Statistical Office of the Republic of Serbia. |

### INDICATOR C.15

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| INDICATOR C.15 | CURRENT CMEF: C.24 |
| Indicator Name | Agricultural training of farm managers |
| **Definition** | The indicator provides information on the level of agricultural training: basic training, practical experience only, full agricultural training. It consists of 2 specific indicators:  1. number and share of farm managers by level of agricultural training  2. number and share of farm managers by age group and by level of agricultural training  The different categories of agricultural training are defined as follows:   * Only practical agricultural experience: experience acquired through practical work on an agricultural holding. * Basic agricultural training: any training courses completed at a general agricultural college and/or an institution specializing in certain subjects (including horticulture, viticulture, sylviculture, pisciculture, veterinary science, agricultural technology and associated subjects). A completed agricultural apprenticeship is regarded as basic training. * Full agricultural training: any training course continuing for the equivalent of at least two years full time training after the end of compulsory education and completed at an agricultural college, university or other institute of higher education in agriculture, horticulture, viticulture, sylviculture, pisciculture, veterinary science, agricultural technology or an associated subject.   In the case of Italy, the definition of "training in agriculture" does not correspond to the content described above. It refers rather to the general education level of the farmer. According to the Italian definition:  practical experience means: the farmer has completed no type of education (primary school, secondary education, higher education);  basic training means: the farmer completed at least primary education, but did not complete agricultural higher education;  full training means: the farmer has completed higher or tertiary education at an agricultural college/university/college-level institute/vocational school. |
| Unit of measurement | Number of managers at each level of agricultural training and as  percentage of total farm managers |
| Data source | Statistical Office of the Republic of Serbia — Farm Structure Survey; Agricultural professional and Advisory Services (in Serbian: PSSS), if possible; Database of MAFWM named “Poljosaveti” (handles data on advisory services and trainings conducted, in agriculture area, as well as on licensed providers of Professional and Advisory Services in Serbia) |
| References/location  of the data | National data:  Regional data: on special request to Statistical Office of the Republic of Serbia |
| Data collection level | LAU |
| Frequency | FSS: full census every 10 years, intermediate surveys 2-3 times in- between. |
| Delay | 2-3 years |
| Comments/caveats | Data at regional level (NUTS 1 or 2) on the training of farm managers  are not available in the Statistical Office of the Republic of Serbia public database and need to be requested from Statistical Office |

### INDICATOR C.16

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| INDICATOR C.16 | Indicator I.23 Attracting young farmers: Evolution of number of new farm managers and the number of new young farm managers, including a gender breakdown |
| Indicator Name | New farm managers and new young farm managers |
| Definition | The indicator shows the evolution of number of new farm managers including new young farm managers.  For the definition of new farmer it will be adopted the one proposed by Eurostat. |
| Unit of  measurement | 1: number of new farm managers by sex  2: number of new young farm managers by sex |
| Data source | Statistical Office |
| References  location of the data | The Integrated Farm Statistics will provide data for the following variables:   * The number of new entrant (including young) farmers in the previous 3 years * The year in which the manager of the agricultural holding took up this role * The year of birth of the manager of the agricultural holding |
| Data collection /  dissemination level | LAU |
| Frequency | IFS: full census every 10 years, intermediate surveys 2 times in-between. |
| Timeliness | 2 years |
| Comments/caveats | First data on new farm managers will be available towards end of year 2022 (for reference year 2020) |

### INDICATOR C.17

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| INDICATOR C.17 | CURRENT CMEF: C. 18 |
| Indicator Name | Utilized agricultural area |
| Definition | The indicator is expressed as the total utilized agricultural area (UAA) in absolute terms (ha) and as the share of UAA in different categories of land use. According to the definition applied in the Statistical Office of the Republic of Serbia database, these categories of land use are as follows:   * Arable land * Permanent grassland * Permanent crops * Other   A small part of UAA dedicated to kitchen gardens is not considered in this indicator; therefore the share of arable crops, permanent grassland & meadow and permanent crops may not sum up to 100%. |
| Unit of measurement | Number of ha;  % of total UAA |
| Data source | Statistical Office of the Republic of Serbia — Agricultural production — Crop production |
| References/location  of the data | National and regional data: |
| Data collection level | LAU |
| Frequency | Annual |
| Delay | 1 year |
| Comments/caveats | Codes for land use: main area (MA), arable land (ARA), permanent grassland (J0000) and permanent crops (PECR). |

### INDICATOR C.18

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| INDICATOR C.18 | CURRENT CMEF: C.20 |
| Indicator Name | **Irrigated land** |
| **Definition** | The indicator shows the total irrigated land and is expressed in hectares (ha) and as percentage of the total Utilized Agricultural Area (UAA).  Irrigated area is defined as the area of crops which have actually been irrigated at least once during the 12 months prior to the reference day of the survey. Crops under glass and kitchen gardens, which are almost always irrigated, should not be included.  Utilized Agricultural Area consists in the total area taken up by arable land, permanent grassland, permanent crops and kitchen gardens.  As a general assumption, crops under glass (greenhouses) as well as kitchen gardens are considered actually irrigated areas but should not be included here. However, national methodologies may differ when including or excluding ’areas under glass’ and kitchen gardens' in the ’total irrigated areas’; possible inconsistencies are being scrutinized by Statistical Office of the Republic of Serbia. |
| Unit of measurement | Ha and % |
| Data source | Statistical Office of the Republic of Serbia - Farm Structure Survey (FSS) |
| References/location  of the data | National and regional data: table |
| Data collection level | LAU |
| **Frequency** | Last 2018 |
| Delay | 2-3 years (Statistical Office of the Republic of Serbia, Survey on Agricultural Production Methods) |
| Comments/caveats | The availability of this data source in the future is under discussion. |

### INDICATOR C. 19

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| INDICATOR C. 19 | CURRENT CMEF: C.34 |
| Indicator Name | Farming in Natura 2000 areas |
| Type of indicator | Environment |
| Definition | This indicator consists of 3 sub-indicators :   * % of territory under Natura 2000 * % of UAA under Natura 2000 * % of forest area under Natura 2000   This indicator provides information on the preservation of the natural environment and landscape and on the protection and improvement of natural resources. Under Natura 2000, a network of areas is designated to conserve natural habitats and species of wildlife which are rare, endangered or vulnerable in the European Union.  The Natura 2000 network consists of sites:   * designated by Member States as Special Protection Areas (SPA) under the Birds Directive (Council Directive 79/409/EEC of 2 April 1979), * proposed by Member States as Sites of Community Importance (pSCI) and later designated as Special Areas of Conservation (SAC) under the Habitats Directive (Council Directive 92/43/EEC of 21 May 1992).   For the Special Protection Areas designated under the Birds Directive, the responsibility for designation lies entirely with the Member States. The Commission (DG Environment) has to be informed when new areas are designated or existing areas are modified. The information received on new or revised areas is passed on to the European Environment Agency (EEA), which regularly produces consolidated versions of the SPA database for the whole EU.  For the proposed Sites of Community Importance, which will in the future be Special Areas of Conservation under the Habitats Directive, there is a three-stage process that starts with a proposal by Member States. The proposals are transferred to the Commission, which evaluates with the European Topic Centre on Biological Diversity (ETC\_BD) whether or not the proposed sites ensure sufficient protection and, on the basis of that evaluation, asks the Member States to propose more sites whenever necessary. The EEA regularly (once a year) compiles all the information received into a single EU database.  The lists of sites foreseen in the Habitats Directive are divided into nine bio- geographic regions (Pannonian, Boreal, Continental, Atlantic, Alpine, Macaronesian, Black Sea, Steppic and Mediterranean) within the territory of the Union. The first list for the Macaronesian region was agreed in December 2001. The second list was adopted in December 2003 for the Alpine region, followed in 2004 by the lists for the Continental and Atlantic regions. The list for the Boreal region was adopted in 2005, and the list for the Mediterranean region in 2006. The lists for the Steppic and the Black Sea regions were adopted in 2008.  Natura 2000 sites include different types of European ecosystems. Some sites are in coastal areas or in open marine waters, some contain lakes or are riverine, and many include forest and farmland. For calculating an improved version of this indicator, geo-referenced information is required.  The data sets used consist of the Natura 2000 Spatial Dataset and the CORINE Land Cover (CLC) raster dataset. Although CLC categories do not fully correspond to the statistical definitions of agricultural area (UAA) or forests, the overlay of the two data sets allows an accurate geographical estimation of land use data inside Natura 2000 sites.  To reduce and explain the discrepancies with other surveys and national inventories, the estimation of the UAA and forest includes separately the CLC classes "Natural grassland" and "Transitional woodland —shrubs".  CLC classes are aggregated to estimate:  Total farmland (UAA): CLC classes 2xx and 321  Forest area : CLC classes 31x and 324 |
|  | Please note that the situation regarding Natura 2000 sites is constantly evolving and therefore the data represent only a snapshot of the situation at a reference date.  The figures relating to the area coverage of Natura 2000 sites have been obtained by GIS analysis performed by DG Environment and the EEA. |
| Unit of  measurement | % of area under Natura 2000 |
| Data source | Directorate for nature conservation |
| References/location of the data |  |
| Data collection  level | Regional (NUTS 2) |
| Frequency | Natura 2000: every year |
| Delay | Natura 2000: 1 year |
| Comments/caveats |  |

### INDICATOR C.20

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| **INDICATOR** C.20 | CURRENT CMEF: C.32 |
| Indicator Name | Areas facing natural and other specific constraints - ANCs – (indicator not exists in current methodology used by Statistical Office and MAFWM; data should be derived from matching of existing indicators (programs for especially underdeveloped municipalities should be split by mountain areas) |
| **Definition** | The characterization of agricultural areas designated as areas facing natural or other specific constraints provides useful information on the environment in which the policy is implemented.  The indicator measures the share of agricultural area in different categories of areas facing natural or other specific constraints (ANCs) (ex-LFAs as they were defined in the period 2007-2013):   * Mountain areas (incl. areas north of the 62nd parallel) (ex- LFA mountain); * Areas, other than mountain areas, facing significant natural constraints (ex-LFA intermediate); * Other areas affected by specific constraints (ex-LFA specific).   Article 32 of Regulation (EU) No 1305/2013 defines the areas facing natural or other specific constraints, which are eligible for payments to farmers. They are classified according to three categories, each of which describes a specific cluster of natural or other specific constraints affecting agricultural production in the area concerned.  The area designations and other requirements for ANCs have changed in comparison to the programming period 2007-2013 and to Regulation (EC) No 1698/2005 and Regulation (EC) No 1257/99, which are repealed.  While no revision of the designation of mountain areas or areas affected by specific constraints is foreseen in Regulation (EU) No 1305/2013 (apart from the possibility to apply the combination of biophysical criteria for the designation of areas affected by specific constraints), areas facing natural constraints other than mountain (former LFA intermediate) should be delimited according to eight biophysical criteria, as defined in Annex III of Regulation (EU) No 1305/2013, covering climate, poor soil productivity and steep slopes. Each (sub) criterion has a predefined threshold, e.g. slopes with a gradient of 15% (or more) which identifies the trigger for the area to be considered as severely constrained from the agricultural production point of view. Measurement of constraint(s) takes place at the level of Local Administrative Units (LAU) 2 (which corresponds to municipality level in most Member States) or at the level of clearly delineated, contiguous local units. The latter should have a definable economic and administrative identity. Farming in the respective local unit can be considered as being constrained if constraints are present on at least 60 % of the local unit's agricultural area. The new legislation also stipulates the mechanism of fine-tuning, i.e. for excluding those administrative units where a constraint has been documented but it has been overcome by investments or by economic activity. The fine-tuning exercise is a part of the designation exercise. New data on ANCs are reported by Member States within the programming period 2014-2020. |
| Unit of  measurement | % of the utilized agricultural area (UAA) |
| Data source | Non-existing (should be derived from existing indicators and data: MAFWM and DAP) |
| References/location of the data | DG Agriculture and Rural Development on request |
| Data collection level | National, regional  Areas facing natural constraints, other than mountain: Data are reported at the level of LAU2 or another LAU (a number of MS use different administrative units for the delimitation of these areas). |
|  | Areas affected by specific constraints: Data collection may be carried out at the  level of area designation. In case the designation is carried out according to the "combination of biophysical criteria", as defined in the third paragraph of Article 32(4) of Regulation (EU) No 1305/2013, the data collection level should be LAU2 or another clearly delineated local unit. |
| Frequency | Data available at present: At the moment data on LFAs are from 2005 (and from  2007 in the case of BG and RO). |
| Delay |  |
| Comments/caveats | MS may complete the delimitation of the ANCs other than mountain (former LFA intermediate) until the end of 2017. Meanwhile, the previous area designations are in force. |

### INDICATOR C.21

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| INDICATOR C.21 | **Indicator I.21 Enhancing provisions of ecosystem services:** Share of agricultural land covered with landscape features |
| Indicator Name | **Agricultural land covered with landscape features** |
| Definition | This indicator aims to estimate the area covered by landscape features in the agricultural land. Landscape features may include linear elements (e.g. hedgerows) and patches (e.g. trees, woodland, etc.), water & wet spots (ponds, water bodies, streams, etc.); moderately managed areas (e.g. field margins), etc.  Landscape features support biodiversity and ecosystem services. Therefore, they provide many benefits to agro- ecosystems and the wider environment, including habitat provision, mitigation of soil erosion, and improvement of soil fertility, water flow regulation, water courses protection, climate change mitigation and adaptation.  This indicator consists of 2 specific indicators:  1. The share of agricultural land covered with landscape features  2. An elaborated index of landscape elements structure (under development). |
| Unit of measurement | 1: %  2: Still to be defined  (Could be complemented with some statistics to reflect on spatial configuration of features) |
| Data source | * 1. possible sources:   Copernicus Land Monitoring Service fed with LPIS/IACS. Land use/cover Area frame statistical Survey (LUCAS-landscape features module).  \*Note: LPIS in Serbia is non existing. Will be developed during 2022. Indicator should be derived by LPIS (DAP) and Statistical Office. |
| References / location  of the data | * Copernicus Land Monitoring Service high resolution   layers (httPs://land.coPernicus.eu/Pan- european/hiqh-resolution-layers)   * LUCAS (httPs://ec.euroPa.eu/eurostat/statistics- explained/index.PhO/LUCAS -   Land use and land cover survey) |
| Data collection /  dissemination level | EU, National (NUTS 1), Regional (NUTS 2 and 3), based  on detailed maps / samples covering the full EU. |
| Frequency | Copernicus: data starting from 2015 are used to assess Small Woody Features; updates are currently planned every three years, i.e. for 2018, 2021, 2024, 2027, etc.  LUCAS: Starting from 2009, updates are in principle planned every 3 years. However, in 2018 the collection |

### INDICATOR C.22

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| INDICATOR C.22 | | Indicator I.22 Increasing ago-biodiversity in farming system: Corp diversity | | | | | | |
| Indicator Name | | Crop diversity | | | | | | |
| Definition | | This indicator comprises two sub-indicators:   1. Crop diversityon farm (number of farms by number of crops and size)   Number and % of farms by number of crops (1, 2, 3, and >3) and by size of arable land (arable land  < 10ha; 10ha< arable land < 30ha; 30ha < 100 ha; arable Iand> 100ha), at NUTS 2 level.   1. Crop diversity in a region   Average number of crops grown on a holding at NUTS 2 level as one, and broken down by arable land size classes (arable land < 10ha; 10ha< arable land < 30ha; arable land > 30ha). | | | | | | |
| Unit of measurement | | 1, 2: Number, % | | | | | | |
| Data source | | 1-2: Farm Structure Survey  Example:  % of holdings  1 crop 2 crops 3 crops >3 crops  < 10 ha x% y% z% w%  10< <30 xy% xx% xz% yy% 30< < 100 xy% xx% xz% yy% 100< XZ% XX% '/Z% W'/%  Total x% y% z% w%  Integrated Farm Statistics (IFS) as of survey year 2020. | | | | | | |
| **References / location**  of the data | | 1: special request to Eurostat for extraction from Eurofarm Database  2: from sub-indicator 1 | | | | | | |
| Data collection /  dissemination level | National (NUTS 0) | | | | | | |
| Frequency | Farm Structure Survey — every 3-4 years (2013; 2016)  IFS: full census every 10 years, intermediate surveys 2 times in-between | | | | | | |
| Timeliness | Farm Structure Survey — 2-3 years (= > 2013 FSS results are available mid-2015; 2016 FSS will be available in 2018) | | | | | | |
| Comments/caveats |  | | | | | | |
| **INDICATOR C.22** | **CURRENT CMEF: C.21** | | | | | | |
| Indicator Name | **livestock unit** | | | | | | |
| **Definition** | This indicator gives the total number of livestock units (LU) of the holdings with livestock. LU is a reference unit which facilitates the aggregation of livestock from various species and ages. LU coefficients are used instead of the actual number of animals in order to make comparable aggregations of different animal categories. | | | | | | |
| Unit of measurement | Number of LU | | | | | | |
| Data source | Statistical Office of the Republic of Serbia — Farm Structure Survey (FSS) | | | | | | |
| References/location  of the data | For national | and | regional | data |  |  |  |
| Data collection level | LAU | | | | | | |
| Frequency | FSS: full census every 10 years, intermediate surveys 2/3 times in- between | | | | | | |
| Delay | 2-3 years | | | | | | |
| Comments/caveats |  | | | | | | |

### INDICATOR C.23

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| --- | --- |
| INDICATOR C.23 |  |
| Indicator Name | Livestock units |
| Definition | This indicator gives the total number of livestock units (LSU) of the holdings with livestock and by species. LSU coefficients are used instead of the actual number of animals in order to make comparable aggregations of different animal categories.  The indicator consists of 2 specific indicators:   1. total number of livestock units 2. total number and share of livestock units by species. According to the definition applied in the Eurostat database, the categories of livestock units are as follows:    * bovine    * ovine    * poultry    * swine |
| Unit of measurement | 1 : number of LSU2: number of LSU and % |
| Data source | Eurostat — Farm Structure Survey (FSS)  Eurostat — Integrated Farm Statistics (IFS) |
| References / location  of the data | For national and regional data: table |
| Data collection /  dissemination level | LAU |
| Frequency | FSS/IFS: full census every 10 years, intermediate surveys 2 times in-between. |
| Methodology | **Livestock unit coefficients**   |  |  |  | | --- | --- | --- | | **Type of animal** | **Characteristic of animal** | **Coefficient** | | Bovine animals | Less than 1 year old | 0,400 | | 1 to less than 2 years old | 0,700 | | Male, 2 years old and over | 1,000 | | Heifers, 2 years old and over | 0,800 | | Dairy cows | 1,000 | | Non-dairy cows | 0,800 | | Sheep and goats | | 0,100 | | Pigs | Piglets, live weight of under 20 kg | 0,027 | | Breeding sows, live weight 50 kg and over | 0,500 | | Other pigs | 0,300 | | Poultry | Broilers | 0,007 | | Laying hens | 0,014 | | Other poultry |  | | Turkeys | 0,030 | | Ducks | 0,010 | | Geese | 0,020 | | Ostriches | 0,350 | | Other poultry fowls n.e.c. | 0,001 | | Rabbits, breeding females | | 0,020 | |
| Timeliness | 2 years |
| Comments/caveats | IFS as of survey year 2020. |

### INDICATOR C.24

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| INDICATOR C.24 |  |
| Indicator Name | Livestock density |
| Definition | The livestock density is an indicator for the pressure of livestock farming on the environment.  This indicator consists of 2 specific indicators:   1. Total livestock density - LSU/ha of utilized agricultural area (UAA): it measures the stock of animals (cattle, sheep, goats, equidae, pigs, poultry and rabbits) converted in livestock units (LSUs) per hectare of utilized agricultural area (UAA). 2. Grazing livestock density (grazing LSU/ha of fodder area): it measures the stock of grazing animals (cattle, sheep, goats and equidae) per fodder area (consisting of fodder crops grown on arable land as well as permanent grassland). It is the ratio of the number of livestock units (LSUs) (converted from the number of animals using standard coefficients published by EUROSTAT, per hectare of fodder area. |
| Unit of measurement | 1 — 2: LSU/ha |
| Data source | Farm Structure Survey (FSS)  Integrated Farm Statistics (IFS) |
| References /location of data |  |
| Data collection /  dissemination level | LAU |
| Frequency | FSS/IFS: full census every 10 years, intermediate surveys 2 times in-between |
| Timeliness | 2 years |
| Comments/caveats | IFS as of survey year 2020.  LSU (or sometimes as LU) is a reference unit which facilitates the aggregation of livestock from various species and age as per convention, via the use of specific coefficients established initially on the basis of the nutritional or feed requirement of each type of animal. Grazing livestock density is not published in the dataset but can be calculated separately. |

### INDICATOR C.25

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| INDICATOR C.25 | Indicator I.3 Reducing farm income variability:  Evolution of agricultural income |
| Indicator Name | Agricultural factor income |
| Definition | Agricultural factor income measures the remuneration of all factors of production (land, capital, labor) regardless of whether they are owned or borrowed/rented and represents all the value generated by a unit engaged in an agricultural production activity.  It corresponds to the net value added at factor cost. Value of agricultural production   * intermediate consumption as defined in   Manual on the economic accounts for Agriculture and Forestry   * depreciation * total taxes (on products and production)   + total subsidies (on products and production)  = agricultural factor income (net value added at factor costs)  The indicator consists of 3 specific indicators:   1. Agricultural factor income per annual work unit (AWU). It measures the income generated by a farm (as defined above) per annual working unit, where an AWU in agriculture corresponds to the work performed by one person who is occupied on an agricultural holding on a full- time basis. For this indicator, total (paid and unpaid) AWU are used. 2. The index of agricultural factor income per AWU is already available in Eurostat's Economic Accounts for Agriculture as specific indicator 1. This index is a measure of relative labor productivity and is particularly suited for showing developments over time.   3. Indicator I.3: % variation of the Index compared to the last 3-year average |
| Unit of measurement | 1 : EUR (in real terms)/AWU  2: Index 2010 = 100  3: % |
| Data source | Statistical Office: 1: Economic Accounts for Agriculture and Agricultural Labor Input Statistics  2 - 3: Economic Accounts for Agriculture (EAA) |

### INDICATOR C.26

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| INDICATOR C26 |  |
| Indicator name | Agricultural entrepreneurial income |
| Type of indicator | Sectorial |
| Definition | Agricultural entrepreneurial income5 measures the income derived from agricultural activities that can be used for the remuneration of own production factors, i.e. non-salaried (= family) labor, land belonging to the agricultural holding and own capital. It is obtained by deducting wages, rent and interest payments from agricultural factor income (see C. 25).  Value of agricultural production  - variable input costs (fertilizers, pesticides, feed, etc.)  - depreciation  - total taxes (on products and production) + total subsidies (on products and production) = agricultural factor income (net value added at factor costs) - wages - rents - interest paid = agricultural entrepreneurial income  In the case of family farms (sole proprietorships), entrepreneurial income represents, on the one hand, the compensation of the work performed by the agricultural holder (and the work of non-salaried family members) and, on the other hand, the income remaining with the enterprise, without it being possible to separate these two components. It is, therefore, a mixed income.  It consists of 2 sub-indicators:  1. Agricultural entrepreneurial income per unpaid annual work unit (AWU) is expressed in absolute terms or as an index.  2. Income per family worker compared to the wages employees in the whole economy (based on EUR/hour worked)  The index of agricultural entrepreneurial income per unpaid AWU can be obtained directly from Eurostat's Economic Accounts for Agriculture as Indicator B.  Agricultural entrepreneurial income (in real and current prices)  AWU in agriculture, which corresponds to the work performed by one person who is occupied on an agricultural holding on a full-time basis. A distinction is made between salaried and non-salaried AWU, which together make total AWU. Agricultural entrepreneurial income is divided by non-salaried AWU in order to show the level of agricultural entrepreneurial income for the farm holder and members of his/her family. In order to compare this "family farm income" with the average wages in the economy, AWUs in agriculture need to be converted into number of hours worked: a standard conversion factor of 1800 hours per AWU and per year is used. Gross wages and salaries in all NACE activities at current prices in cash and in kind. Wages and salaries in cash include the values of any social contributions, income taxes, etc. payable by the employee, even if withheld and actually paid directly by the employer on behalf of the employee. The total number of hours worked per employee in all NACE activities. |
| Unit of measurement | 1: EUR/ non-salaried AWU or index value  2: share of total |
| Data source | Statistical Office – Economic Accounts for Agriculture  Statistical Office – Agricultural Labor Input Statistics  Statistical Office – National Accounts |
| References/location of the data | Agricultural entrepreneurial income: Economic accounts for agriculture - values at current prices (aact\_eaa01)  Economic accounts for agriculture - values at real prices (aact\_eaa04)  • Production value at basic price  • Entrepreneurial income: code 31000 Agricultural labor input:  Agricultural Labor Input Statistics: absolute figures (1 000 annual work units) (aact\_ali01) Index of agricultural entrepreneurial income/non-salaried AWU (Indicator B): Economic accounts for agriculture – agricultural income (indicators A, B, C) (aact\_eaa06) Wages and salaries: National Accounts by 10 branches - aggregates at current prices: gross wages and salaries (nama\_10\_a10) Employment: National Accounts by 10 branches - employment data (nama\_10\_a10e) |
| Data collection level | National, LAU |
| Frequency | Annual |
| Delay | 1 year |
| Comments | It has to be borne in mind that these income aggregates are not indicators of total income or of the disposable income of households employed in agriculture, because the latter, in addition to their purely agricultural incomes, may also have income from other sources (nonagricultural activities, remuneration, social benefits, and income from property). In other words, agricultural entrepreneurial income must not be regarded as farmers' income. Moreover, this measure of income relates to the income generated by agricultural activities (as well as inseparable non-agricultural secondary activities) over a given accounting period, even though in certain cases the corresponding revenues will not be received until a later date. It does not, therefore, constitute the income effectively received in the course of the accounting period itself. The indicator farm household income cannot be calculated as there is no methodology or data in Eurostat for this purpose. Regional data are not available for all Member States. The comparison of agricultural entrepreneurial income with average wages in the economy cannot be done at regional level. |

### INDICATOR C.27

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| INDICATOR C.27 | Indicator I.4 Supporting viable farm income: Evolution of agricultural income level by type of farming (compared to the average in agriculture) Indicator I.5 Contributing to territorial balance: Evolution of agricultural income in areas with natural constraints (compared to the average) |
| Indicator Name | Farm income by type of farming, region, by farm size, in areas facing natural and other specific constraints |
| Definition | Farm net value added (FNVA) is the portion of agricultural output value that can be used to remunerate the fixed factors of production (labor, land and capital), whether they are external or family-owned factors. As a result, agricultural holdings can be compared regardless of the family/non-family nature of the factors of production used.  It is calculated as follows:  Value of agricultural production  + Pillar I and Pillar II payments  + any national subsidies  + VAT balance  - intermediate consumption  - farm taxes (income taxes are not  included)  - depreciation.  = Farm Net Value Added  The value is calculated per annual work unit (AWU) in order to take into account the differences in the scale of farms and to obtain a better measure of the productivity of the agricultural workforce.  The indicator consists of 5 specific indicators:  1. Farm net value added by type of farming  2. Farm net value added by region  3. Farm net value added by economic farm size  4. Farm net value added by physical farm size  5. Farm net value added in areas facing natural and other specific constraints  For the grouping according to type of farming and economic size, the general types of farming (TF8) and economic size class (ES6) definitions, as implemented in the Farm Accountancy Data Network (FADN), will be used  Indicator I.4 Supporting viable farm income: Evolution of agricultural income level by type of farming (compared to the average in agriculture).  Indicator I.5 Contributing to territorial balance: Evolution of agricultural income in areas with natural constraints (compared to the average).  1: TF8 3: ES6 grouping  1 Fieldcrops 4 000 - < 8 000 EUR  2 Horticulture 8 000 - < 25 000 EUR  3 Wine 25 000 - < 50 000 EUR  4 Other permanent crops 50 000 - < 100 000 EUR  5 Milk 100 000 - < 500 000 EUR  6 Other grazing livestock >= 500 000 EUR  7 Granivores  8 Mixed  2: Region: FNVA is provided by the FADN regions  4: FNVA by physical farm size = Utilized Agricultural Area (UAA) (SE025) => 5 ha => 10 ha => 20 ha => 30 ha => 50 ha => 75 ha => 100 ha => 150 ha => 200 ha => 250 ha => 500 ha => 1000 ha => more  5: according to 3 classes: “ANC/LFA areas other than mountain”, “mountain ANC/LFA areas” and “not in ANC/LFA areas” |
| Unit of measurement | 1-5: Euro per AWU |
| Data source | FADN sample survey of farms |
| Frequency | Annually |
| Timeliness | 2-3 years |

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| INDICATOR C.28 |  |
| Indicator Name | Gross fixed capital formation in agriculture |
| Definition | The indicator measures producer’s investments, deducting disposals, in fixed assets during a given period plus certain additions to the value of non-produced assets realized by the productive activity of producer or institutional units (ESA 2010 definition). Therefore, Gross fixed capital formation in agriculture (GFCF) is a key element for future competitiveness.  It consists of 2 specific indicators:   1. Gross Fixed Capital Formation (GFCF) 2. share of Gross Value Added (GVA) in agriculture. |
| Unit of measurement | 1 : EUR million (in current prices)  2: % |
| Data source | Statistics - Economic Accounts for Agriculture (EAA)-Statistical Office  National Accounts |
| References / location  of the data | National data: table  Regional data: table |
| Data collection /  dissemination level | LAU |
| Frequency | Annual |
| Timeliness | 1 year |
| Comments  /caveats | There are differences between national and regional data since the former is based on the Economic accounts for agriculture and the latter is related to the National Accounts (ESA 2010). |

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| INDICATOR C.29 | CURRENT CMEF: C.27  Indicator I.6 Increasing farm productivity:  Total factor productivity in agriculture |
| Indicator Name | Total factor productivity in agriculture |
| Definition | Total factor productivity (TFP) compares total outputs relative to the total inputs used in production of the output. As both output and inputs are expressed in term of volume indices, the indicator measures TFP growth. The change in production and input volumes is measured over a defined period (2005= 100). To aggregate the different output (and input) volume indices, the production (and input) values are used as weights. This allows capturing the relative importance between outputs, or inputs.  TFP reflects output per unit of some combined set of inputs: an increase in TFP reflects a gain in output quantity which is not originating in from an increase of input use.  As a result, TFP reveals the joint effects of many factors including new technologies, efficiency gains, economies of scale, managerial skill, and changes in the organization of production.  TFP index is defined as the ratio between an Output Index (i.e. the change in production volumes over a considered period) and an Input Index (the corresponding change in inputs/factors used to produce them).  Output and input indices are calculated as weighted averages of changes in produced quantities and in input quantities respectively, where the weights are represented by the production value of the various products and the expenditure for each of the four considered production factors (intermediate inputs, land, labor, capital).  Depending on the type of average applied and the chosen reference period for the weights, the TFP indicator assumes different analytical forms. Laspeyres indices are defined as arithmetic means with weighting factors referring to the time 0 (base year), while Paasche indices are harmonic means with weighting factors referring to the time t (current year).  In formula, the TFP Laspeyres index is given by: ,  Diagram  Description automatically generated with medium confidence  while TFP Paasche index is defined as  Diagram  Description automatically generated with medium confidence  where q jt and i ktare respectively the quantity of product j and factor k at time t, while w jt and X ktare the weights of product j and factor k within the agricultural sector.  Finally, the geometrical average of the Laspeyres and the Paasche index gives the Fischer index, which benefits from the most suitable statistical properties. In formula, the TFP Fisher index is computed as follows:  TFP\_F = √ TFP\_L \* TFP\_P |
| Unit of measurement | Index (3-year moving average) |
| Data source | The Economic Accounts for Agriculture (EAA) from Statistical Office of the Republic of Serbia.  Precise indicators chosen in the EAA:  - Change in output volume (qlt/ql0):Volume Indices, n-1 = 100, Production value at basic price (aact\_eaa05)  - Output weights: Real price in Euro, 2010 = 100, Production value at basic price (aact\_eaa04)  - Change in input volume (ilt/il0)for every input except land and labor cost:Volume Indices, n-1 = 100, Production value at basic price (aact\_eaa05)  - Input weights: Real price in Euro, 2010 = 100, Production value at basic price (aact\_eaa04)  - Volume index for labor costs: Change in Total labor input measured in 1000 AWU (aact\_ali01)  - Correction of the weight for labor costs to cover the family labor costs: the compensation of employees is divided by the share of paid labor also directly available from the EAA (aact\_ali01)  - Volume index for land costs: Change in Total UAA available in the EAA (apro\_cpp\_luse).   Complementary data is required from:  - the **Farm Structure Survey**  to assess the share of rented land (in order to correct the weight of land by including the own land) (ef\_mptenure).  - the **Agricultural Production Data – Crop Products** for the volume index of the UAA (apro\_cpp\_luse).  - the **Farm Accountancy Data Network** to estimate the national average depreciation rate. |
| References/location of the data | Statistical Office of the Republic of Serbia: EAA, FSS; FADN |
| Data collection level | National (NUTS 0) |
| Frequency | Annual |
| Delay | Year N-2 |
| Comments/caveats | The climatic conditions affecting crop yields have strong impact on the  crop output and as a consequence on the indicator. Therefore a moving  average over 3 years is to be calculated to smooth the weather effect.  The level of detailed information required to compile the indices (especially for the Paasche Index) does not allow for calculating long time series. |

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| INDICATOR C.30 |  |
| Indicator Name | Labor productivity in agriculture in forestry and in the food industry |
| Definition | This indicator consists of 3 specific indicators:  1. Labor productivity in agriculture  2. Labor productivity in forestry  3. Labor productivity in the food industry  For each specific indicator, labor productivity is calculated as Gross Value Added (GVA) per unit of labor input.  GVA is recorded at basic prices. It is output valued at basic prices less intermediate consumption valued at purchasers’ prices.  The basic price is defined as the price received by the producer, after deduction of all taxes on products but including all subsidies on products.  GVA is measured in chain linked volumes (2015), million euros.  Labor input includes both employees and self-employed to provide total employment in the respective sector. It is measured in thousand persons.  A three-year average mitigates short-term fluctuations. Labor productivity is then calculated as the ratio of the averages: (three year average GVA) / (three year average labor input).  1 – The agricultural sector corresponds to division A01 in NACE rev.2 (crop and animal production, hunting and related service activities).  2 - The forestry sector corresponds to division A02 in NACE rev. 2 (Forestry and logging).  3 – The food industry corresponds to division C10-C12 in NACE rev.2 (manufacture of food products; beverages and tobacco products) |
| Unit of measurement | 1 - 3: EUR million/number of persons (in thousand) |
| Data source | Statistical Office of the Republic of Serbia - Economic Accounts for Agriculture (EEA)  Statistical Office of the Republic of Serbia - Agricultural Labor Input Statistics |
| References/location of the data | For GVA values at current prices: National Accounts  EEA for GVA values at constant prices:  Agricultural Labor Input Statistics for AWU values |
| Data collection level | LAU |
| Frequency | Annual |
| Delay | 1 year |
| Comments/caveats | Due to the lack of available regional data, this indicator can only be  calculated at national level. |

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| INDICATOR C.31 | Indicator I.7 Harnessing agri-food trade: Agri-food trade imports and exports |
| Indicator Name | Agricultural imports and exports |
| **Definition** | This indicator consists of 4 specific indicators covering the EU trade agri-food (exports, imports, total, and trade balance); as well as 4 sub indicators providing more in-depth information (total and separate values for commodities, other primary products, processed, food preparations, beverages, non-edible products):  1. Indicator I.7 agri-food value (imports + exports)  a. Total agri-food (imports + exports)  2. EU agri-food trade balance  a. Agri-food trade balance  3. Agri-food exports  a. agri-food exports  4. Agri-food imports  a. agri-food imports |
| Unit of measurement |  |
| Data source | STATISTICAL OFFICE OF THE REPUBLIC OF SERBIA |
| References/location of the data |  |
| Data collection level | Availability at GIS level  Indicator at LAU level |
| Frequency | Data available monthly  Indicator calculation - yearly |
| Delay | Year Y is available FEB Y+1 |
| Comments/caveats |  |

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| INDICATOR C.32 | CURRENT CMEF: C. 30 |
| **Indicator Name** | Tourism infrastructure |
| **Definition** | Tourism infrastructure in rural areas is measured as the number of bed places in tourist accommodations in absolute values and as a share of total bed places by degree of urbanization.  Data are collected according to the following degrees of urbanization:   1. Densely-populated area (cities/large urban area) 2. Intermediate urbanized area (towns and suburbs/small urban area) 3. Thinly populated area (rural area)   According to the definitions of urban areas used in line with the United Nations Population Division (UNPD), urban areas correspond to densely populated and intermediate density areas while rural areas equal thinly populated areas. |
| Unit of measurement | Total number of bed places by degree of urbanization and % of national  total |
| Data source | Statistical Office of the Republic of Serbia — Tourism statistics |
| **References/location**  of the data | For national data: table  For regional data: table |
| **Data collection level** | LAU  GIS |
| **Frequency** | Annual and monthly. Annual for regional data. |
| **Delay** | 1 year |
| **Comments/caveats** | Collective tourist accommodation establishments include hotels, holiday  and other short-stay accommodation, camping grounds, recreational  vehicle parks and trailer parks.  When the number of bed places in one category of establishment is missing, the sum of available data is provided.  The number of bed places in an establishment or dwelling is determined by the number of persons who can stay overnight in the beds set up in the establishment (dwelling), ignoring any extra beds that may be set up by customer request. The term bed place applies to a single bed, double bed being counted as two bed places. The unit serves to measure the capacity of any type of accommodation. A bed place is also a place on a pitch or in a boat on a mooring to accommodate one person. One camping pitch should equal four bed places if the actual number of bed places is not known. |

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| INDICATOR C.33 | CURRENT CMEF: C. 19 |
| Indicator Name | Agricultural area under organic farming |
| Definition | The indicator shows the number of hectares under organic farming and the share of area under organic farming in the total utilized agricultural area (UAA).  The area under organic farming is classified as follows:   * fully converted to organic farming * under conversion to organic farming * total fully converted and under conversion to organic farming   Farming is considered to be organic if it complies with the relevant EU legislation.  The area defined refers to the Utilized agricultural area excluding kitchen garden as from the "Organic crop area by agricultural production methods and crops".  It might not be strictly comparable with the definition of UAA (only area of main crops) in the crop production statistics.  Data on the area under organic farming at regional level come from the FSS. |
| Unit of measurement | Ha and % |
| Data source | Statistical Office of the Republic of Serbia — Organic farming - DAP  Statistical Office of the Republic of Serbia — Crop production |
| References/location  of the data | Organic data: UAA: |
| Data collection level | national, LAU |
| Frequency | annual |
| Delay | 1 year |
| Comments/caveats | There are differences between national and regional data because the  farms are collected by Statistical Office of the Republic of Serbia and the latter is based on the Farm structure survey (FSS). |

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| INDICATOR C.34 | CURRENT CMEF: C.33 |
| Indicator Name | Farming intensity |
| **Definition** | Farming intensity is expressed as the percentage of utilized agricultural area (UAA) that is farmed with low, medium or high input intensity. The input intensity of a farm can be defined as the level of inputs used by the farm per unit of production factor (in general land). Intensification is defined as the increase in farm intensity, while extensification describes the opposite trend. Farms are classified into intensity categories according to an estimate of input volume per hectare of UAA. The inputs considered are fertilizers, pesticides, other crop protection products and purchased feed. This approach allows covering both crop and livestock productions. The volume of inputs used (per hectare) is estimated by dividing input expenditures (per hectare) by the input price index for the year and country in question. This results in input expenditures per hectare in constant national input prices. Fertilizer expenditure (purchased fertilizers and soil improvers) is divided by the fertilizer price index in the country of the same year in order to estimate the volume used. Similarly, crop protection expenditure (plant protection products, traps and baits, bird scares, anti-hail shells, frost protection) is divided by the pesticide price index in the country of the same year. Purchased feed cost is also divided by the feed price index in the country of the same year. The result is thus expressed in constant inputs prices (Euro per ha). The method allows not only deducting inflation, but also the fluctuation of input prices. Thus, it estimates the trend in the volume of inputs used per hectare. However, it does not capture differences in input prices between countries and the differences in prices within each category of inputs (for example between a pesticide A and a pesticide B). Therefore, it does not give the exact volume of inputs used for a specific country and year. In a second step, the distribution of the UAA is considered by the ranked input intensity (bivariate approach) in each geographical level. Three classes of intensity (low, medium, high) are then defined, by deriving the associated level of input corresponding to the 33rd (q33) and the 66th (q66) UAA quantiles. A farm is classified under the class “low intensity” if its input level is below or equal to the intensity value associated to the Q33 of UAA. A farm is classified under the class “high intensity” if its input level is greater than the intensity value associated to the Q66 of UAA. A farm is classified under the class “medium intensity” if its input level is greater than the intensity value associated to the Q33 of UAA and it is below the intensity value associated to the Q66 of UAA. Considering the 2017 FADN data, for EU-28, as well as for EU-27 without the UK, those thresholds are represented by 88 euros/ha for low intensity farms, by 560 euros/ha for high intensity farms, and by between 88 and 560 euros/ha for medium intensity farms. These levels should not be considered as strict cutoff values, but rather as reference in time, in order to be able to study the evolution of farm intensification through the years. Intensification in a country with very low intensity does not mean the same for the environment than intensification in a country with high intensity. The indicator is expressed as the share of total UAA by farming intensity, broken down by MS, and in addition by Type of Farming and by Economic Size |

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| Unit of  measurement | % |
| Data source | 1. Farming intensity   * The main data source is - Farm Accountancy Data Network (FADN). * Statistical Office of the Republic of Serbia - Price indices of the means of agricultural production, input.   2. Statistical Office of the Republic of Serbia - Farm structure survey (FSS). |
| References/location n of the data | 1. Farming intensity   * Farm Accountancy Data Network (FADN). Name of current variables defined in the FADN: SE295 Fertilizers; SE300 Crop protection; F64 to F67 Purchased feedstuffings, SE025 * Utilized Agricultural Area: * Statistical Office of the Republic of Serbia - Price indices of the means of agricultural production, input (2010 = 100) - annual data (apripi1Oina).   Products: 203000 - FERTILISERS AND SOIL IN!PROVERS, 204000 - PLANT PROTECTION PRODUCTS AND PESTICIDES, 206000 - ANIMAL FEEDINGSTUFFS.  2. Areas of extensive grazing  - Statistical Office of the Republic of Serbia - Farm structure survey (FSS), Tables: Land use: number of farms and areas of different crops by agricultural size of farm (UAA) and NUTS 2 regions; Livestock: number of farms and heads of animals of different types by agricultural size of farm (UAA) and NUTS 2 regions [ef\_oIsaareq]. |
| Data collection | primary data refer to FADN regions. |
| level | National, LAU |
| Frequency | 1. Annual 2. FSS: full census every 10 years, intermediate survey 2-3 times in-between. |
| Delay | 1. 2years  2. 2-3 years |
| Comments/caveats | I. Farming intensity  - For more caveats and details on the methodology refer to the agri-environmental indicator 12 Intensification/Extensification |

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| INDICATOR C. 35 | CURRENT CMEF: R.09\_PI –  Indicator I.29 Responding to consumer demand for quality food: Value of production under Union quality schemes and of organic production |
| **Indicator Name** | **Value of production under EU quality schemes compared to total value of agricultural and organic food production** |
| **Definition** | It consists of 3 specific indicators:  1. total value of production under EU quality schemes and organics as well as the share of the total agricultural and food production value  2. value of production by EU quality schemes –PDO, PGI and TSG (Council Regulation (EC) No 510/2006) and share of total agricultural and food production value  3. value of certified organic production and share of total agricultural and food production value  It covers the four EU quality schemes: agricultural products and foodstuffs (Reg. (EU) No 1151/2012), wines (Reg. (EU) No 1308/2013), spirit drinks (Reg. (EC) No 110/2008), and aromatized wine products (Reg. (EU) No 251/2014), as well as certified organic production (Reg. (EC) No 834/2007). |
| Unit of  measurement | % |
| Data source | Data are available at the producer’s level. Their availability depends on the readiness of producer to provide them. There is no systematic data collection established. The indicator will be established at EU level, based on an estimation provided by a study, so similar study will be performed in Serbia. |
| **References/location**  of the data |  |
| **Data collection level** | Data are available at the producer's level. Their availability depends on the readiness of producer to provide them.  There is no systematic data collection established. Indicator will be established based on an estimation provided by a study. |
| Frequency | Every four years |
| Time lag | Approximately 2 years |
| **Comments/caveats** | Given the lack of a clear definition of quality, the PDO/PGI schemes were taken as a proxy for quality production as well as the certified organic production. |

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| INDICATOR C. 36 | CURRENT CMEF: C. 35  Indicator I.19 Increasing farmland bird populations: Farmland Bird Index |
| **Indicator Name** | Farmland birds index (FBI)  (\* note: non-existing indicator, i.e. data source and methodology; should be developed ) |
| **Definition (Exact definition in bold, description of the measurement/calcul ation, sub-indicators in bold if relevant).** | The farmland bird indicator is intended as a barometer of change for the biodiversity of agricultural landscapes in Europe.  The indicator is a composite index that measures the rate of change in the relative abundance of common bird species at selected sites: trends of index of population of farmland birds (base year 2000 = 100).  These species, chosen from a list of selected common species at EU level (the so-called "EU list of species" currently cover 39 species 4), are dependent on farmland for feeding and nesting and are not able to thrive in other habitats. The species on the list constitute a maximum, from which the countries select the species relevant to them. However, Member States can select their own species set, ideally following guidelines from the European Bird Census Council (EBCC). No rare species are included in EU species selection. Population trends are derived from the counts of individual bird species at census sites and modeled as such through time.  The population counts are carried out by a network of volunteer ornithologists coordinated within national schemes. Indices are first calculated for each species independently at the national level by producing a national population index per species. Then, to produce the EU aggregate, the national species indices are combined into supranational ones. To do this, they are weighted by estimates of national population sizes. Weighting allows for the fact that different countries hold different proportions of the European population of each species. In a third step, the supranational indices for each species are then combined on a geometric scale to create a multi-species aggregate index at European level. For more detailed information on the methodology used, species, etc. please refer to the EBCC website <http://www.ebcc.info/>and the Statistical Office of the Republic of Serbia indicator metadata.  The index is calculated with reference to a base year, when the index value is set at 100%. Trend values express the overall population change over a period of years. (In Statistical Office of the Republic of Serbia's database, data are presented with four different bases: 1990, 2000, the latest year available and the national base year). Data going back to the 1980s however exist and are available at the EBCC website.  The indicator already exists in EU :  Agro-environmental indicator (AEI) 25: Population trends of farmland birds;  O Sustainable development indicators (SDI) — Biodiversity: Common Birds Index.  O SEBI indicator 01: abundance and distribution of selected species, which includes common farmland bird index (Pan-European Streamlining European Biodiversity Indicators (SEBI) initiative, European Environment Agency (EEA), Directorate-General Environment (DG ENV), etc.) |
| Unit of measurement | Index - (base year 2000 = 100) |
| Data source | NO  (suggestions on options for definition: EBCC/RSPB/BirdLife/Statistics Netherlands: the European Bird Census Council  (EBCC) and its Pan-European Common Bird Monitoring Scheme (PECBMS),  [htto://www.ebcc.info/pecbm](http://www.ebcc.info/pecbm.htmI). htmI .  National indices are compiled by each country using common software and methodology. The supranational indices are compiled by the Pan-European Common Bird Monitoring scheme (PECBM), a joint project of the European Bird Census Council, the Royal Society for the protection of Birds, BirdLife International, and Statistics Netherlands.) |
| References/location  of the data | References   * EBCC/PECBMS : European Birds Census Council/ Pan-European Common Bird Monitoring Scheme [http://www.ebcc.info/pecbm.html;](http://www.ebcc.info/pecbm.html%3B) * AEI 25 "Population trends of farmland birds", as defined in the COM (2006) 508 on "Development of agri-environmental indicators for monitoring the integration of environmental concerns into the CAP |
| **Data collection level** | National and EU level aggregation (on the basis of the number of MS which delivered data every year. E.g. : in 2008 only 15 Member States delivered data; for the 2014 EBCC/PECBMS updates data is available for 25 EU Member States, from 1990 to 2012).  In the future the index could be calculated at a lower level, by bio-geographical areas (different agricultural habitats) on the basis of geo-referenced data (France already does it, but no harmonized data at EU level at the moment exist). |
| **Frequency** | Annual (In principle, these data are updated on a yearly basis at national and EU level. Ability to provide updates of indicators at national level depends on the capacity of the national data providers).  Data availability in early 2015: 2008 national data, EU aggregates 2012.  For a small number of Member States data are available from 1980 and cover different periods depending on data availability in each Member State. However, Eurostat considers 1990 to be the first year with sufficient geographic coverage for the EU as a whole and therefore time series should be calculated from 1990. |
| **Delay** | 2-3 years |
| **Comments/caveats** | Comparability between MS is possible since the index gives a measure of the rate of change in the abundance of common bird species. Species may differ in each Member State because their relevance changes in different agricultural habitats and their geographical distribution is not pan-European. Northern countries generally have fewer species than southern ones.  Coverage has increased from nine to twenty-two EU MS over the period 1990 to 2010, with three more countries covered as of the reference year 201 1. As for the time series, the number and type of species chosen from the selected common list by each country should remain stable over time unless solid justification is provided. If a country decides to include more species, this is often because older data have become available in electronic form. In any case, the whole time series of each country is re-calculated for each new data delivery and may therefore change over time, because the indicators are all calculated with modelling technique.  There have recently been changes to the species covered and the time series for several countries. The fluctuations between model runs show that small rises or falls in the indicator should not be regarded as anything real and that it is best to look only at the change between 1990 and the latest available year.  It should be noted that some countries publish national bird indices based on a different selection of species than the one used for the EBCC computations, or on a different allocation of species to habitats. This approach can be used as well as long as general principles for production of national common bird indicators are applied.  Time series start from 1990 (for the period 1980-1989 data are not representative at EU level), but may be earlier for the national time series. |

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| INDICATOR C.37 | Indicator I.20 Enhancing biodiversity protection: Percentage of species and habitats of Community interest related to agriculture with stable or increasing trends, with breakdown of the percentage for wild pollinators species |
| **Indicator name** | **Percentage of species and habitats of Community interest related to agriculture with stable or increasing trends** |
| Definition | This indicator assesses the conservation status trends of those habitats and species of Community interest, i.e. listed in the relevant Habitats Directive annexes that are considered to be strongly linked to agro-ecosystems. In addition, it provides the conservation status trends specifically for pollinators. 1. Percentage of species and habitats of Community interest related to agriculture with stable or increasing trends 2. Percentage of pollinators species of Community interest related to agriculture with stable or increasing trends Species and habitats of Community interest are those in danger of disappearance in their natural range, rare or endemic, or characteristic of one or more of the EU biogeographical regions; these species and habitats are listed in the annexes of the Habitats Directive. The existence and long-term survival of some of these habitats and species is strongly linked to the presence and good conditions of certain agricultural ecosystems; their conservation status is influenced by the management of agricultural systems, the practices implemented, land abandonment, intensification and conversion into other land uses. The Habitats Directive does not explicitly identify species and habitats dependent on agro-ecosystems. The lists of species and habitats (one list per Member State with indication of the relevant biogeographical regions) are elaborated taking into account the works of inter alia Halada et al. (2011), Roscher et al. (2015) and the guidance “farming and Natura 2000” (European Commission (2014) 13. These have been updated to reflect updated knowledge, and validated by the Member States. The species and habitats composition will vary between biogeographical regions and between Member States. For calculating the indicator, only species and habitats most dependent on farming and related management will be considered. For pollinators, the indicator will build on a subset of the same species lists, i.e. the relevant species among the 38 butterflies listed in the Habitats Directive under Annex II and Annex IV, but needs to be tested. For both, species and habitats, and for pollinators, the overall assessment of conservation trend is as follows: ‘improving +’, ‘deteriorating -’, ‘stable =’, ‘unknown x’. Methodology: I.20 = Number of assessments that indicate an improving or stable trend Total number of assessments Number of assessments: depends on total number of species and habitats, and on the number of biogeographical regions where they are represented (e.g. a species present in 2 biogeographic regions will have two assessments). |
| Unit of measurement | Percentage of assessments with a stable or improving conservation status trend. |
| Data source | NO  (Article 17 of the Habitats Directive on the status and trends of habitats and species of Community interest) |
| References / location of the data | Data are reported to the Environment Agency (EA) by MS. The EA would carry out the necessary calculation |
| Data collection / dissemination level | LAU |
| Frequency | Report every six years taking the developments over the six-year period into consideration. Next reports due in 2019 (for 2013-2018), 2025 (2019- 2024) and 2031 (2025-2030). |
| Timeliness | Producing the indicator is estimated to take 6-12 months from reporting time. Delivery time will depend on the reporting timeliness by Republic of Serbia. |
| Comments/caveats | Assessing the conservation status and its trend of species and habitats of Community interest dependent on agriculture will contribute to reflect on the impact of agriculture in maintaining and restoring important components of the EU biodiversity. However: a) there can be a variable time lag between changes in agricultural practices pattern and the impact on habitats and species, which depend on agro-ecosystems; b) other factors, such as climate change and invasive species and other human pressures, influence the status and trends of those species and habitats. The indication of the high-ranked pressures and threats for species and habitats associated with agriculture is available in the State of Nature report14. Possibilities for some weighting factors in the formula (e.g. to reflect representativeness of habitats/species) are being considered. The indicator could be scalable by biogeographic regions. Options for downscaling at NUTS 2 level have to be analyzed. The simplicity of this indicator is a strong asset and the focus on trends makes it robust. Due to the fact that Member States apply different approaches to collect the data (complete inventories, sampling, expert opinion), the level of accuracy of the data set provided by Member States will vary. An index, based on the ‘Method used’ as reported by Member States for most of the data, will provide contextual information on the robustness and relevance of the impact indicator. Reporting by Member States does not fit with the CAP cycle; the baseline would be set at the beginning of the funding period, and then using the reporting dates (2019- 2025-2031). A gap between the period reported and the CAP implementation period will persist. |

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| INDICATOR C.38 | Indicator I.17 Reducing pressure on water resource: Water Exploitation Index Plus (WEI+) |
| Indicator name | Water use in agriculture |
| Definition | Water use in agriculture is assessed with the WATER EXPLOITATION INDEX PLUS (WEI+), which provides an estimated measure of the total water use as a percentage of the renewable freshwater resources (groundwater and surface water) for a given territory and time period. It is an advanced version of the WEI. The WEI+ addresses regional and seasonal aspects of water scarcity. In addition, it also takes water use (water abstraction minus water returned) into account. It identifies areas prone to water stress due to exceeding water abstraction and use on a seasonal scale in relation to the resources available. Methodology  WEI+ = Water use / Renewable water resources (RWR)  RWR= Outflow + (Abstraction – Return) + Change in storage Change in storage= Water in (Lakes + Reservoirs) – Water out (Lakes + Reservoirs) Water use= Abstraction – Return (all economic sectors covered) As an impact indicator for the CAP, two specific indicators could be derived from the WEI+: 2. A specific indicator expressing the relative pressure of agriculture compared to other economic sectors, at national level and on an annual basis. 3. A specific indicator expressing the change over time in the volume of water used by agriculture, at national level and on an annual basis. More details on the calculation and units of measurement are being developed. WEI+ is expressed as a percentage of water use over the renewable water resources available. |
| Unit of measurement | % |
| Data source | -WISE SoE 3 - Eurostat and OECD joint Questionnaire on Inland Waters  - National Statistical Offices (on ad-hoc basis, not part of formal data collection by the EA)  - E-OBS gridded dataset (on hydro-climatic variables)  - 'Return': The average water return rate, which is implemented in the WEI+, reflects differences in irrigation technology and efficiency improvements. |
| References / location of the data | -WISE SoE 3: https://rod.eionet.europa.eu/obligations/184 - Eurostat [sdg\_06\_60]  - Eurostat and OECD Joint questionnaire https://ec.europa.eu/eurostat/documents/1798247/6664 269/Data+Collection+Manual+for+the+OECD\_Eurostat+J oint+Questionnaire+on+Inland+Waters+%28version+3.0 %2C+2014%29.pdf/f5f60d49-e88c-4e3c-bc23- c1ec26a01b2a  - National Statistical Offices: on MS nat. stat.  -E-OBS gridded dataset: https://www.ecad.eu/download/ensembles/download. php https://www.knmi.nl/over-het-knmi/about |
| Data collection / dissemination level | national level |
| Frequency | The updating frequency will be carried out when demanded. Result will depend on updating frequency of data sources.  - WISE SoE 3: annual on MS level or monthly/ seasonal/ annual River Basin District (RBD) or Sub Unit (SU) level. All on voluntary basis.  - Eurostat and OECD joint Questionnaire: annual at MS level - National Statistical Offices: no formal consultation/reporting process.  - E-OBS gridded dataset: published daily, then aggregated to monthly scale. |
| Timeliness |  |
| Comments/caveats | [Indication capacity] It sets environmental conditions in relation to pressures from sectors. It allows estimating the pressure a sectors exerts on the natural water resources, compared to other sectors. For both specific indicators it should be further explored how much a comparison between years is conceptually reasonable when considering the level of gap filling. [Readily available?]: The indicator is now available: - Q4 2019: WEI+ will be available at MS level (currently, at River Basin district and sub-basin level). [Downscaling] There are different options to present the information of the WEI+: - at MS level on annual resolution, or - at finer spatial and temporal scales i.e. RBD or SU level on seasonal resolution. Both options come with pros and cons, notably on the interpretation of the results. For evaluation purposes, all the above ways to express the indicator could be useful. [Quality:] Some caveats remain: - WISE SoE 3: holds large gaps in the data coverage particularly on water abstraction and water use for irrigation. Since 2010, the reporting rate of Member States on the water abstraction for irrigation has been dramatically decreasing. No or very low reporting together with large breaks in the time series on water abstraction for agriculture from some MS. - Similar to the streamflow data which needs large gap filling to be implemented with the Joint Research Centre (JRC) LISFLOOD data. - Eurostat and OECD Joint questionnaire: data presents large temporal and spatial gaps in time series. That limits to provide robust overview on the irrigation pressure on renewable water resources. - National Statistical Offices: minor benefit as websites is in national languages and it is difficult to find data sets and also definitions are very diverse. - “Return”: Some of Member States have reported data on this variable during the last data-reporting stream in 2018 but it is still far from being sufficient. An earlier version of this indicator is used for the EU reporting on UN Sustainable Development Goals. |

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| INDICATOR C.39 | Indicator I.15 Improving water quality: Gross nutrient balance on agricultural land |
|  | The indicator C.39 Water quality is composed by three specific indicators:  1. Gross nutrient balance – nitrogen;  2. Gross nutrient balance – phosphorus  3. Nitrates in groundwater |
| Indicator name | Water quality 1. Gross nutrient balance - nitrogen |
| Definition | The indicator illustrates the potential threats to water quality in the presence of a nutrient surplus from agricultural soils, at an annual basis. For nitrogen, a deficit in agricultural soils represents a threat to soil quality. The gross nutrient balance for nitrogen presents a link between the agricultural activities responsible for high nitrogen loads and the environmental impact and helps identifying the factors which contribute to the nitrogen surplus and shows the change over time. Nitrogen is added to the soil by mineral and organic fertilizers, grazing animals, atmospheric deposition and biological nitrogen fixation, while harvesting of crops, grazing and removal of residues remove nitrogen from the soil. A lack of nitrogen may cause degradation in soil fertility and erosion, while an excess may cause surface and groundwater (including drinking water) pollution and eutrophication. Nitrogen balances are monitored for the purposes of the Water Framework Directive and for the Nitrates Directive. The following indicator already exists: Agri-environmental indicator 15 Gross Nitrogen Balance: Potential surplus of nitrogen on agricultural land, http://ec.europa.eu/eurostat/statisticsexplained/index.php/Agri-environmental\_indicator\_- \_gross\_nitrogen\_balance  The indicator is part of the Resource Efficiency Scoreboard, the Agri-environmental indicators, and the SDG indicators. Some countries prefer to use the fertilized areas, i.e. they have removed rough grazing from the agricultural area. |
| Unit of measurement | kg N/ ha/ yea |
| Data source | \*Will be checked in data set provided by Directorate for agricultural land and Agency for environmental protection  Statistical Office of the European Union (Eurostat), based on data reported by the countries (currently only available for those countries that report. Compulsory transmission of Gross Nutrient Balance data are planned to be part of the future legislation on agricultural statistics, in the Regulation on Statistics of Agricultural Input and Output (SAIO), planned to be adopted by the Commission by the end of 2020. Data come from multiple sources including the consumption of mineral fertilizers and seeding and plant material, livestock population and manure import and exports, use of other organic fertilizers in agricultural production, atmospheric deposition, biological nitrogen fixation, crop and fodder production and crop/fodder residues removal or burning, and areas of various types of crops. The land types included are arable land, permanent crops and permanent grassland. Further, coefficients are required, among other to estimate nutrient excretion per livestock and fodder yields. For the countries which don’t provide data, estimates are calculated and published by Eurostat based on various available data sources, most importantly the Eurostat fertilizers, crop and livestock statistics, National inventory submissions to UNFCCC and CLRTAP, Fertilizers Europe and FAO database. The EU aggregate is also estimated |
| References / location of the data | Eurostat: Gross nutrient balance |
| Data collection / dissemination level | national level |
| Frequency | Data are annual. Indicator is updated every two years |
| Timeliness | > T+2 years New data points are disseminated within 3 years after the reference year. |
| Comments/caveats | [Indication capacity] Data at national level and annual national balances can mask important regional or monthly variations. As the indicator integrates the most important agricultural parameters with regard to potential nitrogen surplus, it is a robust measure for nutrient leaching risk, directly linked with agriculture However, the indicator is only indirect; it shows the potential risks, depending on local soil conditions and farm management practices, rather than the actual water quality trends. The indicator is captive of the methodologies used to calculate coefficients and the availabilities of national coefficients, plus the recalculation of coefficients when national practices change. The use of Tier 1 approaches may prevent tracking progress and policy effectiveness. With no work on the coefficients, the only changes recorded are related to changes in production. Data are not comparable between countries, but the trends are. [Readily available?]: The indicator is already available 2004-2015 for EU-28. As of reference year 2016, it will be available for all EU MS who submit the necessary data to Eurostat, currently around 17 countries. [Downscaling] In the future, it could be considered how to make data available at regional (NUTS 2) level, using JRC modelling data, or with MS data when they have them available. [Quality:] Details on accuracy can be found in the metadata of the source datasets. There is high uncertainty in some coefficients used. The problem is that the indicator is only a snapshot at a point in time. It does not consider the past-cumulated surplus. I.e., the risk to water quality degradation does not come from the actual surplus, but also from past surpluses. |

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| INDICATOR C.40 | Indicator I.11 Enhancing carbon sequestration: Soil organic carbon in agricultural land |
| Indicator name | Soil organic carbon in agricultural land |
| Definition | The indicator estimates the total organic carbon content in soils on agricultural land. Soil organic carbon (SOC), the major component of soil organic matter, is extremely important in all soil processes. Organic matter in soil is essentially derived from residual plant tissues, while microbial, fungal and animal contributions constitute a small part of its total amount. Microbes, fungi and animals decompose organic matter more or less efficiently depending on temperature, moisture and environmental soil conditions, which is then stabilized with the mineral matrix. The annual exchange of carbon between soil and the atmosphere can vary greatly, depending on cultivation practices, the type of plant/crop cover, drainage status of the soil and weather conditions. There are two groups of factors that influence inherent organic matter content and accumulation:   * natural factors (climate, soil parent material, land cover and/or vegetation and topography), * and human-induced factors (land use, management and degradation)   The indicator is expressed with 3 specific indicators:  1. estimate of the total organic carbon content in soils on agricultural land of EU Member States (with a breakdown by arable land, grassland and permanent crops)  2. the mean organic carbon content in agricultural land  3. estimate of SOC changes over time The methodology is based on the integration of ground data, from the LUCAS soil survey, with an advanced modelling framework coupling process-based and machine learning models.  The model will also include scenarios on actual implementation of practices which are relevant for SOC accumulation. The LUCAS Land Use and Coverage15 Area provides a pan-European soil component measuring the soil organic carbon content (g/kg) in 27 000 topsoil (0-20cm and 30 cm) samples. The LUCAS data are used to inform a biogeochemical model16 which estimates SOC stock values (Mg/ha) in time. The model outputs are then up-scaled at spatial level by a machine learning approach, up to a resolution of 100 m. The final outputs are maps of SOC stock and changes in time at 100 m resolution, than can be aggregated at any administrative level. |
| Unit of measurement | 1: megatons (Mt) of C;  2: g of C / kg  3: % |
| Data source | \*Will be checked in data set provided by Directorate for agricultural land and Agency for environmental protection   * High resolution map (100 m) of SOC stock in agricultural soils (in preparation by JRC) * Stock estimates in time (2009-2010) in LUCAS points by a biogeochemical modelling approach * Joint Research Centre (JRC Ispra) – LUCAS dataset (2015), consisting on 27.000 top-soil samples across Europe, of Topsoil Soil Organic Carbon content in EU-25 in 2009. The LUCAS soil Component was extended to Bulgaria and Romania in 2012 and repeated in 2015 (+ Croatia, Malta and Cyprus) and 2018. |
| References / location of the data | European Soil Data Centre (ESDAC) |
| Data collection / dissemination level | national level |
| Frequency | Currently, datasets for 2009-2012 and 2015 are available and completed, while data of 2018 campaign are under analysis, in EU. Planning is underway for a new campaign in 2022. |
| Timeliness | While the data-model framework is update according to LUCAS frequency, the output can be delivered any time and in the future under climatic projections and scenario analysis and implementation of practices relevant for SOC. |
| Comments/caveats | [Indication capacity:] Assessing the soil organic carbon is essential as this is a basis for all soil processes. However it can vary highly depending on natural (climate, land cover, soil parent material, etc.) and human induced factors such as land use and management. It is important that the uncertainty associated with the predicted values is understood by the end-users and should encourage careful use and interpretation of the higher resolution spatial values. As the indicator is an estimate of the topsoil only, the total SOC in agricultural soils is underestimated. Nevertheless, it can give a good indication on the change. [Readily available?]: The indicator is available. [Downscaling:] The indicator is downscaled at 100 m resolution and uncertainty of the estimation provided. [Quality:] The map produced gives the most up-to date and harmonized picture of topsoil organic carbon stock at the European Union scale. The combination of ground data with different model approaches, allows filtering out the inherent survey variability. Anyway, the uncertainty estimates it’s always associated to the outcomes provided. This method is complementary to national scale or local maps that are often based on more detailed information, and sometimes spatialized. Member States have used LUCAS, combined with national data, to enhance estimates within Member State inventories. [Baseline:] The Commission is currently analyzing the LUCAS Soil Organic Carbon data comparing LUCAS 2015 data with previous data sets (LUCAS 2009 and 2012). This analysis will provide more information on the soil organic carbon trends in arable land and grassland in particular and this could serve as baseline or if available, the results of the LUCAS survey of 2018. |

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| INDICATOR C.41 | Indicator I.13 Reducing soil erosion: Percentage of agricultural land in moderate and severe soil erosion |
| Indicator name | Soil erosion by water Percentage of agricultural land in moderate and severe soil erosion |
| Definition | This indicator consists of 2 specific indicators:  1. estimated rate of soil loss by water erosion  2. percentage of agricultural land at risk of moderate and severe soil erosion  These specific indicators assess potential soil loss by water erosion processes (rain splash, sheetwash and rills) and identify the agricultural areas susceptible to a rate of soil erosion considered unsustainable, within the following thresholds: (moderate i.e. >5 t/ha/year to severe and severe i.e. >10 t/ha/year). The two soil erosion specific indicators have been produced by the Joint Research Center of the European Commission (JRC-Ispra), on the basis of an empirical computer model. Assessments of soil erosion are based on the output of an enhanced version of the Revised Universal Soil Loss Equation model (named RUSLE2015) (JRC-Ispra) which was developed to evaluate soil erosion by water in the European Union17. The model provides an estimate of soil erosion by water on the basis of scientific knowledge, peer review published manuscripts, technical judgment and input datasets. RUSLE2015 improves the quality of estimation by introducing updated (2010), high-resolution (100m) and peer-reviewed input layers of rainfall erosivity, soil erodibility, slope steepness and slope length, Land Cover and management and the support practices applied to control erosion. The Rainfall Erosivity was calculated based on high-resolution temporal rainfall data (5, 10, 15, 30 and 60 minutes) collected from 1 541 well-distributed precipitation stations across Europe. The Soil erodibility is estimated for the 20 000 field sampling points included in the Land Use/Cover Area frame (LUCAS) survey. The Slope Steepness and Slope Length have been calculated using the latest Digital Elevation Model (DEM) at 25 m. Only soil erosion resulting from rains plash, overland flow (also known as sheetwash) and rill formation are considered. Soil loss caused by gully erosion or wind erosion is not predicted by RUSLE. The total area of agricultural land has been defined on the basis of 2012 Corine Land Cover (CLC) classes and includes the area of arable and permanent crops, pastures and permanent grasslands. Estimated data on soil erosion are published following a qualitative assessment and compared with EIONET country estimates (available for 9 countries) showing that the model output matches general erosion patterns across Europe. A quantitative validation is foreseen to take place against field measurements on long-term erosion plots. Estimates of soil loss by water erosion in Europe are expressed in t/ha/year for cells of 100m x 100m for the EU. The following indicators are based on the JRC data/indicator:   * Agri-environmental indicator (AEI) 21 – Soil erosion. https://ec.europa.eu/eurostat/statisticsexplained/index.php/Agrienvironmental\_indicator\_-\_soil\_erosion * An SDG indicator on severe soil loss https://ec.europa.eu/eurostat/statisticsexplained/index.php?title=SDG\_15\_- \_Life\_on\_land\_(statistical\_annex)#Estimated\_s oil\_erosion\_by\_water |
| Unit of measurement | 1: t/ha/year  2: % |
| Data source | \*Will be checked in data set provided by Directorate for agricultural land and Agency for environmental protection   * Joint Research Centre (JRC) – European Soil Data Centre (ESDAC); * Input data sources used for the model: LUCAS Topsoil 2009, European Soil Database, Corine Land Cover 2006/2012, Rainfall Erosivity Database in Europe (REDES), Copernicus Remote Sensing, Eurostat Statistics, Digital Elevation Model (DEM), Good Agricultural Environmental Conditions (GAEC), Lucas Earth Observations 2009/2012/2015, Farm Field Survey (FSS) statistical data 2010/2016 (source: Eurostat). * Potential sources available at national level (studies, surveys, reports) can be explored and used) |
| References / location of the data | Joint Research Centre (JRC)  European Soil Data Centre (ESDAC) https://esdac.jrc.ec.europa.eu/  Eurostat   * [aei\_pr\_soiler] (full data set) * [sdg\_15\_50] (indicator table)   National studies, surveys, reports. |
| Data collection / dissemination level | national level |
| Frequency | Every 3-4 years depending on the data input availability |
| Timeliness | 3 years delay between sampling (or surveying) and publication |
| Comments/caveats | [Indication capacity:] Assessing the state and total soil erosion is important as soil degradation results in loss of soil fertility, loss of carbon and biodiversity, lowers the water retention capacity and makes disruption of gas and nutrient cycles. Soil erosion rates may change due to change in land cover or soil management (farming) practices (e.g. soil cover, reduced tillage, contour farming, terraces, grass margins). To evaluate significant changes in soil erosion over time it should be noted that an analysis over a time period of at least 10-15 years would be necessary (e.g. comparing the current situation to the 2000s by retrospective modelling and time series). The time interval of 6 years (e.g. 2000-2006-2012 for which data are available) is limited and differences are primarily due to changes in land cover (as indicated by Corine Land Cover data) and/or management practices (as indicated in the Farm Structure Survey and LUCAS survey). Therefore, any conclusion must be drawn with caution. [Readily available?]: The indicator is available. [Downscaling:] The results of the soil erosion indicators are aggregated at NUTS 3 and NUTS 2 level and Member State level. [Quality:] The soil erosion map provides the most updated and harmonized picture of water erosion in EU based on the best available input factors. The soil erodibility is estimated for the 20 000 field sampling points included in the Land Use/Cover area frame (LUCAS) survey. LUCAS provides harmonized and comparable statistics across the EU. Results of LUCAS survey are subject of multi-steps quality assurance system. The Land cover data are inputs taken by CORINE LC (subject to QA) and Farm Structure Survey (source: Eurostat)  The proposed map is not intended to substitute any national or local erosion map which is based on more detailed spatial data. [Baseline:] An update of the soil erosion dataset to be published by JRC in Autumn 2019, based on data from LUCAS 2015 & Farm Structure Survey 2016 could be used as baseline. This indicator has common ground with the one used for the EU reporting on UN Sustainable Development Goals. |

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| INDICATOR C.42 | Indicator I.12 Increasing sustainable energy in agriculture: Sustainable production of renewable energy from agriculture and forestry |
| Indicator name | Sustainable production of renewable energy from agriculture and forestry |
| Definition | The indicator is a composite indicator of renewable energy from agriculture and forestry. This indicator consists of 4 specific indicators:  1. production of renewable energy from agricultural biomass  2. production of renewable energy from forestry biomass  3. production of renewable energy from agriculture and forestry  4. share of the combined production of renewable energy from agricultural and forestry biomass over the total primary energy production of renewable energy.  1. The production of renewable energy from agricultural biomass is calculated by summing the amount of energy from the following:   * Biodiesel from oilseeds crops * Bioethanol from starch/sugar crops * 2nd generation biofuels (from non-food cellulosic materials) * Agricultural biogas (livestock manure and energy crops, waste and residues) * Where available, energy crops for electricity or heat (including short rotation coppice)   Where available, Agricultural crop residues for electricity or heat. The total production of renewable energy from agriculture is the sum of biodiesel, bioethanol and biogas production, agricultural biomass for heat and power all expressed in ktoe (kilotons of oil equivalent). The following conversion factors, from the EUROSTAT18 should be used. If other conversion factors are used, Member State should report the values.   * 1 t biodiesel = 0.86 toe * 1 t bioethanol = 0.64 toe   2. The production of renewable energy from forestry biomass covers the forest biomass for renewable energy production, calculated by summing the amount of energy from:   * Wood provided directly from forestry (fuel wood, wood chips, bark, shavings, forest residues) or transformed from any of the above (pellets, briquettes etc.) * forest-based industry by- and co-products in EU used for energy production (e.g. sawdust, black liquor)   Member States can use the reporting obligations under the Governance of the Energy Union Regulation and/or the Progress Reports under the Renewable Energy Directive.  Primary energy production from forestry biomass is expressed in ktoe (kilotons of oil equivalent). 3. The production of renewable energy from agricultural and forestry biomass is the sum of specific indicators 1 and 2 |
| Unit of measurement | 1 – 3: ktoe  4: % |
| Data source | NO data source in Serbian current registers  Eurostat -Energy statistic Governance of the Energy Union Reporting, especially: • Annex IX  • Annex VII, Part 1, paragraph (b) and (g)  • Annex VII, Part 1, paragraph (m) (1) for forest biomass  • Annex VII, Part 1, paragraph (m) (2) for agricultural biomass for heat and power MS Progress Reports according to Article 22 of Directive 2009/28/EC Complete energy balances - annual data |
| References / location of the data | Eurostat –Energy Statistics Reporting under the Governance of the Energy Union Regulation  Progress Reports under the Renewable Energy Directive |
| Data collection / dissemination level | national |
| Frequency | annual |
| Timeliness | 2 years |
| Comments/caveats | [Indication capacity] The category "energy from agricultural biogas", even though it predominantly covers agricultural biogas, also contains some biogas from municipal solid waste etc. [Readily available] Data are available [Downscaling] MS have the possibility to provide data at regional level if they are asked. So far, data are available at MS level. [Quality] [Baseline] Baseline can be set at 2020. The indicator have some similarities with the Agri-environmental indicator 24; Renewable energy production. The indicator measures the production of renewable energy as reported under the Governance Regulation, and according to the requirements for production of renewable energy in accordance to the Renewable Energy Directive. |

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| INDICATOR C.43 |  |
| Indicator name | Energy use in agriculture, forestry and food industry |
| Definition | This indicator measures the direct use of energy in agriculture and forestry and in food processing It consist of 3 specific indicators:  1. direct use of energy in agriculture and forestry  2. direct use of energy in agriculture and forestry per ha  3. direct use of energy in food processing  This indicator is based on Eurostat data from the joint IEA/OECD-Eurostat-UNECE questionnaires. There are some limitations of data and sources:   * The indicator only refers to direct use of energy by agriculture. Indirect energy used in agriculture for fertilizers, pesticides, animal feed and agricultural machinery, which are produced using large amounts of energy, is not included. * Data on energy consumption by agriculture from the questionnaires include the use of energy by forestry since the separation of the different activities of a farmer/forest owner is not possible. Energy consumption by agriculture may therefore be overestimated in countries with significant forestry sector. * Data on food processing are taken from the category "Food and tobacco" and therefore include the NACE category "Manufacture of food products, beverages and tobacco products". Data on food processing are thus overestimated. |
| Unit of measurement | 1: ktoe  2: ktoe/ha  3: ktoe |
| Data source | \*NO data source in current Serbian registers  Eurostat - Energy statistics Eurostat – Crop statistics Eurostat – Food and Agriculture Organization of the United Nations (FAO), Forest Europe (FE) |
| References / location of the data | Direct use of energy in agriculture and forestry: Eurostat – Energy Statistics, Simplified energy balances TABLE [nrg\_bal\_s] - Standard international energy product classification (SIEC) “Total” – ENERGY BALANCE – “Final consumption – other sectors – agriculture and forestry – energy use” Direct use of energy in food processing: Eurostat – Energy  Statistics, Simplified energy balances TABLE [nrg\_bal\_s] - Standard international energy product classification (SIEC) “Total” – ENERGY BALANCE – “Final consumption - industry sector - food, beverages and tobacco - energy use” Final Energy Consumption: Eurostat – Energy Statistics, Simplified energy balances TABLE [nrg\_bal\_s] - Standard international energy product classification (SIEC) “Total” – ENERGY BALANCE – “Final consumption - energy use” UAA: Eurostat – Crop statistics (from 2000 onwards) TABLE [apro\_cpsh1] – Structure of production – “Main area”, CROPS – “UAA” Forest area: Eurostat, Food and Agriculture Organization of the United Nations (FAO), Forest Europe (FE) TABLE [for\_area] - INDIC\_FO - Forests |
| Data collection / dissemination level | national |
| Frequency | every year for energy statistics. Every 5 years for forest area (e.g. 2010, 2015). Every year for UAA crop statistics. |
| Timeliness | 2 years |
| Comments/caveats |  |

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| INDICATOR C.44 | Indicator I.10 Contributing to climate change mitigation: Greenhouse gas emissions from agriculture |
| Indicator name | Greenhouse gas emissions from agriculture |
| Definition | This indicator is composed of seven specific indicators presenting anthropogenic emissions and removals from agriculture and land use.  1. GHG emissions from agriculture Aggregated annual emissions of methane (CH4) and nitrous oxide (N2O) from agriculture reported by Member States under the IPCC 'Agriculture' sector (Sector 3 Agriculture non-CO2) in the national greenhouse gas inventory submitted to the United Nations Framework Convention on Climate Change. That sector includes the following sources of greenhouse gases from agriculture: i. enteric fermentation (CH4); ii. manure management (CH4, N2O); iii. rice cultivation (CH4); iv. agricultural soil management (CH4, N2O, CO2), including burning of field residues, liming and application of C-containing fertilizers. These emissions are part of the binding emission reduction targets laid out under the Effort Sharing Regulation (Regulation 2018/842), and reporting on these emissions is mandatory under the Governance Regulation (Regulation 2018/1999).  2. Share of GHG emissions from agriculture in total GHG emissions  3. GHG emissions and removals from LULUCF Aggregated annual emissions and removals of carbon dioxide (CO2), and emissions of methane (CH4) and nitrous oxide (N2O) from cropland and grassland, reported by Member States under the IPCC Land Use, Land Use Change and Forestry (LULUCF) sector (cropland and grassland from sector 4 (LULUCF)) in the national GHG inventories to the UNFCCC. These emissions and removals are covered by the LULUCF Regulation (Regulation 2018/841), and reporting on these emissions and removals is mandatory under the Governance Regulation (Regulation 2018/1999). The LULUCF categories that are relevant to this indicator are those related to cropland and grassland management, as defined in the Implementing Act accompanying the Governance Regulation.  This indicator does not include emissions of CO2 from the energy use of agricultural machinery, buildings and farm operations, which are included in the ‘energy’ inventory under UNFCCC, or emissions from production of inputs, such as inorganic fertilizers.  4. GHG emissions from agriculture including cropland and grassland Sum of GHG emissions from agriculture and GHG emissions and removals from LULUCF for cropland and grassland  5. Share of GHG emissions from agriculture including cropland and grassland in total GHG emissions  6. GHG emissions from livestock: sum of enteric fermentation and manure management/ hectares of Utilized Agricultural Area (UAA)  7. GHG emissions from ruminants: enteric fermentation per livestock unit (LSU) of ruminants Methodology: Member States calculate emissions and removals using standard methodologies (2006 guidelines of the Intergovernmental Panel on Climate Change – IPCC, and its 2019 refinement) according to a common reporting framework agreed under the UNFCCC. |
| Unit of measurement | 1, 3, 4: Tones (Megatons) of CO2 equivalents per year for the absolute value and % for the change compared to baseline 2, 5: % 6: tonnes of CO2 equivalents/ha 7: tonnes of CO2 equivalents/LU |
| Data source | \*no data in current register in Serbia  The indicator is based on the annual national inventory submissions to the EU and subsequently the UNFCCC through the Monitoring Mechanism Regulation (Regulation 2018/1999). This reporting framework moreover describes requirements for monitoring and reporting under the Effort Sharing Regulation and LULUCF Regulation, e.g., Geospatial data sources for meeting IPCC approach 3 for LULUCF, such as services from the Copernicus programme, IACS/LPIS, LUCAS and others compliant with the INSPIRE directive. The inventory is compiled by each Member State, and then collated and quality-assured by the European Environment Agency (EEA) and the European Topic Centre for Air Pollution and Climate Change Mitigation (ETC/ACM). |
| References / location of the data | 1, 2: GHG emissions from agriculture  • Annual EU GHG inventory, section 3, set out through Arts 26 and 37 of 2018/1999  • Like all sectors, GHG emissions from agriculture are provided in Common Reporting Format (CRF) Tables which includes standard reporting tables (SRT)  3: GHG emissions and CO2 removals from LULUCF (cropland and grassland)  • Annual EU GHG inventory, (year X-2), sector 4  • CO2, CH4 and N2O emissions from cropland and grassland are reported annually in CRF Tables— European Environment Agency (EEA), which includes standard reporting table (SRT) for sector 4 (LULUCF), set out through Arts 26 and 37 of 2018/1999.  • The reporting also has to take into account the MS compliance report as specified in the Article 14 of the LULUCF Regulation. 6: GHG emissions from livestock  • Annual EU GHG inventory, sector 3A and 3B  • Ha of UAA, ESTAT Crop production in EU standard humidity [APRO\_CPSH1], main area 7: GHG emissions from ruminants  • Annual EU GHG inventory, sector 3A  • Livestock units of ruminants, ESTAT Main livestock indicators by NUTS 2 regions. The full set of data on GHG emissions and removals (for both sectors 3 and 4), submitted by countries to the EU and subsequently the UNFCCC Governance regulations available at the EEA webpage: National emissions reported to the UNFCCC and to the EU Greenhouse Gas Monitoring Mechanism —European Environment Agency (EEA). The web-based tool EEA GHG viewer provides access and analysis of the data contained in the annual EU's GHG inventories since 1990. The EEA GHG data viewer shows emission trends for the main sectors and allows for comparisons of emissions between different countries and activities. This data set can be consulted at: http://www.eea.europa.eu/data-and-maps/data/dataviewers/greenhouse-gases-viewer Data are also published in the original format in which they were submitted to the UNFCCC: https://unfccc.int/process-and-meetings/transparencyand-reporting/reporting-and-review-under-theconvention/greenhouse-gas-inventories-annex-iparties/national-inventory-submissions-2019 The same data are also published in the UNFCCC database: http://di.unfccc.int/time\_series and the Eurostat database: http://ec.europa.eu/eurostat/product?mode=view&code= env\_air\_gge |
| Data collection / dissemination level | national |
| Frequency | Data collected annually. Data are also recalculated annually for the whole time series due to update in coefficients or upgrading of Tiers. Therefore it is important to ensure an update of the whole time series each year this indicator is reported on |
| Timeliness | 2 years |
| Comments/caveats | [Indication capacity] IPCC guidance allows countries to report GHG emissions and removals according to different tiers. For most agriculture and LULUCF emissions and removals, tier 1 is based on the use of activity data (e.g. agricultural production statistics) and global emission factors. Tier 2 follows the same approach but applies nationally defined emission factors. Tier 3 involves the use of models and higher order inventory data tailored to national circumstances. Member States are encouraged to improve GHG inventories towards higher tiers, in accordance with the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, which would allow to reduce uncertainties and to design better targeted policies for decreasing emissions and increasing carbon sinks. The improvement of the inventories can be made more cost-effective by exploiting existing datasets (see ‘Data sources’). Methodologies for GHG emission estimates should follow IPCC guidance, but need not be identical across Member States. In particular, when using lower tiers, GHG emission estimates might not capture the effects of all mitigation measures that are supported by the CAP, and therefore upgrading monitoring may in some cases be justified. [Readily available] Data [from 1990 to 2017] are already submitted annually by MS and the EU. The European Union, as a party to the UNFCCC, reports annually on GHG inventories from the years 1990 to (N) for emissions and removals within the area covered by its Member States (i.e. domestic emissions taking place within its territory) [Downscaling] Not applicable as regards lower spatial levels. [Quality] MS can use different tiers, linked to the availability of more specific data and coefficients, for example with high detail on mitigation measures. The use of IPCC standard would anyway ensure comparability among sectors and MS. Thematic resolution can also be very important, e.g. animal sub-categories, different farming systems etc. [Baseline] Relative net emissions are reported as a percentage of the emissions in the reference year 1990 and 2005. The two reference years are both important for the contextualization of emissions reduction in agriculture with EU policies. European Green Deal and the current framework policy consider targets referring to 1990; while in terms of implementation, particularly for non-CO2 emissions from livestock and soil management, is it also relevant to refer to 2005, as Member States set their reduction targets for the Effort Sharing Regulation sectors, of which agriculture is part, using 2005 as baseline. Specifically for LULUCF agricultural-related land categories cropland and grassland, reference year would be the average of emissions and removals in the reference period 2005-2009 (specific indicator 3), as defined in LULUCF Regulation 2018/841. |

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| INDICATOR C.45 | Indicator I.9 Improving the resilience of agriculture to climate change: Agricultural sector resilience progress indicator |
| Indicator name | Agricultural sector resilience progress indicator |
| Definition | The resilience of agriculture to climate change refers to the capability to maintain functions and services of the sector vis-à-vis increasing extreme events under climate change. Resilience can be strengthened through short-term adjustment of existing practices and management, and long-term transformational change, in response to the duration and the intensity of climate disturbances. Several factors can have an effect on sector’s resilience to climate change, including socio-economic, innovation, governance and biophysical factors. The resilience indicator synthesises status and progress of different components with an impact on resilience or depending on resilience. The composite indicator builds on components already available in the current Common Monitoring and Evaluation Framework (CMEF), the future Performance Monitoring and Evaluation Framework (PMEF), and other data sources, such as Eurostat, JRC and EEA, which, when systematically analyzed, can provide an indication of how the overall resilience of agriculture is progressing. The composite indicator displays for each MS the components positively contributing to resilience. Relative progress toward resilience of each component is defined by comparing the evaluation (programming) period to a reference period. The definition of the “progress level” compared to the reference period depends on the nature and variation of each component and is defined by JRC with appropriate methodology As any composite indicator, understanding resilience requires an inspection of the progress of single components, which needs to be interpreted in the specific member States context Initial set of components Financial: • Agricultural factor income stability (from C.25 data) Bio-physical components: • Crop production stability – annual cereals production resilience (from Eurostat) • 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 change of modelled carbon stocks. The indicator illustrates progress in agriculture resilience in a simple way, while accounting for its different dimensions. It captures both the level of adaptation efforts (e.g. climate/environment investment support, advice and training), as well as effects on resilience (e.g. income stability, crop production stability). \* The references in brackets correspond to other PMEF indicators or to other existing sources of information Agricultural sector resilience progress indicator = proportion of components exhibiting a good resilience status or progress toward good resilience - The components of the indicator have a value of 0, 0.5 or 1. - A value of 1 is attributed to components that have reached and maintain a good resilience status. A value of 0.5 is attributed to components which are currently less resilient, but showing significant progress towards resilience, or for components that are currently sufficiently resilient, but with significantly declining values. A value of 0 is attributed otherwise (less resilient without progress). Progress is assessed compared to baseline reference levels, i.e. the previous programming period, or a climate-relevant longer period depending on data availability. - Threshold values and related methodology are defined by JRC component by component, based on the nature and values of the component. - The composite indicator can have a maximum value of 100%, indicating a good status of all evaluated components. |
| Unit of measurement | Dimensionless. The synthetic value of the indicator is given by the cumulative score of components scaled to range between 0 and 100%. The fiche will display both the synthetic value of the indicator and the improvement score (0, 0.5 or 1) of all selected components. A dashboard approach provides additional visual support to the numerical values |
| Data source | No data in Serbian current register nor definition; will be analyzed further  CAP CMEF and PMEF, JRC, Eurostat and EEA data. |
| References / location of the data | CAP CMEF and PMEF, JRC, Eurostat and EEA data. |
| Data collection / dissemination level | See the individual selected impact indicators |
| Frequency | Beginning, mid and end of programming period. |
| Timeliness | Corresponding to CAP PMEF, JRC and Eurostat data. |
| Comments/caveats | [Indication capacity] Resilience depends on a large number of context specific factors; the current selection is a subset of a larger number of possible components. Elements such as risk management, training, participation to innovation schemes, the farmer’s age structure, investments and others directly or indirectly linked with resilience of the sector can be taken in consideration. It is important to recognise that a comprehensive assessment of the resilience would imply to describe dimensions such as i)Socio-economic aspects; ii) Governance; iii) Social and innovation and iv) Biophysical aspects. For some components, data are not readily available or data collection will only start with the new programming period. For this reason, the indicator is initially based on components for which an assessment of the trend or a comparison with a reference period can be carried out. More components related to the socio-economic, governance, social, innovation and bio-physical aspects of resilience will be included at a later stage when data will be available in order to build a more comprehensive picture of agriculture resilience. Those will include for instance: implementation of (agro-management) adaptation measures to climate change, investments related to care for the environment or climate, risk assessment methods, including climate services, training, related to environmental/climate performance. This indicator provides a basic framework open to further development and selection of components. It is also possible that the overall system resilience will depend on the ‘weakest’ factor, and careful analysis of the contributing factors and importance in the local context remains imperative. Systematic analysis of relationships between driving factors that enhance or weaken aspects of resilience may help refining the indicator in the local context. The indicator fiche will display both the synthetic value of the indicator and the direction of each component, giving the possibility to use the fiche as a resilience dashboard. [Readily available] Directly depend on the readiness of the other components, typically with delays of 2- 3 years. Several model based indicators can be further improved using detailed information on e.g. agro-management and other practices. [Downscaling/aggregation] The indicator provides aggregated information on MS level, however where possible makes use of (sub-) regional information. [Quality] Linked to the components, and the relative importance of these components for resilience aspects. [Baseline] The situation at the start of the programming period, some of underlying indicators with large variability are based on longer (climate relevant) reference periods prior to the start of the programming period. |

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| INDICATOR C.46 |  |
| Indicator name | Direct agricultural loss attributed to disasters |
| Definition | This indicator measures the direct agricultural losses attributed to disasters. It corresponds to a subset of the Sendai Monitoring Framework indicator C-2 which assesses the direct loss occurring in the agricultural sector as a result of disasters. It takes into consideration the specificities of each sub-sector, i.e. crops, livestock, forestry. It applies to disasters of various scales – from large-scale shocks to small and medium-scale events with a cumulative impact. It is calculated according to the following: Impact to agriculture = C2C + C2L + C2FO  Where:  C-2C: Direct crop loss  C-2L: Direct livestock loss  C-2FO: Direct forestry loss  Each sub-sector is sub-divided into two main sub-components, production (loss from disasters on both production input and outputs) and assets (loss from disasters of facilities, machinery, tools, and key infrastructure). It takes into account losses (changes in economic flows arising from disasters, such as reduction in output of crops, livestock and forestry); and replacement or recovery costs of totally or partially destroyed physical assets and stocks in disaster-affected areas. Source: https://www.preventionweb.net/files/54970\_techguidanc efdigitalhr.pdf |
| Unit of measurement | USD (US dollar) by year |
| Data source | Disaster Risk Register of Serbia (Ministry of Interior; Republic Geodetic Authority): database of damage caused by risk (should be advanced for more details on agricultural land damaged by natural hazards)  United Nations DRR - Desinventar open data database <https://www.desinventar.net/DesInventar/country_profile.jsp?countrycode=srb&lang=EN>  Sendai Monitoring and Reporting Framework |
| References / location of the data | UNISDR: https://sendaimonitor.unisdr.org |
| Data collection / dissemination level | national |
| Frequency | annual |
| Timeliness | N-1 |
| Comments/caveats | The indicator is a subset of Sendai indicator C2, which records direct losses in aquaculture and fisheries in addition to crop, livestock and forestry. Member state who report on an aggregate C2 indicator under Sendai (thus including aquaculture and fisheries) should clearly mention it. A lag may exist in reporting data, depending on how soon the disaster losses are reported under Sendai. Appropriate information about data time reference should be provided. 23 EU MS have already engaged on reporting under this framework. To date, 13 EU MS have already reported economic losses in the agricultural sector due to disasters and 5 have already validated their data (HR, CZ, EE, IE, SE), i.e. made them public. This indicator has common ground with the one used for the EU reporting on UN Sustainable Development Goals. |

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| INDICATOR C.47 | Indicator I.14 Improving air quality: Ammonia emissions from agriculture |
| Indicator name | Ammonia emissions from agriculture |
| Definition | This indicator measures total annual ammonia emissions (NH3) from agriculture, considering manure management, as well as application of fertilizers and manure to soils. It includes 2 specific indicators: 1. Total ammonia emissions 2. Change in ammonia emissions compared to 2005 Categories include19:  Manure management   * 3B1a - Manure management - Dairy cattle * 3B1b - Manure management - Non-dairy cattle * 3B2 - Manure management – Sheep * 3B3 - Manure management – Swine * 3B4a - Manure management – Buffalo * 3B4d - Manure management – Goats * 3B4e - Manure management – Horses * 3B4f - Manure management - Mules and asses * 3B4gi - Manure management - Laying hens * 3B4gii - Manure management - Broilers * 3B4giii - Manure management – Turkeys * 3B4giv - Manure management - Other poultry * 3B4h - Manure management - Other animals Application to soil * 3Da1 - Inorganic N-fertilizers (includes also urea application) * 3Da2a - Animal manure applied to soils * 3Da3 - Urine and dung deposited by grazing animals |
| Unit of measurement | 1. Kilotons of NH3 per year  2. % this is not clear now. It can also mean % of total emissions. Original was better, also because NECD base year is 2005 |
| Data source | -UNDP and GIZ will be contacted for more details on available data  report total national emissions of NH3 every year to the national scale emission data (EA) reported under the existing requirements from the Directive on the reduction of national emissions of certain atmospheric pollutants (2016/2284/EU)20, and collected at the European Environment Agency.  Data available  <https://www.klimatskepromene.rs/wp-content/uploads/2021/05/SLCPs-Report-Serbia.pdf>  <https://www1.undp.org/content/dam/serbia/Publications%20and%20reports/Aq%20report%20EN.pdf> |
| References / location of the data | Annual data on ammonia emissions from agriculture is available at the EEA’s website. The information, broken down by Member State and sub-category, is also provided through the web-based tool "Air pollutant emissions data viewer (NEC Directive)" https://www.eea.europa.eu/data-andmaps/dashboards/necd-directive-data-viewer-1 or Eurostat’s table on ammonia emission [Tai07] |
| Data collection / dissemination level | national and LAU |
| Frequency | Data collected annually. Data are recalculated annually for the whole time series due to update in coefficients or upgrading of Tiers. Therefore it is important to ensure an update of the whole time series for each year this indicator is reported on. |
| Timeliness | Projections covering 2020, 2025, 2030 and where available 2040 and 2050, shall be reported to the EA on a biennial basis. |
| Comments/caveats | [Indication capacity:] Data are able to show emission trends over time and compare trends among Member States, and the distance to National Emission Ceilings21 (NEC). Also, it is able to show differences in the subcategories, such as identifying main sources within the agricultural sector within a country, although these can be strongly dependent on the Tier used. Absolute values are not fully comparable due to the different Tiers available for use. [Readily available:] Data are already submitted by MS every year. [Downscaling:] National emission reporting (NECD; UNECE/CLTAP Gothenburg Protocol) follows recommendations of the 2016 EMEP/EEA air pollutant emission inventory guidebook, with 3 Tiers: Tier 1 (standard emission factors), Tier 2 (based on Total Ammonia Nitrogen (TAN) flows), Tier 3 (more sophisticated approaches, modelling, which can include spatial information on the implementation of specific abatement measures). Evaluation of impacts of air pollution of NH3 emissions, requires spatial information in conjunction with models. Science based gridded emission inventories, and gridded inventories from some MS are available. Satellite observations of NH3 provide new opportunities to derive spatial information. [Quality:] The use by MS of Tier 1 approaches may prevent tracking progress and policy effectiveness when using MS inventory information. Improvements such as on manure spreading methods or in productivity of milk, should be detected. Along with inventory MS submit an Informative Inventory Report (IIR). To link NH3 emission improvement to CAP, detailed information on which measures have been implemented, implementation rate (# livestock or m2 of UAA affected) are necessary, as well as improvement in emission factors. [Baseline:] Data on emissions of air pollutants, including ammonia, are available for every year, giving the possibility to define baselines. Collection of these data is required under the reporting regime in the Directive on the reduction of national emissions of certain atmospheric pollutants (2016/2284/EU) and will not add any additional administrative burden for Member States. Air Quality Directive considers the % of reduction from 2005. The same year can be proposed for the impact indicator. This indicator is also used for the EU reporting on UN Sustainable Development Goals. |

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| INDICATOR C.48 | Indicator I.28 Limiting antimicrobials use in farmed animals: Sales/use of antimicrobials for food-producing animals |
| Indicator name | Sales/use of antimicrobials in food producing animals |
| Definition | This indicator refers to action to improve the response of EU agriculture to societal demands on food and public health such as fighting antimicrobial resistance (AMR), promoting production of safe, nutritious and sustainable food, as well as animal welfare. - Data available per calendar year for any given year by MS - Provided by total sales for food-producing animals of veterinary medicinal products containing antimicrobial substances. Quantity of antimicrobial active substances from veterinary medicinal products sold (product package level) corrected by a Population Correction Unit (PCU). |
| Unit of measurement | Population Correction Unit (PCU). |
| Data source | Veterinary Directorate, MAFWM ; see research below  Surveillance of Veterinary Antimicrobial Consumption (ESVAC) project, started 2015 |
| References / location of the data | NATIONAL ANTIBIOTIC RESISTANCE CONTROL PROGRAMME FOR THE PERIOD  2019-2021 - SERBIA  <https://cdn.who.int/media/docs/default-source/antimicrobial-resistance/amr-spc-npm/nap-library/serbia_national-antibiotic-resistance-control-programme-2019-2021.pdf?sfvrsn=7e2eb9c0_1&download=true> |
| Data collection / dissemination level | National |
| Frequency | annual |
| Timeliness | 2 years |
| Comments/caveats | The National Antibiotic Resistance Control Programme (hereinafter: the Programme)represents support in fulfilling the social care for health and providing the conditions for the people to be healthy and constitutes the basis for decision-making on actions to improve the health and quality of life of the population of the Republic of Serbia.  The programme lays down the objectives, the activities and procedures to be carried out in Serbia in order to stop the spread of antibiotic resistance (hereinafter referred to as ABR), inhuman and veterinary medicine.  The general objective of the Programme is to improve the health and the quality of life of the population of the Republic of Serbia through the reduction of ABR. |

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| INDICATOR C.49 | Indicator I.18 Sustainable and reduced use of pesticides: Risks, use and impacts of pesticides |
| Indicator name | Risk, use and impacts of pesticides |
| Definition | It consists of 3 specific indicators:  1. Sales of pesticides  2. The Harmonized Risk Indicator 1  3. Sales of more hazardous pesticides  1: Sales of pesticides is a proxy of pesticides use in agriculture. For this purpose, the indicator specifies sales of pesticides for each of the following categories: 'fungicides and bactericides', 'herbicides, haulm destructors and moss killers', 'insecticides and acaricides', 'molluscicides', 'plant growth regulators', and 'other plant protection products'. NB: Sales data currently available at EU level (Eurostat) covers both agricultural and non-agricultural activities.  2: The Harmonized Risk indicator 1 refers to the risk associated with pesticides and it is based on European Statistics on the placing on the market of pesticides. The indicator is available at EU and MS level. Sales data collected by Eurostat are categorized and weighted based on the regulatory status of the active substances under Regulation (EC) No 1107/2009. The resulting weights are aggregated according to the Commission Directive (EU) 2019/782 resulting in a harmonized, EU wide indicator. Methodology for categorization and weighting is based on the definition in Annex IV to the Directive 2009/128/EC (adopted by the Commission in May 2019) NB: All references to pesticides refer to plant protection products only. Biocides are included in the term pesticides, but data on biocides are not included in this indicator.  3: Sales of more hazardous pesticides These are active substances that meet the cut-off criteria as set out in points 3.6.2. to 3.6.5 and 3.8.2 of Annex II to Regulation (EC) No 1107/2009 or active substances approved as candidates for substitution in accordance with the criteria in point 4 of that Annex. For plant protection products containing active substances that are candidates for substitution, Member States are required, when assessing an application for an authorization, to evaluate if they can be replaced (substituted) by other adequate and less hazardous solutions (chemical or non-chemical). |
| Unit of measurement | 1: kg  2: Index based on annual quantities of active substances placed on the market in the form of plant protection products multiplied by the relevant weights (100 (= average for the period 2011-2013)  3: kg |
| Data source | All data not publicly available yet due to confidentiality reasons  Directorate for plant protection (by-law in force, starting from January 01, 2022) |
| References / location of the data |  |
| Data collection / dissemination level | National |
| Frequency | annual |
| Timeliness | 2 years |
| Comments/caveats | The HRI 1 indicator is based on the quantities of active substances sold in pesticides each year. Active substances are classified in 4 groups and 7 categories according to Annex IV to the Directive 2009/128/EC. A weighting is developed for each group: quantity sold of active substances are multiplied for the respective weights in order to calculate a harmonized index which can be monitored over time. This indicator is also used for the EU reporting on UN Sustainable Development Goals. Moreover, progress towards the first Farm to Fork target (50% reduction of risk and use of pesticides) is measured using the Harmonized Risk Indicator 1 methodology, excluding non-chemical pesticides. Progress towards the second target of the Farm to Fork (50% reduction of the more hazardous pesticides)23 is measured using the sales of the more hazardous pesticides. For both indicators, the baseline is the average of the reference period 2015-2017 |

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| INDICATOR I.1 | Indicator I.1 Sharing knowledge and innovation: Share of CAP budget for knowledge sharing and innovation |
| Indicator name | Share of CAP budget for knowledge sharing and innovation |
| Definition | Share of CAP budget for knowledge sharing and innovation The main purpose of this index is to measure efforts for fostering innovation and knowledge sharing, as required under the cross-cutting objective on modernization. The impact of knowledge and innovation will be resulting from the efforts made under the part of the CAP strategic plans related to Agricultural Knowledge and Innovation Systems (Art 114), and under the relevant articles of the sectorial programmes (e.g. Art 47(1)(b) and (c)). Through its components it captures as well various types of knowledge creation (EIP Operational Group innovation projects and other interactive innovation projects, and/or multi-actor research under sectorial POs and experimental production) as well as knowledge exchange/sharing dimensions: knowledge exchange and advice, demonstration activities, actions to enhance the exchange of needs of farmers and the sharing of existing knowledge. In particular, it is expected that the cross-cutting objective on modernization will incentivize multi-actor creation of new knowledge where needed, for instance through organizing various types of encounters and knowledge sharing between AKIS actors such as farmers, advisors, researchers etc. with the help of the innovation strand of the CAP networks. "Experimental production" is supported under sectoral programmes and is covered by an intervention which can be undertaken by Producers' Organizations (POs) in the F&V, hops, olive oil and table olives sectors and the other sectors referred to in Article 42(f) sector (Art. 47(1)(a)). Experimental production may concern new varieties / more environmental friendly practices / digitized production, etc. and is usually carried out by research units of POs in greenhouses or open field as a test before production. For wine, the wording of Art 58(1)(e) is slightly different ("investments in innovation"). For apiculture too, Art 55(1)(e) ("implementation of research programs") for example. Methodology/formula: Calculation based on annual financial transactions. Expenditure accounted for: • interventions under Article 78 (knowledge exchange and dissemination of information), e.g. use of advice by farmers; training of advisors; cross-visits for advisors; knowledge exchange activities between advisors, CAP networks and research working together; setting up and implementing of EIP OG innovative projects etc.) • innovative projects of EIP operational groups (interventions funded under Article 77 according to specific requirements detailed in Art 127) • support to training and advise under Art 47(1)(b) and (c), Art 55(1)(a) and Art 58(1)(f) as well as to research, innovation and experimental production (Art 47(1)(a), Art 58(1)(e), Art 55(1)(e) |
| Unit of measurement | % |
| Data source | Annual  Still no data source identified |
| References / location of the data | MFWAM |
| Data collection / dissemination level | national |
| Frequency | Annual |
| Timeliness | 1 year |
| Comments/caveats |  |

# Output indicators

\*note: described EU CAP output indicators will be used as a template for definition of Serbian national outputs in more details

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| INDICATOR O.1 | O.1 Number of European Innovation Partnership (EIP) operational group projects |
| Indicator name | Number of European Innovation Partnership (EIP) operational group projects |
| Definition | The total number of EIP Operational Group (OG) projects that receive support under one or more of the interventions set out in the CAP strategic plan in the Financial Year concerned |
| Types of intervention concerned | The following type of intervention is concerned: • Cooperation to prepare or implement EIP OG projects in accordance with Article 127 (Article 78) |
| Methodology | The number of EIP OG projects, receiving a payment in the Financial Year concerned, should be reported by unit amount. If only a part of the committed amount for an operation was paid in the Financial Year concerned, only a partial output is to be reported (see cover note) |
| Methodology for the aggregated values | The following aggregates should be provided: - The total number of operational group projects supported by intervention (if relevant, i.e. when within one intervention several unit amounts are defined) Remark: For these aggregates, there should be no double counting. |
| Unit of measurement | Number of projects |
| Comments/caveats | The preparation of the OG project counts as a separate operation and can be paid as soon as it is finished and a project proposal is ready for selection. The implementation of the OG project (after selecting it) is another operation. So it is possible to pay for the preparation operation only, and before the project itself is finished. There is always a one-to-one relationship between an EIP OG and its innovative project. An EIP OG can run one project only: the objectives and activities of the OG project are distinctive for that OG. Thus, two different projects are always run by two different EIP OGs, no matter the OG’s composition. Note that a group who did/is doing an OG project is allowed to do further OG projects, without a need to change partners |

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| INDICATOR O.2 | O.2 Number of advice actions or units to provide innovation support for preparing or implementing European Innovation Partnership (EIP) operational group projects |
| Indicator name | Number of advice actions or units to provide innovation support for preparing or implementing European Innovation Partnership (EIP) operational group projects |
| Definition | Number of advice actions or other units (e.g. number of advisors) to help for preparing and/or implementing EIP Operational Group (OG) projects paid in the Financial Year concerned (excluding other type of advice actions reported under O.33). |
| Types of intervention concerned | Only the following type of intervention is concerned: • Knowledge exchange and dissemination of information (Article 78) This indicator concerns support for advice for innovation purposes incentivizing emergence and running of the EIP OG project. This support refers either to the project preparation period or to the facilitation during the project implementation of the EIP OG project (or both), and only if the advisor is not paid by the OG project budget (Article 77), but by an intervention under Article 78. |
| Methodology | The advice actions or other units, paid in the Financial Year concerned, in the frame of innovation support under Article 78, shall be reported per unit amount. If only a part of the committed amount for an operation was paid in the Financial Year concerned only a partial output is to be reported (see cover note). |
| Methodology for the aggregated values | Following aggregates should be provided: - The total number of actions or units paid by intervention (if relevant, i.e. when within one intervention several unit amounts are defined) - The total number of advice actions paid to provide innovation support - The total number for each supported unit (other than advice actions and advisors) - The total number of advisors (this aggregate covers all actions, included those paid in advice actions or other units) Remark: For the first three aggregates, there should be no double counting. For advisors double counting is allowed, to avoid high administrative burden. |
| Unit of measurement | Number of operations, advisors or other units |
| Comments/caveats | The rationale for this indicator is to measure specific advisory efforts under Article 78 to incentivize innovation, e.g. those in accordance with Article 15(4)(e), i.e. an advisor delivering "innovation support in particular for preparing and for implementing OG projects". Examples could be providing specific advisory services for innovation support, such as coaching farmers towards innovation on their farm, managing an innovation hub, which helps setting up of facilitating OG innovative projects, training advisors for innovation support. Support to advisors under Article 77 as part of the funding for the OG project is not included here. This is covered under O.1, because the advisor in that case is paid from the OG project budget. |

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| INDICATOR O.3 | O.3MD Number of CAP support beneficiaries |
| Indicator name | Number of CAP support beneficiaries |
| Definition | The number of CAP support beneficiaries in a Member State i.e. that received support in the Financial Year concerned under one or more of the interventions set out in the CAP strategic plan. |
| Types of intervention concerned | The following types of interventions are concerned: All CAP interventions set out in the CAP strategic plan by the MS, i.e.:   * direct payments * rural development   sectoral types of interventions |
| Methodology | Number of beneficiaries who received a payment in Financial Year, per intervention and per type of intervention (without double counting). For direct payments, beneficiaries are defined in Article 3(1). For rural development, beneficiaries are defined in Article 3(13). |
| Methodology for the aggregated values | The following aggregates should be provided:  The total number of farmers receiving directly support, broken down by:   * man * woman * non-binary * prefer not to say * no prevalence   The total number of farmers beneficiaries of direct payments (Chapter II of Title III)  On a voluntary basis, for farmers receiving directly support, Member States can also provide the distribution of beneficiaries by gender according to the share of management responsibilities:  Share of management responsibilities exercised by:   * man * woman * non-binary person * prefer not to say   Remark: For these aggregates beneficiaries are accounted in full and there should be no double counting: i.e. where a beneficiary benefits from multiple interventions, that beneficiary should be counted only once in the aggregate. If the beneficiary is a group of natural persons, a legal person or a group of legal persons, the sex of the main manager of the farm is reported. The main manager refers to the person who enjoys the decision-making power in relation to the agricultural activities exercised on the farm and who bears benefits and financial risks related to those activities. In case of perfect gender balance, the fourth category: « No prevalence » is used. Only farmers directly receiving financial support are reported in these aggregates. In other words, farmers benefitting indirectly from CAP support through actions of producer organizations (PO), training and advice actions, projects implemented under Local Development Strategies (CLLD/Leader), mutual fund and financial instruments are not taken into account in this indicator. |
| Unit of measurement | Number of beneficiaries |
| Comments/caveats | The detailed information by intervention and type of intervention relates to all direct beneficiaries of CAP support (not only farmers). - By contrast, the aggregated figures for direct beneficiaries of total CAP support and direct payments relate only to farmers. - In order to provide these data there will be a need for a unique identifier of each beneficiary (used for all support applications) to avoid double counting between Direct Payments, Rural Development and sectoral types of interventions in IACS. - Beekeepers are not accounted as farmers, i.e. they are not accounted in the aggregate. - This indicator is not used for performance clearance |

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| INDICATOR O.4 | O.4 |
| Indicator name | Number of hectares benefitting from basic income support |
| Definition | The number of hectares paid for the interventions under basic income support for sustainability in the Financial Year concerned. |
| Types of intervention concerned | The following type of interventions are concerned: • The Basic income support for sustainability (BISS) including the round-sum payment for small farmers (Chapter II, Section 2, Subsection 2) |
| Methodology | The number of hectares, paid in Financial Year concerned, shall be reported per intervention unit amount |
| Methodology for the aggregated values | aggregated values The following aggregates should be provided: - The total number of hectares for basic income support for sustainability (i.e. the area paid after applying the entitlements) - The total number of hectares for decoupled Direct Payments taken together (i.e. for Member States without entitlements, the area paid4 for decoupled Direct Payments; for Member States with entitlements, the number of eligible hectares for direct payments, as defined in accordance with Article 4(4) held by beneficiaries of BISS (including round sum) (before taking into account the entitlements5) Remark: For these aggregates hectares are accounted in full, there should be no double counting: i.e. where the same hectare benefits from support under multiple decoupled direct payments interventions, that hectare should be counted only once for the aggregate. |
| Unit of measurement | Number of hectares |
| Comments/caveats |  |

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| INDICATOR O.5 | O.5 |
| Indicator name | Number of beneficiaries or hectares benefitting from payments for small farmers |
| Definition | The number of CAP support beneficiaries or hectares in a Member State that received support in the Financial Year concerned for the payments for small farmers. |
| Types of intervention concerned | The following type of interventions is concerned:  The payment for small farmers (Article 28) |
| Methodology | The number of beneficiaries or hectares of payments for small farmers intervention in Financial Year concerned shall be reported per unit amount |
| Methodology for the aggregated values | The following aggregate should be provided: - The total number of beneficiaries of the payments for small farmers (accounted in full) - The total number of hectares for the payments for small farmers Remark: For these aggregates, beneficiaries or hectares are accounted in full. They cover all the payments for small farmers (i.e. those paid per beneficiary and those paid per hectare). In addition, there should be no double counting |
| Unit of measurement | Number of hectares |
| Comments/caveats | The partial number of beneficiaries or hectares to be reported corresponds to the share of the payment in the Financial Year concerned in the total amount to be paid. For example, for a small farmer receiving only 90% of the payment in the Financial Year concerned, the reported output is 0.9. By contrast, for the aggregated values, the beneficiaries and the hectares of the payments for small farmers are accounted in full. |

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| INDICATOR O.6 | O.6 |
| Indicator name | Number of hectares benefitting from complementary income support for young farmers |
| Definition | The number of hectares paid under complementary income support for young farmers in the Financial Year concerned. |
| Types of intervention concerned | The following type of intervention is concerned: • The complementary income support for young farmers (Article 30) |
| Methodology | The number of hectares or beneficiaries paid in the Financial Year concerned shall be reported per unit amount. |
| Methodology for the aggregated values | The following aggregates should be provided: - The total number of hectares for complementary income support for young farmers. If the support is paid per beneficiary, the covered number of hectares should nevertheless be accounted in the aggregate. - The total number of beneficiaries receiving complementary income support for young farmers, if the support is paid per beneficiary. Remark: For this aggregate hectares are accounted in full and there should be no double counting. |
| Unit of measurement | Number of hectares or beneficiaries |
| Comments/caveats | This support can also take the form of a lump sum payment per young farmer |

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| INDICATOR O.7 | O.7 |
| Indicator name | Number of hectares benefitting from complementary redistributive income support |
| Definition | The number of hectares paid under complementary income support for sustainability (CRISS) in the Financial Year concerned. |
| Types of intervention concerned | The following type of intervention is concerned: • The complementary redistributive income support for sustainability (CRISS) (Article 29) |
| Methodology | The number of hectares paid in the Financial Year concerned shall be reported per unit amount |
| Methodology for the aggregated values | The following aggregate should be provided: - The total number of hectares for complementary redistributive income support for sustainability (CRISS) (i.e. the area paid) Remark: For this aggregate hectares are accounted in full and there should be no double counting |
| Unit of measurement | Number of hectares |
| Comments/caveats |  |

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| INDICATOR O.8 | O.8 |
| Indicator name | Number of hectares or of livestock units benefitting from eco-schemes |
| Definition | The number of units (hectares or livestock units) paid under the schemes for the climate and environment (eco-schemes) in the Financial Year concerned. |
| Types of intervention concerned | The following type of intervention is concerned:  Schemes for the climate, the environment and animal welfare (eco schemes) (Article 31) |
| Methodology | The number of units (hectares or livestock units) paid in the Financial Year concerned shall be reported per intervention unit amount. |
| Methodology for the aggregated values | The following aggregates should be provided: - The total number of hectares/livestock units paid by intervention and by unit (if relevant, i.e. when within one intervention several unit amounts are defined) - The total number of hectares supported with eco-schemes (i.e. the area under commitment) - The total number of livestock units supported with ecoschemes (i.e. the livestock units under commitment) Remark: For these aggregates, hectares and livestock are accounted in full. In addition, there should be no double counting: i.e. where the same hectare benefits from support under multiple ecoschemes interventions, that hectare should be counted only once for the aggregate. For livestock units the double counting should be avoided, relying on the unique ID of beneficiaries |
| Unit of measurement | Number of hectares or livestock units |
| Comments/caveats | The payment for livestock units may apply in case of animal welfare commitments, commitments addressing antimicrobial resistance and, if duly justified, commitments for practices beneficial for climate. The coefficients to convert animal numbers in Livestock Units are available in the annex of the Commission Implementing Regulation (EU) 2021/2290 |

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| INDICATOR O.9 | O.9 |
| Indicator name | Number of units covered by supported CAP risk management tools |
| Definition | The total number of units covered in the Financial Year concerned by CAP risk management tools. |
| Types of intervention concerned | The following interventions are concerned:  Risk management tools (Article 76) If financial instruments are used to provide farmers with working capital, the output should be reported here. |
| Methodology | The number of units paid in the Financial Year concerned, shall be reported per intervention unit amount. If only a partial payment was made in the Financial Year concerned, only a partial output is to be reported (see cover note). |
| Methodology for the aggregated values | The following aggregates should be provided:   * The total number of units supported by CAP risk management tools by intervention (if relevant, i.e. when within one intervention several unit amounts are defined) * The total number of beneficiaries covered by supported insurance scheme * The total number of mutual funds covered by risk management support * The total number of beneficiaries covered by supported risk management schemes other than insurances and mutual funds * The total number of beneficiaries covered by financial instruments for risk management purposes.   Remark: Mutual funds and farmers are accounted in full in the aggregates. Double counting should be avoided, as far as possible |
| Unit of measurement | Number of beneficiaries, funds, hectares or other units |
| Comments/caveats | If insurance schemes are paid per hectare, the covered number of beneficiaries should nevertheless be accounted in the aggregate. |

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| INDICATOR O.10 | O.10 |
| Indicator name | Number of hectares benefitting from coupled income support |
| Definition | The number of hectares paid under each area-related Coupled Income Support (CIS) intervention in the Financial Year concerned. For interventions under coupled income support that target oilseed crops covered by the Blair House Agreement, the area for which support has been actually paid should be reported as a separate output pursuant to Article 33(4). |
| Types of intervention concerned | All area-related interventions under CIS (Chapter II, Section 3, Subsection 1) |
| Methodology | The number of hectares, paid in the Financial Year concerned, shall be reported for each area-related CIS intervention. In case within one CIS intervention several unit amounts are defined (e.g. by farm size), the number of hectares paid per unit amount shall be reported. |
| Methodology for the aggregated values | Following aggregates should be provided:   * The total number of hectares paid by intervention (if relevant, i.e. when within intervention several unit amounts are defined) * The total number of hectares for groups of CIS interventions covering the same sector (i.e. the area paid for CIS, per sector).   The sectors are set out in Article 33.   * The total number of hectares under CIS interventions   Remark: For these aggregates hectares are accounted in full and there should be no double counting: i.e. where the same hectare benefits from support under multiple coupled income support interventions, that hectare should be counted only once for the aggregate |
| Unit of measurement | Number hectares |
| Comments/caveats | It is possible for Member States to pay on the basis of units other than hectares, where appropriate (e.g. acres; decares; etc.). However, planning in the CAP plan and reporting in the annual performance report should be done based on the number of hectares. |

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| Indicator O.11 | **O.11 Number of heads benefitting from coupled income support**  Coupled Income Support (CIS) |
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| Definition | The number of heads paid for the interventions under each animal-related Coupled Income Support (CIS) intervention in the Financial Year concerned. |
| Types of intervention  concerned | All animal-related interventions under CIS (Chapter II, Section 3, Subsection 1) |
| Methodology | The number of heads paid in the Financial Year concerned should be reported for each animal-related CIS intervention. In case within one CIS intervention several unit amounts are defined (e.g. by herd size), the number of heads paid per unit amount shall be reported. |
| Methodology for the  aggregated values | Following aggregates should be provided:   * The total number of heads paid for animal-related CIS per sector (i.e. the number of heads paid for coupled income support, without double counting, in each sector).   The sectors are set out in Article 33.  Remark: For these aggregates heads are accounted in full and there should be no double counting |
| Unit measurement | Number of heads |
| Comments/caveats | It is possible for Member States to pay on the basis of unit other than heads of animals, where appropriate (e.g. livestock units). However, planning in the CAP plan and reporting the annual performance report should be done based on a number of heads. In such cases, a conversion key between the unit for payment (LU) and the number of heads should be defined and used consistently. |

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| Indicator O.12 | **O.12 Number of hectares benefitting from support for**  **areas facing natural or other specific constraints,**  **including a breakdown per type of area** |
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| Definition | The number of hectares paid under natural or other area- specific constraints interventions, in the Financial Year concerned. |
| Types of intervention  concerned | The following types of interventions are concerned:  Natural or other area-specific constraints (Article 71) |
| Methodology | The number of hectares, paid in Financial Year concerned, shall  be reported for the 3 area categories designated pursuant to  Article 32 of Regulation (EU) No 1305/2013, covered by an  intervention in the CAP strategic plan:  (a) mountain areas;  (b) areas, other than mountain areas, facing significant  natural constraints; and  (c) other areas affected by specific constraints.  In case within one intervention several unit amounts are defined, the number of hectares paid shall be reported per unit amount.  If only a partial payment was made in the Financial Year concerned, only a partial output is to be reported (see cover note) |
| Methodology for the  aggregated values | The following aggregates should be provided:  - The total number of hectares of mountain area paid in the  Financial Year concerned.  - The total number of hectares of areas, other than mountain  areas, facing significant natural constraints paid in the  Financial Year concerned.  - The total number of hectares of other areas affected by  specific constraints paid in the Financial Year concerned.  - The total number of hectares paid under Natural or other  area-specific constraints, in the Financial Year concerned  Remark: For these aggregates hectares are accounted in full and there  should be no double counting. |
| Unit of measurement | Number of hectares |
| Comments/caveats |  |

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| Indicator O.13 | **O.13 Number of hectares benefitting from support under Natura 2000 or Directive 2000/60/EC** |
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| Definition | The number of hectares paid under Area-specific disadvantages resulting from certain mandatory requirements interventions, in the Financial Year concerned. |
| Types of intervention  concerned | The following type of intervention is concerned:  Area-specific disadvantages resulting from certain mandatory requirements (Article 72) |
| Methodology | The number of hectares paid in the Financial Year concerned  shall be reported for the following areas, covered by an  intervention in the CAP strategic plan:  (a) Natura 2000 agricultural and forest areas;  (b) other delimited nature protection areas with   environmental restrictions applicable to farming or  forests.  (c) agricultural areas included in river basin management   plans pursuant to Directive 2000/60/EC (Water framework  Directive).  The number of hectares paid shall be reported **per unit amount.**  If only a partial payment was made in the Financial Year concerned, only a partial output is to be reported (see cover note) |
| Methodology for the  aggregated values | Following aggregates should be provided:   * The total number of hectares paid by intervention (if relevant, i.e. when within one intervention several average unit amounts are defined) * The total number of paid hectares of Natura 2000 agricultural area. * The total number of paid hectares of Natura 2000 forestry area. * The total number of paid hectares of agricultural area within other delimited nature protection areas with environmental restrictions * The total number of paid hectares of forestry area within other delimited nature protection areas with environmental restrictions * The total number of paid hectares of agricultural area included in the river basin management plans   Remark: For these aggregates hectares are accounted in full and there should be no double counting. |
| Unit of measurement | Number of hectares |
| Comments/caveats |  |

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| Indicator O.14 | **O.14 Number of hectares (excluding forestry) or number of**  **other units covered by environmental or climate-related**  **commitments going beyond mandatory requirements** |
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| Definition | The total number of hectares (excluding forestry) covered by environment/climate commitments going beyond mandatory  requirements and specified in the CAP Strategic Plans, for which a payment was made in the Financial Year concerned.  In special cases, if the support is granted as a lump sum, the number of beneficiaries is reported. |
| Types of intervention  concerned | The following types of interventions are concerned:  • Environmental, climate-related and other management commitments (Article 70): payments for environment/climate commitments. |
| Methodology | The number of hectares or other units paid in the Financial Year  concerned shall be reported per unit amount.  In case within one intervention several unit amounts are defined,  the number of hectares or other units paid shall be reported per  unit amount. If only a partial payment was made in the  Financial Year concerned, only a partial output is to be reported  (see cover note) |
| Methodology for the aggregated values | The following aggregates should be provided:  - The total number of hectares paid by intervention (if relevant, i.e. when within one intervention several unit amounts are defined)  - The number of hectares (excluding forestry) under environmental or climate commitments (the area under commitments). This aggregate covers the number of hectares of the farms, which are granted the support as a lump sum.  - Total number of beneficiaries, if the support is granted as a lump sum  Remark: For these aggregates, there should be no double counting: i.e. where the same hectare benefits from support under multiple environmental or climate commitments, that hectare should be counted only once for the aggregate. Units are accounted in full in the aggregates |
| Unit of measurement | Number of hectares or beneficiaries for lump sum payments |
| Comments/caveats | Forestry area covered by environment/climate commitments are to be reported under O.15. Maintenance commitments for afforested land and agroforestry are to be reported under O.16. Area under organic commitments shall be reported under O.17. When the payment is exceptionally granted as a lump sum, Member States should also collect the number of hectares for the result indicators and for the aggregated output, unless they duly justify why it is not appropriate. |

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| Indicator name O.15 | **O.15 Number of hectares (forestry) or number of other**  **units covered by environmental climate-related commitments going beyond mandatory requirements** |
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| Definition | The total number of hectares (forestry) or other units (such as  trees) covered by environment/climate commitments going  beyond mandatory requirements specified in the CAP Strategic  Plans for which a payment was made in the Financial Year  concerned. |
| Types of intervention  concerned | The following types of interventions are concerned:  Environmental, climate-related and other management commitments (Article 70): Payments for forest environment/climate commitments. |
| Methodology | The number of hectares or other units paid in the Financial Year  concerned, shall be reported per unit amount. If only a partial payment was made in the Financial Year concerned, only a partial output is to be reported (see cover note) |
| Methodology for the  aggregated values | The following aggregates should be provided:  - The total number of hectares paid by intervention (if relevant,  i.e. when within one intervention several unit amounts are  defined)  - The number of hectares (forestry) under environmental or  climate commitments going beyond mandatory requirements.  If commitments are paid per other units than hectares, the  covered number of hectares should nevertheless be accounted  in the aggregate, unless duly justified.  - Total number for each supported unit (other than hectares)  under environmental or climate commitments going beyond  mandatory requirements  Remark:  - For these aggregates, there should be no double counting:  i.e. where the same hectare benefits from support under  multiple environmental or climate commitments, that hectare  should be counted only once for the aggregate.  - Units are accounted in full in the aggregates |
| Unit of measurement | Number of hectares, trees or other units |
| Comments/caveats | Commitments related to the maintenance (and thus not going  beyond mandatory requirements) for afforestation and  agroforestry are to be reported under O.16. |

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| Indicator O.16 | **O.16 Number of hectares or number of other units under**  **maintenance commitments for afforestation and**  **agroforestry** |
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| Definition | The total number of hectares (forestry) or other units (such as  trees) covered by maintenance commitments for afforestation  and agroforestry specified in the CAP Strategic Plans for which a  payment was made in the Financial Year concerned. |
| Types of intervention  concerned | The following types of interventions are concerned:  Environmental, climate-related and other management commitments (Article 70): Payments for maintenance commitments for afforestation and agroforestry |
| Methodology | The number of hectares or other units paid in the Financial Year  concerned, shall be reported per unit amount. If only a partial payment was made in the Financial Year concerned, only a partial output is to be reported (see cover note) |
| Methodology for the  aggregated values | The following aggregates should be provided:  - The total number of hectares paid by intervention (if relevant,  i.e. when within one intervention several unit amounts are  defined)  - The number of hectares (forestry) under commitments. If  commitments are paid per other units than hectares, the  covered number of hectares should nevertheless be accounted  in the aggregate (unless duly justified).  - Total number for each supported unit (other than hectares)  under maintenance commitments for afforestation and  agroforestry  Remark:  - For these aggregates, there should be no double counting:  i.e. where the same hectare benefits from support under  multiple environmental or climate commitments, that hectare  should be counted only once for the aggregate.  - Units are accounted in full in the aggregates |
| Unit of measurement | Number of hectares, trees or other units |
| Comments/caveats | Forest environment and climate commitments going beyond mandatory requirements are to be reported under O.15. This intervention is linked to R.17 (Afforested land) because this support follows the afforestation and the establishment of agroforestry. Support for maintenance of afforested area or agroforestry systems cannot be linked to R.30 (Supporting sustainable forest management) since this support is not linked to commitments going beyond mandatory requirements |

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| Indicator O.17 | **O.17 Number of hectares or number of other units**  **benefitting from support for organic farming** |
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| Definition | The total number of hectares with support for organic farming  specified in the CAP Strategic Plans for which a payment was  made in the Financial Year concerned.  In special cases, if the support is granted as a lump sum, a number of beneficiaries will be reported. |
| Types of intervention  concerned | The following types of interventions are concerned:  Environmental, climate-related and other management commitments (Article 70): payments for commitments to convert to or maintain organic farming practices. |
| Methodology | The number of hectares or other units paid in the Financial Year concerned, shall be reported per unit amount. If only a partial payment was made in Financial Year concerned, only a partial output is to be reported (see cover note) |
| Methodology for the  aggregated values | The following aggregates should be provided:  - The total number of hectares paid by intervention (if relevant, i.e. when within one intervention several unit amounts are defined)  - Total number of hectares under organic farming (the area  under commitments). This aggregate covers the number of  hectares of the farms, which are granted the support as a  lump sum.  - Total number of beneficiaries with support for organic  farming, if the support is paid as a lump sum.  Remark: For the aggregates, there should be no double counting.  Units are accounted in full in the aggregates |
| Unit of measurement | Number of hectares or beneficiaries for lump sum payments |
| Comments/caveats | When the payment is exceptionally granted as a lump sum,  Member States should also collect the number of hectares for the  result indicators and for the aggregated output, unless they duly  justify why it is not appropriate. |

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| Indicator O.18 | **O.18 Number of livestock units (LU) benefitting from**  **support for animal welfare, health or increased biosecurity**  **measures** |
| Definition | The number of livestock units (LU) covered by management  commitments for animal welfare, health or increased biosecurity  measures specified in the CAP Strategic Plans for which a  payment was made in the Financial Year concerned. |
| Types of intervention  concerned | The following types of interventions are concerned:  • Environmental, climate-related and other management  commitments paid per LU (Article 70): animal welfare  commitments |
| Methodology | The number of Livestock units (LU) paid in the Financial Year  concerned, shall be reported per unit amount.  In case within one intervention several unit amounts are defined,  the number of LU paid per unit amount shall be reported.  If only a partial payment was made in the Financial Year  concerned, only a partial output is to be reported (see cover  note). |
| Methodology for the  aggregated values | The following aggregates should be provided:  - The total number of LU paid by intervention (if relevant, i.e.  when within one intervention several unit amounts are  defined)  - The number of LU under commitments for animal welfare,  health or increased biosecurity measures (without double  counting)  Remark  For the aggregates LU are accounted in full and there should be  no double counting. |
| Comments/caveats | The coefficients to convert animal numbers in Livestock Units are  available in the annex of the Commission Implementing  Regulation (EU) 2021/2290. Investments related to animal welfare, animal health and biosecurity shall be reported under O.20 |

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| Indicator O.19 | **O.19 Number of operations or units supporting genetic resources** |
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| Definition | The total number of  (i) operations supporting genetic resources or  (ii) livestock units (LU) of endangered breeds, or  (iii) hectares of endangered plant varieties covered by supported management commitments paid in the Financial Year concerned. |
| Types of intervention  concerned | The following type of intervention is concerned:  Environmental, climate-related and other management commitments (Article 70): payments for endangered breeds/plant varieties under  (i) threat of genetic erosion, or  (ii) conservation, sustainable use and development of genetic resources, in line with Article 45 of Commission Delegated Regulation (EU) 2022/126 |
| Methodology | The number of operations, LU or hectares paid in the Financial Year concerned, shall be reported per unit amount. If only a partial payment was made in Financial Year concerned, only a partial output is to be reported (see cover note). |
| Methodology for the  aggregated values | The following aggregates should be provided: - The total number of operations or units paid by intervention (if relevant, i.e. when within one intervention several unit amounts are defined) - The total number of operations of genetic resources supported - The total number of hectares of endangered plant varieties supported - The total number of LU of endangered breeds supported Remark For the aggregates, there should be no double counting. Units are accounted in full in the aggregates |
| Unit of measurement | Number of relevant unit: operations, LU or hectares |
| Comments/caveats | The coefficients to convert animal numbers in Livestock Units are available in the annex of the Commission Implementing Regulation (EU) 2021/2290. |

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| Indicator O.20 | **O.20 Number of supported on-farm productive investment operations or units** |
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| Definition | The total number of supported on-farm productive investments operations or other units for which a payment (grants, financial instruments or a combination of both) was made in the Financial Year concerned. |
| Types of intervention  concerned | The following types of interventions are concerned:  Investments (Article 73) |
| Methodology | The number of supported on-farm productive investments operations or other units for which payments were made in the Financial Year concerned shall be reported per average unit amount. If one or more instalments are paid before the final payment for an operation, only a partial output is to be reported (see cover note) |
| Methodology for the  aggregated values | The following aggregates should be provided:  - The total number of supported on-farm productive investment operations or units by intervention (if relevant, i.e. when within one intervention several average unit amounts are defined)  - The total number of supported on-farm productive investment operations (this aggregate covers all operations, included those paid in other units)  - The total number for each supported unit (other than operation) for on-farm productive investments.  Remark: For the aggregates, there should be no double counting. For example, operations for which beneficiaries benefit of a combination of installation grant and financial instruments should be counted only once in the total. Units are accounted in full in the aggregates. |
| Unit of measurement | Number of investment operations or units |
| Comments/caveats | In their CAP plans, MS should link their interventions to those output indicators they consider relevant. Generally, on-farm investments are related to agricultural activities. Productive investments generally lead to an increase in profitability or value. In the majority of cases, it will be evident to which category an investment belongs to. However, where an investment could be classified as either on-farm or off-farm, the Commission will accept the classification proposed by the MS. |
| Indicator O.21 | **O.21 Number of supported on-farm non-productive**  **investment operations or units** |
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| Definition | The total number of supported on-farm non-productive investment operations or other units for which a payment was made in the Financial Year concerned. |
| Types of intervention  concerned | The following types of interventions are concerned: Investments (Article 73) |
| Methodology | The number of supported on-farm non-productive investment operations or other units for which payments have been made in the Financial Year concerned shall be reported per average unit amount. If one or more instalments are paid before the final payment for an operation, only a partial output is to be reported (see cover note) |
| Methodology for the  aggregated values | The following aggregates should be provided: - The total number of supported non-productive investment operations or units by intervention (if relevant, i.e. when within one intervention several average unit amounts are defined) - The total number of supported non-productive investment operations (this aggregate covers all operations, included those paid in other units) - The total number for each supported unit (other than operation) for on-farm non-productive investments. Remark: Operations for which beneficiaries benefit of a combination of installation grant and financial instruments should be counted only once in the total |
| Unit of measurement | Number of investment operations or units |
| Comments/caveats | In general, on-farm investments are related to agricultural activities. Off-farm non-productive investments are to be reported under O.23. However, where an investment could be classified as either on-farm or off-farm, the Commission will accept the classification proposed by the MS. Generally, non-productive investments are investments that do not lead to any significant increase in value or profitability. Typically, they aim at purely environmental improvements and are linked to the achievement of agri-environment-climate objectives set out in points (d), (e) and (f) of Article 6(1). Examples would be the creation and/or restoration of landscape features, such as wetlands, hedges, dry-stone walls and traditional boundaries, or the creation and/or restoration of habitat or landscape elements, such as heathland, species-rich grassland or floristically enhanced grass margins. |

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| Indicator O.22 | **O.22** Number of supported infrastructure investment operations or units |
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| Definition | The total number of supported investments in infrastructure and basic services in rural areas for which a payment (grants, financial instruments7 or a combination of both) was made in the Financial Year concerned. |
| Types of intervention  concerned | The following types of interventions are concerned:  Investments (Article 73) |
| Methodology | The number of supported infrastructure operations or other units for which payments were made in the Financial Year concerned shall be reported per average unit amount. If one or more instalments are paid before the final payment for an operation, only a partial output is to be reported (see cover note) |
| Methodology for the  aggregated values | The following aggregates should be provided: - The total number of supported infrastructure operation or units by intervention (if relevant, i.e. when within one intervention several average unit amounts are defined) - The total number of supported basic services and infrastructure investment operations (this aggregate covers all operations, included investments paid in other units) - The total number for each supported unit (other than operation) for investments in infrastructure and local services.  Remark: Operations for which beneficiaries benefit of a combination of installation grant and financial instruments should be counted only once in the total |
| Unit of measurement | Number of investment operations or units |
| Comments/caveats |  |

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| Indicator O.23 | **O.23** Number of supported off-farm non-productive investment operations or units |
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| Definition | The total number of supported off-farm non-productive investment operations or other units for which a payment was made in the Financial Year concerned. |
| Types of intervention  concerned | The following types of interventions are concerned:  Investments (Article 73) |
| Methodology | The number of supported off-farm non-productive investment operations or other units for which payments have been made in the Financial Year concerned shall be reported per average unit amount. If one or more instalments are paid before the final payment for an operation, only a partial output is to be reported (see cover note) |
| Methodology for the  aggregated values | The following aggregates should be provided: - The total number of supported off-farm non-productive investment operations or units by intervention (if relevant, i.e. when within one intervention several average unit amounts are defined) - The total number of supported off-farm non-productive investment operations (this aggregate covers all operations, included those paid in other units) - The total number for each supported unit (other than operation) for off-farm non-productive investments. Remark: Operations for which beneficiaries benefit of a combination of installation grant and financial instruments should be counted only once in the total |
| Unit of measurement | Number of investment operations or units |
| Comments/caveats | On-farm non-productive investments are to be reported under O.21. In general, non-productive investments are investments that do not lead to any significant increase in value or profitability. Typically, they aim at purely environmental improvements and are linked to the achievement of agri-environment-climate objectives set out in points (d), (e) and (f) of Article 6(1). |

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| Indicator O.24 | **O.24**  Number of supported off-farm productive investment  operations or units |
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| Definition | The total number of supported off-farm productive investment operations or other units for which a payment (grants, financial instruments or a combination of both) that was made in the Financial Year concerned. |
| Types of intervention  concerned | The following types of interventions are concerned:  Investments (Article 73) |
| Methodology | The number of supported off-farm productive investment operations or other units for which payments were made (advances excluded) in the Financial Year concerned shall be reported per average unit amount. If one or more instalments are paid before the final payment for an operation, only a partial output is to be reported (see cover note) |
| Methodology for the  aggregated values | The following aggregates should be provided:  - The total number of supported off-farm productive investment operations or units by intervention (if relevant, i.e. when within one intervention several average unit amounts are defined)  - The total number of supported off-farm productive investment operations (this aggregate covers all operations, included those paid in other units)  - The total number for each supported unit (other than operation) for off-farm productive investments.  Remark: Operations for which beneficiaries benefit of a combination of installation grant and financial instruments should be counted only once in the total |
| Unit of measurement | Number of investment operations or units |
| Comments/caveats | In their CAP plans, MS should link their interventions to those output indicators they consider relevant. Generally, off-farm investments are related to non-agricultural activities. An investment is productive if it leads to an increase in profitability or value. In the majority of cases, it will be evident to which category an investment belongs. However, where an investment could be classified as either on-farm or off-farm, the Commission will accept the classification proposed by the MS. |

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| Indicator O.25 | **O.25**  Number of young farmers receiving setting up support |
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| Definition | The total number of young farmers receiving installation support (grants, financial instruments9 or a combination of both) under one or more interventions specified in the CAP Strategic Plan in the Financial Year concerned. |
| Types of intervention  concerned | The following type of interventions is concerned: • Setting up of young farmers and new farmers and rural business start-up (Article 75): the setting-up of young farmers (Article 75(2)(a)) |
| Methodology | The number of young farmers supported in the Financial Year concerned, shall be reported per unit amount. If one or more instalments are paid before the final payment for an operation, only a partial output is to be reported (see cover note) |
| Methodology for the  aggregated values | The following aggregates should be provided: - The total number of young farmers granted setting up support by intervention (if relevant, i.e. when within one intervention several unit amounts are defined) - The number of young farmers granted installation support (without double counting) Remark: Beneficiaries of a combination of setting up grant and financial instruments should be counted only once in the total. |
| Unit of measurement | Number of young farmers |
| Comments/caveats |  |

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| Indicator O.26 | **O.26**  Number of new farmers receiving setting-up support (other than young farmers reported under O.25) |
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| Definition | The total number of new farmers (other than young farmers under O.25) receiving installation support (grants, financial instruments10 or a combination of both) under one or more interventions specified in the CAP Strategic Plan in the Financial Year concerned |
| Types of intervention  concerned | The following type of interventions is concerned: • Setting up of young farmers and new farmers and rural business start-up (Article 75): the start-up of rural businesses linked to agriculture or forestry including the setting up of new farmers, or farm household income diversification (Article 75(2)(b)) |
| Methodology | The number of new farmers (other than young farmers under O.25) supported in the Financial Year concerned, shall be reported per unit amount. If one or more instalments are paid before the final payment for an operation, only a partial output is to be reported (see cover note) |
| Methodology for the  aggregated values | Following aggregates should be provided:  - The total number of new farmers granted setting-up support by intervention (if relevant, i.e. when within one intervention several unit amounts are defined)  - The number of new farmers (other than young farmers under O.25) granted setting-up support (without double counting)  Remark: Beneficiaries of a combination of installation grant and financial instruments should be counted only once in the total |
| Unit of measurement | Number of beneficiaries (other than young farmers under O.25) |
| Comments/caveats |  |

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| Indicator O.27 | **O.27**  Number of rural businesses receiving support for start-up |
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| Definition | The total number of rural businesses receiving start-up support (grants, financial instruments11 or a combination of both) in the Financial Year concerned. |
| Types of intervention  concerned | The following type of interventions is concerned: • Setting up of young farmers and new farmers and rural business start-up (Article 75): the start-up of rural businesses linked to agriculture or forestry including the setting up of new farmers, or farm household income diversification into non-agricultural activities (Article 75(2)(b)) |
| Methodology | The number of rural businesses supported in the Financial Year concerned, shall be reported per unit amount. If one or more instalments are paid before the final payment for an operation, only a partial output is to be reported (see cover note). |
| Methodology for the  aggregated values | The following aggregates should be provided:  - The total number of businesses receiving support for start-up by intervention (if relevant, i.e. when within one intervention several unit amounts are defined).  - The number of businesses receiving support for start-up (without double counting)  Remark: Businesses receiving a combination of installation grant and financial instruments should be counted only once in the total |
| Unit of measurement | Number of beneficiaries |
| Comments/caveats |  |

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| Indicator O.28 | **O.28**  Number of supported producer groups and producer organizations |
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| Definition | The number of producer groups/organizations for which a payment under cooperation was made in the Financial Year concerned under Rural Development policy. |
| Types of intervention  concerned | The following type of interventions is concerned: • Cooperation (Article 77) Paid to producer groups/organizations, where they are the beneficiary of cooperation support (except other forms of cooperation such as cooperation of producer groups/ organizations reported under O.32) |
| Methodology | The number of producer groups/organizations supported under Article 77 and paid in the Financial Year concerned, shall be reported per intervention. In case within one intervention several unit amounts are defined, the number of producer groups/organizations paid per unit amount shall be reported. If one or more instalments are paid before the final payment for an operation, only a partial output is to be reported (see cover note) |
| Methodology for the  aggregated values | The following aggregates should be provided: - The total number of producer groups/organizations receiving support by intervention (if relevant, i.e. when within one intervention several unit amounts are defined) - The number of producer groups/organizations receiving support (without double counting) |
| Unit of measurement | Number of beneficiaries |
| Comments/caveats | The indicator covers (in accordance with Article 77(4)) - Beneficiaries of support as an overall amount (covering the cost of cooperation as well as the cost of the projects and operations implemented), as well as - Beneficiaries of support covering only the cost of the operation but using funds from other types of interventions for project implementation (e.g. investments). In this case, however, the project implementation is covered by the corresponding indicators (e.g. for investments), and not by this indicator. - Producer Organizations setting up an operational fund/program are captured by O.35 and should thus not be included in O.28. - Producer Organizations receiving support only through joint cooperation are not included here (but in O.32). |

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| Indicator O.29 | **O.29**  Number of beneficiaries receiving support to participate in official quality schemes |
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| Definition | The number of beneficiaries participating in quality schemes for which a payment was made in the Financial Year concerned. |
| Types of intervention  concerned | The following types of interventions are concerned: • Cooperation (Article 77) |
| Methodology | The number of beneficiaries paid to participate in quality schemes in the Financial Year concerned shall be reported per unit amount. If one or more instalments are paid before the final payment for an operation, only a partial output is to be reported (see cover note) |
| Methodology for the  aggregated values | Following aggregates should be provided:  - The total number of beneficiaries receiving support by intervention (if relevant, i.e. when within one intervention several unit amounts are defined)  - The total number of beneficiaries receiving support to participate in quality scheme) |
| Unit of measurement | Number of beneficiaries |
| Comments/caveats | The indicator covers (in accordance with Article 77(4))  - beneficiaries of support as an overall amount (covering the cost of cooperation as well as the cost of the projects and operations implemented), as well as  - beneficiaries of support covering only the cost of the operation but using funds from other types of interventions for project implementation (e.g. investments). In this case, however, the project implementation is covered by the corresponding indicators (e.g. for investments), and not by this indicator |

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| Indicator O.30 | **O.30**  Number of supported operations or units for generational renewal (excluding setting-up support) |
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| Definition | The number of operations or other units for generational renewal for which a payment under cooperation was made in the Financial Year concerned |
| Types of intervention  concerned | The following types of interventions are concerned: • Cooperation (Article 77) |
| Methodology | The number of operations or other units for generational renewal paid under Article 77 in the Financial Year concerned shall be reported per unit amount If one or more instalments are paid before the final payment for an operation, only a partial output is to be reported (see cover note) |
| Methodology for the  aggregated values | The following aggregates should be provided:  - The total number of operations or units with support for generational renewal by intervention (if relevant, i.e. when within one intervention several unit amounts are defined)  - The total number of operations with support for generational renewal (this aggregate covers all operations, included those paid in other units)  - A total number for each supported unit (other units potentially used to apply simplified cost approaches) for generational renewal. |
| Unit of measurement | Number of operations or other units |
| Comments/caveats | The indicator covers (in accordance with Article 77(4)) - beneficiaries of support as an overall amount (covering the cost of cooperation as well as the cost of the projects and operations implemented), as well as - beneficiaries of support covering only the cost of the operation but using funds from other types of interventions for project implementation (e.g. investments). In this case, however, the project implementation is covered by the corresponding indicators (e.g. for investments), and not by this indicator |

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| Indicator O.31 | **O.31**  Number of supported local development strategies (LEADER) or preparatory actions |
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| Definition | The number of local development strategies (prepared or implemented) or preparatory actions for which a payment under cooperation was made in the Financial Year concerned. |
| Types of intervention  concerned | The following types of interventions are concerned: • Cooperation (Article 77) |
| Methodology | The number of local development strategies or preparatory actions for which a payment was made in the Financial Year concerned shall be reported per unit amount. Cooperation support to implement local development strategies is paid progressively over the programming period. The output reported should correspond to the share of the amount paid in the Financial Year concerned in the committed amount to be paid for those local development strategies. E.g. for a payment of 25% of the committed amount, 0.25 of output is to be reported. In the case of financial instruments (FI), the output indicator shall report the number of final recipient projects receiving FI support under the Leader intervention |
| Methodology for the  aggregated values | The following aggregates should be provided: - The total number of local development strategies of preparatory actions paid by intervention (if relevant, i.e. when within one intervention several unit amounts are defined) - The total number of local development strategies for which support for preparatory action was paid - The total number of local development strategies whose implementation was supported - Data reported for FIs under O.31 should not be taken into account. |
| Unit of measurement | Number of local development strategies or preparatory actions |
| Comments/caveats | The indicator covers (in accordance with Article 77(4)) - beneficiaries of support as an overall amount (covering the cost of cooperation as well as the cost of the projects and operations implemented), as well as - beneficiaries of support covering only the cost of the operation but using funds from other types of interventions for project implementation (e.g. investments). In this case, however, the project implementation is covered by the corresponding indicators (e.g. for investments), and not by this indicator. |

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| Indicator O.32 | **O.32**  Number of supported other cooperation operations or units (excluding EIP reported under O.1) |
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| Definition | The number of other forms of cooperation operations or other units for which a payment under cooperation was made in the Financial Year concerned (excluding EIP operational groups reported under O.1 and all cooperation interventions reported under O.28 to O.31) |
| Types of intervention  concerned | The following types of interventions are concerned: • Cooperation (Article 77) |
| Methodology | The number of other form of cooperation operations or other units paid in the Financial Year concerned shall be reported per unit amount (excluding EIP operational groups reported under O.1 and all cooperation groups reported under O.28 to O.31). If one or more instalments are paid before the final payment for an operation, only a partial output is to be reported (see cover note) |
| Methodology for the  aggregated values | The following aggregates should be provided:  - The total number of other cooperation operation or units paid by intervention (if relevant, i.e. when within one intervention several unit amounts are defined)  - The total number of other cooperation group operations. (this aggregate covers all operations, included those paid in other units)  - A total number for each supported unit (other units potentially used to apply simplified cost approaches) for other cooperation. |
| Unit of measurement | Number of operations or other units |
| Comments/caveats | The indicator covers (in accordance with Article 77(4))  - beneficiaries of support as an overall amount (covering the cost of cooperation as well as the cost of the operations implemented), as well as  - beneficiaries of support covering only the cost of the operation but using funds from other types of interventions for implementation (e.g. investments). In this case, however, the implementation is covered by the corresponding indicators (e.g. for investments), and not by this indicator. |

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| Indicator O.33 | **O.33**  Number of supported training, advice and awareness actions or units |
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| Definition | The total number of information, knowledge exchange, training, advice, innovation promotion and awareness actions (including setting-up of advisory services) or other units (e.g. hours and farmers) carried out for farmers and non-farmers (excluding advice actions reported under O.2) in the Financial Year concerned. |
| Types of intervention  concerned | The following types of interventions are concerned:  • Knowledge exchange and dissemination of information (Article 78) |
| Methodology | The number of information, training, advice and awareness actions (including setting-up) or other units for which a payment was made in the Financial Year concerned shall be reported per unit amount In the case of financial instruments (FI), the output indicator shall report the number of final recipients receiving FI support under the Knowledge exchange and information type of intervention. If one or more instalments are paid before the final payment for an action, only a partial output is to be reported (see cover note) |
| Methodology for the  aggregated values | The following aggregates should be provided: - The total number of information, knowledge exchange, training, advice, innovation promotion and awareness actions or units paid by intervention (if relevant, i.e. when within one intervention several average unit amounts are defined) - Total number of information, knowledge exchange, training, advice, innovation promotion and awareness actions carried out (this aggregate covers all actions, included those paid in other units) - A total number for each supported unit (other than action) for information, knowledge exchange, training, advice, innovation promotion and awareness. |
| Unit of measurement | Number of operations, beneficiaries or other units (e.g. hours) |
| Comments/caveats | Plans, studies and awareness actions with the aim of knowledge exchange and spreading of information are accounted under O.33. |

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| Indicator O.34 | **O.34MO**  Number of hectares under environmental practices (summary indicator on physical area covered by conditionality, eco-schemes, agri- and forest-environment climate management commitments) |
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| Definition | The number of hectares under conditionality and other interventions promoting practices beneficial for environment and climate with CAP support.  \*Definition should be established at national level, in Serbia |
| Types of intervention  concerned | All agricultural and forestry area under practices beneficial for environment and climate due to:  • Conditionality (Annex III) • Schemes for the climate, the environment and animal welfare (Article 31)  • Agri-and forest- environmental, climate-related and other management commitments (Article 70)  • Sectoral types of intervention:  - For F&V, hops, olive oil and table olives and ‘other sectors’ as defined in Article 42; Article 47(1)(a) (i) to (iii), (viii), (x) and (xii), and (d) and (i)  - For wine sector: Article 58(1)(a) |
| Methodology | Total number of hectares subject to conditionality and for which interventions listed above was paid in the Financial year concerned. Hectares are accounted only once for this indicator (i.e. physical area, without double counting). Three sub-indicators shall be calculated according to definition of the indicator and the methodology:  • Total agricultural area under environmental practices (the area under conditionality or under voluntary commitments for the interventions listed above)  • Total agricultural area under voluntary commitments for the interventions listed above (i.e. excluding the area only under GAEC)  • Total forestry area paid for the interventions listed above |
| Methodology for the  aggregated values |  |
| Unit of measurement | Number of hectares |
| Comments/caveats | To ease the geospatial location and thus a calculation without double counting, the area taken into account is the total area under commitment, i.e. if a Member State applies a maximum share of hectares paid, the whole area under commitment is accounted. All eligible area subject to conditionality shall be reported under this indicator. In case the Member State will apply a fixed reduction coefficient on permanent grassland, only eligible areas (e.g. after the application of pro rata) should be reported. There is a risk of double counting between sectoral types of interventions and other interventions, as sectoral types of interventions are not in IACS (except for wine). However, the risk of double counting is estimated to be low, because often the 2 types of support are granted on different farms. Therefore, the hectares concerned under sectoral types of interventions should simply be added to the hectares under other area-based payments. The same may be true of management commitments undertaken by beneficiaries who are not farmers. This indicator is not used for performance clearance. |

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| Indicator O.35 | **O.35**  Number of supported operational programmes |
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| Definition | Total number of operational programmes per sector for which payments relating to interventions under the same operational programme were made in the Financial Year concerned. |
| Types of intervention  concerned | The following sectoral types of interventions are concerned:  • For F&V, hops, olive oil and table olives sector and ‘other sectors’ as defined in Article 42: Article 47 |
| Methodology | The number of operational programmes for which a payment was made in the Financial Year concerned shall be reported per average unit amount. If one or more instalments are paid before the final payment for an operational programme, only a partial output is to be reported (see cover note). |
| Methodology for the  aggregated values | Following aggregates should be provided: - The total number of supported operational programmes paid by intervention (if relevant, i.e. when within one intervention several average unit amounts are defined) Total number of operational programmes per sector |
| Unit of measurement | Number of operational programmes |
| Comments/caveats | This indicator measures the total number of operational programmes per sector implemented by producer organizations, associations of producer organizations or transnational producer organizations or associations of producer organizations during the year in the concerned MS. |

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| **Indicator name** | **O.35**  Number of supported operational programmes |
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| Definition | Total number of operational programmes per sector for which payments relating to interventions under the same operational programme were made in the Financial Year concerned. |
| Types of intervention  concerned | The following sectoral types of interventions are concerned:  • For F&V, hops, olive oil and table olives sector and ‘other sectors’ as defined in Article 42: Article 47 |
| Methodology | The number of operational programmes for which a payment was made in the Financial Year concerned shall be reported per average unit amount. If one or more instalments are paid before the final payment for an operational programme, only a partial output is to be reported (see cover note). |
| Methodology for the  aggregated values | Following aggregates should be provided: - The total number of supported operational programmes paid by intervention (if relevant, i.e. when within one intervention several average unit amounts are defined) Total number of operational programmes per sector  \*DAP should established method |
| Unit of measurement | Number of operational programmes |
| Comments/caveats | This indicator measures the total number of operational programmes per sector implemented by producer organizations, associations of producer organizations or transnational producer organizations or associations of producer organizations during the year in the concerned MS. |

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| Indicator O.36 | **O.36**  Number of actions or units supported in the wine sector |
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| Definition | The total number of actions or other units in the wine sector paid in the Financial Year concerned.  \*DAP , MAFWM as a data sources |
| Types of intervention  concerned | The following types of sectoral types of interventions are concerned (Article 58(1)(a) – (m)): a) restructuring and conversion of vineyards, consisting of one or more of the following:  (i)- varietal conversions, also by means of grafting-on, including to improve the quality or environmental sustainability, for reasons of adaptation to climate change or for the enhancement of genetic diversity,  (ii)- relocation of vineyards,  (iii)- replanting of vineyards where that is necessary following mandatory grubbing up for health or phytosanitary reasons on the instruction of the Member State competent authority,  (iv)- improvements to vineyard management techniques, in particular the introduction of advanced systems of sustainable production including the reduction of the use of pesticides, but excluding the normal renewal of vineyards consisting of replanting with the same grape variety according to the same system of vine cultivation, when vines have to come to the end of their natural life;  b) investments in tangible and intangible assets in wine-growing farming systems, excluding operations relevant to the type of intervention provided for in point (a), processing facilities and winery infrastructure, as well as marketing structures and tools;  c) green harvesting meaning the total destruction or removal of grape bunches while still in their immature stage, thereby reducing the yield of the relevant area to zero and excluding non-harvesting comprising of leaving commercial grapes on the plants at the end of the normal production cycle;  d) harvest insurance against income losses as a consequence of adverse climatic events assimilated to natural disasters, adverse climatic events, animals, plant diseases or pest infestations;  e) tangible and intangible investments in innovation consisting of development of innovative products, including products from and by-products of wine making, wine products’ processes and technologies and its digitalization, as well as other investments  adding value at any stage of the supply chain, including for knowledge exchange and contribution to adaptation to the climate change;  f) advisory services, in particular concerning the conditions of employment and MAFWM obligations as well as occupational health and safety;  g) distillation of by-products of wine making carried out in accordance with the restrictions laid down in Part II Section D, of Annex VIII to Regulation (EU) No 1308/2013;  h) information actions concerning Union wines carried out in Member States encouraging responsible consumption of wine or promoting Union quality schemes covering designations of origin and geographical indications;  i) actions undertaken by interbranch organizations recognized by Member States in the wine sector in accordance with Regulation (EU) No 1308/2013 aiming at enhancing the reputation of Union vineyards by promoting wine tourism in production regions;  j) actions undertaken by interbranch organizations recognized by Member States in the wine sector in accordance with Regulation (EU) No 1308/2013 aiming at improving market knowledge;  k) promotion carried out in third countries, consisting of one or more of the following actions and activities aimed at improving the competitiveness of the wine sector, and the opening, diversification or consolidation of the markets:  i. public relations, promotion or advertisement actions, in particular highlighting the high standards of the Union products, especially in terms of quality, food safety or the environment;  ii. participation at events, fairs or exhibitions of international importance;  iii. information campaigns, in particular on the Union quality schemes concerning designations of origin, geographical indications and organic production;  iv. studies of new markets, necessary for the expansion of market outlets;  v. studies to evaluate the results of the information and promotion measures;  vi. preparation of technical files, including laboratory tests and assessments, concerning oenological practices, phytosanitary and hygiene rules, as well as other third country requirements for import of products of the wine sector, to facilitate access to third country markets;  l) temporary and degressive assistance to cover administrative costs of setting up of mutual funds;  m) Investments in tangible and intangible assets aiming to enhance the sustainability of wine production by:  i.improving the use and management of water;  ii.converting to organic production;  iii.introducing integrated production techniques;  iv.purchasing equipment for precision or digitized production methods;  v.contributing to soil conservation and enhancement of soil carbon; vi.creating or preserving habitats favorable for biodiversity or maintaining landscape, including the conservation of historical features; or  vii. reducing waste production and improving waste management. |
| Methodology | The number of actions or other units in the Financial Year concerned shall be reported per intervention. In case within one intervention several unit amounts are defined, the number of operations per unit amount shall be reported. |
| Methodology for the  aggregated values | The following aggregate should be provided:  - The total number of units paid by intervention (if relevant, i.e. when within one intervention several unit amounts are defined)  - The total number of wine sector beneficiaries of CAP support, without double counting  - Total number of actions in the wine sector carried out (this aggregate covers all actions, included those paid in other units)  - The total number of hectares supported for restructuring and conversion of vineyards  - The total number of hectares supported for green harvesting  - The total number of tonnes distilled  - The total number of hectoliters distilled |
| Unit of measurement | Number of hectares for interventions under letters a, c above. Number of tonnes or hectoliters for interventions under letters g above. Number of actions for interventions under letters b, d, e, f, h, I, j, k, l, m above. Number of beneficiaries for the aggregate. |
| Comments/caveats |  |

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| Indicator O.37 | **O.37**  Number of actions or units for beekeeping preservation or improvement |
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| Definition | The total number of actions or other units for beekeeping preservation/improvement paid in the Financial Year concerned |
| Types of intervention  concerned | The following types of sectoral types of interventions are concerned:  • For apiculture sector and the Union financial assistance ((Article 55(1) (a-g)):  (a) advisory services, technical assistance, training, information and exchange of best practices, including through networking, for beekeepers and beekeepers' organizations;  (b) investments in tangible and non-tangible assets, as well as other actions, including for:  (i) combatting beehive invaders and diseases, in particular varroasis; (ii)preventing damage caused by adverse climatic events and promoting the development and use of management practices adapted to changing climate conditions;  (iii) restocking of beehives in the Union including bee breeding;  (iv) rationalizing transhumance;  (c) actions to support laboratories for the analysis of apiculture products, bee losses or productivity drops, and substances potentially toxic to bees;  (d) actions to preserve or increase the existing number of beehives in the Union, including bee breeding;  (e) cooperation with specialized bodies for the implementation of research programs in the field of beekeeping and apiculture products; (f) promotion, communication and marketing including market monitoring actions and activities aimed in particular at raising consumer awareness about the quality of apiculture products;  (g) actions to enhance product quality |
| Methodology | The number of actions or other units in the Financial Year concerned shall be reported per intervention. In case within one intervention several unit amounts are defined, the number of actions per unit amount shall be reported. |
| Methodology for the  aggregated values | The following aggregate should be provided:  - The total number of units paid by intervention (if relevant, i.e. when within one intervention several unit amounts are defined)  - The total number of beekeepers beneficiaries of CAP support, without double counting (this aggregate covers all interventions, included those paid in other units)  - The total number of beehives supported under letters above  - The total number of beehives supported (this aggregate covers all interventions, included in the numerator of R.35)  - The total number of beehives in Member State territory (Article 56) - Total number of actions for the beekeeping reservation/improvement carried out (this aggregate covers all interventions, included those paid in other units) |
| Unit of measurement | Number of beekeepers for interventions under letters a, b above. Number of beehives for interventions under letters b above. Number of actions for interventions under letters c, d, e, f, g above. |
| Comments/caveats |  |

# Result indicators

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| **Code** | **Result indicators**  **(only based on interventions supported by the CAP)** | |
| [R.1](#_bookmark1)PR | Enhancing performance through knowledge and innovation | Number of persons benefitting from advice, training, knowledge exchange or participating in European Innovation Partnership (EIP) operational groups supported by the CAP in order to enhance sustainable economic, social, environmental, climate and resource efficiency performance |
| R.2 | Linking advice and knowledge systems | Number of advisors receiving support to be integrated within the Agricultural Knowledge and Innovation Systems (AKIS) |
| [R.3](#_bookmark3) | Digitalizing agriculture | Share of farms benefitting from support for digital farming technology through CAP |
| [R.4](#_bookmark4) | Linking income support to standards and good practices | Share of utilized agricultural area (UAA) covered by income support and subject to conditionality |
| [R.5](#_bookmark5) | Risk Management | Share of farms with supported CAP risk management tools |
| [R.6](#_bookmark6)PR | Redistribution to smaller farms | Percentage of additional direct payments per hectare for eligible farms below average farm size (compared to average) |
| [R.7](#_bookmark7)PR | Enhancing support for farms in areas with specific needs | Percentage additional support per hectare in areas with higher needs (compared to average) |
| [R.8](#_bookmark8) | Targeting farms in specific sectors | Share of farms benefitting from coupled income support for improving competitiveness, sustainability or quality |
| [R.9](#_bookmark9)PR | Farm modernization | Share of farms receiving investment support to restructure and modernize, including to improve resource efficiency |
| [R.10](#_bookmark10)PR | Better supply chain organization | Share of farms participating in producer groups, producer organizations, local markets, short supply chain circuits and quality schemes supported by the CAP |
| [R.11](#_bookmark11) | Concentration of supply | Share of value of marketed production by producer organizations or producers groups with operational programmes in certain sectors |
| [R.12](#_bookmark12) | Adaptation to climate change | Share of utilized agricultural area (UAA) under supported commitments to improve climate adaptation |
| R.13PR | Reducing emissions in the livestock sector | Share of livestock units (LU) under supported commitments to reduce emission of greenhouse gases and/or ammonia, including manure management |
| [R.14](#_bookmark13)PR | Carbon storage in soils and biomass | Share of utilized agricultural area (UAA) under supported commitments to reduce emissions or to maintain or enhance carbon storage (including permanent grassland, permanent crops with permanent green cover, agricultural land in wetland and peatland) |
| R.15 | Renewable energy from agriculture, forestry and from other renewable sources | Supported investments in renewable energy production capacity, including bio-based (in MW) |
| R.16 | Investments related to climate | Share of farms benefitting from CAP investment support contributing to climate change mitigation and adaptation, and to the production of renewable energy or biomaterials |
| R.17PR | Afforested land | Area supported for afforestation, agroforestry and restoration, including breakdowns |
| R.18 | Investment support to the forest sector | Total investment to improve the performance of the forestry sector |
| R.19PR | Improving and protecting soils | Share of utilized agricultural area (UAA) under supported commitments beneficial for soil management to improve soil quality and biota (such as reducing tillage, soil cover with crops, crop rotation included with leguminous crops) |
| R.20PR | Improving air quality | Share of utilized agricultural area (UAA) under supported commitments to reduce ammonia emission |
| R.21PR | Protecting water quality | Share of utilized agricultural area (UAA) under supported commitments for the quality of water bodies |
| R.22PR | Sustainable nutrient management | Share of utilized agricultural area (UAA) under supported commitments related to improved nutrient management |
| R.23PR | Sustainable water use | Share of utilized agricultural area (UAA) under supported commitments to improve water balance |
| R.24PR | Sustainable and reduced use of pesticides | Share of utilized agricultural area (UAA) under supported specific commitments which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides such as pesticides leakage |
| R.25 | Environmental performance in the livestock sector | Share of livestock units (LU) under supported commitments to improve environmental sustainability |
| R.26 | Investments related to natural resources | Share of farms benefitting from CAP productive and non-productive investment support related to care for the natural resources |
| R.27 | Environmental or climate- related performance through investment in rural areas | Number of operations contributing to environmental sustainability and the achievement of climate mitigation and adaptation goals in rural areas |
| R.28 | Environmental or climate- related performance through knowledge and innovation | Number of persons benefitting from advice, training, knowledge exchange, or participating in European Innovation Partnership (EIP) operational groups supported by the CAP related to environmental or climate-related performance |
| R.29PR | Development of organic agriculture | Share of utilized agricultural area (UAA) supported by the CAP for organic farming, with a split between maintenance and conversion |
| R.30PR | Supporting sustainable forest management | Share of forest land under commitments to support forest protection and management of ecosystem services |
| R.31PR | Preserving habitats and species | Share of utilized agricultural area (UAA) under supported commitments supporting biodiversity conservation or restoration including high- nature-value farming practices |
| R.32 | Investments related to biodiversity | Share of farms benefitting from CAP investment support contributing to biodiversity |
| R.33 | Improving Natura 2000 management | Share of total Natura 2000 area under supported commitments |
| R.34PR | Preserving landscape features | Share of utilized agriculture area (UAA) under supported commitments for managing landscape features, including hedgerows and trees |
| R.35 | Preserving beehives | Share of beehives supported by the CAP |
| R.36PR | Generational renewal | Number of young farmers benefitting from setting up with support from the CAP, including a gender breakdown |
| R.37 | Growth and jobs in rural areas | New jobs supported in CAP projects |
| R.38 | LEADER coverage | Share of rural population covered by local development strategies |
| R.39 | Developing the rural economy | Number of rural businesses, including bio- economy businesses, developed with CAP support |
| R.40 | Smart transition of the rural economy | Number of supported smart-village strategies |
| R.41PR | Connecting rural Europe | Share of rural population benefitting from improved access to services and infrastructure through CAP support |
| R.42 | Promoting social inclusion | Number of persons covered by supported social inclusion projects |
| R.43PR | Limiting antimicrobial use | Share of livestock units (LU) concerned by supported actions to limit the use of antimicrobials (prevention/reduction) |
| R.44PR | Improving animal welfare | Share of livestock units (LU) covered by supported actions to improve animal welfare |

\*Note: indicators described below will be used as template, basis for further detailed determination of national indicators

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| Indicator R.1 PR | **R.1PR Enhancing performance through knowledge and innovation:** Number of persons benefitting from advice, training, knowledge exchange or participating in European Innovation Partnership (EIP) operational groups supported by the CAP in order to enhance sustainable economic, social, environmental, climate and resource efficiency performance. |
| Definition and aim | To quantify the coverage of interventions supporting the provision of knowledge, innovation-generation and exchange for agriculture and rural areas to enhance sustainable economic, social, environmental, climate and resource efficiency performance, including animal welfare and health, thus contributing to all specific objectives defined in Article 6 and in particular to the cross-cutting objective on knowledge and innovation in Article 5. We are accounting here the number of people who “benefit” from the funded measure, regardless of who receive the payments. |
| Types of intervention concerned | Following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:  For Rural Development:   * Article 78 of Regulation (EU) 2115/2021: Knowledge exchange and dissemination of information * Article 77(1)(a) of Regulation (EU) 2115/2021: prepare and implement the projects of the EIP operational groups referred to in Article 127(3)   For Sectoral types of interventions:   * Advice and training: Article 47(1)(b) and (c)in the F&V, hops, olive oil and table olives sectors and the other sectors referred to in Article 42(f) * Research, experimental and innovative production methods: Article 47(1)(a) in the F&V, hops, olive oil and table olives sectors and the other sectors referred to in Article 42(f) * For wine sector, Article 58(1) and (e) "tangible and intangible investments in innovation for knowledge exchange" |
| Unit of measurement | Number of persons |
| Moment of data collection | Operations for which a first payment to the beneficiary was made in the Financial Year concerned. |
|  | This indicator is cumulative over the period. |
| Methodology | Number of persons benefitting from relevant paid support:   * The number of persons is cumulated over time. * The benefitting person is accounted at the first payment (although it is a partial payment) of the training/advice/knowledge exchange action or project. * The benefitting person is not necessarily the person receiving the payment (e.g. support for advice is paid to the advisor, while here the number of persons benefitting from the advice is taken into account) * All persons participating in EIP operational groups (Article 77(1)(a) in relation to EIP Operational Group projects in accordance with Article 127) and in Knowledge exchange and dissemination of information (all interventions under Article 78) for which a payment was made in the Financial Year concerned are included. * Only the PO members benefitting from advice and other knowledge and innovation actions for which the POs received a payment are included. |
| Comments/caveats | Cooperation other than EIP with a main budget dedicated to training and advice could be accounted here.  Whatever the length of the training/advice action (hours or days), the beneficiary is accounted the same way (in full).  There might be double counting of beneficiaries, as a person could benefit of training through various channels and several times during the programming period. However, avoiding double counting in the planning and reporting would be too burdensome in view of the benefit it would bring.  Regarding the implementation of research programs in apiculture, all participants to the research activity (including scientists) are not accounted here. |

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| Indicator R.2 | **R.2 Linking advice and knowledge systems:** Number of advisors receiving support to be integrated within the Agricultural Knowledge and Innovation Systems (AKIS) |
| Definition and aim | To quantify the support provided to advisors from relevant CAP interventions effectively contributing to integration within in the Agricultural Knowledge and Innovation Systems (AKIS).  The term “advisor” identifies a person (NB: not the entity, institutes or organizations), which is engaged in any of the advisor linked interventions supporting knowledge flows within the AKIS. |
| Types of intervention concerned | The following types of interventions may be concerned if advisors are participating:   * **Cooperation (including EIP Operational Groups)** (Article 77, in particular for Article 127): e.g. when advisors participate in or help to set up innovative projects of EIP Operational Groups * **Knowledge exchange and dissemination of information** (Article 78): covering many possible actions on integration of advisors within the AKIS, for instance: setting up of specific advisory services for innovation support; (obligatory) training of advisors; exchange visits for advisors; advisors participating in cross-fertilization meetings with farmers, researchers and CAP networks, etc. (see AKIS part in the Cross- cutting objective tool) |
| Unit of measurement | Number of advisors |
| Moment of data collection | When a related payment was made in the Financial Year concerned.  **This indicator is cumulative over the period** |
| Methodology | Number of advisors supported by interventions related to advisors’ integration into the AKIS:   * Participants in relevant actions of specific interventions set up in the CAP strategic plan designed in order to increase advisors’ capacity and qualification and their integration within the AKIS: to improve knowledge flows, linkages with research, networks and innovation support services, etc.) (Article 114) * No fixed lists of advisors needed in advance, **all** impartial advisors count, whether public or private. The list of advisors is built along the years through their participation in relevant actions. * Multiple activities for an individual advisor each   counted separately. An advisor participating in e.g. 2 trainings over the projection period is counted twice (illustrating a more intense integration in the AKIS). |
| Comments/caveats | Where the focus of activities (training, exchange visits etc.) is on reinforcing advisory capacity and their better integration within AKIS, all participants are counted, since all are expected to use the knowledge gained to support others – it is not necessary for providers to identify participants who are formally advisors. |

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| Indicator R.3 | **R.3 Digitalizing agriculture:** Share of farms benefitting from support for digital farming technology through CAP |
| Definition and aim | To quantify the coverage of interventions promoting digital farming technologies and their use with CAP support through advice, European Innovation Partnership (EIP) Operational Group projects and physical investment support. |
| Types of intervention concerned | The following types of interventions may be concerned, subject to the purpose of the intervention designed by Member States and **only if pertaining to digital farming technology:**   * For Rural development:   + Knowledge exchange and dissemination of information (Article 78): e.g. advice, training and information to build farmers' and advisors' digital skills;   + Cooperation projects (Article 77): EIP Operational Groups' innovative projects or advisory networks on digital topics;   + Physical investments in digital farming technology, including for knowledge exchange (Article 73). * For sectoral types of interventions, investments:   + For wine sector: Article 58(1)(a),(b) and (e) |
| Unit of measurement | % |
| Moment of data collection | For annual and multi-annual operations, beneficiaries are counted starting from the Financial Year when the first payment is made.  **This indicator is cumulative over the period.** |
| Methodology | Number of beneficiaries from relevant paid support  Total numbers of farms  Numerator:   * The number of beneficiaries is cumulated over time. * The beneficiary counts as 1 as from the first payment for the whole programming period.   Denominator:  Total number of farms - EUROSTAT (Farm structure survey): [ef\_m\_farmleg](http://appsso.eurostat.ec.europa.eu/nui/show.do?query=BOOKMARK_DS-763825_QID_-21EA864F_UID_-3F171EB0&layout=AGRAREA%2CL%2CX%2C0%3BGEO%2CL%2CY%2C0%3BFARMTYPE%2CL%2CZ%2C0%3BLEG_FORM%2CL%2CZ%2C1%3BSO_EUR%2CL%2CZ%2C2%3BTIME%2CC%2CZ%2C3%3BINDIC_AGR%2CL%2CZ%2C4%3BINDICATORS%2CC%2CZ%2C5%3B&zSelection=DS-763825SO_EUR%2CTOTAL%3BDS-763825INDICATORS%2COBS_FLAG%3BDS-763825FARMTYPE%2CTOTAL%3BDS-763825TIME%2C2016%3BDS-763825LEG_FORM%2CTOTAL%3BDS-763825INDIC_AGR%2CFARM_NR%3B&rankName1=TIME_1_1_-1_2&rankName2=SO-EUR_1_2_-1_2&rankName3=FARMTYPE_1_2_-1_2&rankName4=INDICATORS_1_2_-1_2&rankName5=LEG-FORM_1_2_-1_2&rankName6=INDIC-AGR_1_2_1_0&rankName7=AGRAREA_1_2_0_0&rankName8=GEO_1_2_0_1&rStp&cStp&rDCh&cDCh&rDM=true&cDM=true&footnes=false&empty=false&wai=false&time_mode=NONE&time_most_recent=false&lang=EN&cfo=%23%23%23%2C%23%23%23.%23%23%23). See context indicator C.12 (Agricultural holdings). |
| Comments/caveats | Beneficiaries (of training for example) who are not farmers can be included in the numerator. There might be double counting of beneficiaries, as a person could benefit from training and investment support. However, avoiding double counting in the planning and reporting would be too burdensome in view of the benefit it would bring. |

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| Indicator R.4 | **R.4 Linking income support to standards and good practices:** Share of utilized agricultural area (UAA) covered by income support and subject to conditionality |
| Definition and aim | The indicator, expressed as a percentage of the total UAA, reflects the share of the area covered by income support, while respecting and enhancing the environment, the climate, human, plant and animal health as well as animal welfare.  It measures the total number of **physical hectares** that are in principle used for an agricultural activity by beneficiaries of income support in the Financial Year concerned, and that are subject to conditionality (Article 12(1)). |
| Types of intervention concerned | The following types of interventions are considered as income support and are subject to conditionality (based on Article 12(1)):   * Basic income support for sustainability (BISS) including round sum payment for small farmers (Chapter II, Section 2, Subsection 2) * Complementary redistributive income support for sustainability (CRISS) (Article 29) * Complementary income support for young farmers (CIS-YF) (Article 30) * Schemes for the climate, the environment and animal welfare (Article 31) * Coupled income support interventions (Chapter III, Section 3, Subsection 1) * Crop-specific payment for cotton (Chapter II, Section 3, Subsection 2) * Payment for natural or other area-specific constraints (Article 71) * Payment for area-specific disadvantages resulting from certain mandatory requirements (Article 72): for agricultural areas |
| Unit of measurement | % |
| Moment of data collection | Hectares paid in Financial Year concerned  **This indicator is annual**. |
| Methodology | Number of hectares paid  Total Utilized Agricultural Area Numerator:  Total hectares determined for BISS/Payments for small  farmers (before applying the entitlements where relevant) +  hectares paid outside that BISS eligible area.  Payments to forest areas with disadvantage are not accounted here.  Denominator:  Utilized Agricultural Area in hectares in EUROSTAT annual survey on crop production: [apro\_cpsh](http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do)1 – Main area. See context indicator C.17 (Agricultural area).  Area of outermost regions is not accounted in the denominator of this indicator (as these areas are not covered by income support and subject to conditionality). |
| Comments/caveats | For Member States with entitlements, it is too burdensome to avoid the double counting, as the geospatial location of the hectares paid is not possible. Thus, the simplification proposed. Moreover, the schemes support the income of the whole farm. Nonetheless, the hectares paid outside that BISS eligible area are to be taken into account by all Member States, as this area may not be marginal (e.g. CIS in farms that are not eligible to BISS).  Coupled income support to livestock is accounted into the numerator.  Farmers need to respect conditionality to receive support for Environmental, climate and other management commitments (Article 70). However, this type of intervention is not accounted in this result indicator concentrating on income support.  Statistical surveys conducted by the Member States sometimes exclude some small beneficiaries that are below the survey hectare threshold – e.g. DE and DK. This could result in a share of UAA that is higher than 100%. |

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| Indicator R.5 | **R.5 Risk Management**: Share of farms with supported CAP risk management tools |
| Definition and aim | To quantify the coverage of risk management tools. |
| Types of intervention concerned | The following types of interventions are concerned:   * Risk management tools under Rural Development (Article 76): premiums for insurance schemes and mutual funds, including income stabilization tools, and other innovative risk management tools. * Sectoral types of intervention: interventions related to crisis prevention and risk management   The respective interventions may be different in nature, as  e.g. premiums for insurance are paid annually, while for mutual funds the support relates to the set-up.  For sectoral types of intervention, they may include e.g.:   * F&V, hops, olive oil and table olive sectors and ‘other sectors’ as defined in Article 42(f): Article 47(2), i.e. setting-up , filling and replenishing of mutual funds mutual funds, investments to prevent crises, collective storage, replanting of orchards due to phytosanitary reasons, withdrawals, green and non-harvesting, harvest insurance. * Wine sector: green harvesting (Article 58(1)(c)), harvest insurance (Article 58(1)(d)), mutual funds (Article 58(1)(i)). |
| Unit of measurement | % |
| Moment of data collection | For annual interventions: interventions for which a payment was made in the Financial Year concerned.  For mutual funds: see below.  **This indicator is annual**. |
| Methodology | Number of farms benefitting from relevant support Total number of farms  Numerator:   * Annual number of beneficiaries for annual interventions. * For a mutual fund, all the participants in the fund are to be included. * For mutual funds set up with Rural Development support, the number of beneficiaries corresponds to the number of participants in the fund for the |
|  | relevant Financial Year. In the year/years of set-up, this will be an estimate, in subsequent years the actual number.  - For risk management actions implemented by POs, only the number of ultimate beneficiaries are to be accounted where it can be determined; in case of collective actions all PO members (farms) should be counted.  Denominator:  Total number of farms - EUROSTAT (Farm structure survey): [ef\_m\_farmleg](http://appsso.eurostat.ec.europa.eu/nui/show.do?query=BOOKMARK_DS-763825_QID_-21EA864F_UID_-3F171EB0&layout=AGRAREA%2CL%2CX%2C0%3BGEO%2CL%2CY%2C0%3BFARMTYPE%2CL%2CZ%2C0%3BLEG_FORM%2CL%2CZ%2C1%3BSO_EUR%2CL%2CZ%2C2%3BTIME%2CC%2CZ%2C3%3BINDIC_AGR%2CL%2CZ%2C4%3BINDICATORS%2CC%2CZ%2C5%3B&zSelection=DS-763825SO_EUR%2CTOTAL%3BDS-763825INDICATORS%2COBS_FLAG%3BDS-763825FARMTYPE%2CTOTAL%3BDS-763825TIME%2C2016%3BDS-763825LEG_FORM%2CTOTAL%3BDS-763825INDIC_AGR%2CFARM_NR%3B&rankName1=TIME_1_1_-1_2&rankName2=SO-EUR_1_2_-1_2&rankName3=FARMTYPE_1_2_-1_2&rankName4=INDICATORS_1_2_-1_2&rankName5=LEG-FORM_1_2_-1_2&rankName6=INDIC-AGR_1_2_1_0&rankName7=AGRAREA_1_2_0_0&rankName8=GEO_1_2_0_1&rStp&cStp&rDCh&cDCh&rDM=true&cDM=true&footnes=false&empty=false&wai=false&time_mode=NONE&time_most_recent=false&lang=EN&cfo=%23%23%23%2C%23%23%23.%23%23%23). See context indicator C.12 (Agricultural holdings). |
| Comments/caveats | Crisis prevention actions under Rural Development are not accounted here. Crisis prevention actions under sectoral programmes cannot be easily disentangled from risk management actions; this is why both are reported under this indicator. |

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| Indicator R. 6PR | **R.6PR Redistribution to smaller farms:** Percentage of additional direct payments per hectare for eligible farms below average farm size (compared to average) |
| Definition and aim | This indicator indicates the average additional direct payments (DP) per hectare granted to beneficiaries below average farm size, compared to the average DP per hectare granted to the entire population of beneficiaries.  The income support to be considered here is the total of DP, in order to reflect the extent of the redistribution of DP towards smaller farms expected from the reform.  If the indicator is above 100%, it implies that beneficiaries below average farm size receive - on average - an amount per hectare exceeding the average. |
| Types of  interventions concerned | **ALL** direct payment interventions, except Cotton   * Basic income support for sustainability (BISS) including round sum payment for small farmers (Chapter II, Section 2, Subsection 2) * Complementary redistributive income support for sustainability (CRISS) (Article 29) * Complementary income support for young farmers (CIS-YF) (Article 30) * Schemes for the climate, the environment and animal welfare (Article 31) * Coupled income support interventions (Chapter III, Section 3, Subsection 1) |
| Unit of Measurement | % |
| Moment of data collection | Expenditure and hectares paid in the Financial Year concerned.  **This indicator is annual**. |
| Methodology | Average DP/ha paid to beneficiaries below average farm size  \* 100  Average DP/ha paid to all beneficiaries  For this indicator **two average amounts of direct payments per hectare** need to be calculated and compared:   1. The average direct payments per hectare for the sub- population of ***beneficiaries below the average farm size*** during the relevant financial year. 2. The average direct payments per hectare for ***the whole population of beneficiaries during the relevant financial year;***   Step 1: Identify the population of “beneficiaries below average farm size”.  1) Determine the average farm size in hectares of CAP beneficiaries that year  Using a proxy, i.e. the number of determined hectares for direct payments, as defined in accordance with Article 4(4) held by beneficiaries of BISS (including payments for small farmers) (before taking into account the entitlements), divided by the total number of beneficiaries.  2) Determine the population of beneficiaries of DP that year with an area paid below the average farm size Beneficiaries with 0 ha determined for BISS (before application of entitlements) are not taken into account in the population of beneficiaries below the average farm size.  Step 2: Calculate the average amount of DP per hectare for the whole population of beneficiaries and for those below average farm size:  1) Numerator: the total amount of DP paid to beneficiaries during the financial year concerned, after reduction but before penalties  i.e. any amount of DP paid during the financial year concerned, whether paid within the regulatory payment deadline or not.  2) Denominator: the total number of determined hectares for direct payments as defined in accordance with Article 4(4), held by beneficiaries of BISS (including payments for small farmers) (before taking into account the entitlements). It is a good proxy for the net number of hectares granted support, without double counting.  3) Average amount = Numerator / Denominator  Step 3: Calculate the indicator  The indicator is calculated by dividing the average DP per hectare for beneficiaries below average farm size by the average DP per hectare for the entire population of beneficiaries, and then multiplying by 100 to obtain a percentage. |
| Comments/caveats | Where the indicator is greater than 100%, there is a redistribution of the aid from bigger to smaller beneficiaries and the value will show the average additional percentage paid per hectare to smaller farms.  - Coupled income support to livestock payments are accounted into the numerator.  - Cotton is excluded from this indicator, as the Member States have no margin of maneuver on this intervention: the amounts to be paid are laid down in the legislation.  - Support to Areas with Natural Constraints (ANC) is not included here because although supporting income, the indicator aims at measuring the redistribution of direct payments. ANC support is included in R.7. |
| Indicator R.7PR | **R.7PR Enhancing support for farms in areas with specific needs:** Percentage of additional support per hectare in areas with higher needs (compared to average) |
| Definition and aim | This indicator indicates the average additional income support per hectare granted to beneficiaries holding eligible hectares in areas with specific needs, compared to the average income support per hectare for the entire population of beneficiaries.  The areas with specific needs are to be defined by Member States in their CAP strategic plan based on the needs assessment. The areas are to be defined based on Article 71 (areas with natural or other area-specific constraints), Article 72 (areas with specific disadvantages resulting from certain mandatory requirements) and Article 22(2) (differentiation of the Basic income support due to difference in income needs). For instance, if support to Natura 2000 is not planned, Natura 2000 is not part of the area with specific need.  If the indicator is above 100%, it implies that farms in areas with specific needs receive – on average - an amount per hectare exceeding the average. |
| Types of intervention concerned | The following types of interventions are considered as income support and accounted here:   * Basic income support for sustainability (BISS) including round sum payment for small farmers (Chapter II, Section 2, Subsection 2) * Complementary redistributive income support for sustainability (CRISS) (Article 29) * Complementary income support for young farmers (CIS-YF) (Article 30) * Schemes for the climate, the environment and animal welfare (Article 31) * Coupled income support interventions (Chapter III, Section 3, Subsection 1) * Payment for natural or other area-specific constraints   – ANC support (Article 71)   * Payment for area-specific disadvantages resulting from certain mandatory requirements (Article 72) |
| Unit of measurement | % |
| Moment of data collection | Expenditure and hectares paid in the Financial Year concerned.  **This indicator is annual**. |
| Methodology | Average income support/ha for beneficiaries with ha in areas with specific needs \*100  Average income support/ha paid to all beneficiaries  For this indicator two average amounts of income support per hectare need to be calculated and compared:  (1) The average income support per hectare for the sub- population of beneficiaries receiving income support for hectares in areas with specific needs  (2) The average income support per hectare for the whole population of beneficiaries  Step 1: Identify the population of “beneficiaries with ha in areas with specific needs”.  Identify beneficiaries, receiving in the Financial Year concerned relevant support for hectares in the areas with specific needs as identified by the Member States.  Step 2: Calculate the average amount of total income support per hectare for each group:  1) Numerator: the total amount of income support (based on the types of interventions listed above) paid to the beneficiaries during the financial year concerned, after reduction but before penalties.  2) Denominator: the number of determined hectares for direct payments as defined in accordance with Article 4(4), held by beneficiaries of BISS (including payments for small farmers) (before taking into account the entitlements) + hectares paid for Article 71 and 72 outside that BISS area.  3) Average amount = Numerator / Denominator  Step 3: Calculate the indicator  The indicator is calculated by dividing the average support per hectare for beneficiaries in areas with specific needs by the average support per hectare for the entire population of beneficiaries, and then multiplying by 100 to obtain a percentage.  Where the indicator is greater than 100%, beneficiaries in areas with specific needs are granted higher total income support per hectare than the other beneficiaries. |
| Comments/caveats | • Payment for area-specific disadvantages resulting from certain mandatory requirements (Article 72) for all beneficiaries can be included here, although not all beneficiaries are farmers.  • Coupled income support to livestock is accounted into the numerator  • Crop-specific payment for cotton (Chapter II, Section 3, and Subsection 2) shall not be included.  • For monitoring purpose, Member States will also be invited to provide the breakdown by territory when submitting the realized value of this indicator in the APR. |

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| Indicator R.8 | **R.8 Targeting farms in specific sectors:** Share of farmers benefitting from coupled income support for improving competitiveness, sustainability or quality. (\*coupled income support must be defined earlier) |
| Definition and aim | This indicator would reflect the extent of the support provided in sectors undergoing difficulties, in terms of share of farms. Such support shall aim at improving the competitiveness, the sustainability or the quality of the production in these sectors.  For example, a value of 10 % means that 10 % of the farms receive support, under Coupled Income Support, to improve the competitiveness, the sustainability or the quality in sectors undergoing difficulties.  This indicator is a single aggregate for all sectors actually covered by Coupled Income Support (CIS) in the respective Member States. |
| Types of intervention concerned | All area-based and animal-based coupled income support interventions (Articles 32-34).  N.B.: It does not include the crop-specific payment for cotton. |
| Unit of measurement | **%** |
| Moment of data collection | Beneficiaries paid in the Financial Year concerned.  **This indicator is annual**. |
| Methodology | Number of beneficiaries of coupled income support Total number of farms  Numerator:  Total number of beneficiaries (i.e. actually paid in the Financial Year concerned) of CIS (regional + national interventions).  ***Remark***: No double counting, each beneficiary shall be counted only once, even if this beneficiary benefits from support under more than one CIS intervention.  Denominator:  Total number of farms - EUROSTAT (Farm structure survey): [ef\_m\_farmleg](http://appsso.eurostat.ec.europa.eu/nui/show.do?query=BOOKMARK_DS-763825_QID_-21EA864F_UID_-3F171EB0&layout=AGRAREA%2CL%2CX%2C0%3BGEO%2CL%2CY%2C0%3BFARMTYPE%2CL%2CZ%2C0%3BLEG_FORM%2CL%2CZ%2C1%3BSO_EUR%2CL%2CZ%2C2%3BTIME%2CC%2CZ%2C3%3BINDIC_AGR%2CL%2CZ%2C4%3BINDICATORS%2CC%2CZ%2C5%3B&zSelection=DS-763825SO_EUR%2CTOTAL%3BDS-763825INDICATORS%2COBS_FLAG%3BDS-763825FARMTYPE%2CTOTAL%3BDS-763825TIME%2C2016%3BDS-763825LEG_FORM%2CTOTAL%3BDS-763825INDIC_AGR%2CFARM_NR%3B&rankName1=TIME_1_1_-1_2&rankName2=SO-EUR_1_2_-1_2&rankName3=FARMTYPE_1_2_-1_2&rankName4=INDICATORS_1_2_-1_2&rankName5=LEG-FORM_1_2_-1_2&rankName6=INDIC-AGR_1_2_1_0&rankName7=AGRAREA_1_2_0_0&rankName8=GEO_1_2_0_1&rStp&cStp&rDCh&cDCh&rDM=true&cDM=true&footnes=false&empty=false&wai=false&time_mode=NONE&time_most_recent=false&lang=EN&cfo=%23%23%23%2C%23%23%23.%23%23%23). See context indicator C.12 (Agricultural holdings). |
| Comments/caveats | This indicator is not broken down by sector for simplification. A breakdown per sector would mean having up to 22 sub-indicators, which would be quite extensive and burdensome for Member States. In any case, if needed for analytical purposes, the outputs O.9 and O.10 can be used. |

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| Indicator R.9PR | **R.9PR Farm modernization**: Share of farms receiving investment support to restructure and modernize, including to improve resource efficiency |
| Definition and aim | To quantify the coverage of interventions providing investment support to restructure and modernize holdings, including to improve resource efficiency. |
| Types of intervention concerned | The following types of interventions may be concerned, subject to the purpose of the intervention designed by Member States:   * Investments (Article 73) * Sectoral types of interventions implying an investment.   For sectoral types of interventions, it may include e.g. investments in tangible and non-tangible assets taking place on farms (Article 47(1)(a)), actions to reduce waste production (Article 47(1)(a)(vii)), restructuring and conversion of vineyards (Article 58(a)).  It includes all productive investments, including those to improve resource efficiency (e.g. investments to reduce food losses and food waste).  Investments in “new irrigation” installations on farm leading to a net increase in irrigated area would be linked to this indicator. Non-productive investments to improve resource efficiency focusing on environmental and climate-related benefits would be accounted for under R.16 and R.26. |
| Unit of measurement | % |
| Moment of data collection | Investment operations for which a first payment to the beneficiary was made in the Financial Year concerned.  **This indicator is cumulative over the period**. |
| Methodology | Number of beneficiaries receiving relevant support Total number of farms  Numerator:  The number of beneficiaries is cumulated over time, without double counting.  The beneficiary counts as 1 as from the first payment. Denominator:  Total number of farms – EUROSTAT (Farm structure survey): [ef\_m\_farmleg](http://appsso.eurostat.ec.europa.eu/nui/show.do?query=BOOKMARK_DS-763825_QID_-21EA864F_UID_-3F171EB0&layout=AGRAREA%2CL%2CX%2C0%3BGEO%2CL%2CY%2C0%3BFARMTYPE%2CL%2CZ%2C0%3BLEG_FORM%2CL%2CZ%2C1%3BSO_EUR%2CL%2CZ%2C2%3BTIME%2CC%2CZ%2C3%3BINDIC_AGR%2CL%2CZ%2C4%3BINDICATORS%2CC%2CZ%2C5%3B&zSelection=DS-763825SO_EUR%2CTOTAL%3BDS-763825INDICATORS%2COBS_FLAG%3BDS-763825FARMTYPE%2CTOTAL%3BDS-763825TIME%2C2016%3BDS-763825LEG_FORM%2CTOTAL%3BDS-763825INDIC_AGR%2CFARM_NR%3B&rankName1=TIME_1_1_-1_2&rankName2=SO-EUR_1_2_-1_2&rankName3=FARMTYPE_1_2_-1_2&rankName4=INDICATORS_1_2_-1_2&rankName5=LEG-FORM_1_2_-1_2&rankName6=INDIC-AGR_1_2_1_0&rankName7=AGRAREA_1_2_0_0&rankName8=GEO_1_2_0_1&rStp&cStp&rDCh&cDCh&rDM=true&cDM=true&footnes=false&empty=false&wai=false&time_mode=NONE&time_most_recent=false&lang=EN&cfo=%23%23%23%2C%23%23%23.%23%23%23).  See context indicator C.12 (Agricultural holdings). |
| Comments/caveats | This indicator relates to primary agricultural production, farmers’ investments in other gainful activities of the holding and off-farms investments are reported under R.39.  If during the programming period, a farmer benefits from several investments operations, it counts only as 1.  For collective investments, all farmers benefitting from the investment should be counted. |

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| Indicator R.10PR | **R.10PR Better supply chain organization:** Share of farms participating in producer groups, producer organizations, local markets, short supply chain circuits and quality schemes supported by the CAP |
| Definition and aim | To quantify the coverage of interventions to promote supply chain organization with CAP support. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Cooperation (Article 77) * Sectoral types of interventions (part of Chapter III of Title III)   For sectoral types of interventions, it includes all farmers that take part in recognized Producer Organizations (POs) with operational programmes supported by the CAP in the F&V, hops, olive oil and table olive sectors and the other sectors referred to in Article 42(f) and which types of interventions are set in Article 47. Where the beneficiary is an Association of Producer Organizations (APO) and the PO members do not manage themselves their own operational programmes, the farmer member of the POs composing the APO shall be counted.  For rural development, it includes all farms participating in cooperation interventions with the aim e.g. to promote local markets, short supply chains and quality schemes or to set up POs. |
| Unit of measurement | % |
| Moment of data collection | For sectoral types of interventions, recognized producer organizations with an operational programme paid in the Financial Year concerned.  For cooperation, operations for which a first payment to the beneficiary was made in the Financial Year concerned.  **This indicator is cumulative over the period.** |
| Methodology | Number of beneficiaries from relevant support  Total number of farms  Numerator:  - All PO members (farmers or other actors) of POs, including non-active members and farmers from other Member States, benefiting from an operational programme should be accounted, whether the POs manage their own operational programmes or only benefit from a programme managed by their APO.   * For Rural Development support, the number of farms corresponds to the number of direct participants in the cooperation project for the relevant Financial Year. In the year of set-up (e.g. PO), this will be an estimate, in subsequent years the actual number is to be reported.   Denominator:  Total number of farms – EUROSTAT (Farm structure survey): [ef\_m\_farmleg](http://appsso.eurostat.ec.europa.eu/nui/show.do?query=BOOKMARK_DS-763825_QID_-21EA864F_UID_-3F171EB0&layout=AGRAREA%2CL%2CX%2C0%3BGEO%2CL%2CY%2C0%3BFARMTYPE%2CL%2CZ%2C0%3BLEG_FORM%2CL%2CZ%2C1%3BSO_EUR%2CL%2CZ%2C2%3BTIME%2CC%2CZ%2C3%3BINDIC_AGR%2CL%2CZ%2C4%3BINDICATORS%2CC%2CZ%2C5%3B&zSelection=DS-763825SO_EUR%2CTOTAL%3BDS-763825INDICATORS%2COBS_FLAG%3BDS-763825FARMTYPE%2CTOTAL%3BDS-763825TIME%2C2016%3BDS-763825LEG_FORM%2CTOTAL%3BDS-763825INDIC_AGR%2CFARM_NR%3B&rankName1=TIME_1_1_-1_2&rankName2=SO-EUR_1_2_-1_2&rankName3=FARMTYPE_1_2_-1_2&rankName4=INDICATORS_1_2_-1_2&rankName5=LEG-FORM_1_2_-1_2&rankName6=INDIC-AGR_1_2_1_0&rankName7=AGRAREA_1_2_0_0&rankName8=GEO_1_2_0_1&rStp&cStp&rDCh&cDCh&rDM=true&cDM=true&footnes=false&empty=false&wai=false&time_mode=NONE&time_most_recent=false&lang=EN&cfo=%23%23%23%2C%23%23%23.%23%23%23). See context indicator C.12 (Agricultural holdings). |
| Comments/caveats | There might be double counting of beneficiaries from relevant support, as a farmer could be member of benefitting PO and a direct participant in a cooperation project. However, avoiding the double counting in the planning and for reporting would be too burdensome in view of the benefit it would bring. Nonetheless, members of PO cannot be accounted twice as part of a PO and APO. |

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| Indicator R.11 | **R.11 Concentration of supply:** Share of value of marketed production by producer organizations or producer groups with operational programmes in certain sectors |
| Definition and aim | To quantify the coverage by sector, in terms of value of marketed production by producer organizations, associations of producer organizations, transnational producer organizations or transnational associations of producer organizations (‘POs/APOs’) with operational programmes supported by the CAP. |
| Types  of  interventions  concerned | The following types of interventions are concerned:   * All types of interventions under Article 47 for F&V, hops, olive oil and table olives sectors and the other sectors referred to in Article 42(f) : investments, actions to increase sustainability and efficiency of transport and storage, implementation of EU and national quality scheme, etc. |
| Unit of measurement | % |
| Moment of data collection | Producer organizations, associations of producer organizations, transnational producer organizations or transnational associations of producer organizations with operational programmes paid in the Financial Year concerned in the fruit and vegetables, hops, olive oil/table olives sectors and in “other sectors”.  **This indicator is annual**. |
| Methodology | Total value of marketed production by POs/APOs with operational programmes in each sector  Total value of production of the sector concerned  For Financial Year N reported in February Year N+1, the value of production marketed by POs/APOs in Year N-1 is divided by the output value of calendar Year N-1.  Numerator:  Member State (operation database) Denominator:  Member State statistics or EUROSTAT – Economic Accounts for Agriculture: [aact\_eaa01](https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=aact_eaa01&lang=en) |
| Comments/caveats | -By contrast to other indicators, this indicator is not unique, as it provides one value per sector concerned  -Article 45 empowers the Commission to adopt delegated acts for the calculation of the value of marketed production for sectoral types of interventions.  -By contrast to other indicators, Member States are invited to update yearly the value of the denominator to avoid that price volatility affects the indicator |

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| Indicator R.12 | **R.12 Adaptation to climate change:** Share of utilized agricultural area (UAA) under supported commitments to improve climate adaptation  (\* to be developed) |
| Definition and aim | To quantify the coverage of commitments to improve climate change adaptation supported with the CAP. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Schemes for the climate, the environment and animal welfare (Article 31) * Environmental, climate-related and other management commitments (Article 70) * Sectoral types of interventions   In some cases, only certain operations within an intervention may be concerned. All interventions/operations concerned must be quantifiable in hectares.  For sectoral types of interventions, it may include for F&V, hops, olive oil and table olives sectors and the other sectors referred to in Article 42(f) farming practices which help, for example:   * Adapting to climate change (Article 47(1)(i)) * Preventing damage caused by adverse climatic events and promoting the development and use of varieties, breeds and management practices adapted to changing climate conditions (Article 47(1)(a)(iii)) |
| Unit of measurement | % |
| Moment of data collection | Hectares for which a payment was made in the Financial Year concerned. The total area should be counted even if only a partial payment was made. **This indicator is annual**. |
| Methodology | Number of hectares  Total Utilized Agricultural Area Numerator:  Area under commitment, i.e. area determined after controls and before applying any limits in the Financial Year concerned for relevant eco-schemes, management commitments and actions within sectoral programmes, without double counting (i.e. physical area).  Denominator:  Utilized Agricultural Area in hectares in EUROSTAT annual survey on crop production: [apro\_cpsh](http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do)1 – Main area. See context indicator C.17 (Agricultural area). |
| Comments/caveats | Interventions on forest land, as well as afforested land on UAA should not be included here (see R.17 and R.30). On the contrary, agroforestry interventions should be included under this indicator, because they are carried out on agricultural land, or on land, which will be changed to agricultural.  Investments to improve climate adaptation should be captured in R.9 and/or R.16. |

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| Indicator R.13 | **R.13 Reducing emissions in the livestock sector:** Share of livestock units (LU) under supported commitments to reduce emissions of greenhouse gases and/or ammonia, including manure management |
| Definition and aim | To quantify progress in the implementation of interventions targeted to livestock but without link to land that are aimed at reducing greenhouse gas (GHG) emissions and/or ammonia, including manure management, feed efficiency, and feed additives. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Sectoral interventions in livestock sectors aiming at mitigating climate change (Article 47(1)(a)(i)) * Schemes for the climate, the environment and animal welfare (Article 31). * Environmental, climate-related and other management commitments (Article 70)   In some cases, only certain operations within an intervention may be concerned. All interventions/operations concerned must be quantifiable in Livestock units (LU). |
| Unit of measurement | % |
| Moment of data collection | Livestock units for which a related payment was made in the Financial Year concerned (payment per head, livestock unit).  The total number of LU should be counted even if only a partial payment was made.  **This indicator is annual**. |
| Methodology | Number of Livestock Units for which a related payment was made  Total Number of Livestock Units Numerator:  Number of Livestock Units for which a payment under relevant interventions was made in Financial Year concerned, without double counting. For commitments paid in hectares but targeted to livestock, the number of livestock units covered is estimated.  Denominator:  Number of animals expressed in Livestock Units – EUROSTAT December Livestock Survey. |
| Comments/caveats | The coefficients to convert animal numbers in Livestock Units are included in the annex of the Commission Implementing Regulation (EU) 2021/2290.  Commitments to convert to or maintain organic farming are not included here.  On-farm investments on reducing GHG emissions should be captured in R.16 and those on reducing ammonia in R.26. For off-farm investments the relevant indicator is R.27 in both cases. In some cases both on-farm indicators would be relevant, e.g. investment for biogas production, as it contributes to reduce both kind of emissions (R.15 is also relevant in this case for the renewable energy produced).  Area based interventions targeted to area management should be captured in other, area based, result indicators (R.14 for GHG emissions and R.20 for ammonia). |

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| Indicator R.14PR | **R.14PR Carbon storage in soils and biomass:** Share of utilized agricultural area (UAA) under supported commitments to reduce emissions or to maintain or enhance carbon storage (including permanent grassland, permanent crops with permanent green cover, agricultural land in wetland and peatland) |
| Definition and aim | To quantify the coverage of commitments to reduce GHG emissions from agricultural land, maintaining and/or enhancing carbon storage (permanent grassland, agricultural land in peatland, etc.) with CAP support. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Schemes for the climate, the environment and animal welfare (Article 31) * Environmental, climate-related and other management commitments (including agroforestry) (Article 70) * Sectoral types of interventions   For sectoral types of interventions, it may include e.g. support to practices to conserve soil and enhance soil carbon for F&V (Article 47(1)(a)(i)) and to mitigate climate change for F&V (Article 47(1)(i)) as well as support to organic farming (Article 47(1)(d)) for F&V, hops, olive oil and table olives sectors and the other sectors referred to in Article 42(f).  In some cases, only certain operations within an intervention may be concerned. All interventions/operations concerned must be quantifiable in hectares. |
| Unit of measurement | % |
| Moment of data collection | Hectares for which a payment was made in the Financial Year concerned. The total area should be counted even if only a partial payment was made.  **This indicator is annual**. |
| Methodology | Number of hectares  Total Utilized Agricultural Area Numerator:  Area under commitment, i.e. area determined after controls and before applying any limits in the Financial Year  concerned for relevant eco-schemes, management  commitments and actions within sectoral programmes, without double counting (i.e. physical area)  Denominator:  Utilized Agricultural Area in hectares in EUROSTAT annual survey on crop production: [apro\_cpsh](http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do)1 – Main area. See context indicator C.17 (Agricultural area). |
| Comments/caveats | Interventions on forest land, as well as afforested land on UAA should not be included here (see R.17 and R.30).  Investments to reduce emissions, maintain and/or enhance carbon storage should be captured in R.9, R.16 and/or R.18. |

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| Indicator R.15 | **R.15 Renewable energy from agriculture, forestry and from other renewable sources:** Supported investments in renewable energy production capacity, including bio-based (in MW) |
| Definition and aim | To quantify installed capacity (thermal and electrical) of a specific renewable energy technology (hydropower, solid, liquid and gases biomass, biogas, wind, solar PV, solar thermal, geothermal, and heat pumps), developed with CAP support for investments on farms or by rural businesses. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Investments (Article 73) * Sectoral types of interventions with an investment component. |
| Unit of measurement | Megawatt. |
| Moment of data collection | Investment operations for which a first payment was made in the Financial Year concerned.  **This indicator is cumulative over the period**. |
| Methodology | Installed yearly capacity of a renewable energy technology (e.g. hydropower, solid, liquid and gases biomass, biogas, wind, solar PV, solar thermal, geothermal, and heat pumps) as a result of the investment as indicated in the application for the selected operations receiving support.  ***Remark:*** To be able to calculate this indicator, Serbia needs to anticipate the data collection of the installed capacity. |
| Comments/caveats |  |
| Indicator R.16 | **R.16 Investments related to climate:** share of farms benefitting from CAP investment support contributing to climate change mitigation and adaptation, and to the production of renewable energy or biomaterials |
| Definition and aim | To quantify the coverage of interventions providing investment support on farms related to climate change, mitigation and adaptation, and to renewable energy or biomaterials production. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Investments (Article 73) * Sectoral types of interventions with an investment component   For sectoral types of interventions, it may include e.g. investments in tangible and non-tangible assets, in particular focused on water saving, energy saving, ecological packaging and waste reduction (Article 47(1)(a)) for F&V, hops, olive oil and table olives sectors and the other sectors referred to in Article 42(f), and Restructuring and conversion of vineyards (Article 58(1)(a)) or other investment in the wine sector (Article 58(1)(e)).  It includes non-productive and productive investments focusing on climate-related benefits.  In some cases, only certain operations within an intervention may be concerned. |
| Unit of measurement | % |
| Moment of data collection | Investment operations for which a first payment to the beneficiary was made in the Financial Year concerned.  **This indicator is cumulative over the period** |
| Methodology | Number of farms receiving relevant support  Total number of farms  Numerator:  Number of farms is cumulated over time, without double counting. The farm counts as 1 as from the first payment.  Denominator:  Total number of farms - EUROSTAT (Farm structure survey): [ef\_m\_farmleg](http://appsso.eurostat.ec.europa.eu/nui/show.do?query=BOOKMARK_DS-763825_QID_-21EA864F_UID_-3F171EB0&layout=AGRAREA%2CL%2CX%2C0%3BGEO%2CL%2CY%2C0%3BFARMTYPE%2CL%2CZ%2C0%3BLEG_FORM%2CL%2CZ%2C1%3BSO_EUR%2CL%2CZ%2C2%3BTIME%2CC%2CZ%2C3%3BINDIC_AGR%2CL%2CZ%2C4%3BINDICATORS%2CC%2CZ%2C5%3B&zSelection=DS-763825SO_EUR%2CTOTAL%3BDS-763825INDICATORS%2COBS_FLAG%3BDS-763825FARMTYPE%2CTOTAL%3BDS-763825TIME%2C2016%3BDS-763825LEG_FORM%2CTOTAL%3BDS-763825INDIC_AGR%2CFARM_NR%3B&rankName1=TIME_1_1_-1_2&rankName2=SO-EUR_1_2_-1_2&rankName3=FARMTYPE_1_2_-1_2&rankName4=INDICATORS_1_2_-1_2&rankName5=LEG-FORM_1_2_-1_2&rankName6=INDIC-AGR_1_2_1_0&rankName7=AGRAREA_1_2_0_0&rankName8=GEO_1_2_0_1&rStp&cStp&rDCh&cDCh&rDM=true&cDM=true&footnes=false&empty=false&wai=false&time_mode=NONE&time_most_recent=false&lang=EN&cfo=%23%23%23%2C%23%23%23.%23%23%23). See context indicator C.12 (Agricultural holdings).  If during the programming period, a farm benefits from several investment operations, it counts only as 1. |
| Comments/caveats |  |

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| Indicator R.17PR | **R.17PR Afforested land:** Area supported for afforestation, agroforestry and restoration, including breakdowns |
| Definition and aim | To quantify afforestation, restoration and agroforestry with CAP support. This indicator captures the efforts of the CAP in creating and restoring woodland, as well as creating wooded landscape features on agricultural land through planting trees and/or hedges. |
| Types of intervention concerned | The following type of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Investments (Article 73) * Schemes for the climate, the environment and animal welfare (Article 31) * Environmental, climate-related and other management commitments related to the maintenance of afforested area and agroforestry systems (Article 70)   Where an intervention covers a range of possible investments or practices, only those individual operations within the intervention that specifically include creation of the four categories listed in the methodology section should be included. |
| Unit of measurement | Hectares |
| Moment of data collection | Hectares covered by operations for which a first payment was made in the Financial Year concerned.  **This indicator is cumulative over the period** |
| Methodology | For this indicator, four subcategories of area (hectares) of the first establishment and maintenance are included as soon as the beneficiary receives the first payment.   1. Afforested area 2. Restored area 3. Agro-forestry   **Remark:** This sub-indicator measures the entire area supported under the intervention that is including the whole agroforestry system (both cultivated agricultural areas and areas under the planted landscape features)   1. Landscape features created   **Remark:** This sub-indicator measures only area of planted  wooded landscape features. To simplify measurement Member States may use conversion factors consistent with the design of the agroforestry intervention.  These areas are accounted over the whole programming period. |
| Comments/caveats | Investments in afforestation realized by farmers may be also accounted in R.18, R.16, R.26 and/or R.32, whereas other investments in afforestation are accounted here and in  R.18 and/or R.27. |

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| Indicator R.18 | **R.18 Investment support to the forest sector:** Total investment to improve the performance of the forestry sector  (\* Forest Administration-MAFWM) |
| Definition and aim | To quantify the total investment generated with the aid of CAP support in equipment and technology to improve the sustainability of the forestry sector and facilitate its business development. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Investments (Article 73) * Cooperation (Article 77)   In some cases, only certain operations within an intervention may be concerned. |
| Unit of measurement | EUR |
| Moment of data collection | Investment operations for which payment to the beneficiary was made in the Financial Year concerned.  **This indicator is cumulative over the period.** |
| Methodology | Sum of total eligible costs of supported operations (i.e. EAFRD support, national co-financing, top ups (where relevant) and private contribution).  This indicator is cumulative over the period. |
| Comments/caveats | Support can go to service providers |

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| Indicator R.19PR | **R.19PR Improving and protecting soils:** Share of utilized agricultural area (UAA) under supported commitments beneficial for soil management to improve soil quality and biota (such as reducing tillage, soil cover with crops, crop rotation included with leguminous crops)  **\*** <http://www.sepa.gov.rs/download/GUIDE_for_SLM.pdf> - UN financed |
| Definition and aim | To quantify the coverage of commitments beneficial for soil management. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Schemes for the climate, the environment and animal welfare (Article 31) * Environmental, climate-related and other management commitments (Article 70) * Sectoral types of interventions   For sectoral types of interventions, it may include support to practices for soil conservation, including the enhancement of soil carbon and soil structure, and the reduction of contaminants (Article 47(1)(a)(i)) and to organic farming (Article 47(1)(d)) for F&V, hops, olive oil and table olives sectors and the other sectors referred to in Article 42(f).  In some cases, only certain operations within an intervention may be concerned. All interventions/operations concerned must be quantifiable in hectares. |
| Unit of measurement | % |
| Moment of data collection | Hectares for which a payment was made in the Financial Year concerned. The total area should be counted even if only a partial payment was made.  **This indicator is annual**. |
| Methodology | Number of hectares  Total Utilized Agricultural Area Numerator:  Area under commitment, i.e. area determined after controls and before applying any limits in the Financial Year concerned for relevant eco-schemes, management  commitments and sectoral types of interventions, without double counting (i.e. physical hectares).  Denominator:  Utilized Agricultural Area in hectares in EUROSTAT annual survey on crop production: [apro\_cpsh](http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do)1 – Main area. See context indicator C.17 (Utilized Agricultural Area).  It could comprehend actions preventing and mitigating soil degradation processes: build-up of soil organic matter; reduction of soil erosion, contamination, compaction, salinization; protection and enhancement of soil biodiversity. |
| Comments/caveats |  |

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| Indicator R.20PR | **R.20PR Improving air quality:** Share of utilized agricultural area (UAA) under supported commitments to reduce ammonia emission  \* no current register/database |
| Definition and aim | To quantify the coverage of commitments to reduce ammonia emissions with CAP support. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Schemes for the climate, the environment and animal welfare (Article 31) * Environmental, climate-related and other management commitments (Article 70)   In some cases, only certain operations within an intervention may be concerned. All interventions/operations concerned must be quantifiable in hectares. |
| Unit of measurement | % |
| Moment of data collection | Hectares for which a payment was made in the Financial Year concerned. The total area should be counted even if only a partial payment was made.  **This indicator is annual**. |
| Methodology | Number of hectares  Total Utilized Agricultural Area Numerator:  Area under commitment, i.e. area determined after controls and before applying any limits in the Financial Year concerned for relevant eco-schemes and management commitments without double counting (i.e. physical area).  Denominator:  Utilized Agricultural Area in hectares in EUROSTAT annual survey on crop production: [apro\_cpsh](http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do)1 – Main area. See context indicator C.17 (Utilized Agricultural area). |
| Comments/caveats | Interventions (commitments) to reduce ammonia emissions targeted to livestock are included in R.13.  Investments to reduce ammonia emissions should be captured in R.9 and/or R.26. |

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| Indicator R.21PR | **R.21PR Protecting water quality:** Share of utilized agricultural area (UAA) under supported commitments for the quality of water bodies |
| Definition and aim | To quantify the coverage of commitments to improve water quality with CAP support. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Schemes for the climate, the environment and animal welfare (Article 31) * Environmental, climate-related and other management commitments (Article 70) * Sectoral types of interventions   For sectoral types of interventions, it may include e.g. support to organic farming (Article 47(1)(d)) for F&V, hops, olive oil and table olives sectors and the other sectors referred to in Article 42(f).  In some cases, only certain operations within an intervention may be concerned. All interventions/operations concerned must be quantifiable in hectares. |
| Unit of measurement | % |
| Moment of data collection | Hectares for which a payment was made in the Financial Year concerned. The total area should be counted even if only a partial payment was made.  **This indicator is annual**. |
| Methodology | Number of hectares  Total Utilized Agricultural Area Numerator:  Area under commitment, i.e. area determined after controls and before applying any limits in the Financial Year concerned for the relevant interventions listed above without double counting (i.e. physical area)  Denominator:  Utilized Agricultural Area in hectares in EUROSTAT annual survey on crop production: [apro\_cpsh](http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do)1 – Main area. See context indicator C.17 (Utilized Agricultural Area). |
| Comments/caveats | Investments that contribute to protect water quality should be captured in R.9 and/or R.26. |

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| Indicator R.22PR | **R.22PR Sustainable nutrient management:** Share of utilized agricultural area (UAA) under supported commitments related to improved nutrient management  *This indicator is key to follow the implementation of Member States interventions aiming at improving nutrient management in view of the Green Deal target to reduce nutrient losses*   * *No data source identified in Serbia* |
| Definition and aim | To quantify the coverage of commitments to improve nutrient management with CAP support. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Schemes for the climate, the environment and animal welfare (Article 31) * Environmental, climate-related and other management commitments (Article 70) * Sectoral types of interventions   For sectoral types of interventions, it may include e.g. support to organic and integrated production (Article 47(1)(d)) for F&V, hops, olive oil and table olives sectors and the other sectors referred to in Article 42(f).  In some cases, only certain operations within an intervention may be concerned. All interventions/operations concerned must be quantifiable in hectares. |
| Unit of measurement | % |
| Moment of data collection | Hectares for which a payment was made in the Financial Year concerned. The total area should be counted even if only a partial payment was made.  **This indicator is annual**. |
| Methodology | Number of hectares  Total Utilized Agricultural Area Numerator:  Area under commitment, i.e. area determined after controls and before applying any limits in the Financial Year concerned for relevant eco-schemes, management commitments and actions within sectoral programmes, without double counting (i.e. physical area).  Denominator:  Utilized Agricultural Area in hectares in EUROSTAT annual survey on crop production: [apro\_cpsh](http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do)1 – Main area. See  context indicator C.17 (Utilized Agricultural Area).  Interventions to improve nutrient management paid per Livestock Unit are included in R.13.  Investments that contribute to improve nutrient management should be captured in R.9 and/or R.26. |
| Comments/caveats |  |

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| Indicator R.23PR | **R.23PR Sustainable water use:** Share of utilized agricultural area (UAA) under supported commitments to improve water balance  *Management commitments (agricultural practices) to improve water balance (e.g. improving the water retention capacity in the soil e.g.) can take place on all agricultural land and not just on irrigable land* |
| Definition and aim | To quantify the coverage of commitments to improve water balance with CAP support. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Schemes for the climate, the environment and animal welfare (Article 31) * Environmental, climate-related and other management commitments (Article 70) * Sectoral types of interventions   For sectoral types of interventions, it may include e.g. actions to improve the sound use and management of water (Article 47(1)(a)(ii)) for F&V, hops, olive oil and table olives sectors and the other sectors referred to in Article 42(f).  In some cases, only certain operations within an intervention may be concerned. All interventions/operations concerned must be quantifiable in hectares. |
| Unit of measurement | % |
| Moment of data collection | Hectares for which a payment was made in the Financial Year concerned. The total area should be counted even if only a partial payment was made.  **This indicator is annual**. |
| Methodology | Number of hectares paid  Total Utilized Agricultural Area Numerator:  Area under commitment, i.e. area determined after controls and before applying any limits in the Financial Year concerned for relevant eco-schemes, management commitments and actions within sectoral programmes, without double counting (i.e. physical area)  Denominator:  Utilized Agricultural Area in hectares in EUROSTAT annual survey on crop production: [apro\_cpsh](http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do)1 – Main area. See  context indicator C.17 (Utilized Agricultural Area).  Investments to improve water balance should be captured in  R.9 and/or R.26. |
| Comments/caveats |  |

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| Indicator R.24PR | **R.24PR Sustainable and reduced use of pesticides:** Share of utilized agricultural area (UAA) under supported specific commitments which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides such as pesticides leakage. |
| Definition and aim | To quantify the coverage of specific actions which lead to a sustainable and reduced use of pesticides with CAP support. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Schemes for the climate, the environment and animal welfare (Article 28) * Environmental, climate-related and other management commitments (Article 70) * Sectoral types of interventions   For sectoral types of interventions, it includes e.g.   * for F&V, hops, olive oil and table olive sectors and the other sectors referred to in Article 42(f): Organic production (Article 47(1)(d)) and, when duly justified, Integrated production (Article 47(1)(d)), * for F&V, hops, olive oil and table olive sectors and the ‘other sectors’: actions to improve resilience against pests and reducing risks and impacts of pesticide use, including implementing IPM techniques(Article 47(1)(a(viii)); * for wine: restructuring and conversion of vineyards (Article58(1)(a)), when duly justified.   In some cases, only certain operations within an intervention may be concerned. All interventions/operations concerned must be quantified in hectares. |
| Unit of measurement | % |
| Moment of data collection | Hectares for which a related payment was made in the Financial Year concerned. The total area should be counted even if only a partial payment was made.  **This indicator is annual**. |
| Methodology | Number of hectares  Total Utilized Agricultural Area  Numerator:  Area under commitment, i.e. area determined after controls and before applying any limits in the Financial Year concerned for the interventions listed above, without double counting (i.e. physical area)  The same number of hectares for which the use of pesticides is sustainable thanks to an investment, is reported each year from the first payment  Denominator:  Utilized Agricultural Area in hectares in EUROSTAT annual survey on crop production: [apro\_cpsh](http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do)1 – Main area. See context indicator C.17 (Agricultural area).  Investments for a sustainable use of pesticides should be captured in R.9 and/or R.26. |
| Comments/caveats |  |

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| Indicator R.25 | **R.25 Environmental performance in the livestock sector:** Share of livestock units (LU) under supported commitments to improve environmental sustainability  *\* derived (no measure to support this affairs)* |
| Definition and aim | To quantify progress in the implementation of interventions aimed at improving environmental sustainability in the livestock sector. While programme specific commitments paid per LU aiming at reducing ammonia and GHG emissions are accounted in R.13, R.25 aims at covering all other commitments beneficial to the environment, especially support to endangered breeds under Article 70.  It relates to commitments paid per LU, as commitments paid per ha beneficial for biodiversity and natural resources are reported under other relevant result indicators (e.g. R.31). |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Environmental, climate-related and other management commitments (Article 70) (support to endangered breeds). * Sectoral types of interventions (Article 47(1))   For sectoral types of interventions, it includes support to practices paid per livestock unit and contributing to protecting natural resources and biodiversity.  In some cases, only certain operations within an intervention may be concerned.  All interventions/operations concerned must be quantifiable in Livestock units (LU). |
| Unit of measurement | % |
| Moment of data collection | Livestock units for which a payment was made in the Financial Year concerned (payment per head or livestock unit).  The total number of LU should be counted even if only a partial payment was made.  **This indicator is annual**. |
| Methodology | Number of Livestock Units for which a related payment was  made  Total Number of Livestock Units Numerator:  Number of Livestock Units for which a payment under relevant interventions was made in Financial Year concerned, without double counting.  Denominator:  Number of animals expressed in Livestock Units EUROSTAT  December Livestock Survey. Tables [[apro\_mt\_ls](https://ec.europa.eu/eurostat/data/database?node_code=apro_mt_lspig)].  The coefficients to convert animal numbers in LU are published by EUROSTAT, see here.  Support to endangered breeds is included here. |
| Comments/caveats | Commitments paid per LU aiming at reducing GHG emissions and/or ammonia, including manure management are captured in R.13.  Area based interventions should be captured in other, area based, result indicators.  On-farm investments related to Environment-/climate- related performance should be captured in R.26 and/or R.16. |

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| Indicator R.26 | **R.26 Investments related to natural resources**: Share of farms benefitting from CAP productive and non- productive investment support related to care for the natural resources  *\* derived (no measure to support this affairs)* |
| Definition and aim | To quantify the coverage of interventions providing investment support related to care for the natural resources on farms. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Investments (Article 73) * Sectoral types of interventions with an investment component   For sectoral types of interventions, it may include e.g. investments in tangible and non-tangible assets, in particular focused on water saving, energy saving, ecological packaging and waste reduction (Article 47(1)(a)) and Restructuring and conversion of vineyards (Article 58(1)(a)) or other investment in the wine sector (Article 58(1)(b) and (e)).  It includes non-productive and productive investments focusing on natural resources-related benefits.  Investments in the improvement of existing irrigation installations on farm would be accounted for under this indicator.  In some cases, only certain operations within an intervention may be concerned. |
| Unit of measurement | % |
| Moment of data collection | Investment operations for which a first payment to the beneficiary was made in the Financial Year concerned.  **This indicator is cumulative over the period.** |
| Methodology | Number of farms receiving relevant support Total number of farms  Numerator:  Number of farms are cumulated over time, without double counting.  The farm counts as 1 as from the first payment. Denominator:  Total number of farms - EUROSTAT (Farm structure survey): [ef\_m\_farmleg](http://appsso.eurostat.ec.europa.eu/nui/show.do?query=BOOKMARK_DS-763825_QID_-21EA864F_UID_-3F171EB0&layout=AGRAREA%2CL%2CX%2C0%3BGEO%2CL%2CY%2C0%3BFARMTYPE%2CL%2CZ%2C0%3BLEG_FORM%2CL%2CZ%2C1%3BSO_EUR%2CL%2CZ%2C2%3BTIME%2CC%2CZ%2C3%3BINDIC_AGR%2CL%2CZ%2C4%3BINDICATORS%2CC%2CZ%2C5%3B&zSelection=DS-763825SO_EUR%2CTOTAL%3BDS-763825INDICATORS%2COBS_FLAG%3BDS-763825FARMTYPE%2CTOTAL%3BDS-763825TIME%2C2016%3BDS-763825LEG_FORM%2CTOTAL%3BDS-763825INDIC_AGR%2CFARM_NR%3B&rankName1=TIME_1_1_-1_2&rankName2=SO-EUR_1_2_-1_2&rankName3=FARMTYPE_1_2_-1_2&rankName4=INDICATORS_1_2_-1_2&rankName5=LEG-FORM_1_2_-1_2&rankName6=INDIC-AGR_1_2_1_0&rankName7=AGRAREA_1_2_0_0&rankName8=GEO_1_2_0_1&rStp&cStp&rDCh&cDCh&rDM=true&cDM=true&footnes=false&empty=false&wai=false&time_mode=NONE&time_most_recent=false&lang=EN&cfo=%23%23%23%2C%23%23%23.%23%23%23). See context indicator C.12 (Agricultural holdings) If during the programming period, a farm benefits from several investment operations, it counts only as 1. |
| Comments/caveats |  |

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| Indicator R.27 | **R.27 Environmental or climate-related performance through investment in rural areas**: Number of operations contributing to environmental sustainability and the achievement of climate mitigation and adaptation goals in rural areas  *\* derived (no measure to support this affairs)* |
| Definition and aim | To quantify the coverage of interventions providing investment support related to care for the environment or climate in rural areas (and **not on farms**). |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Genetic resources commitments (Article 70) * Investments (Article 73) * Cooperation projects (Article 77) * Sectoral types of interventions with an investment component   For sectoral types of interventions, it may include e.g. Investments in tangible and non-tangible assets, in particular focused on water saving, energy saving, ecological packaging and waste reduction (Article 47(1)(a)) and Restructuring and conversion of vineyards (Article 58(1)(a)) or other investment in the wine sector (Article 58(1)(b) and (e)).  It includes non-productive and productive investments focusing on environmental and climate-related benefits.  Investments in the improvement of existing irrigation infrastructure would be accounted for under this indicator  In some cases, only certain operations within an intervention may be concerned. |
| Unit of measurement | Number of operations |
| Moment of data collection | Investment operations for which a first payment to the beneficiary was made in the Financial Year concerned.  **This indicator is cumulative over the period.** |
| Methodology | Number of operations receiving relevant support. The number of operations is cumulated over time. The operation counts as 1 as from the first payment. |
| Comments/caveats | If during the programming period, a beneficiary benefits of 2 investment operations, it counts as 2. It might include non-productive collective investments if farmers are not owners of the investment. Investments on farms contributing to environmental sustainability, climate mitigation and adaptation goals are included in R.26 and/or R.16. |

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| Indicator R.28 | **R.28 Environmental or climate-related performance through knowledge and innovation**: Number of persons benefitting from advice, training, knowledge exchange, or participating in European Innovation Partnership (EIP) operational groups supported by the CAP related to environmental or climate-related performance  *\* no data source* |
| Definition and aim | To quantify the coverage of interventions supporting the provision of knowledge, innovation-generation and exchange related to environmental- climate performance, thus contributing to the specific objectives (d), (e) and (f) defined in Article 6(1) and the Cross-Cutting Objective on knowledge in Article 5. We are counting here the number of people who benefit from the intervention, not those who receive the payments. |
| Types of intervention concerned | Following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:  For Rural Development:   * Article 78: Knowledge exchange and dissemination of information * Article 77(1)(a): prepare and implement the projects of the EIP operational groups referred to in Article 127(3);   For Sectoral types of interventions, it may include e.g.:   * Advice and training: Article 47(1)(b) and (c)in the F&V, hops, olive oil and table olives sectors and the other sectors referred to in Article 42(f) * Research, experimental and innovative production methods: Article 47(1)(a) in the F&V, hops, olive oil and table olives sectors and the other sectors referred to in Article 42(f) * For wine sector, Article 58(1)“I (e) "tangible and intangible investments in innovation for knowledge exchange" |
| Unit of measurement | Number of persons |
| Moment of data collection | Operations for which a first payment to the beneficiary was made in the Financial Year concerned.  **This indicator is cumulative over the period**. |
| Methodology | Number of persons benefitting of relevant paid support:   * The number of persons is cumulated over time. * The benefitting person is accounted at the moment of the first payment (although it is a partial payment)   of the training/advice/knowledge exchange action or project.   * The benefitting person is not necessarily the person receiving the payment (e.g. support for advice is paid to the advisor, while here the number of persons benefitting from the advice is taken into account). * All persons participating in relevant EIP operational group projects (Article 77 in relation to EIP Operational Group projects in accordance with Article   127) and in Knowledge exchange and dissemination of information (all interventions under Article 78) for which a payment was made in the Financial Year concerned are included.   * Only the PO members benefitting from advice and other knowledge and innovation actions for which the POs received a payment are included. * Only the PO members benefitting from coaching or advisory services and technical assistance related to crisis prevention actions for which the POs received a payment are included. |
| Comments/caveats | * Whatever the length of the training/advice action (hours or days), the beneficiary is accounted the same way (in full). * There might be double counting of beneficiaries as a person could benefit of training through various channels and several times during the programming period. However, avoiding the double counting in the planning and for reporting would be too burdensome in view of the benefit it would bring. * Regarding the implementation of research programs in apiculture, all participants to the research activity (including scientists) are NOT to be accounted. |

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| Indicator R.29PR | **R.29PR Development of organic agriculture:** Share of utilized agricultural area (UAA) supported by the CAP for organic farming, with a split between maintenance and conversion |
| Definition and aim | To quantify the coverage of commitments to promote organic farming maintenance or conversion with CAP support. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Schemes for the climate, the environment and animal welfare (Article 31) * Environmental, climate-related and other management commitments (Article 70) * Sectoral types of interventions (Article 47(1)(d) and 57(1)(m))   In some cases, only certain operations within an intervention may be concerned. All interventions/operations concerned must be quantifiable in hectares. |
| Unit of measurement | % |
| Moment of data collection | Hectares for which a payment was made in the Financial Year concerned. The total area should be counted even if only a partial payment was made.  **This indicator is annual**. |
| Methodology | This indicator is composed of 3 specific indicators.   1. Share of UAA supported by the CAP for organic farming 2. Share of UAA supported by the CAP for maintenance under organic farming 3. Share of UAA supported by the CAP for conversion to organic farming   Number of hectares  Total Utilized Agricultural Area Numerator:  Area under commitment, i.e. area determined after controls and before applying any limits in the Financial Year concerned for relevant eco-schemes, management commitments and actions within sectoral programmes without double counting (i.e. physical area) Denominator:  Utilized Agricultural Area in hectares in EUROSTAT annual survey on crop production: [apro\_cpsh](http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do)1 – Main area. See context indicator C.17 (Agricultural area). |
| Comments/caveats |  |

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| Indicator R.30PR | **R.30PR Supporting sustainable forest management:** Share of forest land under commitments to support forest protection and management of ecosystem services  *\* derived (no measure to support this affairs)* |
| Definition and aim | To quantify the forest area benefitting from CAP-supported commitments for sustainable forest management going beyond mandatory requirements, in line with the key principles and objectives of the EU Forest Strategy. This covers actions to foster sustainable management of forest as well as commitments on forest area contributing to biodiversity, and preserving habitats and landscapes. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Environment, climate-related and other management commitments (Article 70) * Cooperation (Article 77) – cooperation, projects and operations related to sustainable forest management   In some cases, only certain operations within an intervention may be concerned. All operations included must be quantifiable in hectares. |
| Unit of measurement | % |
| Moment of data collection | Hectares for which a payment was made in the Financial Year concerned. The total area should be counted even if only a partial payment was made.  **This indicator is annual**. |
| Methodology | Number of hectares Total Forest area Numerator:  Forest area determined after controls and before applying any limits in the financial year concerned, without double counting.  Denominator:  Total Forest area: see context indicator C.05 (Land Cover) |
| Comments/caveats | It may include afforested land on UAA in specific cases |

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| Indicator R.31PR | **R.31PR Preserving habitats and species:** Share of utilized agricultural area (UAA) under supported commitments for supporting biodiversity conservation or restoration including high-nature-value farming practices  *\* derived (no measure to support this affairs)* |
| Definition and aim | To quantify the coverage of commitments for supporting biodiversity conservation or restoration on agricultural land |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it :   * Schemes for the climate, the environment and animal welfare (Article 31) * Environmental, climate-related and other management commitments (Article 70) * Sectoral types of interventions   For sectoral types of intervention, it may include e.g. actions to create and maintain habitats (Article 47(1)(a(x)).  In some cases, only certain operations within an intervention may be concerned. All interventions/operations concerned must be quantifiable in hectares. |
| Unit of measurement | % |
| Moment of data collection | Hectares for which a payment was made in the Financial Year concerned. The total area should be counted even if only a partial payment was made.  **This indicator is annual**. |
| Methodology | Number of hectares  Total Utilized Agricultural Area Numerator:  Area under commitment, i.e. area determined after controls and before applying any limits in the Financial concerned for the relevant interventions listed above, without double counting (i.e. physical hectares).  Denominator:  Utilized Agricultural Area in hectares in EUROSTAT annual survey on crop production: [apro\_cpsh](http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do)1 – Main area. See context indicator C.17 (Agricultural area). |
| Comments/caveats | This indicator should also include management commitments supporting biodiversity conservation or restoration in Natura 2000 areas, which are also covered by R.33.  However, this indicator should not include interventions under Article 72 “Area-specific disadvantages resulting from certain mandatory requirements”. |

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| Indicator R.32 | **R.32 Investments related to biodiversity:** Share of farms benefitting from CAP investment support contributing to biodiversity  *\* derived (no measure to support this affairs)* |
| Definition and aim | To quantify the coverage of interventions providing investment support on farms related to biodiversity. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Investments (Article 73) * Sectoral types of interventions with an investment component   For sectoral types of interventions, it may include e.g. investments in tangible and non-tangible assets, in particular focused on the creation of habitats (Article 47(1)(a)(x)).  It includes non-productive and productive investments focusing on biodiversity-related benefits.  In some cases, only certain operations within an intervention may be concerned. |
| Unit of measurement | % |
| Moment of data collection | Investment operations for which a first payment to the beneficiary was made in the Financial Year concerned.  **This indicator is cumulative over the period**. |
| Methodology | Number of farms receiving relevant support  Total number of farms  Numerator:  Number of farms is cumulated over time, without double counting.  The farm counts as 1 as from the first payment. Denominator:  Total number of farms - EUROSTAT (Farm structure survey): [ef\_m\_farmleg](http://appsso.eurostat.ec.europa.eu/nui/show.do?query=BOOKMARK_DS-763825_QID_-21EA864F_UID_-3F171EB0&layout=AGRAREA%2CL%2CX%2C0%3BGEO%2CL%2CY%2C0%3BFARMTYPE%2CL%2CZ%2C0%3BLEG_FORM%2CL%2CZ%2C1%3BSO_EUR%2CL%2CZ%2C2%3BTIME%2CC%2CZ%2C3%3BINDIC_AGR%2CL%2CZ%2C4%3BINDICATORS%2CC%2CZ%2C5%3B&zSelection=DS-763825SO_EUR%2CTOTAL%3BDS-763825INDICATORS%2COBS_FLAG%3BDS-763825FARMTYPE%2CTOTAL%3BDS-763825TIME%2C2016%3BDS-763825LEG_FORM%2CTOTAL%3BDS-763825INDIC_AGR%2CFARM_NR%3B&rankName1=TIME_1_1_-1_2&rankName2=SO-EUR_1_2_-1_2&rankName3=FARMTYPE_1_2_-1_2&rankName4=INDICATORS_1_2_-1_2&rankName5=LEG-FORM_1_2_-1_2&rankName6=INDIC-AGR_1_2_1_0&rankName7=AGRAREA_1_2_0_0&rankName8=GEO_1_2_0_1&rStp&cStp&rDCh&cDCh&rDM=true&cDM=true&footnes=false&empty=false&wai=false&time_mode=NONE&time_most_recent=false&lang=EN&cfo=%23%23%23%2C%23%23%23.%23%23%23). See context indicator C.12 (Agricultural holdings) |
| Geographical level | If during the programming period, a farm benefits from several investment operations, it counts only as 1. |
| Comments/caveats |  |

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| Indicator R.33 | **R.33 Improving Natura 2000 management**: Share of total Natura 2000 area under supported commitments  \* Directorate for nature conservation |
| Definition and aim | To quantify the share of Natura 2000 areas receiving support under eco-schemes or environment and climate commitments going beyond the mandatory requirements in the relevant site management plans.  This indicator includes a split between agricultural area and forestry area in Natura 2000. |
| Types of intervention concerned | The following type of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it and when the supported area is located in Natura 2000 sites:   * Environment, climate-related and other management commitments (Article 70). * Schemes for the climate, the environment and animal welfare (Article 31)   In some cases, only certain operations within an intervention may be concerned. |
| Unit of measurement | % |
| Moment of data collection | Hectares for which a payment was made in the Financial Year concerned. The total area should be counted even if only a partial payment was made.  **This indicator is annual**. |
| Methodology | 1. Total agricultural and forest area with relevant commitments in Natura 2000 sites   Numerator: Area in Natura 2000 sites paid for relevant commitments in the Financial Year concerned under Article 70 and Article 31.  Denominator: Agricultural and Forest areas in Natura 2000, source: EEA, see context indicator C.19 (Farming in Natura 2000 areas)   1. Total forest area with relevant commitments in Natura 2000 sites   Numerator: Forest area in Natura 2000 sites paid for relevant commitments in the Financial Year concerned under Article 70 and Article 31.  Denominator: Forest area in Natura 2000, without transitional woodland/shrub, source: EEA, see context indicator C.19 (Farming  in Natura 2000 areas)  3) Total agricultural area with relevant commitments in Natura 2000 sites  Numerator:  Agricultural area in Natura 2000 sites paid for relevant commitments in the Financial Year concerned under Article 70 and Article 31.  Denominator:  Agricultural area in Natura 2000 (excluding natural grassland), source: EEA, see context indicator C.19 (Farming in Natura 2000 areas) |
| Comments/caveats | For monitoring purposes, the numerator of the indicator, i.e. the number of ha with relevant commitments on Natura 2000 sites, will also be published.  The support to farmers in Natura 2000 and WFD under Article 72 Area-specific disadvantages is reflected only in R.4 and R.7, as the support compensates the farmers for the obligations they have to respect for farming in these areas. Only farmers in Natura 2000 committing to voluntary practices (Article 31 or 70) are reflected in R.33. |

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| Indicator R.34PR | **R.34PR Preserving landscape features:** Share of utilized agricultural area (UAA) under supported commitments for managing landscape features, including hedgerows and trees  *\* no data sources* |
| Definition and aim | To quantify the coverage of commitments for managing landscape features with CAP support. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Schemes for the climate, the environment and animal welfare (Article 31) * Environmental, climate-related and other management commitments (Article 70) * Sectoral types of interventions   For sectoral types of interventions, it may include e.g. actions under restructuring and conversion of vineyards (Article 58(1)(a)) such as preservation/restoration of stone walls or terraces, provided that these actions are not realized through investment support.  In some cases, only certain operations within an intervention may be concerned. All interventions/operations concerned must be quantifiable in hectares. |
| Unit of measurement | % |
| Moment of data collection | Hectares for which a payment was made in the Financial Year concerned. The total area should be counted even if only a partial payment was made.  **This indicator is annual**. |
| Methodology | Number of hectares  Total Utilized Agricultural Area Numerator:  Area under commitment, i.e. area determined after controls and before applying any limits in the Financial Year concerned for relevant interventions, without double counting (i.e. physical area)  The area under commitment in the numerator corresponds to the hectares actually covered by landscape elements, and not the entire agricultural area where only a certain portion  is devoted to biodiversity friendly practices.  Denominator:  Utilized Agricultural Area in hectares in EUROSTAT annual survey on crop production: [apro\_cpsh](http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do)1 – Main area. See context indicator C.17 (Agricultural area). |
| Comments/caveats | Investments related to landscape features should be captured in R.9, R.26 and/or R.32. |

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| Indicator R.35 | **R.35 Preserving beehives:** Share of beehives supported by the CAP |
| Definition and aim | To quantify the coverage of interventions supporting the apiculture sector with the CAP, granted directly to beekeepers. |
| Types of intervention concerned | The following type of interventions may be concerned:   * Types of intervention in the apiculture sector and Union financial assistance (Article 55) * Investments (Article 73) * Environmental, climate-related and other management commitments (Article 70)   For sectoral types of interventions, it includes only the support granted directly to beekeepers under Article 55(1)(b) for:   1. combatting beehive invaders and diseases, in particular varroasis;   (ii) preventing damage caused by adverse climatic events and promoting the development and use of management practices adapted to changing climate conditions;  (iii) restocking of beehives in the Union including bee breeding;  (iv) rationalizing transhumance. |
| Unit of measurement | % |
| Moment of data collection | Operations for which a first payment to the beneficiary was made in the Financial Year concerned.  **This indicator is cumulative over the period.** |
| Methodology | Number of beehives for which a related payment was made Total number of beehives  Numerator:  For sectoral interventions, the number of beehives belonging to the beneficiaries of the Apiculture sectoral programme is to be reported, whether the support is paid per beekeeper, per action or per beehive.  For agri-environment-climate commitments paid beehives |
|  | are reported every year and for investment under Rural Development programmes, the number of beehives covered by the investment project is reported from the first payment of investments. The number of beehives is cumulated over time, without double counting. The beehives count as 1 as from the first payment.  Denominator:  Total number of beehives notified to the EU Commission: average of the latest three years available at the time of establishing the plan. |
| Comments/caveats | To increase the robustness of the indicator it is important to avoid double counting. Thus, for feasibility reasons and to remain proportionate, the following types of intervention are not accounted here: technical assistance, cooperation for the implementation of research programmes, market monitoring actions, actions to support laboratories for the analysis of apiculture products, actions to enhance product quality. |

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| Indicator R.36PR | **R.36PR Generational renewal**: Number of young farmers benefitting from setting up with support from the CAP, including a gender breakdown |
| Definition and aim | To quantify the new young farmers setting up with CAP support |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Installation of young farmers and rural business start-up (Article 75(2)(a)): installation of young farmers * Complementary income support for young farmers (Article 30) * Cooperation (Article 77) in the context of farm succession, in particular for generational renewal at farm level   The indicator is also split by gender:   1. Total number of young farmers setting up 2. Total number of female young farmers setting-up 3. Total number of men young farmers setting-up 4. Total number of non-binary[1](#_bookmark28) farmers setting-up |
| Unit of measurement | Number of young farmers |
| Moment of data collection | Operations for which a first payment to the beneficiary was made in the Financial Year concerned.  **This indicator is cumulative over the period**. |
| Methodology | The number of young farmers is cumulated over time, without double counting.  The young farmer counts as 1 as from the first payment.   * Young farmer = beneficiary that complies with the definition of young farmer as lay down in accordance with Article 4(6) SPR. * For installation: number of young farmers newly installed. * The reference to “young farmer” in R.36 is to be understood as a reference to “young farmer” as defined in accordance with Article 4(6)SPR. In case of a (legal) entity/holding consisting of multiple members with one head of holding, only the head of holding would be counted in this indicator as only the head of the holding would meet the definition of young farmer and benefit from the support. In entities composed of associated members, each individual complies with the definition of young farmer as laid down in accordance with Article 4(6) SPR and benefits from either the installation grant for young farmers or CISYF every such member would be counted against this indicator * There is not necessarily complete overlap between the beneficiaries of the income support for young farmers and those of the installation grant. Therefore, Member States shall check that during the CAP Strategic Plan period, each new farmer installation supported with income support and/or installation support is counted only once. * Similarly, beneficiaries of a combination of installation grant and financial instruments should be counted only once in the total. |
| Comments/caveats | A young farmer can set up on an existing farm.  The reference to “young farmer” is to be understood as a reference to a beneficiary of the installation grant for young farmers (Article 75) and/or the complementary income support for young farmers (Article 30). This is the simplest solution to avoid double counting.  The sub-indicators by gender are used only for monitoring purposes (i.e. they are not to be planned and they are not part of the performance review exercise). |

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| Indicator R.37 | **R.37 Growth and jobs in rural areas**: New job supported in CAP projects |
| Definition and aim | To quantify the number of jobs created (not maintained) in supported projects. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Complementary income support for young farmers (CIS-YF) (Article 30) * Installation of young farmers,, new farmers and rural business start-up (Article 75) * Investments (Article 73) * Cooperation (Article 77) * Sectoral types of interventions   For sectoral types of intervention it may include e.g. investments (Article 47(1)(a) and Article 58(1)(b)).  The indicator includes both young farmer payment under Pillar I as well as young farmers receiving the installation grant to set-up (Pillar II). This is because both types of support encourage generational renewal, Pillar II supports the setting-up of new farmers while Pillar I supports the economic viability of newly set-up farmers. |
| Unit of measurement | Number of jobs created in full time equivalent (FTE) |
| Moment of data collection | Operations for which the last payment to the beneficiary was made in the Financial Year concerned.  [*Exception: for projects financed with FI, information on jobs is to be collected at the time of the signature of the loan contract*]  **This indicator is cumulative over the period**. |
| Methodology | The number of jobs is cumulated over time, without double counting.  The job counts as 1 as from the last payment.   * For investments, cooperation and sectoral types of interventions: it is based on the number of realized jobs in the supported project, expressed in FTE. * For installation and start-up support: number of jobs (in FTE) created once the project is fully implemented * For young farmers Member States can use R.36,   although reported at the first payment.  The number of jobs is calculated based on the completed operations. |
| Comments/caveats | Only new jobs actually created and jobs safeguarded (through e.g. support to generational renewal) should be counted.. It relates to employment when the project is up and running, i.e. if the project is creation of a farm shop, it does not include employment created during the design/construction phase – consultant/architect/builders, but the employment, which is created when the shop is running (manager, sales assistants, etc.).  Voluntary work should not be counted but self-employment is included. The indicator is calculated in FTE; therefore, in an existing halftime job is transformed into a fulltime job, the value of the indicator is 0.5. When this information is not available (for CIS-YF) the farmer is accounted as 1 FTE.  To count one FTE job created, the duration of the contract should be one year or more (e.g. a six-month contract at 100% is 0.5).  This indicator covers jobs created via support from CAP strategic plans, which covers jobs created in the agricultural sector, and non-agricultural employment in rural areas. |

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| **Indicator R.38** | **R.38 LEADER coverage:** Share of rural population covered by local development strategies |
| Definition and aim | To quantify the share of rural population covered by LEADER interventions. |
| Types of intervention concerned | The following type of interventions are concerned:   * Cooperation (Article 77) - LEADER |
| Unit of measurement | % |
| Moment of data collection  Methodology  Comments/caveats | The total rural population covered is recorded at selection of local development strategies by MA/LAG, after each selection round.  **This indicator is cumulative over the period**.  Rural population covered by LAGs funded through LEADER over the programming period  Total rural population Numerator:  Rural population covered by LAGs funded under LEADER. The population is cumulated over time.  Denominator:  Member States may use the rural population they notify to Eurostat based on the definition of rural area used by Eurostat. Alternatively, Member States can establish other criteria for the definition of rural area.  While LEADER interventions can include ones for preparatory support, this indicator counts the population covered in the territories with approved LAG partnerships and strategies for implementation.  For simplification at the initial planning stage, the LEADER intervention could be attributed to only this indicator. LEADER intervention (Article 77) may be concerned in a number of other resulted indicators, which will be only indicated based on the approved strategies through a later modification of the Plans and through the annual reporting |

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| Indicator R.39 | **R.39 Developing the rural economy:** Number of rural businesses, including bio-economy businesses, developed with CAP support |
| Definition and aim | To quantify CAP support to SMEs and in particular the number of rural economy businesses (excluding support to farming, i.e. primary agricultural production), including bio- economy businesses, developed with CAP support. This indicator is not restricted to new businesses created.  The bio-economy covers all sectors and systems that rely on biological resources (animals, plants, micro-organisms and derived biomass, including organic waste), their functions and principles. It includes and interlinks: land and marine ecosystems and the services they provide; all primary production sectors that use and produce biological resources (agriculture, forestry and all economic and industrial sectors that use biological resources and processes to produce food, feed, bio-based products, energy and services).  Whilst support to farming, i.e. primary agricultural production, is included in R.9, this indicator focuses on CAP support to businesses creating additional value from the products and by-products of agriculture and forestry. This includes typically:   * Post-harvest transformation, conditioning, processing or storage of food products * Collection, logistics, storage or conditioning of by- products * Production of bio-based products and materials, bioenergy or intermediate products susceptible of further transformation. * Valorization of food losses and food waste * Recovery and reuse of nutrients and/or organic matter in agriculture and forestry   To be accounted for, activities should clearly contribute to the CAP objectives, notably promoting employment, growth, social inclusion and local development in rural areas, ensuring a fair income to farmers and rebalancing the power in the value chain. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Installation of young farmers and new farmers and rural business start-up (Article 75) * Investments (Article 73) * Cooperation (Article 77) * Sectoral types of interventions   For sectoral types of interventions, it may concern any tangible investments realized by other businesses than farmers or by farmers when not related to agricultural primary production (Article 47(1)(a); Article58(1)(a), (b),(e) and (g))  Investments in “new irrigation” infrastructure leading to a net increase in irrigated area would also be linked to this indicator.  Land consolidation where the aim is, for instance, to reduce land fragmentation or restore land registers would be also accounted for under this indicator. |
| Unit of measurement | Number of businesses |
| Moment of data collection | Operations for which a first payment to the beneficiary was made in the Financial Year concerned.  This indicator is cumulative over the period. |
| Methodology | The number of businesses developed with CAP support is cumulated over time, without double counting.  The business counts as 1 as from the first payment.  MS need to anticipate collecting this information at the time they analyze business plans and projects. |
| Comments/caveats | Support to land consolidation is linked to R.39 as it mainly aims at improving farms economic performance. |

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| Indicator R.40 | **R.40 Smart transition of the rural economy:** Number of supported smart-village strategies |
| Definition and aim | To quantify the number of Smart Villages strategies or projects developed and/or implemented with CAP support. |
| Types of  intervention concerned | The following type of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Investments (Article 73) * Installation of young farmers and new farmers and rural business start-up (Article 75) * Cooperation (Article 77) * Knowledge exchange and dissemination of information (Article 78)   In some cases, only certain operations within an intervention may be concerned. |
| Unit of  measurement | Number of strategies |
| Moment of data collection | Operations for which a first payment was made in the Financial Year concerned.  **This indicator is cumulative over the period.** |
| Methodology | The strategy is included from the first payment.  ***Remark:*** Double counting of the same strategy should be avoided. If the same strategy is supported through several operations, the strategy should be counted only once. |
| Comments/caveats | Smart Villages are rural communities that promote local initiatives to find practical solutions to economic, social and/or environmental challenges and make the most of new opportunities, using digital technologies where appropriate.  Smart Villages can relate to a village hub delivering a range of services and bringing facilities closer to the people. A rural network of co-working spaces, an e-health project enhancing services for the elderly through smart homecare, digital training course for farmers and rural entrepreneurs, and an online platform to facilitate carpooling at designated hitch-hiking spots were among the projects supported in the current programming period and could be considered elements of a Smart Village strategy. |

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| Indicator R.41PR | **R.41PR Connecting rural Europe**: Share of rural population benefitting from improved access to services and infrastructure through CAP support |
| Definition and aim | To quantify the share of rural population covered by interventions aimed at improving access to services and infrastructure, including broadband. |
| Types of intervention | The following type of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Investments (Article 73) * Cooperation (Article 77)   In some cases, only certain operations within an intervention may be concerned. |
| concerned |
| Unit of measurement | % |
| Moment of data collection | Operations for which a first payment was made in the Financial Year concerned.  **This indicator is cumulative over the period**. |
| Methodology | Rural population benefitting from relevant improvements  Total rural population  Numerator:  Rural population as indicated in the first application for the selected operations. (i.e. the intended outcome).  The population is included from the first payment.  ***Remark:***  Double counting of the same population should be avoided. If different operations are supported in the same area, the population should be counted only once.  Denominator:  Total Member States population targeted with rural development interventions. |
| Comments/caveats | The indicator refers to the potential beneficiaries in municipalities or in a given area (e.g. covered by the LAG) |

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| Indicator R.42 | **R.42 Promoting social inclusion:** Number of persons covered by supported social inclusion projects  *\* no data sources* |
| Definition and aim | To quantify the inclusion projects number of participants to supported  social |
| Types of intervention concerned | The following type of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Cooperation (Article 77) * Installation of young farmers and new farmers and rural business start-up (Article 75) * Investments (Article 73)   In some cases, only certain operations within an intervention may be concerned. |
| Unit of measurement | Persons |
| Moment collection  of  data | Operations for which a first payment was made in the Financial Year concerned.  **This indicator is cumulative over the period.** |
| Methodology | Number of participants to relevant operations  Total rural population  Numerator  Number of applications outcome.  expected for the participants as indicated selected operations. (i.e. in the the first intended  For the investment support to the development of services, the number of potential beneficiaries of the services created is to be recorded.  For the support to small farms development, the number of direct beneficiaries of the support is to be accounted.  The number of persons is included from the first payment.  Denominator:  Total Member States population targeted with rural development interventions. |
| Comments/caveats | The methodology is similar to the monitoring of the number of disadvantaged participants to European Social Fund actions (<https://ec.europa.eu/sfc/en/system/files/ged/ESF%20monitoring%20and%20evaluation%20guidance.pdf>  This indicator cover the support to small farms development  It is up to the Member State to decide the groups that need specific support, depending on the situation in the country and the outcome of the SWOT analysis.  Relevant groups facing specific challenges could include elderly people, women in rural areas, migrants, unemployed, people with disabilities, minorities (including marginalized communities), etc. |

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| Indicator R.43PR | **R.43PR Limiting antimicrobial use:** Share of livestock units (LU) concerned by supported actions to limit the use of antimicrobials (prevention/reduction) |
| Definition and aim | To quantify the coverage of actions to limit the use of antimicrobials, support animal health or increase biosecurity measures with CAP support. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Sectoral types of intervention * Investments (Article 73) * Environmental, climate-related and other management commitments (Article 70) * Schemes for the climate, the environment and animal welfare (Article 31)   Not all interventions supporting a reduction of antimicrobial use are paid per livestock units (LU). For example, in organic livestock breeding, the use of antibiotics is limited and the support is paid per hectare. Organic support can be granted via eco-schemes or agri-environment-climate and other management commitments. The methodology to account for this CAP support is explained below.  For sectoral types of interventions, it may include e.g. actions under “other sectors” as defined in Article 42 (f) related to investments, research and experimental production as well as other actions for improving resilience against animal disease and reducing the use of veterinary medicines, including antibiotics (Article 47(1)(a)(ix)) and organic production (Article 47(1)(d)).  In some cases, only certain operations within an intervention may be concerned. All interventions/operations concerned must be quantified in livestock units.  **For monitoring, also a breakdown by species is to be provided.** |
| Unit of measurement | % |
| Moment of data collection | Livestock units for which a related payment was made in the Financial Year concerned (payment per head, livestock unit, area-payment or investments).  The total number of LU should be counted in full even if only a partial payment was made  This indicator is annual (but investments are accounted cumulatively over the period). |
| Methodology | Number of livestock units for which a related payment was made  Numerator:  Number of LU for which a payment under relevant interventions was made in the Financial Year concerned, without double counting.  For management commitments and schemes for the climate, the environment and animal welfare that address antimicrobial use, paid LU are reported every year.  For relevant interventions paid per hectare like support to organic farming and for investments on livestock farms, it requires estimating the related number of LU.  This estimation is based on the yearly production capacity expressed as the number of LU, using the standard conversion rates of animals to livestock units included in the annex of the Commission Implementing Regulation (EU) 2021/2290, e.g.:   * for a pig fattening activity with a building of 500 places the number of LU to be reported is: 500 \* 0.3 LU = 150 LU * for a pig breeding building with 200 places for sows the number of LU to be reported is: 200 \* 0.5 LU = 100 LU.   This number of LU, related to an investment, is reported each year from the first payment.  Double counting should be avoided (if e.g. a beneficiary receives support for management commitments and investments over the same programming period). Where a livestock unit is supported from multiple interventions, that livestock unit should be counted only once.  The coefficients to convert animal numbers in Livestock Units are published by EUROSTAT, see here.  Denominator:  Number of animals expressed in Livestock Units – EUROSTAT  December Livestock Survey. Tables [[apro\_mt\_ls](https://ec.europa.eu/eurostat/data/database?node_code=apro_mt_lspig)]. |
| Comments/caveats | In January 2022, the new Regulation (EU) 2019/6 on veterinary medicinal products will start to apply. It provides for a wide range of practices to promote a more prudent and responsible use of antimicrobials in animals, e.g. by restricting prophylactic and metaphylactic use. In order to help maintain animals healthy and prevent infections from occurring, therefore reducing the need to use antimicrobials, preventive measures may be taken, such as improved biosecurity measures, improved animal husbandry, better hygiene practices, vaccination. |

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| Indicator R.44PR | **R.44PR Improving animal welfare**: Share of livestock units (LU) covered by supported actions to improve animal welfare |
| Definition and aim | To quantify the coverage of actions aimed at improving animal welfare with CAP support. |
| Types of intervention concerned | The following types of interventions may be concerned, when specific requirements or conditions linked to the intervention can justify it:   * Schemes for the climate, the environment and animal welfare (Article 31) * Environmental, climate-related and other management commitments (Article 70) * Sectoral types of interventions * Investments (Article 73)   For sectoral types of interventions, it includes e.g. investments as well as other actions for biosecurity, animal health and welfare (Article 47(1)(a)(vi)) and organic production (Article 47(1)(d)).  Not all interventions supporting animal welfare are paid per livestock units (LU). For example, in organic livestock breeding, animal welfare requirements are higher and the support is paid per hectare. Organic support can be granted via eco-schemes or agri-environment-climate and other management commitments. The methodology to account for this CAP support is explained below.  In some cases, only certain operations within an intervention may be concerned. All interventions concerned must be quantified in livestock units.  **For monitoring, a breakdown by species is to be provided.** |
| Unit of measurement | % |
| Moment of data collection | Livestock units (LU) for which a related payment was made in the Financial Year concerned (payment per head, livestock unit or investments).  The total number of LU should be counted in full even if only a partial payment was made.  **This indicator is annual (but investments are accounted cumulatively over the period).** |
| Methodology | Number of livestock units for which a related payment was made  Numerator:  Number of LU for which a payment under relevant interventions was made in the Financial Year concerned, without double counting.  For management commitments and eco-schemes for animal welfare, paid LU are reported every year.  For relevant interventions paid per hectare like support to organic farming and for investments on livestock farms, it requires estimating the related number of LU (see R.43).  For investments, e.g. in buildings improving animal welfare, the number of LU is estimated based on the production capacity, using the standard conversion rates of animals to LU included in the annex of the Commission Implementing Regulation (EU) 2021/2290, e.g.:   * for a pig fattening building with 500 places the number of livestock units to be reported is:  500 \* 0.3 LU = 150 LU * for a pig breeding building with 200 places for sows the number of livestock units to be reported is:  200 \* 0.5 LU = 100 LU.   This number of LU, related to an investment, is reported each year from the first payment.  For relevant interventions paid per hectare, which would contribute to improve animal welfare (such as organic farming), a similar calculation as the one used for investments can be used.  The coefficients to convert animal numbers in LU are published by EUROSTAT, see here.  Double counting should be avoided (if e.g. a beneficiary receives support for management commitments and investments over the same programming period). Where a livestock unit is supported from multiple interventions, that livestock unit should be counted only once.  Denominator:  Number of animals expressed in Livestock Units - EUROSTAT  December Livestock survey. |
| Comments/caveats | In order to improve animal welfare, Member States may support actions (notably commitments or investments) such as:   * supplying water, feed and animal care in accordance with the natural needs of animal husbandry; * improving housing conditions, such as increased space allowances, flooring surfaces, enrichment materials, natural light; * offering outdoor access; * promoting practices which avoid mutilation and/or castration of animals, or in specific cases when mutilation or castration of animals is deemed necessary, provide for the use of anesthetics, analgesia and anti-inflammatory medication or immune-castration. |

# Output indicators

## General principles for output indicators

Output indicators measure the outputs generated through interventions supported by the CAP (e.g. number of hectares, projects, beneficiaries, etc.). They follow an accounting logic: for each expenditure linked to an intervention, one output is generated and counted.

There is a one-to-one relationship between an intervention and an output indicator (i.e. only one output indicator can be associated with an intervention). It means that outputs generated by an intervention are planned and reported only once under the output indicator associated with that intervention in the CAP strategic plan. The list of all the output indicators with full label and associated type of intervention is included in **Annex I** to this cover note.

There are 37 output indicators in total, out of which 35 are used for performance clearance as well as monitoring, communication and evaluation.

Two output indicators, which are O.3 (CAP beneficiaries) and O.34 (hectares under environmental practices), are only used for the effective monitoring, communication and evaluation of the CAP, and are neither planned nor used for performance clearance. For this reason, the one-to-one relationship between an intervention and an output indicator does not apply to these two indicators. Both indicators belong to the core list of indicators listed in Annex XIV to Regulation (EU) 2021/2115 (**SPR**) to be reported to the EP and Council pursuant to Article 142 of that Regulation (Reporting based on a core set of indicators In compliance with the reporting requirement pursuant to Article 41(3), point (h)(iii), of the Financial Regulation, the Commission shall present to the European Parliament and the Council the performance information referred to in that Article measured by the core set of indicators set out in Annex XIV to this Regulation.)

**REPORTING BASED ON CORE SET OF INDICATORS PURSUANT TO ARTICLE 142**

***Indicators for the European Agriculture Guarantee Fund (EAGF) and the European Agriculture Fund for Rural Development (EAFRD)***

|  |  |
| --- | --- |
| **Objective** | **Core set of indicators** |
| To support viable farm income and resilience of the agricultural sector across the Union in order to enhance long-term food security and agricultural diversity as well as to ensure the economic sustainability of agricultural production in the Union | |  |  | | --- | --- | | O.3 | Number of CAP support beneficiaries |  |  |  | | --- | --- | | C.25 | Agricultural factor income |  |  |  | | --- | --- | | R.6 | Redistribution to smaller farms: Percentage of additional direct payments per hectare for eligible farms below average farm size (compared to average) | |
| To enhance market orientation and increase farm competitiveness both in the short and long term, including greater focus on research, technology and digitalization | |  |  | | --- | --- | | R.9 | Farm modernization: Share of farms receiving investment support to restructure and modernize, including to improve resource efficiency | |
| To improve the farmers’ position in the value chain | |  |  | | --- | --- | | R.10 | Better supply chain organization: Share of farms participating in producer groups, producer organizations, local markets, short supply chain circuits and quality schemes supported by the CAP | |
| 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 | |  |  | | --- | --- | | I.10 | Contributing to climate change mitigation: Greenhouse gas emissions from agriculture |  |  |  | | --- | --- | | R.14 | Carbon storage in soils and biomass: Share of utilized agricultural area (UAA) under supported commitments to reduce emissions or to maintain or enhance carbon storage (including permanent grassland, permanent crops with permanent green cover, agricultural land in wetland and peatland) |  |  |  | | --- | --- | | R.17 | Afforested land: Area supported for afforestation, agroforestry and restoration, including breakdowns | |
| To foster sustainable development and efficient management of natural resources such as water, soil and air, including by reducing chemical dependency | |  |  | | --- | --- | | O.34 | Number of hectares under environmental practices (summary indicator on physical area covered by conditionality, eco-schemes, agri- and forest-environment-climate management commitments) |  |  |  | | --- | --- | | I.15 | Improving water quality: Gross nutrient balance on agricultural land |  |  |  | | --- | --- | | I.16 | Reducing nutrient leakage: Nitrates in ground water - percentage of ground water stations with nitrates concentration over 50 mg/l under Directive 91/676/EEC |  |  |  | | --- | --- | | I.18 | Sustainable and reduced use of pesticides: Risks, use and impacts of pesticides |  |  |  | | --- | --- | | R.19 | Improving and protecting soils: Share of utilized agricultural area (UAA) under supported commitments beneficial for soil management to improve soil quality and biota (such as reducing tillage, soil cover with crops, crop rotation included with leguminous crops) |  |  |  | | --- | --- | | R.20 | Improving air quality: Share of utilized agricultural area (UAA) under supported commitments to reduce ammonia emission |  |  |  | | --- | --- | | R.21 | Protecting water quality: Share of utilized agricultural area (UAA) under supported commitments for the quality of water bodies |  |  |  | | --- | --- | | R.22 | Sustainable nutrient management: Share of utilized agricultural area (UAA) under supported commitments related to improved nutrient management |  |  |  | | --- | --- | | R.24 | Sustainable and reduced use of pesticides: Share of utilized agricultural area (UAA) under supported specific commitments which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides such as pesticides leakage | |
| To contribute to halting and reversing biodiversity loss, enhance ecosystem services and preserve habitats and landscapes | |  |  | | --- | --- | | C.33 | Agricultural area under organic farming |  |  |  | | --- | --- | | I.21 | Enhancing provision of ecosystem services: Share of agricultural land covered with landscape features |  |  |  | | --- | --- | | R.29 | Development of organic agriculture: Share of utilized agricultural area (UAA) supported by the CAP for organic farming, with a split between maintenance and conversion |  |  |  | | --- | --- | | R.34 | Preserving landscape features: Share of utilized agricultural area (UAA) under supported commitments for managing landscape features, including hedgerows and trees | |
| To attract and sustain young farmers and new farmers and facilitate sustainable business development in rural areas | |  |  | | --- | --- | | R.36 | Generational renewal: Number of young farmers benefitting from setting up with support from the CAP, including a gender breakdown | |
| 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 | |  |  | | --- | --- | | R.37 | Growth and jobs in rural areas: New jobs supported in CAP projects |  |  |  | | --- | --- | | R.38 | LEADER coverage: Share of rural population covered by local development strategies |  |  |  | | --- | --- | | R.41 | Connecting rural Europe: Share of rural population benefitting from improved access to services and infrastructure through CAP support | |
| 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 resistances | |  |  | | --- | --- | | I.28 | Limiting antimicrobial use in farmed animals: Sales/use of antimicrobials for food-producing animals |  |  |  | | --- | --- | | R.43 | Limiting antimicrobial use: Share of livestock units (LU) concerned by supported actions to limit the use of antimicrobials (prevention/reduction) |  |  |  | | --- | --- | | R.44 | Improving animal welfare: Share of livestock units (LU) covered by supported actions to improve animal welfare | |
| Modernizing agriculture and rural areas by fostering and sharing of knowledge, innovation and digitalization in agriculture and rural areas and by encouraging their uptake by farmers, through improved access to research, innovation, knowledge exchange and training | |  |  | | --- | --- | | R.1 | Enhancing performance through knowledge and innovation: Number of persons benefitting from advice, training, knowledge exchange or participating in European Innovation Partnership (EIP) operational groups supported by the CAP in order to enhance sustainable economic, social, environmental, climate and resource efficiency performance | |

## Unit of measurement for output indicators

Output indicators can have different units of measurement, which are listed in **Annex II** to this cover note.

The unit of measurement can be, for instance, farmers, beneficiaries, operations, livestock units, heads, hectares, beehives, depending on the definition of the unit amount for an intervention in the CAP strategic plan. For simplification, in **Annex II** to this cover note it is proposed to report the number of operations for training actions. For lump sums under Article 70 of the SPR and for setting-up support, the unit to be used is the number of beneficiaries. For sectoral interventions in sectors other than the wine and apiculture sectors, the unit of measurement is always the number of operational programmes.

For the same output indicator there may be outputs measured with different units of measurement (or instance, the number of actions, number of beehives and number of beekeepers in output indicator O.37). Another example is the number of hectares for endangered plants, livestock units for endangered breeds and operations for the conservation, sustainable use and development of genetic resources.

The unit of measurement of an output cannot be changed where such unit is specified in the SPR for that intervention. For instance, agri-environment-climate commitments (output indicator O.14) can only be paid and reported in hectares. In duly justified cases, when the payment is granted as a lump sum, it can be reported by beneficiary.

For certain interventions, the legal text introduces a certain degree of flexibility as regard the units of measurement. For instance, the SPR is not prescriptive for investments, where using specific unit of measurement, such as livestock units (**LU**), could offer more possibilities to use Simplified Cost Options and reduce the administrative burden. These ‘other units’ need to be meaningful. ‘Other units’ can be defined by Member States (**MS**) in their intervention design for output indicator O.9 (risk management), O.15 and O.16 (forestry environment/climate commitments), O.19 (supporting genetic resources), O.20 to O.24 (investments), O.30 and O.32 (cooperation) and O.2 and O.33 (training), O.36 (wine) and O.37 (apiculture).

In addition, a common unit of measurement is needed when reporting to allow for aggregating outputs measured with different unit of measurement. For instance, if MS use unit amounts per LU (rather than per operation) for investments under O.20 (on-farm productive investments), O.21 (on-farm non- productive investments), O.22 (infrastructure investments), O.23 (off-farm non-productive investments) and O.24 (off-farm productive investments) for performance clearance, MS would need for monitoring to report also these investments under the aggregated number of operations supported, so that an EU figure covering all supported investments could be monitored.

**Agri-environment-climate commitments for bees under Art. 70**

If a Member State decides to include a specific agri-environment-climate scheme for bees in its CAP strategic plan, the commitment has to be clearly linked to the area. Thus, the payment and the unit amount have to be established per hectare using output indicator O.14 (number of hectares (excluding forestry) or other units covered by agri-environment-climate commitments) and R.31 (preserving habitats and species). A maximum number of beehives (e.g. 2 beehives per hectares) may also be defined as part of the eligibility criteria or commitment, depending on the type of commitment.

In exceptional cases, when the payment per hectare differs depending on the number of beehives on the actual hectares and it is not possible to establish the payment per hectare in advance, MS may use average unit amounts per hectare for these specific cases. The average unit amount would correspond to the expected average number of beehives per hectare multiplied by the cost incurred and income foregone per beehive.

## Planning of output indicators

Output indicators are planned per **agricultural financial year (FY)**, which begins the 16 October of year N-1 and ends the 15 October of year N.

Outputs are planned per intervention, which may include more than one **unit amount**.

If several unit amounts are established for an intervention, outputs can be planned either:

* + - 1. per each unit amount;
      2. per groups of unit amounts (i.e. unit amounts are put in different groups and planned outputs are assigned to these groups instead of to individual unit amounts); or
      3. for all unit amounts (i.e. planned outputs are not assigned to individual unit amounts, but to the intervention as a whole).

Where the outputs of an intervention are planned to be paid over several years, in order not to count them several times over the period, the annual planned outputs should correspond only to the number of outputs which are **indicatively** planned to receive their first payment in that FY. In other words, outputs are planned in full in the FY when the first payment is expected.

Regardless of whether the output of an intervention is planned to be paid in one year or over several years, such planned value is indicative, and may differ from the value that will actually be reported.

## Carry-over of expenditure from previous programming periods

Expenditure carried over from previous programming periods supporting interventions contributing to the CAP strategic plan should also be taken into account when **planning outputs**, whose value should be reflected in the relevant output indicator.

Carry-over of expenditure is not relevant for sectoral interventions, because operational programmes for the fruit and vegetables sector and operations for the wine sector that will continue to be implemented after 1 January 2023 have to follow the rules of the previous CAP, and not those applied for CAP Strategic Plans.

When certain operations are carried over in the CAP strategic plan, and they are integrated under specific interventions, the MS need to plan a separate **unit amount** for those operations. In addition, the **financial allocation** will have to be planned separately (the financial plan includes 'out of which carried over expenditure'). However, it is no longer requirement to plan the **number of outputs** per unit amount, and this can be done at the level of the intervention.

**Specific cases**

In the fruit and vegetables sector, the hops sector, the olive oil and table olives sector and in the other sectors referred to in Article 48 of the SPR, outputs are planned per operational programme.

For output indicators O.3 and O.34, and aggregated values of output indicators planning are not required.

**Reporting of output indicators to be used for performance clearance**

Reporting of output indicators is done through the annual performance report (**APR**), which is submitted by **15 February of year N** and refer to FY N-1.

Output indicators are reported per unit amount.

## Calculation methods of output indicators to be used for performance clearance

Output indicators refer to outputs effectively paid in the FY. In the case of financial instruments, outputs should be reported for incurred eligible expenditure defined in Art.80(5)(a)-(d) of SPR which has been also effected by the Paying Agency and declared to the Commission for the given FY (excluding the first advance payment provided for in Art.32(4)(a) HZR).

The values of an output indicator for performance clearance should be calculated as the proportion of the expenditure paid for the associated outputs in the FY. This proportion is based on the estimated cost of the entire project as indicated in the application for support. Therefore, **partial outputs** should be reported for partially completed operations.

* + - * + In accordance with payment deadlines for **direct payments**, payments for those interventions should normally be made entirely within a single FY (including both advances and final payments). Therefore, the output reported should generally cover the **full output** (e.g. full area, LU etc.). If, nevertheless, the payment for an application related to a given calendar year is split over two financial years, only the output corresponding to the payment should be reported, which corresponds to the share of the payment, in that FY. For instance, if an intervention covers 100 hectares for which only a 90% payment is made in a given FY, only 90 hectares (100 hectares \* 0.9) should be reported in that FY.
        + For **IACS**[**1**](#_bookmark6) **Rural Development** interventions, the payment for an output can be split over two FY, because the payment for a claim in FY N, can be made in FY N (advances) and N+1. If the payment for an output is split over two FYs, only a partial output should be reported, corresponding to the share of the payment, in the FY concerned. For instance, for 100 hectares for which only a 75% payment is made in the FY concerned, the MS should report 75 ha. (100 hectares \* 0.75).
        + For **non-IACS Rural Development** interventions, due to the nature of the operation, support may be paid in several **instalments** (advances excluded) and the period between payments may be longer than 1 year. Instalments are considered as proxies for the progress in the deliverable of the output. In this case, the output value reported should correspond to the share of the amount paid in the FY concerned in the committed amount. For example, for an instalment of 25% of the committed (or, depending on the operation, approved/contracted) amount, 0.25 of output should be reported.
        + For **sectoral interventions**, the output reported should cover the full output paid within the FY, which is the number of supported operational programmes in all sectors other than the wine and apiculture sectors (O.35), number of hectares, tonnes or actions in the Wine Sector (O.36) and number of beekeepers, beehives or actions in the Apiculture sector (O.37).

**Reporting of advances in output indicators to be used for performance clearance**

* + - * + Advances as referred to in Article 44(3) of Regulation (EU) 2021/2116 (**HZR**), should not be included in the performance clearance, as they are considered as payments made before any goods or services have materialized (‘real advances’). Thus, although expenditure related to advances referred to in Article 44(3) of the HZR paid for rural development “investments’ and ‘cooperation’ interventions, should be reported in the annual accounts, the outputs related to this cleared expenditure should be reported later, with the final payment.
        + Advances referred to in Article 32(4) point (a), and (5) of the HZR relating to financial instruments will also be treated as ‘real advances’ as described above. These advances should be reported together with the corresponding output indicators no later than in the last APR.

By contrast, for direct payments and IACS Rural Development interventions: the advance payments are actually first instalments and not ‘real advances’, as the corresponding output has already been delivered by the time of the first payment. Therefore, the corresponding partial output should be reported in the APR.

**Specific cases**

If an intervention includes support in the form of grants and financial instrument, the output indicator should be reported for each form of support. The table in **Annex III** to this cover note shows the link between types of interventions using financial instruments and corresponding output and result indicators.

For the fruit and vegetables sector, the hops sector, the olive oil and table olives sector and in the other sectors referred to in Article 48 of the SPR, outputs are reported per operational programme.

The implementation of Leader should only be reported under O.31 and thus operations implemented through Local Development Strategies should not be included in other output indicators (see section 5 on LEADER).

**Aggregated values of output indicators and values of output indicators O.3 and O.34 to be used for the purpose of monitoring, communication and evaluation**

**Planning of aggregate values and values for O.3 and O.34**

Aggregated values of output indicators and values of output indicators O.3 and O.34 do not have to be planned in the CAP strategic plan.

**Reporting of aggregate values and values for O.3 and O.34**

The following **aggregate values** should be reported without double counting:

* + - 1. the total output per intervention where several unit amounts are established for an intervention;
      2. the total output per unit of measurement where several units of measurement are established for an intervention;
      3. the total output per type of intervention where a type of intervention has several interventions;
      4. the total output per unit of measurement and, **where appropriate**, the total output using a common unit of measurement where the type of intervention includes several interventions the output of which is measured with different units of measurement;
      5. for output indicators O.4, O.36 and O.37, where interventions do not belong to the same type of intervention, the total output for those interventions.

Regarding point (iv), the total output using a common unit of measurement should be provided **where appropriate**. For instance, in the case of **investments** (output indicators from O.20 to O.24), outputs can be measured as operations but also as livestock units or other units. In this case the common unit of measurement is ‘operations’ and when reporting the aggregate value for the number of investment operations supported with the CAP, all operations are to be counted in regardless of whether they were paid with another unit of measurement. However, in other cases, the use of a common unit of measurement might not be appropriate e.g. for **eco-schemes** (output indicator O.8) in a MS implementing an eco-scheme for animal welfare paid per livestock unit, collecting the number of hectares of the beneficiaries might not be feasible (farmers without land) and not relevant as the support is directed at the livestock and not at land management.

The **output indicator O.3** refers to the beneficiaries granted directly CAP support (and thus not to the members of a producer organization or to the participants in a mutual fund). For this output, the following values should be provided:

* + - * + number of beneficiaries per intervention and per type of intervention (i.e. the detail by unit amount is not provided).
        + the total number of CAP support beneficiaries that are farmers, split by gender (the total number of CAP support beneficiaries is not calculated as it would be meaningless to add farmers and all the other kind of CAP beneficiaries such as producer organizations, training promotors, wine processing units…).

**Farmers - gender reporting**

There are 5 categories: Man, Woman, Non-binary, Prefer not to say and No prevalence.

A number of MS have legal provisions or practices recognising that individuals may not fall into man and woman categories. For these MS, these beneficiaries should be recorded as “non-binary”.

‘Prefer not to say’ applies for persons who may not wish to be associated with one gender.

When the beneficiary of the CAP support is a group of natural persons, a legal person or a group of legal persons, the gender of the main manager of the farm is reported. If there is no main manager, the gender is defined according to the majority of the farm managers. In case of perfect gender balance, the fourth category: « No prevalence » is used.

When the beneficiary of the CAP support is a public or private organisation, such as an agricultural school, MS can either report the gender of the person taking the decisions for the farming activity, or select the category ‘No prevalence’.

On a voluntary basis, MS can also provide the share of farmers that directly receive CAP support and exercise management responsibilities by gender (i.e. man, woman, prefer not to say, non-binary person).

* + - * + the total number of farmers that receive support in the form of direct payments (categories: IPARD and national funded).

The **output indicator O.34** provides the total area covered with practices beneficial for the environment and climate thanks to CAP support without double counting, broken down between agricultural and forestry land. For agricultural land, the following values should be provided:

* + - * + the total number of hectares receiving CAP support covered by the relevant statutory management requirements (**SMR**), good agricultural and environmental conditions (**GAEC**) and under **voluntary environmental practices** under eco-scheme, agri-environment-climate commitments and relevant sectoral interventions. This total excludes the interventions that are planned in units other than hectares when collecting the number of hectares is not feasible or not relevant;
        + the total number of hectares that are only under **voluntary environmental practices**, excluding interventions that are planned in units other than hectares when collecting the number of hectares is not feasible or not relevant.

**Calculation methods of aggregate values and values for O.3 and O.34**

For IACS interventions, when calculating aggregated values, outputs are counted in full since the first payment. For non-IACS interventions, paid in several instalments, the aggregates should account for the partial outputs.

For the **conversion of animals in livestock units** for aggregate values of output indicators such as O.8 (eco-schemes), O.11 (coupled income support), O.18 (animal welfare, health or increased biosecurity measures) and O.19 (operations supporting genetic resources), Eurostat coefficients should be used. In Table 1 of **Annex IV** to this cover note. Alternatively, the coefficients reported in Table 2 of the same Annex can also be used.

The coefficients provided in the table may be increased or decreased in duly justified cases, and such increase or decrease should be explained in the CAP strategic plan taking into account scientific evidence. Other categories of animals may also be added in the table in duly justified cases, and the associated conversion coefficient for such categories should be established and explained in the CAP strategic plan taking into account scientific evidence.

**Rules to avoid double counting**

Aggregated values of output indicators should be calculated without double counting, which means that where a given unit of output is covered by multiple relevant interventions, or by several operations within the same intervention, that unit of output is counted only once in the aggregate value.

Double counting can be avoided by using, for instance, a unique identifier for beneficiaries, or geospatial applications for area-based interventions. For operations receiving both grant and financial instrument support, a unique identifier for the operation is necessary to avoid double counting, e.g. number of supported on-farm productive investments (O.20).

For area based output indicators, the relevant area determined as eligible for payment after administrative controls and before applying limits (such as entitlements or maximum thresholds established by MS) should be taken into account when calculating the aggregate values. The table in **Annex V** to this cover note includes the output indicators for which this rule applies. This will depict better the actual area covered by CAP support, and also ease the localization of the support and the reporting without double counting.

In addition, to further simplify the reporting of these aggregates, the number of hectares having received payment between 16th October of Year N-2 and 15th October of Year N-1 in relation to interventions claimed in Year N-2 (partial or full payment) should be reported in the APR notified in year N.

Hectares from interventions funded through the European Agricultural Fund for Rural Development (**EAFRD**) claimed in year N-2 having received related first payment between the 1st October and the 15th October of Year N-2 will only be reported in the APR notified in year N.

In those rare cases where an output claimed in year N-2 has not received related payment before 16th October N-1, this output will never be reported.

**Additional national financing for output indicators**

When support is granted as additional national financing referred to in Article 115(5) of the SPR, planning of outputs should include the outputs generated by such additional national financing. However, outputs generated by additional national financing are reported separately from the outputs generated by public expenditure other than additional national financing.

Outputs generated by additional national financing should not be taken into account for the purpose of performance clearance, but they should be taken into account in the calculation of aggregated values of output indicators for the purpose of monitoring, communication and evaluation.

**Result indicators**

**General principles for result indicators**

**Result indicators establish the link between an intervention and its purpose**. They are used for **target setting** and to measure progress towards those targets (performance review). Provided a CAP action has proven to be effective in achieving its objective, following annual progress in its implementation will itself provide a good indication of whether or not the CAP is on track.

The list of all the result indicators with full label and associated specific objectives as presented in the Annex I to the SPR is included in **Annex VI** to this cover note.

There are **44 result indicators** in total, and MS are not allowed to use result indicators other than those in Annex VI. This will ensure comparability of results across MS and allow the aggregation of results at EU level.

Most result indicators are **type of intervention specific**. For instance, even if both management commitments and investments can contribute to the same specific objective, management commitments and investments are counted in separate result indicators to ease the accounting and the follow-up of the implementation of the CAP strategic plan. By contrast, R.43 (AMR) and R.44 (Animal welfare) mix investments and commitments.

In most cases result indicators differentiate between the management commitments paid per hectares (R.12, R.14, R.19, R.20, R.21, R.22, R.23, R.24, R.29, R.30, R.31, R.33) and those paid per LU (R.13, R.25). By contrast, for the support paid per hectare beneficial for animal welfare and AMR (organic farming), MS need to count the relevant LU for R.43 (AMR) and R.44 (Animal welfare). In addition, the support addressing reduction of GHG and ammonia emissions, paid per hectare but targeted to livestock (and without link to land) shall be linked to R.13 (e.g. measures supporting feed efficiency or feed additives).

In most cases, result indicators differentiate the support paid on agricultural land (e.g. R.12, R.14, etc.) from the support paid on forest land (R.30). By contrast, the creation of woodland counts towards R.17 whether afforestation takes place on agricultural land or on forest land.

In most cases, i.e. when feasible and relevant, result indicators differentiate the support to farming from the other support. The support to businesses, including off-farm investments realized by farmers, is recorded in R.39 (Developing the rural economy) and R.27 (Environment / climate-related performance through investment in rural areas). By contrast, there is no distinction between farmers and the other participants to knowledge exchange reported under R.1 because collecting the information would be too burdensome.

**Linking result indicators and specific objectives**

MS should establish a link between result indicators and specific objectives (SOs).

There is a direct link between result indicators and SOs, as suggested in Annex I to the SPR and in Annex VI to this cover note. However, the same result indicator can be linked to more than one SO:

* + - For instance, organic farming (R.29) is linked to SO6 – Biodiversity in Annex I to the SPR. However it may also be linked to SO5 – Natural Resources due to the benefits to soil and water, to SO4 – Climate, given that organic farming contributes to carbon sequestration, and SO9 – Societal demands, given consumers` demand for organic food.
    - In Annex I to the SPR, sustainable and reduced use of pesticides (R.24) is linked to SO5 – Natural Resources, but it can also be linked to SO9 – Societal demands.
    - Training (R.1 and R.2) ultimately will benefit all Objectives, thus it is enough to link it to SO10, which is the cross cutting objective - Modernization & sharing knowledge in the CAP strategic plan.

The most evident links between **result indicators and SOs** are displayed in the matrix in **Annex VII** to this cover note. It is noteworthy that MS can establish links between result indicators and specific objectives in addition to those in the matrix depending on the design of their interventions.

# Linking result indicators and types of interventions

It should be taken into account that:

1. interventions should be linked to all result indicators to which they contribute directly and significantly;
2. only operations within an intervention that contribute directly and significantly to a result indicator should be attributed to this result indicator. This is to acknowledge the fact that some interventions address several needs at a time (e.g. organic farming), while avoiding an overestimation of the effects of the policy. For environmental farming practices;
3. a single intervention, or a single operation within one intervention, may contribute to more than one result indicator;
4. all interventions must be linked to at least one result indicator. There are 3 derogations to this rule in Article 111, point (e) of the SPR, according to which support to apiculture not directly granted to beekeepers, certain interventions in the wine sector, and promotion and information for quality schemes may not be linked to any result indicators.
5. Regarding the types of intervention in the apiculture sector and Union financial assistance (Article 55 of the SPR), only the following interventions included in the type of intervention referred to in Article 55(1), point (b) should be linked to result indicator R.35 (preserving beehives):
   * combatting beehive invaders and diseases, in particular varroasis;
   * preventing damage caused by adverse climatic events and promoting the development and use of management practices adapted to changing climate conditions;
   * restocking of beehives in the Union, including bee breeding;
   * rationalizing transhumance.

As this support is granted directly to beekeepers, it is feasible to count the number of beehives benefitting from CAP support. These interventions are not counted in any other result indicators, because the number of beekeepers can be very large and by adding them to farmers- beneficiaries, the CAP effect on farmers that are not beekeepers would be diluted. In addition, some types of interventions, such as technical assistance, provide broad support to beekeepers, and the benefit arising from the collection of more precise data on the number of beehives of these beekeepers would not be proportionate to the administrative burden to collect such information.

1. areas that are only subject to SMR and GAEC should not be included in the calculation of result indicators, except for result indicator R.4, which is specifically designed to capture the share of agricultural area receiving CAP income support and subject to conditionality.
2. investments in irrigation should be linked to the following result indicators:
   * Modernization of existing irrigation installations on farm: R.26 (investments related to natural resources)
   * “New irrigation ” installations[4](#_bookmark18) on farm: R.9 (farm modernization)
   * Modernization of existing public irrigation infrastructure: R27 (Environmental or climate-related performance through investment in rural areas)
   * New public irrigation infrastructure[5](#_bookmark19): R.39 (Developing the rural economy)

Some positive and negative examples on how interventions can, or cannot, be linked to result indicators are provided as follows:

* Projects of building renovation should include clear and significant components that will lead to a significant improvement of animal welfare to count towards R.44 (animal welfare).
* A building renovation, adopting the latest standards in terms of energy savings, is not enough to justify establishing the link with R.16 (investments for climate).
* By contrast, even if the production of renewable energy is a small part of a huge modernization investment, the installed capacity is to be reported under R.15 (renewable energy).
* Some farming practices reducing ammonia emissions, such as ‘specific amendments with sorbents’ and ‘no-urea fertilizers’, should only be linked to R.20 (air quality).
* By contrast, interventions supporting organic farming should be linked to: R.14 (carbon sequestration), R.19 (soil), R.21 (water quality), R.22 (nutrient management), R.24 (pesticides),

R.29 (organic farming), R.31 (habitat and species), R.43 (AMR), and R.44 (animal welfare). MS may also attribute organic farming to other result indicators when specific requirements or conditions of the intervention justify it.

Where different/a broad range of operations/commitments are included in a single intervention, the individual operations/commitments of the intervention may be attributed to different result indicators, depending on their specific conditions. All supported commitments/operations must however be attributed to at least one result indicator. In these cases, when drafting the CAP strategic plan, the intervention as a whole (or the intervention/unit amount) should be attributed to the relevant result indicator, although not all operations/commitments might contribute to each of the selected result indicators.

* This is for instance the case for investments and cooperation. When reporting for investment and cooperation in this case, operations should be assessed individually and attributed (ex-post) to the relevant result indicator as appropriate.
* It could also be the case that an eco-scheme, mostly when it is a “whole farm eco-scheme”, contains different commitments, which should be linked to different result indicators. In this

situation, only the hectares (outputs) planned for the “commitments/operations” linked to a specific result indicator should be taken into account when setting the milestone/target for that specific result indicator. Similarly, for the reporting, only the hectares under the “commitment/operation” linked to a specific result indicator, should be included in the reporting for the specific result indicator. In the case of such a “whole farm eco-scheme” it could in certain cases, and depending on the design of the eco-scheme, facilitate the attribution of the individual commitments to result indicators in SFC[6](#_bookmark21) to plan separate unit amounts for each commitment, even if given the same “value”. Where this is not relevant or possible due to the design of the “whole farm eco-scheme”, it would increase transparency to nevertheless indicate clearly, which commitments justify the attribution of the intervention to which result indicator. It remains that only the hectares under the “commitment/operation” justifying the attribution of the intervention to a specific result indicator, should be included in the planning and reporting for the specific result indicator.

MS could also link result indicators to types of intervention other than those indicated in the indicator fiche of the result indicators as long as the link is justified by the intervention logic. Therefore, the types of interventions listed in the indicator fiches are neither compulsory nor exhaustive, but are considered the most relevant in a typical situation.

* For example, MS can define coupled payments to address environmental issues where coupled payments have been specifically designed to address this need and would reward farmers for practices going beyond mandatory requirements. In such cases, the area covered by this coupled payment could be included in the result indicators to which MS can demonstrate that it contributes directly and significantly.

The concept of primary and secondary contributions (or primary and secondary effects), which applied in the Annual Implementation Report for Rural Development measures under the CAP 2014-2020, does not exist any longer. One intervention may contribute to several result indicators at the same time, without hierarchy between the effects (provided the link is direct and significant).

It is noteworthy that, although the output indicators (which are associated to interventions) and result indicators can account for the same intervention, they are not necessarily based on the same unit of measurement due to their different purpose. For instance, the output indicators for the type of intervention ‘training is the number of training operations (training promotors are paid for each training operation they carry out, e.g. O.33) whereas the result indicator R.1 captures the effects of these interventions in a way to reflect their intended policy purpose, i.e. the number of persons trained.

**Planning of result indicators**

Quantified targets and milestones should be established for each result indicator that are relevant for the specific objectives and interventions described in the CAP strategic plan.

MS should plan only one target per result indicator, including for the result indicators with a breakdown. The only exception is R.11 (concentration of supply) for which MS should plan and report targets and milestones for each sector covered by operational programmes.

**Carry-over of expenditure from previous programming periods**

Expenditure related to interventions that are carried over from previous programming periods and are funded in the CAP strategic plan should be also taken into account in the intervention strategy and for the target setting of result indicators.

**Reporting of result indicators**

The result indicators are reported annually in the APR, which is submitted by **15 February** of each year.

When result indicators are expressed as a share, MS should report the numerator and the denominator (and not only the result indicator value) in the APR in order to allow aggregation at EU level.

**Breakdown of result indicators for reporting**

MS should report only one value per relevant result indicators. By way of derogation, the following breakdowns are required:

* + - 1. by sector for result indicator R.11;
      2. by subcategories for result indicator R.17;
      3. by conversion to and maintenance of organic farming for result indicator R.29;
      4. by land type for result indicator R.33;
      5. by gender for result indicator R.36;
      6. by livestock species for result indicators R.43 and R.44.

**Calculation methods for result indicators**

When calculating result indicators in the APR, the following should be taken into account:

The value of the output generated by an operation should always be attributed in **full** to the relevant result indicator, including when it is linked to more result indicators.

For all RI, the moment of data collection of the outputs generated by an operation is when a **first payment** (excluding real advance payments) is made in the FY concerned, even if only a partial payment was made in the FY concerned. By way of derogation, for result indicator R.37 (number of jobs created), values should be counted in full at the time of operation completion, because of the risk of discrepancy between the estimated number of jobs at the time of the first payment and the number of jobs actually created at the end of the project.

Values related to payments in the form of ‘real advances’ should not be counted in the quantification of the related result indicators prior to the delivery of the corresponding output.

Even if a single intervention or operation may contribute to more than one result indicator, units cannot be double counted within the same result indicators. For instance, if the same hectare is under more than one commitment (for example under a management commitment to reduce nitrogen application and maintain organic farming) this hectare can only be counted once (i.e. as 1 hectare) towards each relevant result indicator, such as R.21 – water quality. Therefore, the rule of **no double counting** applies for result indicators. There are very limited exceptions to the general principle, which apply because the administrative burden to ensure no double counting would not be proportionate to the increase in precision.

**Outputs generated by additional national financing** should be taken into account for the calculation of result indicators.

**Annual values** should be calculated for result indicators R.4, R.5, R.6, R.7, R.8, R.11, R.12, R.13, R.14, R.19, R.20, R.21, R.22, R.23, R.24, R.25, R.29, R.30, R.31, R.33, R.34, R.43 and R.44[7](#_bookmark26). Annual values correspond, for instance, to the share of UAA covered by a type of commitment in the relevant FY.

**Cumulative values** should be calculated for result indicators R.1, R.2, R.3, R.9, R.10, R.15, R.16, R.17, R.18, R.26, R.27, R.28, R.32, R.35, R.36, R.37, R.38, R.39, R.40, R.41 and R.42. Examples of how to calculate values for cumulative result indicators are provided in **Annex VIII** to this cover note.

For the **conversion of animals in livestock units** for result indicators, Eurostat coefficients should be used. Eurostat coefficients can be found at Table 1 of **Annex IV to this cover note**. Alternatively, the coefficients reported in Table 2 of the same Annex can also be used.

As previously mentioned, MS can link result indicators to types of intervention other than those indicated in the indicator fiche of the result indicators. However, there are few exceptions to this flexibility because there is the need to ensure comparability of results between MS and the reliability of the EU aggregate. For this reason, MS cannot derogate from the calculation method described in the fiche in the following cases:

* **Result indicator R.4** relates to the area covered by all the types of intervention in the form of direct payments as well as support for area under natural or other area-specific constraints (**ANC**) (Article 71 of the SPR) and for area-specific disadvantages resulting from certain mandatory requirements (Article 72 of the SPR).
* The **support to ANC**, without requirements beyond mandatory ones, is accounted in result indicators only related to income support (R.4 and R.7) and not in result indicators related to environmental and climatic objectives. Although ANC payments contribute to the maintenance of farming, prevent land abandonment and thus contribute to the environment, farmers do not need to implement specific practices beneficial for the environment and climate to be granted the support. Thus, these interventions do not provide positive externalities beyond mandatory requirements.
* Similarly, the **support to farmers in Natura 2000 and Water Framework Directive protected areas** (Article 72 of the SPR) only relate to R.4 and R.7, as the support compensates the farmers for the obligations to be respected for farming in these areas. If farmers in Natura 2000 commit to voluntary practices (Articles 31 and 70 of the SPR), this will be reflected in R.33 (Improving Natura 2000 management). For the derogation on support to forest area in Natura 2000, see below.
* **Result indicator R.6** relates to all the types of intervention in the form of direct payments, except the crop-specific payment for cotton. Ideally, R.6 should always be linked to complementary redistributive income support for sustainability, while other direct payments interventions may be added especially when there is some degressivity of unit amounts (which is possible, for instance, for complementary income support, and complementary income support for young farmers). An example on how to calculate R.6 is provided in **Annex IX** to this cover note.
* **Result indicator R.7** relates to all the types of intervention in the form of direct payments except the crop-specific payment for cotton, as well as support for ANC and for area-specific disadvantages resulting from certain mandatory requirements. Ideally, in the CAP Plan, R.7 should therefore be linked to interventions under Natura 2000, ANC and higher BISS payments for areas in need. An example on how to calculate R.7 is provided in **Annex IX** to this cover note. By way of derogation to this rule, when MS design interventions in accordance with Article 72 of the SPR **supporting forest areas only**, such interventions may be linked to result indicator **R.30**, subject to the following:
  + no interventions are designed for agricultural areas under natural or other area-specific constraints; and
  + Article 22(2) of the SPR is not applied in respect of ANC (as defined in Article 32 of Regulation (EU) No 1305/2013, i.e. MS do not increase the amount of the basic income support per hectare (**BISS**) granted to farmers in ANC areas.
* The **area-related result indicators** R.12, R.14, R.19, R.20, R.21, R.22, R.23, R.24, R.29, R.31,

R.33 and R.34 only relate to voluntary environmental practices going beyond mandatory requirements paid in hectares under eco-schemes referred to in Article 31 of the SPR, agri- environment-climate commitments referred to in Article 70 of the SPR, as well as relevant interventions in certain sectors referred to in Title III, Chapter III of the SPR.

* By way of derogation, MS may also link result indicators R.12, R.14, R.19, R.20, R.21, R.22, R.23, R.24, R.29, R.31, R.33 and R.34 to interventions other than those referred to in the previous point, provided that the supported practices go beyond relevant mandatory requirements and contribute significantly and directly to the relevant result indicators.
* For area based result indicators R.4, R.6, R.7, R12, R.14, R19, R.20 R.21, R.22, R.23, R.24, R.29, R.30, R.31, R.33 and R.34, the relevant area determined as eligible for payment after administrative controls and **before** applying limits should be taken into account when calculating their values. Annex V to this cover note describes this rule in detail.
* Result indicator R.43: an example on how to calculate this result indicator is provided in **Annex IX to this cover note**.

**Rules to avoid double counting in result indicators**

In order to calculate result indicators without double counting, the following should apply:

* + - 1. where a unit that contributes to the quantification of a result indicator is covered by several interventions, or several operations within the same intervention, which are linked to the same result indicator, this unit should only be counted once in the quantification of that result indicator;
      2. result indicators relating to IACS interventions and reported in the APR for the agricultural financial year N-1 should include the number of units that have received partial or full payment in agricultural financial year N-1 in relation to interventions claimed in year N-2;
      3. where payment entitlements or maximum thresholds are applied, MS should report the relevant area determined as eligible for payment after administrative controls and before applying limits under the relevant result indicators;
      4. by way of derogation from point (i), double counting may be accepted for result indicators R.1, R.2, R.3, R.10, and R.28.

**Denominators of result indicators**

The values of the context indicators that are used as denominators of result indicators should be fixed for the entire CAP strategic plan period. If duly justified, MS may update these values as part of a CAP strategic plan amendment in accordance with Article 119 of the SPR.

There are three exceptions to this rule:

* R.11 (Concentration of supply), where the values in the denominator (production value) should be adapted on a yearly basis in order to reduce the effect of price volatility on the indicator.
* R.6 (Redistribution to smaller farmers) and R.7 (Enhancing support to farms in areas with specific needs), for which the denominator is updated each FY.

These initial context indicator/denominator values should be included in the CAP strategic plan and should notably be used for the target setting. They will be automatically filled in the Plan based on the latest published context indicators. MS have the possibility to update these values. Once fixed in the Plan, the values will be annually used and thus automatically filled in the APR.

When the numerator refers to the number of ‘farmers’ granted support, the number of farms collected by Eurostat in the Integrated Farm Statistics surveys should be used for the denominator, as the definition of ‘farmer’ in the SPR Regulation approaches most closely the definition of ‘farm’ in Eurostat:

* In the SPR ‘farmer’ is defined as a natural or legal person, or a group of natural or legal persons, regardless of the legal status granted to such group and its members by national law, whose holding is situated within the territorial scope of the Treaty [...] and who exercises an agricultural activity as determined by MS […];
* Definition of ‘farm’ in Eurostat: An agricultural holding, or holding or farm is a single unit, both technically and economically, operating under a single management and which undertakes economic activities in agriculture within the economic territory of the European Union, either as its primary or secondary activity.

**Sectoral Interventions**

Sectoral interventions in all sectors, except for the wine and apiculture sectors, are carried out by recognized producer organizations or associations of producer organizations (POs, APOs or beneficiaries) through operational programmes (OPs). Due to administrative burden related to the long list of sectoral interventions set up according to the needs of the beneficiaries themselves, and because of the level of detail of the EU level eligibility conditions that exists in the SPR for these interventions (Title III, Chapter III of the SPR, the planning, reporting and clearing of these interventions are carried out in a simplified manner. This, as laid down in Article 48 of the SPR, implies that sectoral interventions in all sectors, except for the wine and apiculture sectors, are planned, reported and cleared at the OPs level, based on output indicator O.35.

In the wine and apiculture sectors, the planning, reporting and clearance should be carried out in a standard manner, i.e. at intervention level. However, the wine and apiculture sectors have dedicated output indicators, which are O.36 and O.37 respectively, to be used for planning, reporting and clearing performance in these sectors. These output indicators can be planned and reported in several units, depending on the nature of individual interventions.

Output indicator O.34 applies to a likely a small number of sectoral interventions, which are area-based and support environmental practices going beyond conditionality.

As for the result indicators, R.10 and R.11 should always be linked to all sectoral types of interventions in sectors other than wine and apiculture because all interventions implemented by the beneficiaries contribute to better supply chain organization and concentration of supply. For other result indicators besides R.10 and R.11, MS need to plan and report the contribution of sectoral interventions to a result indicator only if the contribution is direct and significant. Decision on whether a contribution of the intervention is direct and significant is to be done by MS, which are best placed to assess such contribution. This is because MS will decide on the menu of sectoral interventions they will offer to their beneficiaries and have the knowledge on the past performance and needs of their sectors in question, as well as an experience in adopting OPs in the Fruit & Vegetables sector during the 2014-2020 CAP period.

Given the difficulty to plan the contribution of sectoral interventions to result indicators, in particular at the beginning of the period, targets and milestones planned may need to be modified after the submission of the CAP strategic plans by MS. This can be done by amending the CAP strategic plans, according to Article 119 of the SPR. Alternatively, MS can provide justification for the inaccuracies in their APRs and explain factors that may not have been taken into account when planning (such as, for instance, the adoption of the OPs by POs after the submission of CAP strategic plan), or provide other necessary information.

For the wine sector, interventions are linked to the relevant result indicators (such as R.5 Risk Management) but not to R.11, because there are no operational programmes in the wine sector, and not in R.10, unless support, including EAFRD, is granted through a PO. For the apiculture sector, a dedicated result indicator R.35 applies.

Guidelines on how to link **result indicators** (other than R.10 and R.11) to **sectoral interventions** that contribute in a direct and significant manner to those result indicators are provided in **Annex X** to this cover note.

**Leader**

Incorporating the implementation of Leader into the CAP Plan performance system presents some specific challenges. Leader has always embodied elements of the new delivery model, with its flexible, territory-specific approach, built on principles, needs and objectives, rather than menus and checklists.

Leader, whilst clearly intrinsically connected to specific objective (h) “promote employment, growth, gender equality, including the participation of women in farming, social inclusion and local development in rural areas, including circular bio-economy and sustainable forestry”, can also contribute to any of the other eight specific objectives and the cross cutting objective, through the design and implementation of Local Development Strategies (LDS). However, since Leader is a bottom-up initiative, the expected contributions from this intervention to CAP strategic plan results and objectives are difficult to anticipate before the LDS have been selected. A specific approach to incorporating Leader into the CAP Plan performance system is therefore proposed.

For the development and approval of the CAP Plan, the Leader intervention should be attributed to the LEADER specific result indicator R.38, which is linked to the specific objective (h), and allows for setting a target indicating the expected rural population covered by LDS.

Once all LDS have been selected, the MS should modify, where relevant, the CAP strategic plan to add to the existing target values the additional contribution expected from implementation of the LDS. This may include introducing some additional result indicators. For example, it may be the case that certain result indicators, such as R.41 (share of rural population benefitting from improved access to services and infrastructure) or R.42 (promoting social inclusion), are only supported via Leader. MS should then incorporate the achieved contribution of LDS to each of the identified result indicators in their APR.

# Annex I: Types of interventions and associated output indicators

Output indicators only used for the purpose of monitoring, communication and evaluation are marked with MO.

|  |  |
| --- | --- |
| **Type of intervention** | **Output indicator** |
| Cooperation (Article 77 of the SPR) | O.1 Number of European Innovation Partnership (EIP) operational group  projects |
| Knowledge exchange and  dissemination of information (Article 78) | O.2 Number of advice actions or units to provide innovation support for  preparing or implementing European Innovation Partnership (EIP) operational group projects |
| Horizontal indicator | O.3MO Number of CAP support beneficiaries |
| Basic income support (Article 21) | O.4 Number of hectares benefitting from basic income support |
| Payment for small farmers (Article 28) | O.5 Number of beneficiaries or hectares benefitting from payments for  small farmers |
| Complementary income support for  young farmers (Article 30) | O.6 Number of hectares benefitting from complementary income support  for young farmers |
| Redistributive income support (Article  29) | O.7 Number of hectares benefitting from complementary redistributive  income support |
| Schemes for the climate, the  environment and animal welfare (Article 31) | O.8 Number of hectares or of livestock units benefitting from eco-schemes |
| Risk management (Article 76) | O.9 Number of units covered by supported CAP risk management tools |
| Coupled income support (Article 32) | O.10 Number of hectares benefitting from coupled income support |
| O.11 Number of heads benefitting from coupled income support |
| Natural or other area-specific  constraints (Article 71) | O.12 Number of hectares benefitting from support for areas facing natural  or other specific constraints, including a breakdown per type of area |
| Area-specific disadvantages resulting  from certain mandatory requirements (Article 72) | O.13 Number of hectares benefitting from support under Natura 2000 or Directive 2000/60/EC |
| Environmental, climate-related and other management commitments (Article 70) | O.14 Number of hectares (excluding forestry) or number of other units covered by environmental or climate-related commitments going beyond  mandatory requirements |
| O.15 Number of hectares (forestry) or number of other units covered by  environmental or climate-related commitments going beyond mandatory requirements |
| O.16 Number of hectares or number of other units under maintenance  commitments for afforestation and agroforestry |
| O.17 Number of hectares or number of other units benefitting from support  for organic farming |
| O.18 Number of livestock units (LU) benefitting from support for animal  welfare, health or increased biosecurity measures |
| O.19 Number of operations or units supporting genetic resources |
| Investments (Articles 73 and 74) | O.20 Number of supported on-farm productive investment operations or  units |
| O.21 Number of supported on-farm non-productive investment operations  or units |
| O.22 Number of supported infrastructure investment operations or units |
| O.23 Number of supported off-farm non-productive investments |

|  |  |
| --- | --- |
| **Type of intervention** | **Output indicator** |
|  | operations or units |
| O.24 Number of supported off-farm productive investment operations or  units |
| Setting up of young farmers and new farmers and rural business start-up (Article 75) | O.25 Number of young farmers receiving setting-up support |
| O.26 Number of new farmers receiving setting-up support (other than  young farmers reported under O.25) |
| O.27 Number of rural businesses receiving support for start-up |
| Cooperation (Article 77) | O.28 Number of supported producer groups and producer organizations |
| O.29 Number of beneficiaries receiving support to participate in official  quality schemes |
| O.30 Number of supported operations or units for generational renewal  (excluding setting-up support) |
| O.31 Number of supported local development strategies (LEADER) or  preparatory actions |
| O.32 Number of supported other cooperation operations or units  (excluding EIP reported under O.1) |
| Knowledge exchange and dissemination of information (Article  78) | O.33 Number of supported training, advice and awareness actions or units |
| Horizontal indicator | O.34MO Number of hectares under environmental practices (summary indicator on physical area covered by conditionality, eco-schemes, agri- and forest-environment-climate management commitments) |
| Types of intervention in certain  sectors (Article 47) | O.35 Number of supported operational programmes |
| Types of intervention in the wine  sector (Article 58) | O.36 Number of actions or units supported in the wine sector |
| Types of intervention in the apiculture  sector (Article 55) | O.37 Number of actions or units for beekeeping preservation or  improvement |

# Annex II: Units of measurement for outputs (codebook)

|  |  |  |
| --- | --- | --- |
| **Article** | **Output indicators** | **Possible Units** |
| Cooperation (Article 77 of the SPR) Knowledge exchange and information (Article 78) | O.1 Number of European Innovation Partnership (EIP)  operational group projects | Projects |
| O.2 Number of advice actions or units to provide innovation support for preparing or implementing European Innovation Partnership (EIP) operational group  projects | Operations |
| Advisors |
| Other unit |
| BISS (Article 21) | O.4 Number of hectares benefitting from basic income  support | Hectares |
| BISS/Payment for small farmers (Article  28) | O.5 Number of beneficiaries or hectares benefitting from payments for small farmers | Beneficiaries |
| Hectares |
| CISYF (Article 30) | O.6 Number of hectares benefitting from complementary  income support for young farmers | Hectares |
| Beneficiaries |
| CRISS (Article 29) | O.7 Number of hectares benefitting from complementary  redistributive income support | Hectares |
| Echo – schemes (Article 21) | O.8 Number of hectares or livestock units benefitting from eco-schemes | Hectares |
| Livestock units |
| Risk management (Article 76) | O.9 Number of units covered by supported CAP risk management tools | Beneficiaries |
| Hectares |
| Funds |
| Livestock units |
| Other unit |
| CIS (Article 32) | O.10 Number of hectares benefitting from coupled income  support | Hectares |
| O.11 Number of heads benefitting from coupled income  support | Heads |
| ANC (Article 71) | O.12 Number of hectares benefitting from support for areas facing natural or other specific constraints, including  a breakdown per type of area | Hectares |
| Natura 2000 (Article  72) | O.13 Number of hectares benefitting from support under Natura 2000 or Directive 2000/60/EC | Hectares |
| Environmental,- climate and other management commitments (Article 70) | O.14 Number of hectares (excluding forestry) or number of other units covered by environmental or climate-related  commitments going beyond mandatory requirements | Hectares |
| Beneficiaries |
| O.15 Number of hectares (forestry) or number of other units covered by environmental or climate-related commitments going beyond mandatory requirements | Hectares |
| Trees |
| Other unit |
| O.16 Number of hectares or number of other units under maintenance commitments for afforestation and agroforestry | Hectares |
| Trees |
| Other unit |

|  |  |  |
| --- | --- | --- |
| **Article** | **Output indicators** | **Possible Units** |
|  | O.17 Number of hectares or number of other units benefitting from support for organic farming | Hectares |
| Beneficiaries |
| O.18 Number of livestock units (LU) benefitting from support for animal welfare, health or increased biosecurity  measures | Livestock Units |
| O.19 Number of operations or units supporting genetic resources | Hectares |
| Livestock units |
| Operations |
| Other unit |
| Investments (Article 73) | O.20 Number of supported on-farm productive investment operations or units | Operations |
| Livestock units |
| Other unit |
| O.21: Number of supported on-farm non-productive investment operations or units | Operations |
| Other unit |
| O.22 Number of supported infrastructure investment operations or units | Operations |
| Other unit |
| O.23 Number of supported off-farm non-productive investment operations or units | Operations |
| Other unit |
| O.24 Number of supported off-farm productive investment operations or units | Operations |
| Other unit |
| Setting-up (Article 75) | O.25 Number of young farmers receiving setting-up  support | Beneficiaries |
| O.26 Number of new farmers receiving setting-up support  (other than young farmers reported under O.25) | Beneficiaries |
| O.27 Number of rural businesses receiving support for start-up | Beneficiaries |
| Cooperation (Article 71) | O.28 Number of supported producer groups and producer organizations | Beneficiaries |
| O.29 Number of beneficiaries receiving support to  participate in official quality schemes | Beneficiaries |
| O.30 Number of supported operations or units for generational renewal (excluding setting-up support) | Operations |
| Beneficiaries |
| Other unit |
| O.31 Number of supported local development strategies (LEADER) or preparatory actions | Strategies |
| Preparatory actions |
| O.32 Number of supported other cooperation operations or units (excluding EIP reported under O.1) | Operations, |
| Other unit |
| Knowledge exchange and information (Article 72) | O.33 Number of supported training, advice and awareness actions or units | Operations |
| Beneficiaries |
| Other unit |

|  |  |  |
| --- | --- | --- |
| **Article** | **Output indicators** | **Possible Units** |
| Sectoral types of interventions | O.35 Number of supported operational programmes | Operational Programmes |
| Sectoral types of interventions (Article 58) | O.36 Number of actions or units supported in the wine sector | Actions |
| Hectares |
| Hectoliters |
| Plants |
| Beneficiaries |
| Other unit |
| Sectoral types of interventions (Article 55) | O.37 Number of actions or units for beekeeping preservation or improvement | Beekeepers |
| Beehives |
| Actions |
| Other unit |

# Annex II: Types of interventions using financial instruments

**Link between types of interventions using financial instruments and corresponding output and result indicators**

For clearance purposes, output indicators are reported separately for financial instruments (FI) and grants, i.e. two outputs for the same project for the clearance of these different forms of support. However, for aggregated outputs and result indicators the same project and beneficiary receiving grant and FI should be counted only once. This implies the use of a unique project identifier and a unique beneficiary identifier. The list of result indicators provided in this Annex is not exhaustive and other result indicators might be relevant depending on the design of the intervention proposed by the MS.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type of Intervention** | **Output indicator** | | **Result indicator** | |
| Risk management tools (Art.76) | O.9 | Number of units covered by supported CAP risk management tools | R.5 | Risk management |
| Investments (Art.73 and Art. 74) | O.20 | Number of supported on-farm productive investment operations or units | R.3 | Digitalizing agriculture |
| O.22 | Number of supported infrastructure investment operations or units | R.9 | Farm modernization |
| O.24 | Number of supported off-farm productive investment operations or units | R.15 | Renewable energy from agriculture, forestry and from other renewable sources |
|  |  | R.16 | Investments related to climate |
|  |  | R.18 | Investment support to the forest sector |
|  |  | R.26 | Investments related to natural resources |
|  |  | R.27 | Environment/climate-related performance through investment in rural areas |
|  |  | R.32 | Investments related to biodiversity |
|  |  | R.37 | Growth and jobs in rural areas |
|  |  | R.39 | Developing the rural economy |
|  |  | R.41 | Connecting rural Europe |
| Installation support (Art. 75) | O.25 | Number of young farmers receiving installation support | R.36 | Generational renewal |
| O.26 | Number of new farmers receiving installation support (other than young farmers reported under O.25) | R.37 | Growth and jobs in rural areas |
| O.27 | Number of rural businesses receiving support for start up | R.39 | Developing the rural economy |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Type of Intervention | Output indicator | | Result indicator | |
| Cooperation (Art.77) | O.31 O.32 | Number of supported local development strategies (LEADER) or preparatory actions | R.38 | LEADER coverage |
| Number of supported other cooperation operations or units (excluding EIP reported under O.1) | R.37 | Growth and jobs in rural areas |
|  | R.39 | Developing the rural economy |
| Knowledge exchange and information (Art.78) | O.33 | Number of supported training, advice and awareness actions or units | R.1 | Enhancing performance through knowledge and  innovation |
| R.3 | Digitalizing agriculture |
| R.24 | Environmental/climate performance through knowledge and innovation |

# Annex III: Coefficients to convert animals in livestock units

Table 1 Eurostat coefficients to convert animals in livestock units

|  |  |  |
| --- | --- | --- |
| Bovine animals | Under 1 year old | 0.4 |
| 1 but less than 2 years old | 0.7 |
| Male, 2 years old and over | 1 |
| Heifers, 2 years old and over | 0.8 |
| Dairy cows | 1 |
| Other cows, 2 years old and over | 0.8 |
| Sheep and goats |  | 0.1 |
| Equidae |  | 0.8 |
| Pigs | Piglets having a live weight of under 20  kg | 0.027 |
| Breeding sows weighing 50 kg and over | 0.5 |
| Other pigs | 0.3 |
| Poultry | Broilers | 0.007 |
| Laying hens | 0.014 |
| Ostriches | 0.35 |
| Other poultry | 0.03 |
| Rabbits, breeding females |  | 0.02 |

Table 2 Alternative coefficients to convert animals in livestock units

|  |  |  |
| --- | --- | --- |
| Species | Age / category | Coefficient |
| Bovine animals | Below six months | 0.4 |
| From six months to 2 years | 0.6 |
| Over 2 years | 1 |
| Equine animals | Over 6 months | 1 |
| Sheep and goats |  | 0.15 |
| Pigs | Breeding sows > 50kg | 0.5 |
| Other pigs | 0.3 |
| Poultry | Laying hens | 0.014 |
| Other poultry | 0.03 |

# Annex IV: Rule to avoid double counting

Rule to avoid double counting in the aggregate value of area-based output indicators and in result indicators

In order to avoid double counting in the aggregate value of area-based output indicators and in area-based result indicators, the following simplified calculation allowing for the localization of the support at parcel level is proposed.

The operation of the CAP area support requires the monitoring of various areas:

1. **Area declared** (or **claimed area**): it is the area declared by the beneficiary and potentially eligible for payment (e.g. 100 hectares);
2. **Area determined after administrative controls before applying any limits**: it means the number of hectares, for which all conditions laid down for the granting of the payment have been met resulting from the administrative and on-the-spot checks **before** the application of any limits (such as the number of entitlements in the case of basic income support for sustainability or maximum thresholds set by MS for certain interventions) (e.g. 98 hectares, if after controls 2 hectares are not eligible).
3. **Area determined after administrative controls after applying any limits**: it corresponds to the number of hectares for which all conditions laid down for the granting of the payment have been met resulting from the administrative and on-the-spot checks **after** the application of any limit/ceiling (e.g. 80 hectares if the farmer has only 80 entitlements). This corresponds to the **area paid**.

The reporting needs differ according to the purpose of the indicators:

* + for performance clearance: the **area paid** at intervention/unit amount level (point 3);
  + for monitoring and evaluating the performance of the CAP: **it is key to avoid double counting** in the aggregates and measure the whole area covered by the CAP. Thus, the area determined after controls **before** applying any limits is the best option for this purpose (point 2).

The following table summarizes the area to be reported for each relevant area-based indicator.

|  |  |  |  |
| --- | --- | --- | --- |
|  | | **Area determined before applying limits (e.g. entitlements, maximum thresholds)** | **Area determined after applying limits (e.g. entitlements, maximum**  **thresholds)** |
| **Output Indicators by unit amount** | |  | O.4, O.5, O.6, O.7, O.8, O.10, |
|  | | O.12, O.13, O.14, O.15, O.16, |
|  | | O.17, O.19 |
| **Aggregate of** | **by intervention** | O.8, O.13, O.14, O.15, O.16, O.17, |  |
| **output** |  | O.19 |
| **Indicators** | **by type of** | O.4 (Total direct payments), O.4 | O.4 (BISS), O.5, O.6, O.7, |
|  | **intervention** | (BISS), O.8, O.14, O.15, O.16, | O.10, O.12, O.13, |
|  |  | O.17, O.34 |  |
| **Result** |  | R.4, R.6, R.7, R.12, R.14, R.19, |  |
| **Indicators** | R.20, R.21, R.22, R.23, R.24, R.29, |
|  | R.30, R.31, R.33, R.34, |

# Annex V: Link between results indicators and specific objectives

|  |  |  |
| --- | --- | --- |
| **EU cross-cutting objective** |  | **Result indicators** |
| Modernizing agriculture and rural areas by fostering and sharing knowledge, innovation and digitalization in agriculture and rural areas and by encouraging their uptake by farmers, through improved access to research, innovation, knowledge exchange and training |  | R.1 Enhancing performance through knowledge and innovation: Number of persons benefitting from advice, training, knowledge exchange or participating in European Innovation Partnership (EIP) operational groups supported by the CAP in order to enhance sustainable economic, social, environmental, climate and resource  efficiency performance |
|  | R.2 Linking advice and knowledge systems: Number of advisors  receiving support to be integrated within the Agricultural Knowledge and Innovation Systems (AKIS) |
|  | R.3 Digitalizing agriculture: Share of farms benefitting from support for digital farming technology through CAP |

|  |  |  |
| --- | --- | --- |
| **EU specific objectives** |  | **Result indicators** |
| SO1: To support viable farm income and resilience of the agricultural sector across the Union in order to enhance long-term food security and agricultural diversity as well as to ensure the economic sustainability of agricultural production in the Union | R.4 Linking income support to standards and good practices: Share of utilized agricultural area (UAA) covered by income support and  subject to conditionality |
| R.5 Risk management: Share of farms with supported CAP risk  management tools |
| R.6 Redistribution to smaller farms: Percentage of additional direct  payments per hectare for eligible farms below average farm size (compared to average) |
| R.7 Enhancing support for farms in areas with specific needs:  Percentage of additional support per hectare in areas with higher needs (compared to average) |
| SO2: To enhance market orientation and increase farm competitiveness both in the short and long term, including greater focus on research, technology and digitalization | R.8 Targeting farms in specific sectors: |
| Share of farms benefitting from coupled income support for improving competitiveness, sustainability or quality |
| R.9 Farm modernization: Share of farms receiving investment  support to restructure and modernize, including to improve resource efficiency |
| SO3: To improve the farmers' position in the value chain | R.10 Better supply chain organization: Share of farms participating in producer groups, producer organizations, local markets, short supply  chain circuits and quality schemes supported by the CAP |
| R.11 Concentration of supply: Share of value of marketed production by producer organizations or producer groups with operational  programmes in certain sectors |
| 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 | R.12 Adaptation to climate change: Share of utilized agricultural area (UAA) under supported commitments to improve climate adaptation |
| R.13 Reducing emissions in the livestock sector: Share of livestock units (LU) under supported commitments to reduce emissions of greenhouse gases and/or ammonia, including manure management |
| R.14 Carbon storage in soils and biomass: Share of utilized agricultural area (UAA) under supported commitments to reduce emissions or to maintain or enhance carbon storage (including  permanent grassland, permanent crops with permanent green cover, agricultural land in wetland and peatland) |
| R.15 Renewable energy from agriculture, forestry and from other renewable sources: Supported investments in renewable energy |

|  |  |  |
| --- | --- | --- |
| **EU specific objectives** |  | **Result indicators** |
|  | production capacity, including bio-based (in MW) |
| R.16 Investments related to climate: Share of farms benefitting from CAP investment support contributing to climate change mitigation and adaptation, and to the production of renewable energy or biomaterials |
| R.17 Afforested land: Area supported for afforestation, agroforestry  and restoration, including breakdowns |
| R.18 Investment support for the forest sector: Total investment to  improve the performance of the forestry sector |
| SO5: To foster sustainable development and efficient management of natural resources such as water, soil and air, including by reducing chemical dependency | R.19 Improving and protecting soils: Share of utilized agricultural area (UAA) under supported commitments beneficial for soil management to improve soil quality and biota (such as reducing tillage, soil cover with crops, crop rotation included with leguminous crops) |
| R.20 Improving air quality: Share of utilized agricultural area (UAA) under supported commitments to reduce ammonia emission |
| R.21 Protecting water quality: Share of utilized agricultural area (UAA) under supported commitments for the quality of water bodies |
| R.22 Sustainable nutrient management: Share of utilized agricultural area (UAA) under supported commitments related to improved nutrient management |
| R.23 Sustainable water use: Share of utilized agricultural area (UAA) under supported commitments to improve water balance |
| R.24 Sustainable and reduced use of pesticides: Share of utilized agricultural area (UAA) under supported specific commitments  which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides such as pesticides leakage |
| R.25 Environmental performance in the livestock sector: Share of  livestock units (LU) under supported commitments to improve environmental sustainability |
| R.26 Investments related to natural resources: Share of farms benefitting from CAP productive and non-productive investment  support related to care for the natural resources |
| R.27 Environmental or climate-related performance through investment in rural areas: Number of operations contributing to  environmental sustainability and the achievement of climate mitigation and adaptation goals in rural areas |
| R.28 Environmental or climate-related performance through knowledge and innovation: Number of persons benefitting from advice, training, knowledge exchange, or participating in European  Innovation Partnership (EIP) operational groups supported by the CAP related to environmental or climate-related performance |
| SO6: To contribute to halting and reversing biodiversity loss, enhance ecosystem services and preserve habitats and landscapes | R.29 Development of organic agriculture: Share of utilized agricultural area (UAA) supported by the CAP for organic farming,  with a split between maintenance and conversion |
| R.30 Supporting sustainable forest management: Share of forest land under commitments to support forest protection and management of ecosystem services |
| R.31 Preserving habitats and species: Share of utilized agricultural area (UAA) under supported commitments for supporting |

|  |  |  |
| --- | --- | --- |
| **EU specific objectives** |  | **Result indicators** |
|  | biodiversity conservation or restoration including high-nature-value farming practices |
| R.32 Investments related to biodiversity: Share of farms benefitting from CAP investment support contributing to biodiversity |
| R.33 Improving Natura 2000 management: Share of total Natura 2000 area under supported commitments |
| R.34 Preserving landscape features: Share of utilized agricultural area (UAA) under supported commitments for managing landscape features, including hedgerows and trees |
| R.35 Preserving beehives: Share of beehives supported by the CAP |
| SO7: To attract and sustain young farmers and other new farmers and  facilitate sustainable business development in rural areas | R.36 Generational renewal: Number of young farmers benefitting from setting up with support from the CAP, including a gender breakdown |
| SO8: 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 | R.37 Growth and jobs in rural areas: New jobs supported in CAP  projects |
| R.38 LEADER coverage: Share of rural population covered by local development strategies |
| R.39 Developing the rural economy: Number of rural businesses, including bio-economy businesses, developed with CAP support |
| R.40 Smart transition of the rural economy: Number of supported smart-village strategies |
| R.41 Connecting rural Europe: Share of rural population benefitting  from improved access to services and infrastructure through CAP support |
| R.42 Promoting social inclusion: Number of persons covered by  supported social inclusion projects |
| 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 resistances | R.43 Limiting antimicrobial use: Share of livestock units (LU) concerned by supported actions to limit the use of antimicrobials (prevention/reduction) |
| R.44 Improving animal welfare: Share of livestock units (LU) covered by supported actions to improve animal welfare |

# Annex VI: Matrix linking result indicators and specific objectives

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **SO1** | **SO2** | **SO3** | **SO4** | **SO5** | **SO6** | **SO7** | **SO8** | **SO9** | **SO10** |
|  | Support viable farm income and resilience | Enhance market orientation and increase farm competitiveness | Improve the farmers' position in the value chain | Contribute to climate change mitigation and adaptation | Foster sustainable development and efficient management of natural resources | Contribute to halting and reversing biodiversity loss | Attract and sustain young farmers and facilitate sustainable business development in rural areas | Promote employment, growth, gender equality | Improve the response of Union agriculture to societal demands on food and health | Modernizing the sector by fostering and sharing knowledge, innovation and digitalization in agriculture |
| **R.1** Enhancing performance through knowledge and  innovation |  |  |  |  |  |  |  |  |  |  |
| **R.2** Linking advice and knowledge systems |  |  |  |  |  |  |  |  |  |  |
| **R.3** Digitalizing agriculture |  |  |  |  |  |  |  |  |  |  |
| **R.4** Linking income support to standards and good practices |  |  |  |  |  |  |  |  |  |  |
| **R.5** Risk Management |  |  |  |  |  |  |  |  |  |  |
| **R.6**  Redistribution to smaller farms |  |  |  |  |  |  |  |  |  |  |
| **R.7** Enhancing support to farms in areas with specific  needs |  |  |  |  |  |  |  |  |  |  |
| **R.8** Targeting farms in specific sectors |  |  |  |  |  |  |  |  |  |  |
| **R.9** Farm modernization |  |  |  |  |  |  |  |  |  |  |
| **R.10** Better supply chain organization |  |  |  |  |  |  |  |  |  |  |
| **R.11**  Concentration of supply |  |  |  |  |  |  |  |  |  |  |
| **R.12**  Adaptation to climate change |  |  |  |  |  |  |  |  |  |  |
| **R.13** Reducing emissions in the livestock sector |  |  |  |  |  |  |  |  |  |  |
| **R.14** Carbon storage in soils and biomass |  |  |  |  |  |  |  |  |  |  |
| **R.15**  Renewable energy from agriculture, forestry and from other renewable  sources |  |  |  |  |  |  |  |  |  |  |
| **R.16**  Investments related to climate |  |  |  |  |  |  |  |  |  |  |
| **R.17** Afforested  land |  |  |  |  |  |  |  |  |  |  |
| **R.18**  Investment support to the forest sector |  |  |  |  |  |  |  |  |  |  |
| **R.19** Improving and protecting soils |  |  |  |  |  |  |  |  |  |  |
| **R.20** Improving  air quality |  |  |  |  |  |  |  |  |  |  |
| **R.21** Protecting water quality |  |  |  |  |  |  |  |  |  |  |
| **R.22**  Sustainable nutrient management |  |  |  |  |  |  |  |  |  |  |
| **R.23**  Sustainable water use |  |  |  |  |  |  |  |  |  |  |
| **R.24**  Sustainable and reduced use of pesticides |  |  |  |  |  |  |  |  |  |  |
| **R.25**  Environmental performance in the livestock sector |  |  |  |  |  |  |  |  |  |  |
| **R.26**  Investments related to natural  resources |  |  |  |  |  |  |  |  |  |  |
| **R.27**  Environment-  /climate-related performance through investment in  rural areas |  |  |  |  |  |  |  |  |  |  |
| **R.28**  Environmental/ climate performance through knowledge and  innovation |  |  |  |  |  |  |  |  |  |  |
| **R.29**  Development of organic agriculture |  |  |  |  |  |  |  |  |  |  |
| **R.30**  Supporting sustainable forest  management |  |  |  |  |  |  |  |  |  |  |
| **R.31** Preserving habitats and species |  |  |  |  |  |  |  |  |  |  |
| **R.32**  Investments related to biodiversity |  |  |  |  |  |  |  |  |  |  |
| **R.33** Improving Natura 2000 management |  |  |  |  |  |  |  |  |  |  |
| **R.34** Preserving landscape  features |  |  |  |  |  |  |  |  |  |  |
| **R.35** Preserving  beehives |  |  |  |  |  |  |  |  |  |  |
| **R.36**  Generational renewal |  |  |  |  |  |  |  |  |  |  |
| **R.37** Growth and jobs in rural areas |  |  |  |  |  |  |  |  |  |  |
| **R.38** LEADER coverage |  |  |  |  |  |  |  |  |  |  |
| **R.39**  Developing the rural economy |  |  |  |  |  |  |  |  |  |  |
| **R.40** Smart transition of the rural economy |  |  |  |  |  |  |  |  |  |  |
| **R.41**  Connecting rural Europe |  |  |  |  |  |  |  |  |  |  |
| **R.42** Promoting social inclusion |  |  |  |  |  |  |  |  |  |  |
| **R.43** Limiting antimicrobial  use |  |  |  |  |  |  |  |  |  |  |
| **R.44** Improving animal welfare |  |  |  |  |  |  |  |  |  |  |

# Annex VII How to report cumulative values for result indicators

Example 1: R.36 Generational renewal: Number of young farmers benefitting from setting up with support from the CAP, including gender breakdown

Assumptions:

* In this example, MS opted for a complementary income support for young farmers (CIS-YF) granted for 5 years. For simplification, it is assumed that each year there are 900 young farmers (YF) newly granted this complementary aid.
* The Rural Development (RD) installation support is paid in 3 instalments
* A YF can receive the first payment for RD installation support, before being actually set up. This is why in a given year, not all YF paid for the first time the RD installation support are eligible to the CIS-YF.
* In addition, it is assumed that not all YF eligible to the CIS-YF also claimed the RD installation support.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| FY | Number of beneficiaries of complementary income support for YF (Art. 27 – CIS-YF) | | Number of YF setting up paid RD installation support (Art. 69) | | Number of new YF (in a given year) without double counting between schemes and previous years | R.36 |
|  | Total | First payment | Total | First instalment |
| 2022 | 4500\* | 900 | 2670\* | 890 | 1400\*\* | 1400 |
| 2023 | 4500 | 900\*\*\* | 2670 | 890 | 900\*\*\*\* | 2300 |
| 2024 | 4500 | 900 | 2670 | 890 | 900 | 3200 |
| 2025 | 4500 | 900 | 2670 | 890 | 900 | 4100 |
| 2026 | 4500 | 900 | 2670 | 890 | 900 | 5000 |

\* These numbers reflect the fact that the CIS-YF and the RD installation support are available in the current CAP too (i.e. not all farmers paid can be considered as setting-up a farm in 2022).

\*\* 1400 = 900 YF newly granted the CIS-YF + 500 newly granted the RD installation support (and not granted yet the CIS-YF)

\*\*\* out of which 500 received RD installation support the previous year already

\*\*\*\* 400 new YF granted the CIS-YF (out of which 390 received the first payment for RD installation support) + 500 newly granted the RD installation support (and not granted yet the CIS-YF)

This example at first sight seems very complex, but using the **unique beneficiary identifier** will simplify significantly the task of MS. This example shows that the beneficiary identifier should be unique for all interventions (RD and direct payments and all years.

Gender breakdown

MS should report the number of newly sat up young farmers by gender.

For direct payments, for the CIS-YF, MS should allocate the payment entitlements to the applicant who enjoys the decision-making power. Thus, there is always only one beneficiary and MS should collect its gender, included for legal entities.

For rural development, a group of beneficiaries can be granted the installation grant. For simplification, MS should designate one head of the group (of natural and legal persons) and collect its gender.

Financial instruments

In addition, MS might support YF set-up with financial instruments (FI). More precisely, a YF can receive support in the form of a grant and FI or only FI. In this case also, the use of the unique beneficiary identifier will allow to count YF only once, whatever the kind of support they received.

Link to R.37 Growth and jobs in rural areas: New jobs supported in CAP projects

The support to newly set up young farmers contributes to the safeguard and creation of jobs in agriculture, thus it is to be reported under **R.37**.

The other jobs created (through the installation support for other farmers than young, investment support…) is to be collected at the end of the project (last payment), when the information on the number of jobs created will be as close as possible from the actual number of jobs created.

Adding R.36 collected at first instalment and the rest collected at balance payment is not an issue, as the number of newly sat up young farmers is not changing between the first and balance instalments.

**Example 2**: **R.9 Farm modernization**: Share of farms receiving investment support to restructure and modernize, including to improve resource efficiency.

What if the type of intervention concerned is only investments under Rural Development (Art. 73 of the SPR)?

**Assumptions**:

There are 3 calls addressing restructuration and modernization

* Call 1, launched in 2022: 5,000 projects selected
* Call 2, launched in 2023: 6,000 projects selected
* Call 3, launched in 2025 (100% national money – “top-up”): 8 000 projects selected
* Different beneficiaries per project
* Denominator = 100 000 farms

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Call 1** |  | **5.000 selected projects for an average amount per project of 54000 €** | | | |
| FY | advance (20%) | 1st interim (30%) | balance (50%) | n° of outputs | n° of farms for the numerator of R.9 |
| 2022 | 54 000 | - | - | 0 |  |
| 2023 | - | 81 000 | - | 1.5 | 5 |
| 2024 | - | - | - | 0 |  |
| 2025 | | | 135 000 | 3.5 | |
|  | | | | | |
| **Call 2** |  | **6.000 selected projects for an average amount per project of 52000 €** | | | |
| 2023 | - | - | - | 0 |  |
| 2024 | 62 400 |  |  | 0 |  |
| 2025 | - | 93 600 | - | 1.8 | 6 |
|  | | | | | |
| **Call 3** |  | **8.000 selected projects for an average amount per project of 49000 €** | | | |
| 2025 | 78 400 | 117 600 |  | 2.4 | 8 |

Values in thousand euros, Output in thousand units, Numerator in thousand farmers

Calculation of the result indicator:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Numerator | | Denominator | R.9 |
| FY | Annual | Cumulative |  |  |
| 2022 | 0 | 0 | 100 | 0% |
| 2023 | 5 | 5 | 100 | 5% |
| 2024 | 0 | 5 | 100 | 5% |
| 2025 | 14 | 19 | 100 | 19% |

Note: in thousand

What if in addition there are investments addressing restructuration and modernization under sectoral types of interventions?

Assumptions:

* The MS has also designed an intervention “Investment in renewable energy and energy saving” as an environmental intervention for F&V Producer Organization under Article 43(1)(l).
* The investment can be realized by the PO or by farmers members of the PO

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| FY | n° of projects for which a first payment was  made in FY concerned | Out of which realized by POs | Out of which realized by farmers | Out of which farmers not receiving RD support |
| 2022 | 0 | 0 |  |  |
| 2023 | 400 | 250 | 150 | 140 |
| 2024 | 380 | 200 | 180 | 170 |
| 2025 | 420 | 300 | 120 | 120 |

Calculation of the RI

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Numerator | | Denominator | R.9 |
| FY | Cumulative F&V | Cumulative RD |  |  |
| 2022 | 0 | 0 | 100 | 0% |
| 2023 | 0.14 | 5 | 100 | 5.14% |
| 2024 | 0.31 | 5 | 100 | 5.31% |
| 2025 | 0.43 | 19 | 100 | 19.43% |

Note: in thousand

# Annex VIII How to calculate R.6, R.7 and R.43

**Example 1: R.6 Redistribution to smaller farms**: Percentage additional direct payments per hectare for eligible farms below average farm size (compared to average).

Assumptions regarding the direct payments concerned:

* Basic Income support for sustainability (BISS): 160 EUR/ha
* Complementary redistributive income support for sustainability (CRISS): 40 EUR/hectare on the first 20 ha
* Round sum payment for small farmers: 900 EUR/beneficiary
* Complementary income support for young farmers (CIS-YF): 30 EUR/hectare
* Eco-scheme: 30 EUR/hectare on average
* Some coupled payments

Total determined area (BISS before entitlements (incl. payments to small farmers)) and amounts received by farmers in the FY concerned

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Beneficiary | BISS | Small farmers | CRISS | CIS-YF | Eco- scheme | Coupled support | Coupled  support animal | Total paid area | DP | DP/ha | Below  average farm size |
| a | b | c | d | e | f | g | h | i=a:g | i/h |  |
| EUR | EUR | EUR | EUR | EUR | EUR |  | ha | EUR | EUR/ha |  |
| 1 | 4 800 |  | 800 |  | 900 |  |  | 30.0 | 6 500 | 217 | YES |
| 2 |  | 900 |  |  |  |  |  | 2.5 | 900 | 360 | YES |
| 3 | 6 400 |  | 800 | 1 200 | 1 200 | 2 000 |  | 40.0 | 11 600 | 290 | YES |
| 5 | 2 400 |  | 600 | 450 | 450 |  |  | 15.0 | 3 900 | 260 | YES |
| 6 | 16 000 |  | 800 |  | 3 000 | 15 000 |  | 100.0 | 34 800 | 348 |  |
| 7 | 4 800 |  | 800 |  | 900 |  |  | 30.0 | 6 500 | 217 | YES |
| 8 | 64 000 |  | 800 |  | 12 000 | 20 000 |  | 400.0 | 96 800 | 242 |  |
| 14 | 56 000 |  | 800 |  | 10 500 |  |  | 350.0 | 67 300 | 192 |  |
| 15 | 800 |  | 400 |  |  |  | 1 500 | 10.0 | 2 700 | 270 | YES |
| 16 |  |  |  |  |  |  | 1 200 | 0.0 | 1 200 | / |  |
| … |  |  |  |  |  |  |  | … | … |  | **…** |
|  |  |  |  |  |  | **Total** |  | **978** | **232 200** | **238** |  |
| Avg farm size  (national ) | 45ha |  | Total for farms below farm size 128 32 100.0 251.8 106% | | | | | | | | |

Step 1: Identify the population of “farms below average farm size”.

1. Determine the average farm size of direct payments beneficiaries that year = 45 ha/farm (national average based on a broader set of beneficiaries)

Total of area (BISS before entitlements+ Payments to small farmers) / Total number of beneficiaries.

1. Determine the population of farms eligible for direct payments with an area below the average farm size: in pink in the table. Here beneficiary 16 with 0 BISS area is not classified into the group of farmers below average size. It is considered that it is not the type of farmer that is targeted by the redistribution objective (e.g. CRISS does not reach these farmers).

Step 2: Calculate the average amount of direct payments per hectare for each group:

1. **Numerator**: the total amount of direct payments paid to beneficiaries of direct payments during financial year N, after reduction but before penalties:
   * 232 200 EUR for the whole population of DP beneficiaries
   * 32 100 EUR for the beneficiaries below farm size
2. **Denominator**: the total area determined for BISS before entitlements, including the round sum payment for small farmers.
   * 938 hectare for the whole population
   * 128 hectare for the farms below farm size

##### Average amount = Numerator / Denominator

* + 238 EUR/hectare for the whole population
  + 251.8 EUR/hectare for the farms below farm size

Step 3: Calculate the indicator

R.6 = Average DP/hectare paid to farmers below average farm size \* 100 Average DP/hectare paid to all farmers

R.6 = 251.8 / 238 \* 100 = 106%

**Example 2**: **R.7 Enhancing support to farms in areas with specific needs**: Percentage additional support per hectare in areas with higher needs (compared to average).

Assumptions regarding income support:

* Basic Income support for sustainability (BISS):
  + Territory A with higher needs: 100 EUR/ha
  + Territory B: 25 EUR/ha
* Complementary redistributive income support for sustainability (CRISS): 40 EUR/ha on the first 20 ha
* Round sum payment for small farmers: 900 EUR/beneficiary
* Complementary income support for young farmers (CIS-YF): 30 EUR/ha
* Eco-scheme, on average 30 EUR/ha
* Some coupled payments
* Payment for natural or other area-specific constraints (ANC): for simplification, only one category applies in the example: 40 EUR/ha
* Payment for area-specific disadvantages – Natura 2000 and Water framework directive: for simplification, only the payment to Natura 2000 applies in the example: 30 EUR/ha in agricultural areas and 50 EUR/ha in Forest.

Total determined area and amounts received by farmers in the FY concerned.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Bene- ficiary | BISS -  Territor y A | BISS -  Territory B | Small farmers | CRISS | CIS-YF | Eco- scheme | Coupled support | ANC | specific disadvantage | specific disadvantage Forest | Total determined area | Total Support | Support  /ha | In area with specific  needs |
| a | b | c | d | e | f | g | h | i | j | k | l= a:j | m/l |  |
| EUR | EUR | EUR | EUR | EUR | EUR | EUR | EUR | EUR | EUR | ha | EUR | EUR/ha |  |
| 1 |  | 750 |  | 800 |  | 900 |  |  |  |  | 30.0 | 2 450 | 82 |  |
| 2 |  |  | 900 |  |  |  |  |  |  |  | 3.0 | 900 | 300 |  |
| 3 |  | 1 000 |  | 800 | 1 200 | 1 200 | 2 000 |  |  |  | 40.0 | 6 200 | 155 |  |
| 4 | 5 000 | 500 |  | 800 |  | 2 100 | 4 000 | 2 800 |  |  | 70.0 | 15 200 | 217 | YES |
| 5 | 1 500 |  |  | 600 | 450 | 450 |  |  |  |  | 15.0 | 3 000 | 200 | YES |
| 6 |  | 100 |  | 800 |  | 3 000 | 15 000 |  | 3 000 |  | 100.0 | 21 900 | 219 | YES |
| 7 |  |  |  |  |  |  |  |  |  | 1 000 | 20.0 | 1 000 | 50 | YES |
|  |  |  |  |  |  |  | **Total** |  |  |  | **278** | **50 650** | **182** |  |
|  |  |  | Total for farms in areas with specific needs 205 41 100 200 110% | | | | | | | | | | | |

Preliminary step: Define the area with specific needs relevant for the MS strategy/needs assessment.

The area with specific needs is to be defined based on Article 66 (areas with natural or other area-specific constraints), and/or Article 67 (areas with specific disadvantages resulting from certain mandatory requirements) and/or BISS groups of territory with higher income support (art. 18(2)) (differentiation of the Basic income support due to difference in income needs).

In the example, ANC areas, Natura 2000 areas and BISS territory A are defined as area with specific needs.

Step 1: Identify the population of “farms in areas with specific needs”.

Identify beneficiaries, receiving in the Financial Year concerned support under:

ANC (column h in the table) and/or area-specific disadvantages (column i and j) and/or BISS for territories in higher needs (column a)

Beneficiaries in pink in the table

Step 2: Calculate the average amount of direct payments per hectare for each group:

1. **Numerator**: the total amount of income support paid to beneficiaries of direct payments, ANC and Article 67 during financial year N, after reduction of Direct Payments but before corrections:
   * 50 650EUR for the whole population of income support beneficiaries
   * 41 100 EUR for the farms in areas with specific needs
2. **Denominator**: the total area determined for BISS, including for small farmers + hectares paid for Article 66 and 67 outside BISS area.
   * 278 hectare for the whole population
   * 205 hectare for the farms in areas with specific needs

##### Average amount = Numerator / Denominator

* + 182 EUR/hectare for the whole population
  + 200 EUR/hectare for the farms in areas with specific needs

Step 3: Calculate the indicator

R.7 = Average DP / hectare paid to farms in areas with specific needs \* 100 Average DP / hectare paid to all farmers

R.7 = 200 / 182 \* 100 = 110%

**Example 3: R.43 Limiting antimicrobial use:** Share of livestock units (LU) concerned by supported actions to limit the use of antimicrobials (prevention/reduction)

Assumptions regarding interventions supporting animal welfare:

* Support to organic farming maintenance (AECMC): paid in EUR/ha,
  + Livestock needs to be matched with area: If the stocking rate is below 0.5 LU/ha, livestock payment is only paid for the amount of hectare which would result in a stocking rate of 0.5 LU/ha
* Animal welfare commitment, for ewes, paid in EUR/LU per ewe
* Investment support for animal welfare: average unit amount in EUR/operation
* Eco-scheme – animal welfare for dairy she-goats in stables: paid in EUR/LU

Farm examples

Farm A: Organic farm, with 100 dairy cows and 200 ha => 100 LU paid; from FY2024 and then every year

Farm B: 350 ewes, under Animal welfare commitment => 350 heads \* 0.10 LU = 35 LU from FY2026 for 5 years

Farm C: Eco-scheme, stable with 200 dairy she-goats at the moment of the claim => 200 heads \* 0.1 LU

= 20 LU in FY2025 and FY2026

Farm D: Investment in a stable for pigs for fattening with 300 places => 300 places \* 0.3 = 90 LU, first payment in FY2025

(Use of Eurostat livestock unit coefficients)

Reporting of the outputs generated for the numerator of the Result Indicator:

* Commitments are accounted annually
* Investments are accounted cumulatively from the first year of payment

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | in LU | FY2024 | FY2025 | FY2026 | FY2027 | FY2028 |
| Farm A | Organic | 100 | 100 | 100 | 100 | 100 |
| Farm B | Animal welfare  commitment |  |  | 35 | 35 | 35 |
| Farm C | Eco-scheme |  | 20 | 20 |  |  |
| Farm D | Investment |  | 90 | 90 | 90 | 90 |
| Numerator of the RI | | 100 | 210 | 245 | 225 | 225 |

# Annex IX: Where to record sectoral types of interventions

At the level of planning, establishing the link between sectoral types of interventions and RI can be straightforward, e.g.:

* operational programmes are all linked to R.10 – Better supply chain organization and

R.11 – Concentration of supply

* for risk management all types of interventions under Article 47(2) are directly and significantly linked to R.5 Risk management, except for coaching (paragraph (j) linked to R.1). Similarly, in the wine sector, Article 58(1)(c) – Green harvesting, as well as Article 58(1)(d) – Harvest insurance, Article 58(1)(l) – Mutual funds are linked to R.5 Risk management.)

However, for several types of interventions, the link depends very much on the kind of interventions designed by MS. For example, under Article 47(1)(a), investments, training, environmental practices or other kind of actions can be financed. RI are purpose specific (soil, water, modernization…) but they are also intervention specific. Therefore, in addition to checking the purpose of the intervention, MS need to follow some key principles to establish the relevant links in the CAP strategic plan (and later in the Annual Performance Report) at the level of the intervention or the intervention/unit amount:

### Environmental practices:

* to be related to R.12 – Adaptation to climate change, R.14 – Carbon storage in soils and biomass, R.19 – Improving and protecting soils, R.20 – Improving air quality, R.21 – Protecting water quality, R.22 – Sustainable nutrient management, R.23 – Sustainable water use, R.24 – Sustainable and reduced use of pesticides, R.29 – Development of organic agriculture, R.31 – Preserving habitats and species, R.34 – Preserving landscape features, the intervention needs to:
  + promote a farming practice going beyond conditionality requirements and,
  + be paid per hectare
  + potential candidates: soil conservation under 47(1)(a)(i), maintaining habitats favorable to biodiversity under Article 47(1)(a)(x), management practices adapted to changing climate conditions under Article 47(1)(a)(iii), reducing emissions under Article 47(1)(a)(vii), reducing risks and impacts of pesticide use, including implementing Integrated Pest Management techniques under Article 47(1)(a)(viii), organic or integrated production under Article 47(1)(d), actions to mitigate climate change and to adapt to climate change under Article 47(1)(i), improvements of vineyard management techniques under Article58(1)(a)(iv).
* to be related to R.13 – Reducing emissions in the livestock sector, the intervention needs to:
  + promote a farming practice beneficial for climate action going beyond conditionality requirements and,
  + be paid per livestock unit
  + potential candidate: reducing emissions under Article 47(1)(a)(vii), promoting the development and use of breeds and management practices adapted to changing climate conditions under Article 47(1)(a)(iii), actions to mitigate climate change and to adapt to climate change under Article 47(1)(i).
* to be related to R.25 – Environmental performance in the livestock sector, the intervention needs to promote a farming practice beneficial to natural resources or biodiversity, going beyond conditionality requirements and to be paid per livestock unit.

### Animal welfare and AMR

By contrast, under R.44 – Improving animal welfare and R.43 – Limiting antimicrobial use, various kind of interventions can be mixed (investments and management practices) and MS need to plan/report the number of Livestock Units covered (e.g. biosecurity, animal health and welfare under 47(1)(a)(vi), improving resilience against animal disease and reducing the use of veterinary medicines including antibiotics Article 47(1)(a)(ix).

### Investments

For investments, the main split is between those related to:

* primary agricultural activities in view of modernizing and restructuring farms (e.g. restructuring and conversion of vineyards under Article 58(1)(a)) typically to be linked to

R.9 – Farm modernization

* climate and environmental action on farms (e.g. water saving under Article 47(1)(a)(ii)): green investments are to be linked to R.16 – Investments related to climate, R.26 – Investments related to natural resources and R.32 - Investments related to biodiversity. Green investments can be productive and thus linked to R.9 – Farm modernization also.
* woodland creation, to be linked to R.17 –Afforested land (e.g. creation/establishment of woody landscape features under Article 47(1)(a)(x).
* digitalization of farms, to be linked to R.3 – Digitalizing agriculture.
* renewable energy production, to be linked to R.15 – Renewable energy and also to R.16 – Investments related to climate if the investment takes place on the farm.
* rural businesses, with an economic dimension, to be linked to R.39 Developing the rural economy, this includes the investment support to wineries, POs infrastructure, processing, agri-tourism… It also includes diversification activities of farms (other gainful activities of the holding).
* the environment, but not on farms, to be linked to R.26 – Environment-/climate-related performance, through investment in rural areas.

### Job creation

In addition, investments (or any other action) leading to the creation of jobs in rural areas are to be linked to R.37 – Growth and jobs in rural areas.

### Knowledge

The number of persons trained, coached, advised, benefitting from exchange of good practices, participating in innovative cooperation projects… e.g. under Article 47(1)(b), Article 47(1)(c), Article 47(2)(j), Article 58(1)(f), are to be linked R.1 – Enhancing performance through knowledge and innovation. In addition, if the training aims at improving the environmental and climatic performance, it should be linked to R.28 Environmental/climate performance through knowledge and innovation.

In addition the number of supported advisors is to be linked to R.2 – Linking advice and knowledge systems.

However activities or actions related to promotion, communication and marketing, raising consumer awareness, implementation of traceability and certification systems are not linked to R.1 - Enhancing performance through knowledge and innovation.

# ANNEX X - Mapping indicators for visualization

## Financing CAP indicators

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Indicator Type | Indicator Category | Indicator Name | Sub-indicator Name | Sub-indicator Parameter | Sub-indicator Unit | Indicator Code | Time | Data |
| Output\_Pillar I | Direct payments | OID\_00 Direct payments (DP) | Expenditure direct payments | Total | euro | OID\_00\_4 |  |  |
| Output\_Pillar I | Direct payments | OID\_01 Basic Payment Scheme (BPS) | Expenditure Basic Payment Scheme | Total | euro | OID\_01\_3 |  |  |
| Output\_Pillar I | Direct payments | OID\_05 Greening | Expenditure greening | Total | euro | OID\_05\_4 |  |  |
| Output\_Pillar I | Direct payments | OID\_12 Payment for young farmers | Expenditure young farmers | Total | euro | OID\_12\_3 |  |  |
| Output\_Pillar I | Direct payments | OID\_13 Small farmers' scheme | Expenditure small farmers | Total | euro | OID\_13\_3 |  |  |
| Output\_Pillar I | Direct payments | OID\_14 Voluntary coupled support | Expenditure voluntary coupled support | Total | euro | OID\_14\_5 |  |  |
| Output\_Pillar I | Market measures | OIM\_00 Market Expenditure | Market measures | Total | euro | OIM\_00\_3 |  |  |
| Output\_Pillar I | Market measures | OIM\_00 Market Expenditure | Market measures | Wine | euro | OIM\_00\_3b |  |  |
| Output\_Pillar I | Market measures | OIM\_00 Market Expenditure | Market measures | Milk and milk products | euro | OIM\_00\_3c |  |  |
| Output\_Pillar I | Market measures | OIM\_00 Market Expenditure | Market measures | Fruit and Vegetables | euro | OIM\_00\_3f |  |  |
| Output\_Pillar I | Market measures | OIM\_00 Market Expenditure | Market measures | School schemes (fruit and milk) | euro | OIM\_00\_3g |  |  |
| Output\_Pillar I | Market measures | OIM\_00 Market Expenditure | Market measures | Bee-keeping | euro | OIM\_00\_3h |  |  |
| Output\_Pillar I | Market measures | OIM\_00 Market Expenditure | Market measures | Other markets | euro | OIM\_00\_3i |  |  |
| Output\_Pillar II | Rural Development | OIR\_00 Total Rural Development expenditure | total RD expenditure | total (EU funds) | euro | OIR\_00\_2 |  |  |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total public expenditure under Priority 2 | total (EU funds + National co-financing) | euro | OIR\_01a\_1.1 |  |  |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total public expenditure under Priority 3 | total (EU funds + National co-financing) | euro | OIR\_01a\_1.2 |  |  |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total public expenditure under Priority 4 | total (EU funds + National co-financing) | euro | OIR\_01a\_1.3 |  |  |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total public expenditure under Priority 5 | total (EU funds + National co-financing) | euro | OIR\_01a\_1.4 |  |  |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total public expenditure under Priority 6 | total (EU funds + National co-financing) | euro | OIR\_01a\_1.5 |  |  |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure (P2-P6) | EU funds | euro | OIR\_01b\_1 |  |  |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under Priority 2 | EU funds | euro | OIR\_01b\_1.1 |  |  |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under Priority 3 | EU funds | euro | OIR\_01b\_1.2 |  |  |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under Priority 4 | EU funds | euro | OIR\_01b\_1.3 |  |  |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under Priority 5 | EU funds | euro | OIR\_01b\_1.4 |  |  |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under Priority 6 | EU funds | euro | OIR\_01b\_1.5 |  |  |

## Farm income indicator

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Indicator Code | Indicator Type | Indicator Category | Indicator Name | Sub-indicator Name | Sub-indicator Parameter | Sub-indicator Unit | Time Period |
| CTX\_SEC\_17\_1 | Context | Sectorial | C.17 Agricultural holdings (farms) | Number of agricultural holdings | total | farms |  |
| CTX\_SEC\_18\_1 | Context | Sectorial | C.18 Agricultural area | Total agricultural area | total utilized agricultural area (UAA) | 1000 ha UAA | |
| CTX\_SEC\_25\_1 | Context | Sectorial | C.25 Agricultural factor income | Agricultural factor income per AWU in real terms | total | EUR (in real terms)/AWU | |
| OID\_00\_1 | Output\_Pillar I | Direct payments | OID\_00 Direct payments (DP) | Beneficiaries of direct payments | Total | Number of beneficiaries | |
| OID\_01\_2b | Output\_Pillar I | Direct payments | OID\_01 Basic Payment Scheme (BPS) | Hectares Basic Payment Scheme | Determined area | Number of hectares determined | |
| OID\_01\_3 | Output\_Pillar I | Direct payments | OID\_01 Basic Payment Scheme (BPS) | Expenditure Basic Payment Scheme | Total | euro |  |
| OID\_05\_4 | Output\_Pillar I | Direct payments | OID\_05 Greening | Expenditure greening | Total | euro |  |
| OID\_12\_3 | Output\_Pillar I | Direct payments | OID\_12 Payment for young farmers | Expenditure young farmers | Total | euro |  |
| OID\_13\_2 | Output\_Pillar I | Direct payments | OID\_13 Small farmers' scheme | Hectares small farmers | Determined area | Number of hectares determined | |
| OID\_13\_3 | Output\_Pillar I | Direct payments | OID\_13 Small farmers' scheme | Expenditure small farmers | Total | euro |  |
| OID\_14\_5 | Output\_Pillar I | Direct payments | OID\_14 Voluntary coupled support | Expenditure voluntary coupled support | Total | euro |  |
| OIR\_01b\_2.10 | Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under measure 10 | EU funds | euro |  |
| OIR\_01b\_2.13 | Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under measure 13 | EU funds | euro |  |
| OIR\_27 | Output\_Pillar II | Rural Development | OIR\_27 Beneficiaries of first and second pillar payments | Beneficiaries of first and second pillar payments | total | number of beneficiaries | |
| RPI\_01\_1 | Result\_Pillar I | Result\_Pillar I | RPI\_01 Share of direct support in agricultural income | % of factor income | Factor income | % |  |
| RPI\_02\_2 | Result\_Pillar I | Result\_Pillar I | RPI\_02 Variability of farm income | Variability of GFI per AWU | Total | ratio |  |
| RPI\_02\_4a | Result\_Pillar I | Result\_Pillar I | RPI\_02 Variability of farm income | Variability of GFI per AWU, by farm type | Specialist COP | ratio |  |
| RPI\_02\_4b | Result\_Pillar I | Result\_Pillar I | RPI\_02 Variability of farm income | Variability of GFI per AWU, by farm type | Specialist other field crops | ratio |  |
| RPI\_02\_4c | Result\_Pillar I | Result\_Pillar I | RPI\_02 Variability of farm income | Variability of GFI per AWU, by farm type | Sugar producers | ratio |  |
| RPI\_02\_4d | Result\_Pillar I | Result\_Pillar I | RPI\_02 Variability of farm income | Variability of GFI per AWU, by farm type | Specialist horticulture | ratio |  |
| RPI\_02\_4e | Result\_Pillar I | Result\_Pillar I | RPI\_02 Variability of farm income | Variability of GFI per AWU, by farm type | Specialist wine | ratio |  |
| RPI\_02\_4f | Result\_Pillar I | Result\_Pillar I | RPI\_02 Variability of farm income | Variability of GFI per AWU, by farm type | Specialist orchards - fruits | ratio |  |
| RPI\_02\_4h | Result\_Pillar I | Result\_Pillar I | RPI\_02 Variability of farm income | Variability of GFI per AWU, by farm type | Specialist permanent crops combined | ratio |  |
| RPI\_02\_4i | Result\_Pillar I | Result\_Pillar I | RPI\_02 Variability of farm income | Variability of GFI per AWU, by farm type | Specialist milk | ratio |  |
| RPI\_02\_4j | Result\_Pillar I | Result\_Pillar I | RPI\_02 Variability of farm income | Variability of GFI per AWU, by farm type | Specialist sheep and goats | ratio |  |
| RPI\_02\_4k | Result\_Pillar I | Result\_Pillar I | RPI\_02 Variability of farm income | Variability of GFI per AWU, by farm type | Specialist cattle | ratio |  |
| RPI\_02\_4l | Result\_Pillar I | Result\_Pillar I | RPI\_02 Variability of farm income | Variability of GFI per AWU, by farm type | Specialist granivores | ratio |  |
| RPI\_02\_4m | Result\_Pillar I | Result\_Pillar I | RPI\_02 Variability of farm income | Variability of GFI per AWU, by farm type | Mixed crops, mixed livestock, mixed crops and livestock | ratio |  |

## Jobs and growth in rural areas

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Indicator Code | Indicator Type | Indicator Category | Indicator Name | Sub-indicator Name | Sub-indicator Parameter | Sub-indicator Unit | Time Period |
| CTX\_SEC\_13\_2b | Context | Sectorial | C.13 Employment by economic activity | Employment in agriculture | share | % of total employment | |
| CTX\_SEC\_13\_3b | Context | Sectorial | C.13 Employment by economic activity | Employment in forestry | share | % of total employment | |
| CTX\_SEC\_13\_4b | Context | Sectorial | C.13 Employment by economic activity | Employment in the food industry | share | % of total employment | |
| CTX\_SEC\_17\_1 | Context | Sectorial | C.17 Agricultural holdings (farms) | Number of agricultural holdings | total | farms |  |
| CTX\_SEC\_22\_1a | Context | Sectorial | C.22 Farm labor force | Regular farm labor force | total (in persons) | persons |  |
| CTX\_SEC\_22\_1b | Context | Sectorial | C.22 Farm labor force | Regular farm labor force | total (in AWU) | AWU |  |
| CTX\_SEC\_26\_1 | Context | Sectorial | C.26 Agricultural entrepreneurial income | Agricultural entrepreneurial income per family work unit | Agricultural entrepreneurial income (net agricultural entrepreneurial income in real terms) per unpaid (non-salaried) annual work unit | EUR (in real terms)/AWU | |
| CTX\_SEC\_26\_2 | Context | Sectorial | C.26 Agricultural entrepreneurial income | Income per family worker compared to average wages in whole economy (based on EUR/hour worked) | share | % |  |
| CTX\_SOC\_05\_1d | Context | Socio-economic | C.05 Employment rate | Employment rate for the age group 15-64 | rural areas | % |  |
| CTX\_SOC\_08\_4 | Context | Socio-economic | C.08 GDP per capita | GDP per capita in rural regions | rural regions | EUR PPS per capita | |
| CTX\_SOC\_09\_1 | Context | Socio-economic | C.09 Poverty rate | Total poverty rate | total | % of population | |
| CTX\_SOC\_09\_2 | Context | Socio-economic | C.09 Poverty rate | Poverty rate in rural areas | rural areas | % of population | |
| CTX\_SOC\_10\_1 | Context | Socio-economic | C.10 Structure of the economy | Total GVA (Gross Value Added) | total | EUR million | |
| CTX\_SOC\_10\_2a | Context | Socio-economic | C.10 Structure of the economy | Distribution of GVA by economic sector | primary sector | % of total |  |
| CTX\_SOC\_10\_3a | Context | Socio-economic | C.10 Structure of the economy | Distribution of GVA by type of region | rural regions | % of total |  |
| CTX\_SOC\_11\_4a | Context | Socio-economic | C.11 Structure of the employment | Distribution of employment in rural regions | primary sector | % of total |  |

## Market orientation

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Indicator Type | Indicator Category | Indicator Name | Sub-indicator Name | Sub-indicator Parameter | Sub-indicator Unit | Indicator Code | Time Period |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food (intra + extra)EU trade balance | Total | billion EUR | IMP\_06\_2 | |
|  |  |  |  |  |  | IMP\_06\_2.1 | |
|  |  |  |  |  |  | IMP\_06\_2.1a | |
|  |  |  |  |  |  | IMP\_06\_2.1b | |
|  |  |  |  |  |  | IMP\_06\_2.1c | |
|  |  |  |  |  |  | IMP\_06\_2.1d | |
|  |  |  |  |  |  | IMP\_06\_2.1e | |
|  |  |  |  |  |  | IMP\_06\_2.1f | |
|  |  |  |  |  |  | IMP\_06\_2.2 | |
|  |  |  |  |  |  | IMP\_06\_2.2a | |
|  |  |  |  |  |  | IMP\_06\_2.2b | |
|  |  |  |  |  |  | IMP\_06\_2.2c | |
|  |  |  |  |  |  | IMP\_06\_2.2d | |
|  |  |  |  |  |  | IMP\_06\_2.2e | |
|  |  |  |  |  |  | IMP\_06\_2.2f | |
|  |  |  |  |  |  | IMP\_06\_2a | |
|  |  |  |  |  |  | IMP\_06\_2b | |
|  |  |  |  |  |  | IMP\_06\_2c | |
|  |  |  |  |  |  | IMP\_06\_2d | |
|  |  |  |  |  |  | IMP\_06\_2e | |
|  |  |  |  |  |  | IMP\_06\_2f | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food (intra + extra) EU exports value | Total | billion EUR | IMP\_06\_3 | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food intraEU exports value | Total | billion EUR | IMP\_06\_3.1 | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food intraEU exports value | Commodities | billion EUR | IMP\_06\_3.1a | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food intraEU exports value | Other primary | billion EUR | IMP\_06\_3.1b | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food intraEU exports value | Processed | billion EUR | IMP\_06\_3.1c | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food intraEU exports value | Food preparations | billion EUR | IMP\_06\_3.1d | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food intraEU exports value | Beverages | billion EUR | IMP\_06\_3.1e | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food intraEU exports value | Non-edible | billion EUR | IMP\_06\_3.1f | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food extraEU exports value | Total | billion EUR | IMP\_06\_3.2 | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food extraEU exports value | Commodities | billion EUR | IMP\_06\_3.2a | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food extraEU exports value | Other primary | billion EUR | IMP\_06\_3.2b | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food extraEU exports value | Processed | billion EUR | IMP\_06\_3.2c | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food extraEU exports value | Food preparations | billion EUR | IMP\_06\_3.2d | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food extraEU exports value | Beverages | billion EUR | IMP\_06\_3.2e | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food extraEU exports value | Non-edible | billion EUR | IMP\_06\_3.2f | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food (intra + extra) EU exports value | Commodities | billion EUR | IMP\_06\_3a | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food (intra + extra) EU exports value | Other primary | billion EUR | IMP\_06\_3b | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food (intra + extra) EU exports value | Processed | billion EUR | IMP\_06\_3c | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food (intra + extra) EU exports value | Food preparations | billion EUR | IMP\_06\_3d | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food (intra + extra) EU exports value | Beverages | billion EUR | IMP\_06\_3e | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food (intra + extra) EU exports value | Non-edible | billion EUR | IMP\_06\_3f | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food (intra + extra) EU imports value | Total | billion EUR | IMP\_06\_4 | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food intraEU imports value | Total | billion EUR | IMP\_06\_4.1 | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food intraEU imports value | Commodities | billion EUR | IMP\_06\_4.1a | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food intraEU imports value | Other primary | billion EUR | IMP\_06\_4.1b | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food intraEU imports value | Processed | billion EUR | IMP\_06\_4.1c | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food intraEU imports value | Food preparations | billion EUR | IMP\_06\_4.1d | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food intraEU imports value | Beverages | billion EUR | IMP\_06\_4.1e | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food intraEU imports value | Non-edible | billion EUR | IMP\_06\_4.1f | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food extraEU imports value | Total | billion EUR | IMP\_06\_4.2 | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food extraEU imports value | Commodities | billion EUR | IMP\_06\_4.2a | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food extraEU imports value | Other primary | billion EUR | IMP\_06\_4.2b | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food extraEU imports value | Processed | billion EUR | IMP\_06\_4.2c | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food extraEU imports value | Food preparations | billion EUR | IMP\_06\_4.2d | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food extraEU imports value | Beverages | billion EUR | IMP\_06\_4.2e | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food extraEU imports value | Non-edible | billion EUR | IMP\_06\_4.2f | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food (intra + extra) EU imports value | Commodities | billion EUR | IMP\_06\_4a | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food (intra + extra) EU imports value | Other primary | billion EUR | IMP\_06\_4b | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food (intra + extra) EU imports value | Processed | billion EUR | IMP\_06\_4c | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food (intra + extra) EU imports value | Food preparations | billion EUR | IMP\_06\_4d | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food (intra + extra) EU imports value | Beverages | billion EUR | IMP\_06\_4e | |
| Impact | Impact | IMP\_06 EU agricultural trade | Agri-food (intra + extra) EU imports value | Non-edible | billion EUR | IMP\_06\_4f | |
| Result\_Pillar I | Result\_Pillar I | RPI\_04 EU agricultural trade | % share extraEU agri-primary products' exports in production values | share of extraEU exports of agri-primary products in production | % | RPI\_04\_3a | |
| Result\_Pillar I | Result\_Pillar I | RPI\_04 EU agricultural trade | % share extraEU food industry products' exports in production values | share of extraEU exports of food industry's products in production | % | RPI\_04\_3b | |

## Adding value

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Indicator Code | Indicator Type | Indicator Category | Indicator Name | Sub-indicator Name | Sub-indicator Parameter | | Sub-indicator Unit | Time Period |
| OIH\_02\_21f | Output\_Pillar I | Horizontal aspects | OIH\_02 Quality policy | Number of new protected designations of origin, protected geographical indications and traditional specialty guaranteed, by sector | PDO - Fruit, vegetables, cereals | | Number of new PDO | |
| OIH\_02\_23d | Output\_Pillar I | Horizontal aspects | OIH\_02 Quality policy | Number of new protected designations of origin, protected geographical indications and traditional specialty guaranteed, by sector | TSG - Other products of animal origin | | Number of new TSG | |
| OIM\_05\_1a | Output\_Pillar I | Market measures | OIM\_05 Producer organizations | % of production marketed by producer organizations and associations of producer organizations | Fruit and vegetables | | % of total production marketed | |
| OIM\_05\_2 | Output\_Pillar I | Market measures | OIM\_05 Producer organizations | Number of recognized producer organisations and associations of producer organizations | Total | | Number of PO & APO | |
| R.04\_PII | Result\_Pillar II | Rural Development | R.04 Percentage of agricultural holdings receiving support for participating in quality schemes, local markets and short supply circuits, and producer groups/organizations (focus area 3A) | | | | percentage | |
| RPI\_03\_1 | Result\_Pillar I | Result\_Pillar I | RPI\_03 Value for primary producers in the food chain | Value added | | primary production | million EUR | |
| RPI\_03\_2 | Result\_Pillar I | Result\_Pillar I | RPI\_03 Value for primary producers in the food chain | Value added | | food and beverages manufacturing | million EUR | |
| RPI\_03\_3 | Result\_Pillar I | Result\_Pillar I | RPI\_03 Value for primary producers in the food chain | Value added | | food and beverages distribution | million EUR | |
| RPI\_03\_4 | Result\_Pillar I | Result\_Pillar I | RPI\_03 Value for primary producers in the food chain | Value added | | food and beverages consumer services | million EUR | |
| RPI\_03\_5 | Result\_Pillar I | Result\_Pillar I | RPI\_03 Value for primary producers in the food chain | % Share | | Agriculture in total value added | % |  |

## Productivity

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Indicator Code | Indicator Type | Indicator Category | Indicator Name | Sub-indicator Name | Sub-indicator Parameter | Sub-indicator Unit |
| CTX\_SEC\_14\_1 | Context | Sectorial | C.14 Labor productivity in agriculture | Total labor productivity in agriculture | total | EUR/AWU |
| CTX\_SEC\_16\_1 | Context | Sectorial | C.16 Labor productivity in the food industry | Total labor productivity in the food industry | total | EUR/person |
| CTX\_SEC\_27\_1 | Context | Sectorial | C.27 Total factor productivity in agriculture | Total factor productivity in agriculture | total | Index 2005 = 100 |
| OIR\_01b\_5.1 | Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under measure 16 by FA 2A | EU funds | euro |
| OIR\_01b\_1 | Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure (P2-P6) | EU funds | euro |
| OIR\_01b\_3.1 | Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under measure 1 and 2 by FA 2A | EU funds | euro |
| OIR\_01b\_4.1 | Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under measure 4 by FA 2A | EU funds | euro |
| OIR\_16.2 | Output\_Pillar II | Rural Development | OIR\_16 Number of EIP operations supported, number of EIP operations supported and number and type of partners in EIP groups | Number of EIP groups supported | total | number of EIP groups |
| R.01\_PII | Result\_Pillar II | Rural Development | R.01 Percentage of agricultural holdings with RDP support for investments in restructuring or modernization (focus area 2A) | | | percentage |

## Environment

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Indicator Type | Indicator Category | Indicator Name | Sub-indicator Name | Sub-indicator Parameter | Sub-indicator Unit | Indicator Code | Time Period |
| Context | Environment | C.33 Farming intensity | Farm input intensity | UAA managed by farms with high input intensity per hectare | % total UAA | CTX\_ENV\_33\_1c | |
| Context | Sectorial | C.18 Agricultural area | Total agricultural area | total utilized agricultural area (UAA) | 1000 ha UAA | CTX\_SEC\_18\_1 | |
| Context | Sectorial | C.18 Agricultural area | Agricultural land use | share of arable land | % of total UAA | CTX\_SEC\_18\_2a | |
| Context | Sectorial | C.18 Agricultural area | Agricultural land use | share of permanent grassland and meadows | % of total UAA | CTX\_SEC\_18\_2b | |
| Context | Sectorial | C.18 Agricultural area | Agricultural land use | share of permanent crops | % of total UAA | CTX\_SEC\_18\_2c | |
| Output\_Pillar I | Direct payments | OID\_01 Basic Payment Scheme (BPS) | Hectares Basic Payment Scheme | Determined area | Number of hectares determined | OID\_01\_2b | |
| Output\_Pillar I | Direct payments | OID\_05 Greening | Hectares of agricultural land declared by farmers applying at least one greening obligation | Total | Number of hectares of agricultural land declared | OID\_05\_3 | |
| Output\_Pillar I | Direct payments | OID\_05 Greening | Expenditure greening | Total | euro | OID\_05\_4 | |
| Output\_Pillar I | Horizontal aspects | OIH\_01\_1a Cross-compliance | Number of hectares subject to cross-compliance (BPS+ SAPS) | Total | Number of hectares of agricultural land | OIH\_01\_1a | |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total public expenditure under Priority 2 -Priority 6 | total (EU funds + National co-financing) | euro | OIR\_01a\_1 | |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total public expenditure under Priority 4 | total (EU funds + National co-financing) | euro | OIR\_01a\_1.3 | |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total public expenditure under Priority 5 | total (EU funds + National co-financing) | euro | OIR\_01a\_1.4 | |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total public expenditure under measure 10 | total (EU funds + National co-financing) | euro | OIR\_01a\_2.10 | |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure (P2-P6) | EU funds | euro | OIR\_01b\_1 | |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under Priority 4 | EU funds | euro | OIR\_01b\_1.3 | |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under Priority 5 | EU funds | euro | OIR\_01b\_1.4 | |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under measure 10 | EU funds | euro | OIR\_01b\_2.10 | |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under measure 11 | EU funds | euro | OIR\_01b\_2.11 | |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under measure 12 | EU funds | euro | OIR\_01b\_2.12 | |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under measure 13 | EU funds | euro | OIR\_01b\_2.13 | |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under measure 8 | EU funds | euro | OIR\_01b\_2.8 | |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under measure 4 by priority 4 (FA 4A, 4B, 4C) | EU funds | euro | OIR\_01b\_4.6 | |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under measure 4 by FA 5A | EU funds | euro | OIR\_01b\_4.7 | |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under measure 4 by FA 5C | EU funds | euro | OIR\_01b\_4.9 | |
| Output\_Pillar II | Rural Development | OIR\_06 Physical area supported (ha) | physical area supported under payment for agri-environment-climate commitments (M10.1) | physical area supported for M10.1 | supported hectare | OIR\_06\_1.1 | |
| Output\_Pillar II | Rural Development | OIR\_28 Share of EAFRD contribution reserved for environment and climate | Share of EAFRD contribution reserved for environment and climate | % | % | OIR\_28 |  |

## Climate change

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Indicator Type | Indicator Category | Indicator Name | Sub-indicator Name | Sub-indicator Parameter | Sub-indicator Unit | Indicator Code |
| Impact | Impact | IMP\_07 Emissions from agriculture | GHG emissions from agriculture (including cropland and grassland) | total net emissions | 1 000 t of CO2 equivalent | IMP\_07\_1 |
| Impact | Impact | IMP\_07 Emissions from agriculture | GHG emissions from agriculture (including cropland and grassland) | share of agriculture (including soils) in total net emissions | % of total GHG emissions | IMP\_07\_2 |
| Impact | Impact | IMP\_07 Emissions from agriculture | Ammonia emissions from agriculture | total | 1 000 t of NH3 | IMP\_07\_3 |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total public expenditure under Priority 2 -Priority 6 | total (EU funds + National cofinancing) | euro | OIR\_01a\_1 |
| Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total public expenditure under Priority 5 | total (EU funds + National cofinancing) | euro | OIR\_01a\_1.4 |
| Result\_Pillar II | Rural Development | R.17 Percentage of agricultural land under management contracts targeting reduction of GHG and/or ammonia emissions (focus area 5D) | | | percentage | R.17\_PII |
| Result\_Pillar II | Rural Development | R.20 Percentage of agricultural and forest land under management contracts contributing to carbon sequestration or conservation (focus area 5E) | | | percentage | R.20\_PII |
| Result\_Pillar I | Result\_Pillar I | RPI\_12 Share of grassland in total UAA | % Share of total UAA | Permanent grassland and meadows | % | RPI\_12\_1 |

## Organic production

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Indicator Code | Indicator Type | Indicator Category | Indicator Name | Sub-indicator Name | Sub-indicator Parameter | Sub-indicator Unit |
| CTX\_SEC\_19\_1c | Context | Sectorial | C.19 Agricultural area under organic farming | Agricultural area under organic farming | total (certified plus in conversion) | ha UAA |
| CTX\_SEC\_19\_2 | Context | Sectorial | C.19 Agricultural area under organic farming | Share of area under organic farming | share (certified plus in conversion) | % total UAA |
| OIH\_03\_02b | Output\_Pillar I | Horizontal aspects | OIH\_03 Organic farming | Number of certified registered organic operators | Producers | Number of organic producers |
| OIR\_01a\_2.11 | Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total public expenditure under measure 11 | total (EU funds + National co-financing) | euro |
| OIR\_01b\_2.11 | Output\_Pillar II | Rural Development | OIR\_01 Total public expenditure | total EU expenditure under measure 11 | EU funds | euro |
| OIR\_06\_1.2 | Output\_Pillar II | Rural Development | OIR\_06 Physical area supported (ha) | Physical area supported for organic farming (M11) | physical area supported for M11 (AEC) | supported hectare |
| OIR\_06\_1.2 | Output\_Pillar II | Rural Development | OIR\_06 Physical area supported (ha) | Physical area supported for organic farming (M11) | physical area supported for M11 (AEC) | supported hectare |
| OIR\_06\_1.2 | Output\_Pillar II | Rural Development | OIR\_06 Physical area supported (ha) | Physical area supported for organic farming (M11) | physical area supported for M11 (AEC) | supported hectare |
| RPI\_10\_2a | Result\_Pillar I | Result\_Pillar I | RPI\_10 Importance organic farming | Share of organic livestock in total livestock | Cattle | % |
| RPI\_10\_2b | Result\_Pillar I | Result\_Pillar I | RPI\_10 Importance organic farming | Share of organic livestock in total livestock | Goat | % |
| RPI\_10\_2c | Result\_Pillar I | Result\_Pillar I | RPI\_10 Importance organic farming | Share of organic livestock in total livestock | Sheep | % |
| RPI\_10\_2d | Result\_Pillar I | Result\_Pillar I | RPI\_10 Importance organic farming | Share of organic livestock in total livestock | Pig | % |

## Water quality

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Indicator Code | Indicator Type | Indicator Category | Indicator Name | Sub-indicator Name | Sub-indicator Parameter | Sub-indicator Unit |
| CTX\_SEC\_18\_1 | Context | Sectorial | C.18 Agricultural area | Total agricultural area | total utilized agricultural area (UAA) | 1000 ha UAA |
| IMP\_11\_1a | Impact | Impact | IMP\_11 Water quality | Gross Nutrient Balance | potential surplus of nitrogen on agricultural land | kg N/ha/year |
| IMP\_11\_3a | Impact | Impact | IMP\_11 Water quality | Nitrates in freshwater: groundwater | high quality | % of monitoring sites |
| IMP\_11\_3b | Impact | Impact | IMP\_11 Water quality | Nitrates in freshwater: groundwater | moderate quality | % of monitoring sites |
| IMP\_11\_3c | Impact | Impact | IMP\_11 Water quality | Nitrates in freshwater: groundwater | poor quality | % of monitoring sites |
| R.08\_PII | Result\_Pillar II | Rural Development | R.08 Percentage of agricultural land under management contracts to improve water management (focus area 4B) | | | percentage |

## Soil quality

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Indicator Code | Indicator Type | Indicator Category | Indicator Name | Sub-indicator Name | Sub-indicator Parameter | Sub-indicator Unit |
| CTX\_SEC\_18\_1 | Context | Sectorial | C.18 Agricultural area | Total agricultural area | total utilized agricultural area (UAA) | 1000 ha UAA |
| CTX\_SEC\_18\_2a | Context | Sectorial | C.18 Agricultural area | Agricultural land use | share of arable land | % of total UAA |
| OID\_00\_1 | Output\_Pillar I | Direct payments | OID\_00 Direct payments (DP) | Beneficiaries of direct payments | Total | Number of beneficiaries |
| OID\_07\_1a | Output\_Pillar I | Direct payments | OID\_07 Crop diversification | Farmers subject to crop diversification | Total | Number of farmers |
| OID\_07\_1b | Output\_Pillar I | Direct payments | OID\_07 Crop diversification | Farmers subject to crop diversification | With 2 crops | Number of farmers |
| OID\_07\_1c | Output\_Pillar I | Direct payments | OID\_07 Crop diversification | Farmers subject to crop diversification | With 3 crops | Number of farmers |
| OID\_07\_2a | Output\_Pillar I | Direct payments | OID\_07 Crop diversification | Hectares of arable land declared by farmers subject to crop diversification | Total | Number of hectares of arable land declared |
| R.10\_PII | Result\_Pillar II | Rural Development | R.10 Percentage of agricultural land under management contracts to improve soil management and/or prevent soil erosion (focus area 4C) | | | percentage |

## Biodiversity

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Indicator Code | Indicator Type | Indicator Category | Indicator Name | Sub-indicator Name | Sub-indicator Parameter | Sub-indicator Unit |
| CTX\_ENV\_34\_2 | Context | Environment | C.34 Natura 2000 areas | UAA under Natura 2000 | share of UAA (including natural grassland) | % UAA |
| CTX\_ENV\_35\_1 | Context | Environment | C.35 Farmland birds index (FBI) | Farmland birds index (FBI) | total (index) | Index 2000 = 100 |
| CTX\_ENV\_36\_1a | Context | Environment | C.36 Conservation status of agricultural habitats (grassland) | Conservation status of grassland | favorable | % of assessments of habitats |
| CTX\_ENV\_36\_1b | Context | Environment | C.36 Conservation status of agricultural habitats (grassland) | Conservation status of grassland | unfavorable - inadequate | % of assessments of habitats |
| CTX\_ENV\_36\_1c | Context | Environment | C.36 Conservation status of agricultural habitats (grassland) | Conservation status of grassland | unfavorable - bad | % of assessments of habitats |
| CTX\_ENV\_36\_1d | Context | Environment | C.36 Conservation status of agricultural habitats (grassland) | Conservation status of grassland | unknown | % of assessments of habitats |
| CTX\_SEC\_18\_1 | Context | Sectorial | C.18 Agricultural area | Total agricultural area | total utilized agricultural area (UAA) | 1000 ha UAA |
| OID\_09\_3 | Output\_Pillar I | Direct payments | OID\_09 Ecological Focus Areas (EFA) | Hectares of EFA | Total | Number of hectares of EFA |
| OIR\_06\_1.3 | Output\_Pillar II | Rural Development | OIR\_06 Physical area supported (ha) | Physical areas supported for Natura 2000 and Water framework directive payments (M12) | physical area supported for M12 (AEC) | supported hectare |
| R.06\_PII | Result\_Pillar II | Rural Development | R.06 Percentage forest or other wooded area under management contracts supporting biodiversity (focus area 4A) | | | percentage |
| R.07\_PII | Result\_Pillar II | Rural Development | R.07 Percentage agricultural land under management contracts supporting biodiversity and/or landscapes (focus area 4A) | | | percentage |
| RPI\_13\_4a | Result\_Pillar I | Result\_Pillar I | RPI\_13 Share of EFA in arable land | % Share of arable land | Land lying fallow | % |
| RPI\_13\_4c | Result\_Pillar I | Result\_Pillar I | RPI\_13 Share of EFA in arable land | % Share of arable land | Landscape features | % |
| RPI\_13\_4g | Result\_Pillar I | Result\_Pillar I | RPI\_13 Share of EFA in arable land | % Share of arable land | Short rotation coppice | % |
| RPI\_13\_4i | Result\_Pillar I | Result\_Pillar I | RPI\_13 Share of EFA in arable land | % Share of arable land | Catch crops, or green cover | % |
| RPI\_13\_4j | Result\_Pillar I | Result\_Pillar I | RPI\_13 Share of EFA in arable land | % Share of arable land | Nitrogen-fixing crops | % |

## Food and health protection

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Indicator Code | Indicator Type | Indicator Category | Indicator Name | Sub-indicator Name | Sub-indicator Parameter | Sub-indicator Unit |
| CTX\_ENV\_47 | Context | Environment | C.47 Sales of antimicrobials in food producing animal | Sales of antimicrobials in food producing animal | Quantities corrected by Population Correction Unit (PCU) | mg/PCU |
| CTX\_ENV\_48\_1 | Context | Environment | C.48 Plant protection products harmonized risk indicator | Total harmonized risk indicator | total (index) | Index 2011-2013 = 100 |
| CTX\_ENV\_48\_2 | Context | Environment | C.48 Sales of plant protection products | Total sales of plant protection products | Total | Kg |
| CTX\_ENV\_48\_2a | Context | Environment | C.48 Sales of plant protection products | Sales of plant protection products - Fungicides and bactericides | Total by category | Kg |
| CTX\_ENV\_48\_2b | Context | Environment | C.48 Sales of plant protection products | Sales of plant protection products - Herbicides, haulm destructors and moss killers | Total by category | Kg |
| CTX\_ENV\_48\_2c | Context | Environment | C.48 Sales of plant protection products | Sales of plant protection products - Insecticides and acaricides | Total by category | Kg |
| CTX\_ENV\_48\_2d | Context | Environment | C.48 Sales of plant protection products | Sales of plant protection products - Molluscicides | Total by category | Kg |
| CTX\_ENV\_48\_2e | Context | Environment | C.48 Sales of plant protection products | Sales of plant protection products - Plant growth regulators | Total by category | Kg |
| CTX\_ENV\_48\_2f | Context | Environment | C.48 Sales of plant protection products | Sales of plant protection products - Other plant protection products | Total by category | Kg |
| OIR\_08\_2.2 | Output\_Pillar II | Rural Development | OIR\_08 Number of Livestock Units supported (LU) | M14 - Animal welfare (art 33) | total annual | livestock unit |

# Annex XI- Mapping of ARDS with new CAP indicators

## Content and linkage with CAP objectives

|  |  |  |  |
| --- | --- | --- | --- |
| Code SRB | Types of interventions | Objective | EU objective |
| 1 | stabilization of income of agricultural producers; | O.3 Number of CAP support beneficiaries C.25 Agricultural factor income R.6 Redistribution to smaller farms: Percentage of additional direct payments per hectare for eligible farms below average farm size (compared to average) | To support viable farm income and resilience of the agricultural sector across the Union in order to enhance long-term food security and agricultural diversity as well as to ensure the economic sustainability of agricultural production in the Union |
| 2 | financing of agriculture and rural development and risk management; |  |  |
| 3 | efficient land management and increasing the availability of land resources; |  |  |
| 4 | improving the state of physical resources; |  |  |
| 5 | improvement of the knowledge transfer system and development of human resources; | R.1 Enhancing performance through knowledge and innovation: Number of persons benefitting from advice, training, knowledge exchange or participating in European Innovation Partnership (EIP) operational groups supported by the CAP in order to enhance sustainable economic, social, environmental, climate and resource efficiency performance | Modernizing agriculture and rural areas by fostering and sharing of knowledge, innovation and digitalization in agriculture and rural areas and by encouraging their uptake by farmers, through improved access to research, innovation, knowledge exchange and training |
| 6 | adapting and mitigating the effects of climate change; | I.10 Contributing to climate change mitigation: Greenhouse gas emissions from agriculture R.14 Carbon storage in soils and biomass: Share of utilized agricultural area (UAA) under supported commitments to reduce emissions or to maintain or enhance carbon storage (including permanent grassland, permanent crops with permanent green cover, agricultural land in wetland and peatland) R.17 Afforested land: Area supported for afforestation, agroforestry and restoration, including breakdowns | 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 |
| 7 | technological development and modernization of agricultural production and processing; | R.9 Farm modernization: Share of farms receiving investment support to restructure and modernize, including to improve resource efficiency | To enhance market orientation and increase farm competitiveness both in the short and long term, including greater focus on research, technology and digitalization |
| 8 | development of market chains and logistical support to the agricultural sector; | R.10 Better supply chain organization: Share of farms participating in producer groups, producer organizations, local markets, short supply chain circuits and quality schemes supported by the CAP | To improve the farmers’ position in the value chain |
| 9 | protection and improvement of the environment and preservation of natural resources; | C.33 Agricultural area under organic farming I.21 Enhancing provision of ecosystem services: Share of agricultural land covered with landscape features R.29 Development of organic agriculture: Share of utilized agricultural area (UAA) supported by the CAP for organic farming, with a split between maintenance and conversion R.34 Preserving landscape features: Share of utilized agricultural area (UAA) under supported commitments for managing landscape features, including hedgerows and trees | To contribute to halting and reversing biodiversity loss, enhance ecosystem services and preserve habitats and landscapes |
| 10 | conservation of agriculture, natural and human resources in the POURP; | O.34 Number of hectares under environmental practices (summary indicator on physical area covered by conditionality, eco-schemes, agri- and forest-environment-climate management commitments) I.15 Improving water quality: Gross nutrient balance on agricultural land I.16 Reducing nutrient leakage: Nitrates in ground water - percentage of ground water stations with nitrates concentration over 50 mg/l under Directive 91/676/EEC I.18 Sustainable and reduced use of pesticides: Risks, use and impacts of pesticides R.19 Improving and protecting soils: Share of utilized agricultural area (UAA) under supported commitments beneficial for soil management to improve soil quality and biota (such as reducing tillage, soil cover with crops, crop rotation included with leguminous crops) R.20 Improving air quality: Share of utilized agricultural area (UAA) under supported commitments to reduce ammonia emission R.21 Protecting water quality: Share of utilized agricultural area (UAA) under supported commitments for the quality of water bodies R.22 Sustainable nutrient management: Share of utilized agricultural area (UAA) under supported commitments related to improved nutrient management R.24 Sustainable and reduced use of pesticides: Share of utilized agricultural area (UAA) under supported specific commitments which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides such as pesticides leakage | To foster sustainable development and efficient management of natural resources such as water, soil and air, including by reducing chemical dependency |
| 11 | diversification of the rural economy and preservation of cultural and natural heritage; |  |  |
| 12 | improving the social structure and strengthening social capital; |  |  |
| 13 | modernization and adjustment of bodies and organizations and legislation; |  |  |
| 14 | improving product quality and safety. |  |  |

## ARDS indicator details

|  |  |  |
| --- | --- | --- |
| **Code** | **Types of interventions** | **Subindicator** |
| 1.1 | stabilization of income of agricultural producers; | ensuring equal competitive conditions for domestic producers in accordance with the envisaged solutions contained in the foreign trade agreements of the Republic of Serbia; |
| 1.2 | stabilization of income of agricultural producers; | support for market regulation in times of market disruption (safety net measures). |
| 2.1 | financing of agriculture and rural development and risk management | increasing the number of available support schemes for different purposes; |
| 2.2 | financing of agriculture and rural development and risk management | increasing the number of users and the volume of available financial capital intended for the development of agriculture and rural areas; |
| 2.3 | financing of agriculture and rural development and risk management | developing the credit market and providing better access to credit for farmers, including new forms of credit; |
| 2.4 | financing of agriculture and rural development and risk management | improving the insurance and risk management system adapted to the solutions allowed by international agreements. |
| 3.1 | efficient land management and increasing the availability of land resources | higher use of agricultural land; |
| 3.1 | efficient land management and increasing the availability of land resources | higher use of agricultural land; |
| 3.1 | efficient land management and increasing the availability of land resources | higher use of agricultural land; |
| 3.1 | efficient land management and increasing the availability of land resources | higher use of agricultural land; |
| 3.1 | efficient land management and increasing the availability of land resources | higher use of agricultural land; |
| 3.1 | efficient land management and increasing the availability of land resources | higher use of agricultural land; |
| 3.1 | efficient land management and increasing the availability of land resources | higher use of agricultural land; |
| 3.1 | efficient land management and increasing the availability of land resources | higher use of agricultural land; |
| 3.2 | efficient land management and increasing the availability of land resources | increasing land holdings and enlarging plots; |
| 3.2 | efficient land management and increasing the availability of land resources | increasing land holdings and enlarging plots; |
| 3.2 | efficient land management and increasing the availability of land resources | increasing land holdings and enlarging plots; |
| 3.3 | efficient land management and increasing the availability of land resources | establishing a functioning land market; |
| 3.4 | efficient land management and increasing the availability of land resources | improvement of land infrastructure; |
| 3.5 | efficient land management and increasing the availability of land resources | increasing ameliorated areas and improving soil fertility; |
| 3.6 | efficient land management and increasing the availability of land resources | accelerating the return of property, i.e. restitution (including cooperative property) and (re) privatization; |
| 3.7 | efficient land management and increasing the availability of land resources | reduction of land loss and degradation; |
| 3.8 | efficient land management and increasing the availability of land resources | controlled conversion of agricultural land; |
| 3.9 | efficient land management and increasing the availability of land resources | more efficient use of land of lower quality, i.e. uncultivated agricultural land; |
| 3.10 | efficient land management and increasing the availability of land resources | systematic monitoring of soil quality; |
| 3.11 | efficient land management and increasing the availability of land resources | establishing an efficient land management system (Cadaster, GIS, LPIS). |
| 4.1 | improving the state of physical resources | technical-technological modernization of facilities and equipment; |
| 4.2 | improving the state of physical resources | increase livestock, improve the racial structure of the herd and make better use of the genetic potential of domestic animals; |
| 4.3 | improving the state of physical resources | increase of areas under perennial plantations (plantation and parent plantations); |
| 4.4 | improving the state of physical resources | adapting the assortment of fruit and vines to production conditions and improving production technology; |
| 4.5 | improving the state of physical resources | improvement of the entire system of production and distribution of planting and seed material; |
| 4.6 | improving the state of physical resources | establishing a more efficient system of services in plant and animal production; |
| 4.7 | improving the state of physical resources | improving the system of protection of animal health and welfare and plant health. |
| 5.1 | Improving the system the topic of knowledge transfer and human resources development; | improving the educational structure of the workforce on agricultural holdings; |
| 5.2 | Improving the system the topic of knowledge transfer and human resources development; | strengthening and reorganizing institutional capacities; |
| 5.3 | Improving the system the topic of knowledge transfer and human resources development; | strengthening and functional connection of all actors of the system for creation and transfer of knowledge; |
| 5.4 | Improving the system the topic of knowledge transfer and human resources development; | technical and personnel improvement of institutions and organizations involved in the system of creation and transfer of knowledge in accordance with the needs of agricultural development and implementation of the Strategy; |
| 5.5 | Improving the system the topic of knowledge transfer and human resources development; | expanding the offer of educational and training programs of all levels and types of education; |
| 5.6 | Improving the system the topic of knowledge transfer and human resources development; | strengthening the capacity to absorb knowledge, through developing awareness and motivation for education. |
| 6.1 | adapting and mitigating the effects of climate change | monitoring of climate change, creation of adaptation measures and adequate measures aimed at reducing greenhouse gas emissions from agricultural production; |
| 6.2 | adapting and mitigating the effects of climate change | improvement and adaptation of production technology; |
| 6.3 | adapting and mitigating the effects of climate change | technical improvements of land, facilities and equipment; |
| 6.4 | adapting and mitigating the effects of climate change | raising awareness of climate change, its consequences and the need to address them. |
| 7.1 | technological development and modernization of agricultural production and processing; | advancing technology and a more efficient system for transferring experience and innovation; |
| 7.2 | technological development and modernization of agricultural production and processing; | creating new knowledge, technologies, products and services adapted to local conditions; |
| 7.3 | technological development and modernization of agricultural production and processing; | growth of production volume and quality of all inputs of domestic origin; |
| 7.4 | technological development and modernization of agricultural production and processing; | increasing productivity and efficiency in production at all levels in the food production chain; |
| 7.5 | technological development and modernization of agricultural production and processing; | strengthening the ability of the food industry to create more added value with the use of domestic raw materials; |
| 7.6 | technological development and modernization of agricultural production and processing; | system improvement and promotion of products with quality labels; |
| 7.7 | technological development and modernization of agricultural production and processing; | technical and technological improvement of storage and processing capacities of cooperatives with the aim of producing recognizable cooperative products of standard quality; |
| 7.8 | technological development and modernization of agricultural production and processing; | improving the technical and technological performance of the food sector and creating new products in the food chain. |
| 8.1 | development of market chains and logistical support to the agricultural sector; | development of new services in the food chain and strengthening of logistics infrastructure in food production; |
| 8.2 | development of market chains and logistical support to the agricultural sector; | increasing the capacity of agricultural holdings to join global market chains (supply trade chains); |
| 8.3 | development of market chains and logistical support to the agricultural sector; | strengthening the motivation of producers for various forms of association; |
| 8.4 | development of market chains and logistical support to the agricultural sector; | strengthening the capacity of cooperatives to become financial, market and advisory services to cooperatives; |
| 8.5 | development of market chains and logistical support to the agricultural sector; | strengthening the visibility and recognizability of domestic products on the market; |
| 8.6 | development of market chains and logistical support to the agricultural sector; | strengthening the export performance of the agricultural sector; |
| 8.7 | development of market chains and logistical support to the agricultural sector; | strengthening horizontal and vertical links in the production chain, based on market principles; |
| 8.8 | development of market chains and logistical support to the agricultural sector; | reducing the presence of the gray economy; |
| 8.9 | development of market chains and logistical support to the agricultural sector; | strengthening and development of market organizations. |
| 9.1 | protection and improvement of the environment and preservation of natural resources; | protection of waters from negative impacts of agriculture; |
| 9.2 | protection and improvement of the environment and preservation of natural resources; | greater application of agricultural practices (application of agro-technical measures and technology) environmentally friendly; |
| 9.3 | protection and improvement of the environment and preservation of natural resources; | establishing and promoting integrated production systems; |
| 9.4 | protection and improvement of the environment and preservation of natural resources; | improvement of organic production, control, certification and supervision systems in organic production; |
| 9.5 | protection and improvement of the environment and preservation of natural resources; | raising awareness of the importance of using renewable energy sources and energy crop production; |
| 9.6 | protection and improvement of the environment and preservation of natural resources; | controlled management of waste from primary agricultural production; |
| 9.7 | protection and improvement of the environment and preservation of natural resources; | development and improvement of the food by-products management system; |
| 9.8 | protection and improvement of the environment and preservation of natural resources; | conservation and sustainable management of plant and animal genetic resources; |
| 9.9 | protection and improvement of the environment and preservation of natural resources; | preservation of landscapes, agricultural areas of high natural value and their resources. |
| 10.1 | conservation of agriculture, natural and human resources in the POURP | preserving and strengthening the vital social structure in the POURP; |
| 10.2 | conservation of agriculture, natural and human resources in the POURP | equalization of economic conditions of agricultural producers in POURP with those of producers in other areas; |
| 10.3 | conservation of agriculture, natural and human resources in the POURP | revitalization and preservation of pastures (as an element of landscape and production resources). |
| 11.1 | diversification of the rural economy and preservation of cultural and natural heritage; | more diverse offer of products and services of rural households; |
| 11.2 | diversification of the rural economy and preservation of cultural and natural heritage; | development of rural tourism; |
| 11.3 | diversification of the rural economy and preservation of cultural and natural heritage; | growth in the number of products and services based on the local identity of rural areas; |
| 11.4 | diversification of the rural economy and preservation of cultural and natural heritage; | protection and preservation of cultural heritage; |
| 11.5 | diversification of the rural economy and preservation of cultural and natural heritage; | strengthening vertical and horizontal coordination of rural development actors; |
| 11.6 | diversification of the rural economy and preservation of cultural and natural heritage; | improvement of communal and land infrastructure |
| 12.1 | improving the social structure and strengthening social capital | stopping negative demographic trends in rural areas; |
| 12.2 | improving the social structure and strengthening social capital | mobilizing local human and social resources by organizing local action groups and LEADER approaches; |
| 12.3 | improving the social structure and strengthening social capital | promoting cooperative organization and inclusion of cooperatives in local action groups; |
| 12.4 | improving the social structure and strengthening social capital | strengthening regional cross-border cooperation to promote socio-economic development; |
| 12.5 | improving the social structure and strengthening social capital | greater availability of social services to the rural population; |
| 12.6 | improving the social structure and strengthening social capital | reduction of rural cheese oppression and improving the position of deprived sections of the rural population; |
| 12.7 | improving the social structure and strengthening social capital | improving the social status of the agricultural workforce; |
| 12.8 | improving the social structure and strengthening social capital | inclusion of small farms in support systems; |
| 12.9 | improving the social structure and strengthening social capital | affirmation of women's and youth entrepreneurship in rural areas; |
| 12.10 | improving the social structure and strengthening social capital | ensuring the affirmation of diversity (national, religious, cultural, social, etc.) in rural areas. |
| 13.1 | modernization and adjustment of bodies and organizations and legislation | speeding up the transposition of the EU acquis; |
| 13.2 | modernization and adjustment of bodies and organizations and legislation | building missing and strengthening existing bodies and organizations; |
| 13.3 | modernization and adjustment of bodies and organizations and legislation | modernization of administration in terms of improving professionalism, application of information technologies and new management practices; |
| 13.4 | modernization and adjustment of bodies and organizations and legislation | strengthening the partnership between governmental and non-governmental structures, participatory decision-making systems and decentralization of decision-making and funds. |
| 14.1 | improving product quality and safety | continuous improvement of safety and quality of food and feed with continuous improvement of the overall food safety system; |
| 14.2 | improving product quality and safety | greater application of international standards in food and feed production; |
| 14.3 | improving product quality and safety | establishing and strengthening a systemic framework for the implementation of quality schemes; |
| 14.4 | improving product quality and safety | strengthening the capacity and effectiveness of the control and inspection infrastructure; |
| 14.5 | improving product quality and safety | establishing an effective system of laboratory control of food and feed; |
| 14.6 | improving product quality and safety | adjusting food hygiene standards for traditional and organic production facilities, as well as production in areas where there are special geographical restrictions. |

## Mapping ARDS indicators

### 1-Ensuring equal competitive conditions for domestic producers in accordance with the envisaged solutions contained in the foreign trade agreements of the Republic of Serbia

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TYPE | CODE\_TYPE | IND\_CODE | FULL\_CODE | Column1 | INDICATOR | SUB-INDICATOR | Parameter | Unit | Source |
| Context | CX | C.031 | CX\_C.031\_0001 | 0001 | Agricultural imports and exports | Agri-food (intra + extra) EU trade balance | Commodities | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0002 | 0002 | Agricultural imports and exports | Agri-food (intra + extra) EU trade balance | Other primary | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0003 | 0003 | Agricultural imports and exports | Agri-food (intra + extra) EU trade balance | Processed | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0004 | 0004 | Agricultural imports and exports | Agri-food (intra + extra) EU trade balance | Food preparations | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0005 | 0005 | Agricultural imports and exports | Agri-food (intra + extra) EU trade balance | Beverages | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0006 | 0006 | Agricultural imports and exports | Agri-food (intra + extra) EU trade balance | Non-edible | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0007 | 0007 | Agricultural imports and exports | Agri-food (intra + extra)EU trade balance | Total | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0011 | 0011 | Agricultural imports and exports | Agri-food extraEU trade balance | Commodities | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0012 | 0012 | Agricultural imports and exports | Agri-food extraEU trade balance | Other primary | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0013 | 0013 | Agricultural imports and exports | Agri-food extraEU trade balance | Processed | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0014 | 0014 | Agricultural imports and exports | Agri-food extraEU trade balance | Food preparations | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0015 | 0015 | Agricultural imports and exports | Agri-food extraEU trade balance | Beverages | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0016 | 0016 | Agricultural imports and exports | Agri-food extraEU trade balance | Non-edible | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0017 | 0017 | Agricultural imports and exports | Agri-food extraEU trade balance | Total | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0021 | 0021 | Agricultural imports and exports | Agri-food intraEU trade balance | Commodities | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0022 | 0022 | Agricultural imports and exports | Agri-food intraEU trade balance | Other primary | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0023 | 0023 | Agricultural imports and exports | Agri-food intraEU trade balance | Processed | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0024 | 0024 | Agricultural imports and exports | Agri-food intraEU trade balance | Food preparations | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0025 | 0025 | Agricultural imports and exports | Agri-food intraEU trade balance | Beverages | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0026 | 0026 | Agricultural imports and exports | Agri-food intraEU trade balance | Non-edible | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0027 | 0027 | Agricultural imports and exports | Agri-food intraEU trade balance | Total | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0301 | 0301 | Agricultural imports and exports | Agri-food (intra + extra)EU trade value: Exports + Imports | Commodities | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0302 | 0302 | Agricultural imports and exports | Agri-food (intra + extra)EU trade value: Exports + Imports | Other primary | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0303 | 0303 | Agricultural imports and exports | Agri-food (intra + extra)EU trade value: Exports + Imports | Processed | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0304 | 0304 | Agricultural imports and exports | Agri-food (intra + extra)EU trade value: Exports + Imports | Food preparations | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0305 | 0305 | Agricultural imports and exports | Agri-food (intra + extra)EU trade value: Exports + Imports | Beverages | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0306 | 0306 | Agricultural imports and exports | Agri-food (intra + extra)EU trade value: Exports + Imports | Non-edible | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0307 | 0307 | Agricultural imports and exports | Agri-food (intra + extra)EU trade value: Exports + Imports | Total | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0311 | 0311 | Agricultural imports and exports | Agri-food extraEU trade value: Exports + Imports | Commodities | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0312 | 0312 | Agricultural imports and exports | Agri-food extraEU trade value: Exports + Imports | Other primary | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0313 | 0313 | Agricultural imports and exports | Agri-food extraEU trade value: Exports + Imports | Processed | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0314 | 0314 | Agricultural imports and exports | Agri-food extraEU trade value: Exports + Imports | Food preparations | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0315 | 0315 | Agricultural imports and exports | Agri-food extraEU trade value: Exports + Imports | Beverages | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0316 | 0316 | Agricultural imports and exports | Agri-food extraEU trade value: Exports + Imports | Non-edible | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0317 | 0317 | Agricultural imports and exports | Agri-food extraEU trade value: Exports + Imports | Total | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0321 | 0321 | Agricultural imports and exports | Agri-food intraEU trade value: Exports + Imports | Commodities | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0322 | 0322 | Agricultural imports and exports | Agri-food intraEU trade value: Exports + Imports | Other primary | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0323 | 0323 | Agricultural imports and exports | Agri-food intraEU trade value: Exports + Imports | Processed | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0324 | 0324 | Agricultural imports and exports | Agri-food intraEU trade value: Exports + Imports | Food preparations | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0325 | 0325 | Agricultural imports and exports | Agri-food intraEU trade value: Exports + Imports | Beverages | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0326 | 0326 | Agricultural imports and exports | Agri-food intraEU trade value: Exports + Imports | Non-edible | billion EUR | Stat.office |
| Context | CX | C.031 | CX\_C.031\_0327 | 0327 | Agricultural imports and exports | Agri-food intraEU trade value: Exports + Imports | Total | billion EUR | Stat.office |

## 2- Financing of agriculture and rural development and risk management

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TYPE | CODE\_TYPE | IND\_CODE | FULL\_CODE | Column1 | INDICATOR | SUB-INDICATOR | Parameter | | Unit | Source |
| Output | OU | O.003 | OU\_O.003\_0100 | 0100 | Number of CAP support beneficiaries | Number of CAP support beneficiaries |  | | beneficiaries | 00\_01; 00\_02 |
| Output | OU | O.003 | OU\_O.003\_0200 | 0200 | Number of CAP support beneficiaries | Amount of CAP support paid |  | | beneficiaries | 00\_01; 00\_02 |
| Output | OU | O.003 | OU\_O.003\_0300 | 0300 | Number of CAP support beneficiaries | Number of hectares supported |  | | EUR | 00\_01; 00\_02 |
| Output | OU | O.004 | OU\_O.004\_0300 | 0300 | Number of hectares for basic income support for sustainability | Number of hectares for basic income support for sustainability |  | | ha | 00\_01 |
| Output | OU | O.004 | OU\_O.004\_0200 | 0200 | Number of hectares for basic income support for sustainability | Amount of CAP support paid for BISS |  | | EUR | 00\_01 |
| Output | OU | O.004 | OU\_O.004\_0100 | 0100 | Number of hectares for basic income support for sustainability | Number of beneficiaries supported for BISS |  | | beneficiaries | 00\_01 |
| Output | OU | O.005 | OU\_O.005\_0200 | 0200 | Number of beneficiaries or hectares of payments for small farmers | Amount of CAP support paid |  | | EUR | 00\_01 |
| Output | OU | O.006 | OU\_O.006\_0300 | 0300 | Number of hectares subject to complementary income support for young farmers | Number of hectares subject to complementary income support for young farmers |  | | ha | 00\_01 |
| Output | OU | O.006 | OU\_O.006\_0100 | 0100 | Number of hectares subject to complementary income support for young farmers | Number of farmers subject to complementary income support for young farmers |  | | beneficiaries | 00\_01 |
| Output | OU | O.006 | OU\_O.006\_0200 | 0200 | Number of hectares subject to complementary income support for young farmers | Amount of CAP support paid to complementary income support for young farmers |  | | EUR | 00\_01 |
| Output | OU | O.06a | OU\_O.06a\_0300 | 0300 | Number of hectares for complementary redistributive income support | Number of hectares for complemnetary redistributive income support |  | | ha | 00\_01 |
| Output | OU | O.06a | OU\_O.06a\_0100 | 0100 | Number of hectares for complementary redistributive income support | Number of beneficiaries for complementary redistributive income support |  | | beneficiaries | 00\_01 |
| Output | OU | O.06a | OU\_O.06a\_0200 | 0200 | Number of hectares for complementary redistributive income support | Amount of CAP support for complementary redistributive income support |  | | EUR | 00\_01 |
| Output | OU | O.06b | OU\_O.06b\_0200 | 0200 | Number of units (hectares or livestock units) for eco-schemes | Amount of CAP support paid |  | | LU | 00\_01 |
| Output | OU | O.009 | OU\_O.009\_0200 | 0200 | Number of hectares benefitting from coupled income support | Amount of support | total | |  | 00\_01 |
| Output | OU | O.009 | OU\_O.009\_1300 | 1300 | Number of hectares benefitting from coupled income support | Number of hectares benefitting from coupled income support 1 |  | | ha | 00\_01 |
| Output | OU | O.009 | OU\_O.009\_2300 | 2300 | Number of hectares benefitting from coupled income support | Number of hectares benefitting from coupled income support 2 |  | | ha | 00\_01 |
| Output | OU | O.009 | OU\_O.009\_n300 | n300 | Number of hectares benefitting from coupled income support | Number of hectares benefitting from coupled income support n |  | | ha | 00\_01 |
| Output | OU | O.009 | OU\_O.009\_1200 | 1200 | Number of hectares benefitting from coupled income support | Amount of CAP support paid for coupled income support 1 |  | | EUR | 00\_01 |
| Output | OU | O.009 | OU\_O.009\_2200 | 2200 | Number of hectares benefitting from coupled income support | Amount of CAP support paid for coupled income support 2 |  | | EUR | 00\_01 |
| Output | OU | O.009 | OU\_O.009\_n200 | n200 | Number of hectares benefitting from coupled income support | Amount of CAP support paid for coupled income support n |  | | EUR | 00\_01 |
| Output | OU | O.009 | OU\_O.009\_1100 | 1100 | Number of hectares benefitting from coupled income support | Number of beneficiaries for coupled income support 1 |  | | beneficiaries | 00\_01 |
| Output | OU | O.009 | OU\_O.009\_2100 | 2100 | Number of hectares benefitting from coupled income support | Number of beneficiaries for coupled income support 2 |  | | beneficiaries | 00\_01 |
| Output | OU | O.009 | OU\_O.009\_n100 | n100 | Number of hectares benefitting from coupled income support | Number of beneficiaries for coupled income support n |  | | beneficiaries | 00\_01 |
| Output | OU | O.010 | OU\_O.010\_0200 | 0200 | Number of heads benefitting from coupled income support | Amount of support |  | |  | 00\_01 |
| Output | OU | O.010 | OU\_O.010\_1400 | 1400 | Number of heads benefitting from coupled income support | Number heads 1 benefiting from coupled income support |  | | LU | 00\_01 |
| Output | OU | O.010 | OU\_O.010\_2400 | 2400 | Number of heads benefitting from coupled income support | Number heads 2 benefiting from coupled income support |  | | LU | 00\_01 |
| Output | OU | O.010 | OU\_O.010\_n400 | n400 | Number of heads benefitting from coupled income support | Number heads n benefiting from coupled income support |  | | LU | 00\_01 |
| Output | OU | O.010 | OU\_O.010\_1200 | 1200 | Number of heads benefitting from coupled income support | Amount of CAP support paid for head 1 from coupled income support |  | | EUR | 00\_01 |
| Output | OU | O.010 | OU\_O.010\_2200 | 2200 | Number of heads benefitting from coupled income support | Amount of CAP support paid for head 2 from coupled income support |  | | EUR | 00\_01 |
| Output | OU | O.010 | OU\_O.010\_n200 | n200 | Number of heads benefitting from coupled income support | Amount of CAP support paid for head n from coupled income support |  | | EUR | 00\_01 |
| Output | OU | O.010 | OU\_O.010\_1100 | 1100 | Number of heads benefitting from coupled income support | Number of beneficiaries of coupled income support head 1 |  | | beneficiaries | 00\_01 |
| Output | OU | O.010 | OU\_O.010\_2100 | 2100 | Number of heads benefitting from coupled income support | Number of beneficiaries of coupled income support head 2 |  | | beneficiaries | 00\_01 |
| Output | OU | O.010 | OU\_O.010\_n100 | n100 | Number of heads benefitting from coupled income support | Number of beneficiaries of coupled income support head n |  | | beneficiaries | 00\_01 |
| Output | OU | O.011 | OU\_O.011\_0200 | 0200 | Number of hectares receiving support for areas facing natural or other specific constraints, including a breackdown per type of areas | Amount of CAP support paid | total | | EUR | 00\_01 |
| Output | OU | O.011 | OU\_O.011\_1300 | 1300 | Number of hectares receiving support for areas facing natural or other specific constraints, including a breackdown per type of areas | Number of hectares in moutain areas receiving support |  | | ha | 00\_01 |
| Output | OU | O.011 | OU\_O.011\_2300 | 2300 | Number of hectares receiving support for areas facing natural or other specific constraints, including a breackdown per type of areas | Number of hectares in natural constraints receiving support |  | | ha | 00\_01 |
| Output | OU | O.011 | OU\_O.011\_3300 | 3300 | Number of hectares receiving support for areas facing natural or other specific constraints, including a breackdown per type of areas | Number of hectare under other specific constraints receiving support |  | | ha | 00\_01 |
| Output | OU | O.011 | OU\_O.011\_1100 | 1100 | Number of hectares receiving support for areas facing natural or other specific constraints, including a breackdown per type of areas | Number of beneficiaries in mountain areas receiving support |  | | beneficiaries | 00\_01 |
| Output | OU | O.011 | OU\_O.011\_1200 | 1200 | Number of hectares receiving support for areas facing natural or other specific constraints, including a breackdown per type of areas | Amount of CAP support paid for mountain areas |  | | EUR | 00\_01 |
| Output | OU | O.011 | OU\_O.011\_2100 | 2100 | Number of hectares receiving support for areas facing natural or other specific constraints, including a breackdown per type of areas | Number of beneficiaries receiving support for areas with natural constraints |  | | beneficiaries | 00\_01 |
| Output | OU | O.011 | OU\_O.011\_2200 | 2200 | Number of hectares receiving support for areas facing natural or other specific constraints, including a breackdown per type of areas | Amount of CAP support paid for areas with natural constraints |  | | EUR | 00\_01 |
| Output | OU | O.011 | OU\_O.011\_3100 | 3100 | Number of hectares receiving support for areas facing natural or other specific constraints, including a breackdown per type of areas | Number of beneficiaries receiving support for areas with other specific constaints |  | | beneficiaries | 00\_01 |
| Output | OU | O.011 | OU\_O.011\_3200 | 3200 | Number of hectares receiving support for areas facing natural or other specific constraints, including a breackdown per type of areas | Amount of CAP support paid for areas with other specific constraints |  | | EUR | 00\_01 |
| Output | OU | O.012 | OU\_O.012\_0200 | 0200 | Number of hectares receiving support under Natura 2000 or the Water Framework Directive | Amount of CAP support | total | |  | 00\_01 |
| Output | OU | O.012 | OU\_O.012\_1300 | 1300 | Number of hectares receiving support under Natura 2000 or the Water Framework Directive | Number of hectares receiving support in NATURA2000 areas |  | | ha | 00\_01 |
| Output | OU | O.012 | OU\_O.012\_1100 | 1100 | Number of hectares receiving support under Natura 2000 or the Water Framework Directive | Number of beneficiaries receiving support in NATURA2000 areas |  | | beneficiaries | 00\_01 |
| Output | OU | O.012 | OU\_O.012\_1200 | 1200 | Number of hectares receiving support under Natura 2000 or the Water Framework Directive | Amount of CAP support paid in NATURA 2000 areas |  | | EUR | 00\_01 |
| Output | OU | O.012 | OU\_O.012\_2300 | 2300 | Number of hectares receiving support under Natura 2000 or the Water Framework Directive | Number of hectares receiving support under Water Framework Directive |  | | ha | 00\_01 |
| Output | OU | O.012 | OU\_O.012\_2100 | 2100 | Number of hectares receiving support under Natura 2000 or the Water Framework Directive | Number of beneficiaries receiving support under Water Framework Directive |  | | beneficiaries | 00\_01 |
| Output | OU | O.012 | OU\_O.012\_2200 | 2200 | Number of hectares receiving support under Natura 2000 or the Water Framework Directive | Amount of CAP support paid under Water Framework Directive |  | | EUR | 00\_01 |
| Output | OU | O.013 | OU\_O.013\_0200 | 0200 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Amount of CAP support | | | ha | 00\_01 |
| Output | OU | O.013 | OU\_O.013\_1200 | 1200 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Amount of support under Scheme 1 | | | | 00\_01 |
| Output | OU | O.013 | OU\_O.013\_n200 | n200 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Amount of support under Scheme n | | | | 00\_01 |
| Output | OU | O.014 | OU\_O.014\_0200 | 0200 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Amount of CAP support | | | ha | 00\_01 |
| Output | OU | O.014 | OU\_O.014\_1200 | 1200 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Amount of support under Scheme 1 | | | | 00\_01 |
| Output | OU | O.014 | OU\_O.014\_n200 | n200 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Amount of support under Scheme n | | | | 00\_01 |
| Output | OU | O.14a | OU\_O.14a\_0200 | 0200 | Number of hectares or number of other units under maintenance commitments for afforestation and agroforestry | Amount of support | | |  | 00\_01 |
| Output | OU | O.14a | OU\_O.14a\_1200 | 1200 | Number of hectares or number of other units under maintenance commitments for afforestation and agroforestry | Amount of support under Scheme 1 | | | | 00\_01 |
| Output | OU | O.14a | OU\_O.14a\_n200 | n200 | Number of hectares or number of other units under maintenance commitments for afforestation and agroforestry | Amount of support under Scheme n | | | | 00\_01 |
| Output | OU | O.015 | OU\_O.015\_1200 | 1200 | Number of hectares or number of other units with support for organic farming | Amount of support paid to organic farming | | 1 | EUR | 00\_01 |
| Output | OU | O.015 | OU\_O.015\_2200 | 2200 | Number of hectares or number of other units with support for organic farming | Amount of support paid to conversion to organic farming | | 2 | EUR | 00\_01 |
| Output | OU | O.016 | OU\_O.016\_0200 | 0200 | Number of livestock units (LU) covered by support for animal welfare, health or increased biosecurity measures | Amount of support | | |  | 00\_01 |
| Output | OU | O.016 | OU\_O.016\_1100 | 1100 | Number of livestock units (LU) covered by support for animal welfare, health or increased biosecurity measures | Number of beneficiaries receiving support for bovine animals | |  | beneficiaries | 00\_01 |
| Output | OU | O.016 | OU\_O.016\_2100 | 2100 | Number of livestock units (LU) covered by support for animal welfare, health or increased biosecurity measures | Number of beneficiaries receiving support for ovine animals | |  | beneficiaries | 00\_01 |
| Output | OU | O.016 | OU\_O.016\_3100 | 3100 | Number of livestock units (LU) covered by support for animal welfare, health or increased biosecurity measures | Number of beneficiaries receiving support for swine animals | |  | beneficiaries | 00\_01 |
| Output | OU | O.016 | OU\_O.016\_4100 | 4100 | Number of livestock units (LU) covered by support for animal welfare, health or increased biosecurity measures | Number of beneficiaries receiving support for poultry animals | |  | beneficiaries | 00\_01 |
| Output | OU | O.016 | OU\_O.016\_1200 | 1200 | Number of livestock units (LU) covered by support for animal welfare, health or increased biosecurity measures | Amount of CAP support to bovine | |  | EUR | 00\_01 |
| Output | OU | O.016 | OU\_O.016\_2200 | 2200 | Number of livestock units (LU) covered by support for animal welfare, health or increased biosecurity measures | Amount of CAP support to ovine | |  | EUR | 00\_01 |
| Output | OU | O.016 | OU\_O.016\_3200 | 3200 | Number of livestock units (LU) covered by support for animal welfare, health or increased biosecurity measures | Amount of CAP support to swine | |  | EUR | 00\_01 |
| Output | OU | O.016 | OU\_O.016\_4200 | 4200 | Number of livestock units (LU) covered by support for animal welfare, health or increased biosecurity measures | Amount of CAP support to poultry | |  | EUR | 00\_01 |
| Output | OU | O.017 | OU\_O.017\_0200 | 0200 | Number of operations or units supporting genetic resources | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.018 | OU\_O.018\_0200 | 0200 | Number of supported on-farm productive investment operations or units | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.18a | OU\_O.18a\_0200 | 0200 | Number of supported on-farm non-productive investment operations or units | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.019 | OU\_O.019\_0200 | 0200 | Number of supported infrastructure investment operations or units | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.020 | OU\_O.020\_0200 | 0200 | Number of supported off-farm non-productive investments operations or units | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.021 | OU\_O.021\_0200 | 0200 | Number of supported off-farm productive investment operations or units | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.022 | OU\_O.022\_0200 | 0200 | Number of young farmers receiving installation support | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.22a | OU\_O.22a\_0200 | 0200 | Number of new farmers receiving installation support (other than young farmers reported under O.22) | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.023 | OU\_O.023\_0200 | 0200 | Number of rural businesses receiving support for start up | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.024 | OU\_O.024\_0200 | 0200 | Number of supported Producer Groups/Organisations | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.025 | OU\_O.025\_0200 | 0200 | Number of beneficiaries receiving support to participate in official quality schemes | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.026 | OU\_O.026\_0200 | 0200 | Number of supported operations or units for generational renewal (excluding installation support) | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.027 | OU\_O.027\_0200 | 0200 | Number of supported local development strategies (LEADER) or preparatory | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.028 | OU\_O.028\_0200 | 0200 | Number of supported other cooperation operations or units (excluding EIP reported under O.1) | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.029 | OU\_O.029\_0200 | 0200 | Number of supported training, advice and awareness actions or units | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.031 | OU\_O.031\_0200 | 0200 | Number of hectares under environmental practices (synthesis indicator on physical area covered by conditionality, eco-schemes, agri- and forest environmental and climate management commitments) | Amount of CAP support | | O.6b + O.13 + O.14 + O14a | | 00\_01 |
| Output | OU | O.033 | OU\_O.033\_0200 | 0200 | Number of supported operational programmes | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.34a | OU\_O.34a\_0200 | 0200 | Number of actions or units supported in the wine sector | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.035 | OU\_O.035\_0200 | 0200 | Number of actions or units for beekeeping preservation/improvement | Amount of CAP support | | | | 00\_02; 00\_03 |
| Specific | SX | S.004 | SX\_S.004\_0000 | 0000 | Local support | Cummulative local support | | | |  |

## 3.1 & 3.2 Higher use of agricultural land; increasing land holdings and enlarging plots

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Context | CX | C.004 | CX\_C.001\_1000 | 0000 | Population numbers | Total area including inland waterways | total area | km2 | 00\_00 |
| Context | CX | C.005 | CX\_C.001\_2000 | 0000 | Population numbers | Area in different category of land cover | agricultural area: total | % total area | Corine Land Cover DB |
| Context | CX | C.005 | CX\_C.001\_3000 | 0200 | Population numbers | Area in different category of land cover | agricultural area: natural grassland | % total area | Corine Land Cover DB |
| Context | CX | C.005 | CX\_C.001\_0000 | 0300 | Population numbers | Area in different category of land cover | forest area: total | % total area | Corine Land Cover DB |
| Context | CX | C.005 | CX\_C.001\_3000 | 0400 | Population numbers | Area in different category of land cover | forest area: transitional woodland shrub | % total area | Corine Land Cover DB |
| Context | CX | C.005 | CX\_C.002\_0000 | 0500 | Population density | Area in different category of land cover | natural area | % total area | Corine Land Cover DB |
| Context | CX | C.005 | CX\_C.002\_3000 | 0600 | Population density | Area in different category of land cover | artificial area | % total area | Corine Land Cover DB |
| Context | CX | C.005 | CX\_C.003\_0100 | 0700 | Age structure of the population | Area in different category of land cover | other area (includes sea and inland water) | % total area | Corine Land Cover DB |
| Context | CX | C.017 | CX\_C.003\_0800 | 0100 | Age structure of the population | Agricultural land use | share of arable land | % of total UAA | 00\_00; 04\_10 |
| Context | CX | C.017 | CX\_C.003\_0700 | 0200 | Age structure of the population | Agricultural land use | share of permanent grassland and meadows | % of total UAA | 00\_00; 04\_10 |
| Context | CX | C.017 | CX\_C.003\_3100 | 0300 | Age structure of the population | Agricultural land use | share of permanent crops | % of total UAA | 00\_00; 04\_10 |

## 3.7 - Reduction of land loss and degradation

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TYPE | CODE\_TYPE | IND\_CODE | FULL\_CODE | Column1 | INDICATOR | SUB-INDICATOR | Parameter | Unit | Source |
| Context | CX | C.040 | CX\_C.040\_0000 | 0000 | Soil erosion by water | Soil erosion by water | estimated rate of soil loss by water erosion | tonnes/ha/year | |
| Context | CX | C.040 | CX\_C.040\_0100 | 0100 | Soil erosion by water | Agricultural areas at risk of soil erosion by water | estimated agricultural area affected by moderate to severe water erosion (>11 t/ha/yr) | 1 000 ha |  |
| Context | CX | C.040 | CX\_C.040\_0200 | 0200 | Soil erosion by water | Agricultural areas at risk of soil erosion by water | share of estimated agricultural area affected by moderate to severe water erosion (>11 t/ha/yr) | % total agricultural area | |

## 4.2 -Increase livestock, improve the racial structure of the herd and make better use of the genetic potential of domestic animals

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TYPE | CODE\_TYPE | IND\_CODE | FULL\_CODE | Column1 | INDICATOR | SUB-INDICATOR | Parameter | Unit | Source |
| Context | CX | C.043 | CX\_C.043\_0400 | 0400 | Greenhouse gas emissions from agriculture | Emissions by grazing animals | Enteric Fermentation/LSU of grazing animals | tonnes of CO2 equivalent per LSU | 07 |
| Context | CX | C.047 | CX\_C.047\_0000 | 0000 | Sales/use of antimicrobials in food producing animals | Sales of antimicrobials in food producing animal | Quantities corrected by Population Correction Unit (PCU) | mg/PCU | not available |
| Output | OU | O.016 | OU\_O.016\_1400 | 1400 | Number of livestock units (LU) covered by support for animal welfare, health or increased biosecurity measures | Number of lifestock units of bovine animals covered |  | LU | 00\_01 |
| Output | OU | O.016 | OU\_O.016\_2400 | 2400 | Number of livestock units (LU) covered by support for animal welfare, health or increased biosecurity measures | Number of lifestock units of ovine animals covered |  | LU | 00\_01 |
| Output | OU | O.016 | OU\_O.016\_3400 | 3400 | Number of livestock units (LU) covered by support for animal welfare, health or increased biosecurity measures | Number of lifestock units of swine animals covered |  | LU | 00\_01 |
| Output | OU | O.016 | OU\_O.016\_4400 | 4400 | Number of livestock units (LU) covered by support for animal welfare, health or increased biosecurity measures | Number of lifestock units of poultry animals covered |  | LU | 00\_01 |
| Output | OU | O.016 | OU\_O.016\_1100 | 1100 | Number of livestock units (LU) covered by support for animal welfare, health or increased biosecurity measures | Number of beneficiaries receiving support for bovine animals |  | beneficiaries | 00\_01 |
| Output | OU | O.016 | OU\_O.016\_2100 | 2100 | Number of livestock units (LU) covered by support for animal welfare, health or increased biosecurity measures | Number of beneficiaries receiving support for ovine animals |  | beneficiaries | 00\_01 |
| Output | OU | O.016 | OU\_O.016\_3100 | 3100 | Number of livestock units (LU) covered by support for animal welfare, health or increased biosecurity measures | Number of beneficiaries receiving support for swine animals |  | beneficiaries | 00\_01 |
| Output | OU | O.016 | OU\_O.016\_4100 | 4100 | Number of livestock units (LU) covered by support for animal welfare, health or increased biosecurity measures | Number of beneficiaries receiving support for poultry animals |  | beneficiaries | 00\_01 |

## 4.3- Increase of areas under perennial plantations (plantation and parent plantations)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TYPE | CODE\_TYPE | IND\_CODE | FULL\_CODE | Column1 | INDICATOR | SUB-INDICATOR | Parameter | Unit | Source |
| Specific | SX | S.003 | SX\_S.003\_0025 | 0025 | Expected production (weight) | Expected production of Aromatic, medicinal and culinary plants | Total | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0026 | 0026 | Expected production (weight) | Expected production of Other industrial plants not mentioned elsewhere | Total | tonns | 00\_06;04\_14 |

## 4.4- Adapting the assortment of fruit and vines to production conditions and improving production technology

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TYPE | CODE\_TYPE | IND\_CODE | FULL\_CODE | Column1 | INDICATOR | SUB-INDICATOR | Parameter | Unit | Source |
| Context | CX | C.035 | CX\_C.035\_0110 | 0110 | Value of production under EU quality schemes and organics | Geographical indications in the wine sector | PDO - Wine | Number of new PDO | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0210 | 0210 | Value of production under EU quality schemes and organics | Geographical indications in the wine sector | PGI - Wine | Number of new PGI | 01\_01 |
| Specific | SX | S.003 | SX\_S.003\_0064 | 0064 | Expected production (weight) | Expected production of Other wine grapes | Total | tons | 00\_06;04\_14 |

## 4 - Improvement of the entire system of production and distribution of planting and seed material

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TYPE | CODE\_TYPE | IND\_CODE | FULL\_CODE | Column1 | INDICATOR | SUB-INDICATOR | Parameter | Unit | Source |
| Specific | SX | S.003 | SX\_S.003\_0073 | 0073 | Expected production (weight) | Expected production of Nurseries for seeds and seedlings | Total | tons | 00\_06;04\_14 |

## 5- Improving the educational structure of the workforce on agricultural holdings; and expanding the offer of educational and training programs of all levels and types of education

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TYPE | CODE\_TYPE | IND\_CODE | FULL\_CODE | Column1 | INDICATOR | SUB-INDICATOR | Parameter | Unit | Source |
| Context | CX | C.006 | CX\_C.006\_0800 | 0800 | Employment rate in rural areas | Employment rate for the age group 15-64 | total | % | 04\_03 |
| Context | CX | C.006 | CX\_C.006\_0810 | 0810 | Employment rate in rural areas | Employment rate for the age group 15-64 | males | % | 04\_03 |
| Context | CX | C.006 | CX\_C.006\_0820 | 0820 | Employment rate in rural areas | Employment rate for the age group 15-64 | females | % | 04\_03 |
| Context | CX | C.006 | CX\_C.006\_3800 | 3800 | Employment rate in rural areas | Employment rate for the age group 15-64 | rural areas | % | 04\_00; 04\_03 |
| Context | CX | C.006 | CX\_C.006\_0900 | 0900 | Employment rate in rural areas | Employment rate for the age group 20-64 | total | % | 04\_00; 04\_03 |
| Context | CX | C.006 | CX\_C.006\_0910 | 0910 | Employment rate in rural areas | Employment rate for the age group 20-64 | males | % | 04\_00; 04\_03 |
| Context | CX | C.006 | CX\_C.006\_0920 | 0920 | Employment rate in rural areas | Employment rate for the age group 20-64 | females | % | 04\_00; 04\_03 |
| Context | CX | C.006 | CX\_C.006\_3900 | 3900 | Employment rate in rural areas | Employment rate for the age group 20-64 | rural areas | % | 04\_00; 04\_03 |
| Context | CX | C.007 | CX\_C.007\_0a00 | 0a00 | Unemployment rate in rural areas | Unemployment rate for the age group 15-74 | total | % | Stat.Office |
| Context | CX | C.007 | CX\_C.007\_3a00 | 3a00 | Unemployment rate in rural areas | Unemployment rate for the age group 15-74 | rural areas | % | Stat.Office |
| Context | CX | C.007 | CX\_C.007\_0200 | 0200 | Unemployment rate in rural areas | Youth unemployment rate (age group 15-24) | total | % | Stat.Office |
| Context | CX | C.007 | CX\_C.007\_3200 | 3200 | Unemployment rate in rural areas | Youth unemployment rate (age group 15-24) | rural areas | % | Stat.Office |
| Context | CX | C.008 | CX\_C.008\_0000 | 0000 | Employment (by sector, by type of region, by economic activity) | Total employment | total | 1 000 persons | 04\_03 |
| Context | CX | C.008 | CX\_C.008\_0010 | 0010 | Employment (by sector, by type of region, by economic activity) | Distribution of employment by economic sector | primary sector | % of total | 04\_03; 04\_3a |
| Context | CX | C.008 | CX\_C.008\_0020 | 0020 | Employment (by sector, by type of region, by economic activity) | Distribution of employment by economic sector | secondary sector | % of total | 04\_03; 04\_3b |
| Context | CX | C.008 | CX\_C.008\_0030 | 0030 | Employment (by sector, by type of region, by economic activity) | Distribution of employment by economic sector | tertiary sector | % of total | 04\_03; 04\_3c |
| Context | CX | C.008 | CX\_C.008\_3000 | 3000 | Employment (by sector, by type of region, by economic activity) | Distribution of employment by type of region | rural regions | % of total | 04\_00; 04\_03 |
| Context | CX | C.008 | CX\_C.008\_1000 | 1000 | Employment (by sector, by type of region, by economic activity) | Distribution of employment by type of region | intermediate regions | % of total | 04\_00; 04\_03 |
| Context | CX | C.008 | CX\_C.008\_2000 | 2000 | Employment (by sector, by type of region, by economic activity) | Distribution of employment by type of region | urban regions | % of total | 04\_00; 04\_03 |
| Context | CX | C.008 | CX\_C.008\_3010 | 3010 | Employment (by sector, by type of region, by economic activity) | Distribution of employment in rural regions | primary sector | % of total | 04\_00; 04\_03; 04\_3a |
| Context | CX | C.008 | CX\_C.008\_3020 | 3020 | Employment (by sector, by type of region, by economic activity) | Distribution of employment in rural regions | secondary sector | % of total | 04\_00; 04\_03; 04\_3b |
| Context | CX | C.008 | CX\_C.008\_3030 | 3030 | Employment (by sector, by type of region, by economic activity) | Distribution of employment in rural regions | tertiary sector | % of total | 04\_00; 04\_03; 04\_3c |
| Context | CX | C.008 | CX\_C.008\_1010 | 1010 | Employment (by sector, by type of region, by economic activity) | Distribution of employment in intermediate regions | primary sector | % of total | 04\_00; 04\_03; 04\_3a |
| Context | CX | C.008 | CX\_C.008\_1020 | 1020 | Employment (by sector, by type of region, by economic activity) | Distribution of employment in intermediate regions | secondary sector | % of total | 04\_00; 04\_03; 04\_3b |
| Context | CX | C.008 | CX\_C.008\_1030 | 1030 | Employment (by sector, by type of region, by economic activity) | Distribution of employment in intermediate regions | tertiary sector | % of total | 04\_00; 04\_03; 04\_3c |
| Context | CX | C.008 | CX\_C.008\_2010 | 2010 | Employment (by sector, by type of region, by economic activity) | Distribution of employment in urban regions | primary sector | % of total | 04\_00; 04\_03; 04\_3a |
| Context | CX | C.008 | CX\_C.008\_2020 | 2020 | Employment (by sector, by type of region, by economic activity) | Distribution of employment in urban regions | secondary sector | % of total | 04\_00; 04\_03; 04\_3b |
| Context | CX | C.008 | CX\_C.008\_2030 | 2030 | Employment (by sector, by type of region, by economic activity) | Distribution of employment in urban regions | tertiary sector | % of total | 04\_00; 04\_03; 04\_3c |

## 6- Adapting and mitigating the effects of climate change

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| TYPE | CODE\_TYPE | IND\_CODE | FULL\_CODE | Column1 | INDICATOR | SUB-INDICATOR | Parameter |
| Output | OU | O.013 | OU\_O.013\_0100 | 0100 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of beneficiaries | |
| Output | OU | O.013 | OU\_O.013\_0200 | 0200 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Amount of CAP support | |
| Output | OU | O.013 | OU\_O.013\_0300 | 0300 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of hectares | |
| Output | OU | O.013 | OU\_O.013\_1100 | 1100 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of beneficiaries under Scheme 1 | |
| Output | OU | O.013 | OU\_O.013\_n100 | n100 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of beneficiaries under Scheme n | |
| Output | OU | O.013 | OU\_O.013\_1200 | 1200 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Amount of support under Scheme 1 | |
| Output | OU | O.013 | OU\_O.013\_n200 | n200 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Amount of support under Scheme n | |
| Output | OU | O.013 | OU\_O.013\_1300 | 1300 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of hectares covered by Scheme 1 | |
| Output | OU | O.013 | OU\_O.013\_n300 | n300 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of hectares covered by Scheme n | |
| Output | OU | O.014 | OU\_O.014\_0100 | 0100 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of beneficiaries | |
| Output | OU | O.014 | OU\_O.014\_0200 | 0200 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Amount of CAP support | |
| Output | OU | O.014 | OU\_O.014\_0300 | 0300 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of hectares | |
| Output | OU | O.014 | OU\_O.014\_1100 | 1100 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of beneficiaries under Scheme 1 | |
| Output | OU | O.014 | OU\_O.014\_n100 | n100 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of beneficiaries under Scheme n | |
| Output | OU | O.014 | OU\_O.014\_1200 | 1200 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Amount of support under Scheme 1 | |
| Output | OU | O.014 | OU\_O.014\_n200 | n200 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Amount of support under Scheme n | |
| Output | OU | O.014 | OU\_O.014\_1300 | 1300 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of hectares covered by Scheme 1 | |
| Output | OU | O.014 | OU\_O.014\_n300 | n300 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of hectares covered by Scheme n | |
| Output | OU | O.031 | OU\_O.031\_0300 | 0300 | Number of hectares under environmental practices (synthesis indicator on physical area covered by conditionality, eco-schemes, agri- and forest environmental and climate management commitments) | Number of hectares | O.6b + O.13 + O.14 + O14a |
| Output | OU | O.031 | OU\_O.031\_0100 | 0100 | Number of hectares under environmental practices (synthesis indicator on physical area covered by conditionality, eco-schemes, agri- and forest environmental and climate management commitments) | Number of beneficiaries | O.6b + O.13 + O.14 + O14a |
| Output | OU | O.031 | OU\_O.031\_0200 | 0200 | Number of hectares under environmental practices (synthesis indicator on physical area covered by conditionality, eco-schemes, agri- and forest environmental and climate management commitments) | Amount of CAP support | O.6b + O.13 + O.14 + O14a |

## 7 -Technological development and modernization of agricultural production and processing

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TYPE | CODE\_TYPE | IND\_CODE | FULL\_CODE | Column1 | INDICATOR | SUB-INDICATOR | Parameter | Unit | | Source |
| Context | CX | C.011 | CX\_C.011\_0000 | 0000 | Gross value added by sector, by type of region, in agriculture and for primary producers | Total GVA (Gross Value Added) | total | EUR million | | Stat.Office |
| Context | CX | C.011 | CX\_C.011\_0010 | 0010 | Gross value added by sector, by type of region, in agriculture and for primary producers | Distribution of GVA by economic sector | primary sector | % of total | | Stat.Office |
| Context | CX | C.011 | CX\_C.011\_0020 | 0020 | Gross value added by sector, by type of region, in agriculture and for primary producers | Distribution of GVA by economic sector | secondary sector | % of total | | Stat.Office |
| Context | CX | C.011 | CX\_C.011\_0020 | 0020 | Gross value added by sector, by type of region, in agriculture and for primary producers | Distribution of GVA by economic sector | tertiary sector | % of total | | Stat.Office |
| Context | CX | C.011 | CX\_C.011\_3000 | 3000 | Gross value added by sector, by type of region, in agriculture and for primary producers | Distribution of GVA by type of region | rural regions | % of total | | Stat.Office |
| Context | CX | C.011 | CX\_C.011\_1000 | 1000 | Gross value added by sector, by type of region, in agriculture and for primary producers | Distribution of GVA by type of region | intermediate regions | % of total | | Stat.Office |
| Context | CX | C.011 | CX\_C.011\_2000 | 2000 | Gross value added by sector, by type of region, in agriculture and for primary producers | Distribution of GVA by type of region | urban regions | % of total | | Stat.Office |
| Context | CX | C.029 | CX\_C.029\_0000 | 0000 | Total factor productivity in agriculture | Total factor productivity in agriculture | total | Index 2005 = 100 | | |
| Context | CX | C.030 | CX\_C.030\_0000 | 0000 | Labor productivity in agriculture, in forestry and in the food industry | Total labor productivity | total | EUR/person | | not available |
| Context | CX | C.030 | CX\_C.030\_0010 | 0010 | Labor productivity in agriculture, in forestry and in the food industry | Labor productivity by economic sector | primary sector | EUR/person | | not available |
| Context | CX | C.030 | CX\_C.030\_0020 | 0020 | Labor productivity in agriculture, in forestry and in the food industry | Labor productivity by economic sector | secondary sector | EUR/person | | not available |
| Context | CX | C.030 | CX\_C.030\_0030 | 0030 | Labor productivity in agriculture, in forestry and in the food industry | Labor productivity by economic sector | tertiary sector | EUR/person | | not available |
| Context | CX | C.030 | CX\_C.030\_3000 | 3000 | Labor productivity in agriculture, in forestry and in the food industry | Labor productivity by type of region | rural regions | EUR/person | | not available |
| Context | CX | C.030 | CX\_C.030\_1000 | 1000 | Labor productivity in agriculture, in forestry and in the food industry | Labor productivity by type of region | intermediate regions | EUR/person | | not available |
| Context | CX | C.030 | CX\_C.030\_2000 | 2000 | Labor productivity in agriculture, in forestry and in the food industry | Labor productivity by type of region | urban regions | EUR/person | | not available |
| Context | CX | C.035 | CX\_C.035\_0110 | 0110 | Value of production under EU quality schemes and organics | Geographical indications in the wine sector | PDO - Wine | Number of new PDO | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0210 | 0210 | Value of production under EU quality schemes and organics | Geographical indications in the wine sector | PGI - Wine | Number of new PGI | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0320 | 0320 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | GI - Spirit drinks | Number of new GI | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0330 | 0330 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | GI - Aromatised wines | Number of new GI | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0140 | 0140 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PDO - Fresh meat (and offal) | Number of new PDO | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0150 | 0150 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PDO - Meat based products | Number of new PDO | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0160 | 0160 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PDO - Cheeses | Number of new PDO | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0170 | 0170 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PDO - Other products of animal origin | Number of new PDO | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0180 | 0180 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PDO - Oils and fats | Number of new PDO | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0190 | 0190 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PDO - Fruit, vegetables, cereals | Number of new PDO | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_01a0 | 01a0 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PDO - Fresh fish, molluscs, crustaceans | Number of new PDO | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_01b0 | 01b0 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PDO - Other products of Annex I of the Treaty | Number of new PDO | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_01c0 | 01c0 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PDO - Bread, pastry, cakes | Number of new PDO | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_01d0 | 01d0 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PDO - Other products | Number of new PDO | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0240 | 0240 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PGI - Fresh meat (and offal) | Number of new PGI | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0250 | 0250 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PGI - Meat based products | Number of new PGI | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0260 | 0260 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PGI - Cheeses | Number of new PGI | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0270 | 0270 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PGI - Other products of animal origin | Number of new PGI | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0280 | 0280 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PGI - Oils and fats | Number of new PGI | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0290 | 0290 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PGI - Fruit, vegetables, cereals | Number of new PGI | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_02a0 | 02a0 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PGI - Fresh fish, molluscs, crustaceans | Number of new PGI | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_02b0 | 02b0 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PGI - Other products of Annex I of the Treaty | Number of new PGI | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_02e0 | 02e0 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PGI - Beers | Number of new PGI | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_02c0 | 02c0 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PGI - Bread, pastry, cakes | Number of new PGI | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_02d0 | 02d0 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | PGI - Other products | Number of new PGI | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0340 | 0340 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | TSG - Fresh meat (and offal) | Number of new TSG | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0350 | 0350 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | TSG - Meat based products | Number of new TSG | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0360 | 0360 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | TSG - Cheeses | Number of new TSG | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0370 | 0370 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | TSG - Other products of animal origin | Number of new TSG | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_0390 | 0390 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | TSG - Fruit, vegetables, cereals | Number of new TSG | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_03a0 | 03a0 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | TSG - Fresh fish, molluscs, crustaceans | Number of new TSG | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_03c0 | 03c0 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | TSG - Bread, pastry, cakes | Number of new TSG | | 01\_01 |
| Context | CX | C.035 | CX\_C.035\_03d0 | 03d0 | Value of production under EU quality schemes and organics | Number of new protected designations of origin, protected geographical indications and traditional speciality guaranteed, by sector | TSG - Other products | Number of new TSG | | 01\_01 |
| Context | CX | C.041 | CX\_C.041\_0000 | 0000 | Sustainable production of renewable energy from agriculture and forestry | Production of renewable energy from agriculture | agriculture | kToe | |  |
| Context | CX | C.041 | CX\_C.041\_0100 | 0100 | Sustainable production of renewable energy from agriculture and forestry | Production of renewable energy from forestry | forestry | kToe | |  |
| Context | CX | C.047 | CX\_C.047\_0000 | 0000 | Sales/use of antimicrobials in food producing animals | Sales of antimicrobials in food producing animal | Quantities corrected by Population Correction Unit (PCU) | mg/PCU | | not available |
| Output | OU | O.018 | OU\_O.018\_0500 | 0500 | Number of supported on-farm productive investment operations or units | Number of operations | | | | 00\_02; 00\_03 |
| Output | OU | O.018 | OU\_O.018\_0100 | 0100 | Number of supported on-farm productive investment operations or units | Number of beneficiaries | | | | 00\_02; 00\_03 |
| Output | OU | O.018 | OU\_O.018\_0200 | 0200 | Number of supported on-farm productive investment operations or units | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.18a | OU\_O.18a\_0500 | 0500 | Number of supported on-farm non-productive investment operations or units | Number of operations | | | | 00\_02; 00\_03 |
| Output | OU | O.18a | OU\_O.18a\_0100 | 0100 | Number of supported on-farm non-productive investment operations or units | Number of beneficiaries | | | | 00\_02; 00\_03 |
| Output | OU | O.18a | OU\_O.18a\_0200 | 0200 | Number of supported on-farm non-productive investment operations or units | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.020 | OU\_O.020\_0500 | 0500 | Number of supported off-farm non-productive investments operations or units | Number of operations | | | | 00\_02; 00\_03 |
| Output | OU | O.020 | OU\_O.020\_100 | 100 | Number of supported off-farm non-productive investments operations or units | Number of beneficiaries | | | | 00\_02; 00\_03 |
| Output | OU | O.020 | OU\_O.020\_0200 | 0200 | Number of supported off-farm non-productive investments operations or units | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.021 | OU\_O.021\_0500 | 0500 | Number of supported off-farm productive investment operations or units | Number of operations | | | | 00\_02; 00\_03 |
| Output | OU | O.021 | OU\_O.021\_0100 | 0100 | Number of supported off-farm productive investment operations or units | Number of beneficiaries | | | | 00\_02; 00\_03 |
| Output | OU | O.021 | OU\_O.021\_0200 | 0200 | Number of supported off-farm productive investment operations or units | Amount of CAP support | | | | 00\_02; 00\_03 |
| Output | OU | O.024 | OU\_O.024\_0500 | 0500 | Number of supported Producer Groups/Organisations | Number of operations | | | | 00\_02; 00\_03 |
| Output | OU | O.024 | OU\_O.024\_0100 | 0100 | Number of supported Producer Groups/Organisations | Number of final beneficiaries (members) | | | | 00\_02; 00\_03 |
| Output | OU | O.024 | OU\_O.024\_0200 | 0200 | Number of supported Producer Groups/Organisations | Amount of CAP support | | | | 00\_02; 00\_03 |
| Specific | SX | S.003 | SX\_S.003\_0000 | 0000 | Expected production (weight) | Expected production of Common wheat and spelt | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0001 | 0001 | Expected production (weight) | Expected production of Durum wheat | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0002 | 0002 | Expected production (weight) | Expected production of Rye | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0003 | 0003 | Expected production (weight) | Expected production of Barley | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0004 | 0004 | Expected production (weight) | Expected production of Oats | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0005 | 0005 | Expected production (weight) | Expected production of Grain maize | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0006 | 0006 | Expected production (weight) | Expected production of Rice | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0007 | 0007 | Expected production (weight) | Expected production of Other cereals | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0008 | 0008 | Expected production (weight) | Expected production of Pulses - lentils, chickpeas and vetches | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0009 | 0009 | Expected production (weight) | Expected production of Peas, field beans and sweet lupines | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0010 | 0010 | Expected production (weight) | Expected production of Other protein crops | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0011 | 0011 | Expected production (weight) | Expected production of Potatoes | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0012 | 0012 | Expected production (weight) | Expected production of Sugar beet | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0013 | 0013 | Expected production (weight) | Expected production of Fodder roots and brassicas | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0014 | 0014 | Expected production (weight) | Expected production of Tobacco | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0015 | 0015 | Expected production (weight) | Expected production of Hops | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0016 | 0016 | Expected production (weight) | Expected production of Cotton | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0017 | 0017 | Expected production (weight) | Expected production of Rape and turnip | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0018 | 0018 | Expected production (weight) | Expected production of Sunflower | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0019 | 0019 | Expected production (weight) | Expected production of Soya | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0020 | 0020 | Expected production (weight) | Expected production of Linseed (oil flax) | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0021 | 0021 | Expected production (weight) | Expected production of Other oil seed crops | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0022 | 0022 | Expected production (weight) | Expected production of Flax | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0023 | 0023 | Expected production (weight) | Expected production of Hemp | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0024 | 0024 | Expected production (weight) | Expected production of Other textile crops | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0025 | 0025 | Expected production (weight) | Expected production of Aromatic, medicinal and culinary plants | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0026 | 0026 | Expected production (weight) | Expected production of Other industrial plants not mentioned elsewhere | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0027 | 0027 | Expected production (weight) | Expected production of Coliflower and Brocolli | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0028 | 0028 | Expected production (weight) | Expected production of Letuce | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0029 | 0029 | Expected production (weight) | Expected production of Tomato | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0030 | 0030 | Expected production (weight) | Expected production of Sweet Corn | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0031 | 0031 | Expected production (weight) | Expected production of Onion | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0032 | 0032 | Expected production (weight) | Expected production of Garlic | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0033 | 0033 | Expected production (weight) | Expected production of Carot | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0034 | 0034 | Expected production (weight) | Expected production of Strawberries | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0035 | 0035 | Expected production (weight) | Expected production of Melons | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0036 | 0036 | Expected production (weight) | Expected production of Other vegetables | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0037 | 0037 | Expected production (weight) | Expected production of Coliflower and Brocolli | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0038 | 0038 | Expected production (weight) | Expected production of Letuce | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0039 | 0039 | Expected production (weight) | Expected production of Tomato | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0040 | 0040 | Expected production (weight) | Expected production of Sweet Corn | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0041 | 0041 | Expected production (weight) | Expected production of Onion | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0042 | 0042 | Expected production (weight) | Expected production of Garlic | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0043 | 0043 | Expected production (weight) | Expected production of Carot | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0044 | 0044 | Expected production (weight) | Expected production of Strawberries | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0045 | 0045 | Expected production (weight) | Expected production of Melons | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0046 | 0046 | Expected production (weight) | Expected production of Other vegetables | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0047 | 0047 | Expected production (weight) | Expected production of Mushrooms | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0048 | 0048 | Expected production (weight) | Expected production of Flowers | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0049 | 0049 | Expected production (weight) | Expected production of Apple | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0050 | 0050 | Expected production (weight) | Expected production of Pear | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0051 | 0051 | Expected production (weight) | Expected production of Peach and Nectarine | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0052 | 0052 | Expected production (weight) | Expected production of Plums | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0053 | 0053 | Expected production (weight) | Expected production of Other stone fruits | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0054 | 0054 | Expected production (weight) | Expected production of Rasspberries | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0055 | 0055 | Expected production (weight) | Expected production of Blueberries | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0056 | 0056 | Expected production (weight) | Expected production of Other berries | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0057 | 0057 | Expected production (weight) | Expected production of Wallnuts | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0058 | 0058 | Expected production (weight) | Expected production of Hazelnuts | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0059 | 0059 | Expected production (weight) | Expected production of Other nuts | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0060 | 0060 | Expected production (weight) | Expected production of Citrus | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0061 | 0061 | Expected production (weight) | Expected production of Olives | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0062 | 0062 | Expected production (weight) | Expected production of Grapes with PDO | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0063 | 0063 | Expected production (weight) | Expected production of Grapes with PGI | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0064 | 0064 | Expected production (weight) | Expected production of Other wine grapes | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0065 | 0065 | Expected production (weight) | Expected production of Table grapes | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0066 | 0066 | Expected production (weight) | Expected production of Raisins | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0067 | 0067 | Expected production (weight) | Expected production of Nurseries | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0068 | 0068 | Expected production (weight) | Expected production of Permanent grassland and meadows | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0069 | 0069 | Expected production (weight) | Expected production of Rough grazing | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0070 | 0070 | Expected production (weight) | Expected production of Not used for production | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0071 | 0071 | Expected production (weight) | Expected production of Fallow | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0072 | 0072 | Expected production (weight) | Expected production of Kitchen gardens | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0073 | 0073 | Expected production (weight) | Expected production of Nurseries for seeds and seedlings | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0074 | 0074 | Expected production (weight) | Expected production of Forests | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0075 | 0075 | Expected production (weight) | Expected production of Other arable crops | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0076 | 0076 | Expected production (weight) | Expected production of Miscanthus X giganteus | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0077 | 0077 | Expected production (weight) | Expected production of Pawlovnia | Total | | tonns | 00\_06;04\_14 |
| Specific | SX | S.003 | SX\_S.003\_0078 | 0078 | Expected production (weight) | Expected production of Other energy crops | Total | | tonns | 00\_06;04\_14 |

## 9 - Protection and improvement of the environment and preservation of natural resources;

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TYPE | CODE\_TYPE | IND\_CODE | FULL\_CODE | Column1 | INDICATOR | SUB-INDICATOR | Parameter | Unit | Source |
| Output | OU | O.013 | OU\_O.013\_0100 | 0100 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of beneficiaries | | ha | 00\_01 |
| Output | OU | O.013 | OU\_O.013\_0200 | 0200 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Amount of CAP support | | ha | 00\_01 |
| Output | OU | O.013 | OU\_O.013\_0300 | 0300 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of hectares | |  | 00\_01 |
| Output | OU | O.013 | OU\_O.013\_1100 | 1100 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of beneficiaries under Scheme 1 | | | 00\_01 |
| Output | OU | O.013 | OU\_O.013\_n100 | n100 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of beneficiaries under Scheme n | | | 00\_01 |
| Output | OU | O.013 | OU\_O.013\_1200 | 1200 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Amount of support under Scheme 1 | | | 00\_01 |
| Output | OU | O.013 | OU\_O.013\_n200 | n200 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Amount of support under Scheme n | | | 00\_01 |
| Output | OU | O.013 | OU\_O.013\_1300 | 1300 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of hectares covered by Scheme 1 | | | 00\_01 |
| Output | OU | O.013 | OU\_O.013\_n300 | n300 | Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of hectares covered by Scheme n | | | 00\_01 |
| Output | OU | O.014 | OU\_O.014\_0100 | 0100 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of beneficiaries | | ha | 00\_01 |
| Output | OU | O.014 | OU\_O.014\_0200 | 0200 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Amount of CAP support | | ha | 00\_01 |
| Output | OU | O.014 | OU\_O.014\_0300 | 0300 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of hectares | |  | 00\_01 |
| Output | OU | O.014 | OU\_O.014\_1100 | 1100 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of beneficiaries under Scheme 1 | | | 00\_01 |
| Output | OU | O.014 | OU\_O.014\_n100 | n100 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of beneficiaries under Scheme n | | | 00\_01 |
| Output | OU | O.014 | OU\_O.014\_1200 | 1200 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Amount of support under Scheme 1 | | | 00\_01 |
| Output | OU | O.014 | OU\_O.014\_n200 | n200 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Amount of support under Scheme n | | | 00\_01 |
| Output | OU | O.014 | OU\_O.014\_1300 | 1300 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of hectares covered by Scheme 1 | | | 00\_01 |
| Output | OU | O.014 | OU\_O.014\_n300 | n300 | Number of hectares (forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements | Number of hectares covered by Scheme n | | | 00\_01 |
| Output | OU | O.031 | OU\_O.031\_0300 | 0300 | Number of hectares under environmental practices (synthesis indicator on physical area covered by conditionality, eco-schemes, agri- and forest environmental and climate management commitments) | Number of hectares | O.6b + O.13 + O.14 + O14a | | 00\_01 |
| Output | OU | O.031 | OU\_O.031\_0100 | 0100 | Number of hectares under environmental practices (synthesis indicator on physical area covered by conditionality, eco-schemes, agri- and forest environmental and climate management commitments) | Number of beneficiaries | O.6b + O.13 + O.14 + O14a | | 00\_01 |
| Output | OU | O.031 | OU\_O.031\_0200 | 0200 | Number of hectares under environmental practices (synthesis indicator on physical area covered by conditionality, eco-schemes, agri- and forest environmental and climate management commitments) | Amount of CAP support | O.6b + O.13 + O.14 + O14a | | 00\_01 |

## 10- Conservation of agriculture, natural and human resources in the POURP

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TYPE | CODE\_TYPE | IND\_CODE | FULL\_CODE | Column1 | INDICATOR | SUB-INDICATOR | Parameter | Unit | Source |
| Context | CX | C.032 | CX\_C.032\_0000 | 0000 | Tourism infrastructure | Total bed places in collective establishments | total | bed places | 04\_02 |
| Context | CX | C.032 | CX\_C.032\_3000 | 3000 | Tourism infrastructure | Share of bed places in total number of bed places by type of regions | rural areas | % total number of bed places | 04\_00; 04\_02 |
| Context | CX | C.032 | CX\_C.032\_1000 | 1000 | Tourism infrastructure | Share of bed places in total number of bed places by type of regions | intermediate areas | % total number of bed places | 04\_00; 04\_02 |
| Context | CX | C.032 | CX\_C.032\_2000 | 2000 | Tourism infrastructure | Share of bed places in total number of bed places by type of regions | urban areas | % total number of bed places | 04\_00; 04\_02 |

## 12.2 -Mobilizing local human and social resources by organizing local action groups and LEADER approaches

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TYPE | CODE\_TYPE | IND\_CODE | FULL\_CODE | Column1 | INDICATOR | SUB-INDICATOR | Parameter | Unit | Source |
| Output | OU | O.027 | OU\_O.027\_0500 | 0500 | Number of supported local development strategies (LEADER) or preparatory | Number of operations | | | 00\_02; 00\_03 |
| Output | OU | O.027 | OU\_O.027\_0100 | 0100 | Number of supported local development strategies (LEADER) or preparatory | Number of LAG members | | | 00\_02; 00\_03 |
| Output | OU | O.027 | OU\_O.027\_0200 | 0200 | Number of supported local development strategies (LEADER) or preparatory | Amount of CAP support | | | 00\_02; 00\_03 |

## 14.6- Improving product quality and safety

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TYPE | CODE\_TYPE | IND\_CODE | FULL\_CODE | Column1 | INDICATOR | SUB-INDICATOR | Parameter | Unit | Source |
| Context | CX | C.048 | CX\_C.048\_0100 | 0100 | Risk, use and impacts of pesticides | Sales of plant protection products - Fungicides and bactericides | Total by category | Kg | 02\_01 |
| Context | CX | C.048 | CX\_C.048\_0200 | 0200 | Risk, use and impacts of pesticides | Sales of plant protection products - Herbicides, haulm destructors and moss killers | Total by category | Kg | 02\_01 |
| Context | CX | C.048 | CX\_C.048\_0300 | 0300 | Risk, use and impacts of pesticides | Sales of plant protection products - Insecticides and acaricides | Total by category | Kg | 02\_01 |
| Context | CX | C.048 | CX\_C.048\_0400 | 0400 | Risk, use and impacts of pesticides | Sales of plant protection products - Molluscicides | Total by category | Kg | 02\_01 |
| Context | CX | C.048 | CX\_C.048\_0500 | 0500 | Risk, use and impacts of pesticides | Sales of plant protection products - Other plant protection products | Total by category | Kg | 02\_01 |
| Context | CX | C.048 | CX\_C.048\_0600 | 0600 | Risk, use and impacts of pesticides | Sales of plant protection products - Plant growth regulators | Total by category | Kg | 02\_01 |
| Context | CX | C.048 | CX\_C.048\_0010 | 0010 | Risk, use and impacts of pesticides | Sales of plant protection products per ha | Total sales/UAA | Kg/ha | 04\_00; 02\_01 |
| Context | CX | C.048 | CX\_C.048\_0020 | 0020 | Risk, use and impacts of pesticides | Total sales of plant protection products | Total | Kg | 02\_01 |

# Annex XII: Inventory of national and IPARD measures

In separate (external) Excel spread sheet please find inventory of national and IPARD measures including matrix and hierarchy of intervention logic, objectives, strategies, programmes, measures and respective laws.

1. MAFWM (2021) ANNUAL IMPLEMENTATION REPORT ON THE IPARD II PROGRAMME FOR 2020 [↑](#footnote-ref-1)
2. Soft deletion meaning that there will be no actual deletion of data, but „deleted“ status; instead of deletion, obsolete files will be stored in archive [↑](#footnote-ref-2)
3. Examples (Figure 1, 2 and 3) from Agri-Food Data Portal [↑](#footnote-ref-3)
4. Sage, Andrew P. (1992). Systems Engineering. New York: Wiley-interscience. ISBN 0471536393; Ziemann (2010): Architecture of Interoperable Information Systems-An enterprise Model-based Approach for Describing and Enacting Collaborative Business Processes. Logos, 2010. A summary can be found here: Ziemann (2012): Architecture of Interoperable Information Systems - Reference Architecture for Collaborations between Public Administrations. In: Krallmann, H., Zapp, A. (Eds.): Bausteine einer vernetzten Verwaltung. Berlin, Erich Schmidt Verlag, 2012, pp. 165. [↑](#footnote-ref-4)
5. Bauermeister, Sarah & Orton, Chris & Thompson, Simon & Barker, Roger & Bauermeister, Joshua & Ben-Shlomo, Yoav & Brayne, Carol & Burn, David & Campbell, Archie & Calvin, Catherine & Chandran, Siddharthan & Chaturvedi, Nishi & Chêne, Geneviève & Chessell, Iain & Corbett, Anne & Davis, Daniel & Denis, Mike & Dufouil, Carole & Elliott, Paul & Gallacher, John. (2020). The Dementias Platform UK (DPUK) Data Portal. European Journal of Epidemiology. 35. 10.1007/s10654-020-00633-4. [↑](#footnote-ref-5)