

European Network of Heads of Nature Conservation Agencies (ENCA)

ENCA is an informal network which fosters exchange of information and collaboration amongst its partners, identifies future challenges and offers information and advice to decision-makers in the field of nature conservation and landscape protection.

ENCA brings together scientific evidence and knowledge of practical application together with experiences in administration and policy advice in the context of biodiversity and ecosystem goods and services. More details can be found at www.encanetwork.eu.

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ENCA Engagement Piece

Improving the biodiversity performance of agricultural policies

Executive Summary

Nature plays a crucial role in food production through the delivery of key ecosystem services, including soil productivity, water supply and quality, crop pollination, and control of pests and diseases, contributing to nutrient and carbon cycles, and mitigating droughts and floods. These services are being compromised due to the steep declines in biodiversity and nature in Europe and worldwide alongside wider environmental degradation and the effects of climate change, undermining the resilience of agricultural systems and making food production increasingly vulnerable to extreme weather events.

Despite international and national agreements and strategies such as the CBD Kunming-Montreal Global Biodiversity Framework (in particular Target 10)¹ and the EU “Green Deal” and a large body of evidence in favour of the need for rapid and effective action (e.g. IPBES, 2019; Pörtner et al, 2021), the ENCA network notes with concern that efforts to protect biodiversity and the climate are currently being reduced or even abandoned in many places. This currently applies in particular to the protection of biodiversity through and with agriculture, especially in the EU.

Agricultural policies (and within the EU, the Common Agricultural Policy) have to become key instruments and major sources of funding to support the management and restoration of biodiversity in rural areas, including semi-natural habitats listed in the EU Habitats Directive and associated species, both within and outside Natura 2000 sites. This is equally important in order to fulfil international biodiversity commitments and to ensure future-proof and sustainable food production.

¹ See <https://www.cbd.int/gbf/targets/10>



This paper provides insights into good scheme design for achieving biodiversity outcomes, through a selection of good practice examples from the EU, Switzerland and the UK, with a specific focus on Annex I agricultural habitats under the Habitats Directive both within and outside the Natura 2000 network. It identifies a series of recommendations with actions that national authorities and intergovernmental policy-makers should take into account to strengthen the design and implementation of agricultural policies for biodiversity conservation and nature restoration, both when amending current and designing future policies. These can be summarised as:

1. **Use a mix of interventions both to improve habitat quality and ecosystem resilience within and outside protected areas** so that actions focused on delivering increased space for nature on farms throughout the farmed landscape are complemented by more targeted action for specific habitats and species within protected areas.
2. **Farmers should be adequately incentivised to implement practices that are fit for purpose**, implementing the right practices in the right place and tailoring schemes to ensure the most suitable management for specific habitats, environmental goods or pressures present on a farm holding to achieve the greatest biodiversity gains. This might require the setting of payment rates at regional level to better reflect differences in costs.
3. **Use cooperation and agri-environmental schemes to scale up actions at the landscape scale** by incentivising collaboration between farmers within a 'landscape unit' so that larger areas of land benefit from biodiversity protection and conservation and there is better spatial connectivity through the landscape.
4. **Invest in good quality advice and training for farmers on how to farm for biodiversity and transition to more sustainable and resilient systems** so that all land managers are able to access the information they need in the way that is most accessible to them and will motivate them to take action.
5. **Invest in biodiversity data and knowledge and the development of new tools to understand the link between farm practices and biodiversity outcomes** to improve the design and targeting of agri-environmental schemes. Information should be shared between countries on the range of approaches being developed to both monitor biodiversity outcomes as well as model the potential outcomes of different options for scheme targeting and implementation.
6. **Improve the collaboration between national nature agencies and agricultural policy delivery agencies both at national and, in the case of the CAP, at EU-level, in the development, design and monitoring of agri-environmental policies** so that nature conservation and environmental protection authorities are involved in the design and further development of agri-environmental strategies and programmes at an early stage to ensure that national and international nature conservation and environmental objectives are integrated into the programmes in a meaningful and targeted manner.



Note of concern on the issue of derogations of Green Deal goals in the EU CAP

The ENCA network notes with concern that current developments in agri-environmental policy are weakening or even completely eliminating many of the positive environmental and nature conservation elements in the current CAP legislation. This development must be stopped and reversed as a matter of urgency, particularly with a view to the further development of the CAP for the next funding period. Proposals for the next CAP regulation and EU budget (Multi-Annual Financial Framework) are due to be put forward by the European Commission in 2025, in order to come into force in 2028 (if the political process goes according to plan). Discussions on what form this should take have already started both inside and outside the Commission, including a more strategic dialogue on the future of EU agriculture, a process which is intended to develop a common understanding and view of what the future of the EU's food and farming system should look like, the outputs of which are not legally binding². At the same time, although 2024 marks only the second year of the current programming period, there are already substantial changes in the legislation in progress as a response to the wave of protests in early 2024 by farming organisations in many countries, as well as in Brussels itself. Although the reasons for these protests have been varied, focussed on specifically national and more generic agendas and concerns, first and foremost, they have been linked to concerns about longer-term economic challenges and competitiveness in the face of market pressures. Despite this, the main response by the European Commission has been to seek to reduce the assumed administrative burden on farmers by removing some of the most significant environmental improvements to the 2023-27 CAP (mandatory standards on habitat for nature and crops rotation) and introducing significant flexibilities to others relating to soil management. This weakens the basic environmental conditions to which farmers must adhere before receiving payments. Not only is this unlikely to address the real issues farmers face, but also risks undermining national, EU and international biodiversity commitments as well as being counter-productive for the long-term sustainability of agriculture, given the importance of nature and nature-based solutions as a pathway to more resilient farming systems that reduce the vulnerability of food production to extreme weather and other environmental stressors³. All of this was performed in an extremely rapid and unprecedented way without an impact assessment. The whole process, therefore, has been subject to fierce criticism by NGOs and scientists alike.

² https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/agriculture-and-green-deal/strategic-dialogue-future-eu-agriculture_en

³ As highlighted in the EEA's climate risk assessment <https://www.eea.europa.eu/publications/european-climate-risk-assessment> and the related European Commission Communication on climate resilience <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52024DC0091>.



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⁴ <https://ieep.eu>

⁵ <https://www.bfn.de>



1. Introduction

Nature plays a crucial role in food production through the delivery of key ecosystem services including soil productivity, water supply and quality, crop pollination, and control of pests and diseases, contributing to nutrient and carbon cycles, and mitigating droughts and floods. Not only are natural ecosystems vital for the services they provide, but they also provide insurance against increasing climate-related risks in a variety of ways, including by increasing ecosystem resilience to droughts and erosion which is vital to secure long-term food security (EEA, 2024). These services are being compromised due to the steep declines in biodiversity and nature in Europe and worldwide alongside wider environmental degradation and the effects of climate change, undermining the resilience of agricultural systems and making food production increasingly vulnerable to extreme weather events.

Agricultural policies (and within the EU, the Common Agricultural Policy (CAP)) have to become important instruments and major sources of funding to support the management and restoration of biodiversity in rural areas, including semi-natural habitats listed in the EU Habitats Directive and associated species, both within and outside Natura 2000 sites. This is equally important in order to fulfil international biodiversity commitments and to ensure future-proof and sustainable food production.

In the EU, the 2023-2027 CAP sought to improve the outcomes achieved from the funding provided. Specifically, it required national authorities to increase the overall environmental ambition of their CAP support compared with the previous CAP period. In addition, for the first time, all CAP interventions from both CAP funds had to be planned within a single CAP Strategic Plan (CSP) with integrated targets, indicators, and reporting, linked to a national needs assessment and prioritisation⁶. The overarching regulation⁷ is much less detailed than before to allow national authorities more flexibility in planning their interventions, including the new eco-scheme intervention as part of direct payments. However, this has not necessarily led to a significant change in how biodiversity is supported compared to the previous period.

This paper examines how agricultural policies are designed to prioritise biodiversity, with a focus on a selection of good examples of scheme design that are expected to have a positive impact on biodiversity, specifically Annex I agricultural habitats under the Habitats Directive, the Natura 2000 network, and High Nature Value farmland⁸. The role of HNV farming in supporting the Green Deal is the subject of a separate ENCA engagement piece “High Nature Value Farmland – nature friendly farming”⁹. The intention is to offer insights into how to strengthen the design and implementation of agricultural policies to increase the delivery of biodiversity outcomes.

⁶ This includes direct payments (income support) as well as rural development support.

⁷ [Regulation \(EU\) 2021/2116](#) of the European Parliament and of the Council establishing rules on support for strategic plans to be drawn up by Member States under the common agricultural policy (CAP Strategic Plans) and financed by the European Agricultural Guarantee Fund (EAGF) and by the European Agricultural Fund for Rural Development (EAFRD) and repealing Regulations (EU) No 1305/2013 and (EU) No 1307/2013

⁸ HNV farmland comprises three main types: Type 1 - Farmland with a high proportion of semi-natural vegetation; Type 2 - Farmland with a mosaic of low-intensity agriculture and natural and structural elements, such as field margins, hedgerows, stonewalls, patches of woodland or scrub, small rivers etc.; and Type 3 - Farmland supporting rare species or a high proportion of European or World populations.

⁹ www.encanetwork.eu/library



2. Recommendations for improving biodiversity conservation and nature restoration outcomes through agricultural policies

Based on the experiences and examples of how agricultural policies are currently being implemented to prioritise biodiversity (see Section 3), the following recommendations have been identified with actions that national authorities and policy-makers should take into account when amending current and designing future policies. Although many of the improvements recommended below are for national authorities to take forward, the European Commission must also play its part through ensuring that Member States are held to account in developing and implementing robust and effective measures to deliver environmental outcomes within their agricultural policies. This requires rigorous approval and performance review processes to be in place. The EU CAP Network also plays an important role in bringing national authorities and stakeholders together to share and discuss good practice, both in terms of implementation, exploring new ways to deliver improved outcomes, and monitoring and evaluation. Especially on the involvement of nature conservation agencies, the European Commission itself must ensure, that DG Environment is engaged at an early stage and from then on is continuously, effectively and responsibly involved in the preparation of legislative proposals with regard to the CAP.

Recommendation 1: When designing agricultural policies, national authorities should ensure that a mix of interventions are used both to improve habitat quality and ecosystem resilience within and outside protected areas

Given the importance of biodiversity and nature for increasing the resilience of agricultural systems to climatic changes and the increased frequency of extreme weather events to enable continued food production, there is a need for national authorities to use a mix of interventions in a strategic way to maintain and restore habitats and species both within Natura 2000 areas and throughout the wider countryside. Actions focused on delivering increased space for nature on farms throughout the farmed landscape, supporting nature-based solutions to build the resilience of farming, should be complemented by more targeted action for specific habitats and species within protected areas. When designing schemes, there should be clarity on the rationale for the use of different interventions for different purposes and how they can be combined to deliver an overall strategy for improved ecosystem functioning and restoration. For example, CAP eco-schemes, as annual payments, may be more appropriate for maintaining existing features or habitats at scale, building on a strong and well enforced regulatory baseline, whereas multi-annual agri-environmental commitments can be more targeted and address more demanding activities involving habitat restoration or even recreation. Exploring ways of using the cooperation measure to pilot new delivery approaches or facilitate exchange and action at the landscape scale (see below) should also be given due consideration, as should incorporating advice and training into environmental schemes (see below).

Recommendation 2: Farmers should be suitably incentivised to implement practices that are fit for purpose

Achieving the desired biodiversity outcomes, many of which stem from international agreements, requires the implementation of the right practices in the right place. Offering agri-environment-climate schemes that support the uptake of practices and management actions based on specific habitats, environmental goods or pressures present on a farm holding or on the location of a farm in a high nature value region could lead to greater biodiversity gains. This type of conditional, targeted support is especially needed to generate an income for and add economic value to low-input and diverse farming systems. Complementary schemes (e.g. eco-schemes) which only require participation for one



year may act as gateway for farmers wishing to test new practices before committing to an agri-environment scheme. Schemes should also be designed with the needs of the beneficiary in mind, so that they are straightforward to access by all types and sizes of farm and incentivise action. Greater use of results-based approaches by more countries should be pursued. To increase the uptake, appropriate implementation of requirements, and ultimately the effectiveness of interventions for biodiversity, there needs to be sufficient budget available, they need to be accompanied by opportunities for training and advice and support should be made available to allow for investments, innovation, and cooperation. A better targeting of interventions might also require an adjustment of payment rates to ensure uptake. Rather than applying one national payment rate per scheme, they could be set at regional level to better reflect differences in costs, e.g. for inputs.

Recommendation 3: Use cooperation and agri-environmental schemes to scale up actions at the landscape scale

Findings from past CAP evaluations suggest that most well-designed agri-environmental schemes are effective in achieving positive biodiversity effects in the intervention area. However, there is limited evidence that these lead to sustained population-level impacts in the local area, and especially at larger scales. Schemes incentivising collaboration between farmers within a 'landscape unit' could facilitate the coordination of farm-scale interventions at the landscape level. Such an approach may lead to larger areas of land benefitting from biodiversity protection and conservation and better spatial connectivity.

Recommendation 4: Invest in good quality advice and training for farmers on how to farm for biodiversity and transition to more sustainable farming

Achieving the biodiversity outcomes required through the uptake and successful implementation of agri-environment schemes and results-based payment approaches requires more intensive training materials, farmer advice, and the development of adaptable tools (scoring sheets, baselines, suitable indicators and scientific evidence, etc.). National authorities should invest in increasing their advisory capacity. This includes training advisers to ensure they are equipped with the necessary knowledge to guide farmers on how to improve the environmental and climate performance of the farm business in a way that is specific to the farm in question. Most importantly, they need to be able to make the case to farmers on how and why investing in actions for biodiversity will benefit their farming systems economically. A possible option for increasing advice capacity at national level is to make the receipt of CAP funding conditional on the countries engaging on a sufficient scale in knowledge exchange, advice, and training. Knowledge should be delivered through a variety of channels and methods; experience shows that farmer to farmer exchange works best and initiatives such as farm ambassador programmes and EIP-AGRI cooperation measures should be widely used to allow farmers to learn from and with each other.

Recommendation 5: Invest in biodiversity data and knowledge and the development of new tools to understand the link between farm practices and biodiversity outcomes to improve the design and targeting of agricultural policy interventions.

Greater efforts are required to understand better how support for biodiversity is delivering the outcomes intended. This requires a greater focus on both robust *ex-ante* assessments of the potential impact of actions funded by agriculture policies (based on scientific evidence) as well as ongoing scheme monitoring, focusing on the effects of specific farm management practices. Information should be shared between countries on the range of approaches being developed to both monitor biodiversity outcomes (for example using satellite data) as well as model the potential outcomes of different options for scheme targeting and implementation.



Recommendation 6: Improve the collaboration between national nature agencies and agricultural policy delivery agencies in the development, design and monitoring of agri-environmental policies

Nature conservation and environmental protection authorities must be involved in the design, further development and monitoring of agri-environmental programmes at an early stage. This is the only way to ensure that national and international nature conservation and environmental objectives are integrated into the programmes in a meaningful and targeted manner. Ultimately, the comprehensive consideration of environmental concerns will also make it possible to justify support for agriculture in the long term. Finally, a targeted, consensual design of the programmes also gives the farmers involved the necessary security in their implementation. A cooperative approach at all levels also ensures that agricultural and environmental policy decisions must be considered together from the outset. Cooperation with the relevant authorities is also necessary for the integration of agroecological content into the training and advice of farmers. The design of effective, landscape-related agri-environmental programmes and meaningful monitoring and follow-up will be most effective if all relevant authorities are actively involved at an early stage.

3. Examples of how the management of Natura 2000 and semi-natural habitats is prioritised via agricultural policies

The way that agri-environmental schemes are designed under the various interventions available within agricultural policies has a significant bearing on the extent to which they attract land managers to engage and thereby deliver the outcomes that are intended. Evidence has shown that there are a number of elements that are important to factor into scheme design for achieving biodiversity outcomes. These include:

- incentivising the right farm practices and targeting these to the right locations so they are taken up in the right place;
- pitching the payment at the right level to encourage uptake;
- exploring innovative ways of incentivising outcomes, given that prescriptive approaches focusing on actions often do not deliver the outcomes intended – e.g. results-based approaches;
- encouraging interaction and cooperation between land managers to deliver outcomes at scale where this is necessary to secure the outcomes required;
- access to knowledge, advice and training; and
- understanding performance so that scheme design can be amended if necessary to improve their effectiveness.

Not all farm practices have the same biodiversity potential. Literature has shown that in the previous CAP, agri-environment-climate schemes that maintain semi-natural habitats, especially Annex 1 habitats, and their associated species (central to High Nature Value farming systems) are a priority for supporting existing biodiversity (Alliance Environment, 2019 and see Annex 2). In addition, schemes are most effective where the intervention provides a high contrast in simplified farming landscapes, such as by providing a resource that is lacking (e.g. flower-rich habitat in uniform landscapes lacking such resources). In terms of improving species richness, schemes are more effective when the interventions target non-productive or marginal areas (e.g. hedgerows) rather than productive areas (in-field interventions). The notion of targeting is essential to achieve desired biodiversity outcomes, and environmental schemes have sometimes failed because interventions were placed in the wrong place or were not appropriate (ibid).



The sections below highlight some examples of how countries have used the support available to prioritise biodiversity, with a focus on managing semi-natural habitats and High Nature Value farming systems, both within and outside Natura 2000 areas. The focus is mainly on the CAP, although examples from Switzerland and the UK are also presented. Although in many cases it is too early to see evidence of results, these examples have been chosen to reflect design options that the literature and previous evaluations have shown to be most likely to deliver the desired outcomes, if taken up by farmers.

3.1 Via eco-schemes and environment-climate commitments

The **eco-schemes** intervention was new to the CAP for the 2023-27 period. It offers annual payments to farmers for carrying out practices that are beneficial for the environment, climate and animal welfare. Of the 158 eco-schemes in place in 2023, 87 were designed to contribute to biodiversity goals in 26 of the 28 CSPs. However, only a small proportion of these are targeted towards specific areas, habitats or species. The remainder often support interventions on grassland or cropland that could be adopted by farmers in Natura 2000 areas, but “these may not be sufficiently adjusted to the species or habitats or that may be at too high an intensity of management” (European Commission, 2023). Eco-scheme contracts usually last for a year, which may be insufficient for practices implemented to deliver the expected environmental benefits and could lead to farmers choosing a different ‘easy’ option each year. This seems to be substantiated by initial feedback from national authorities which suggests that uptake is generally good for the schemes that do not require significant changes to farm management practices (including those focused on landscape features), but quite low for those that are more demanding, which can include those that are focused on biodiversity¹⁰.

Box 1 provides an example of Lithuania’s eco-scheme which is targeted on integrated grassland and wetland maintenance. Not only does this show how an eco-scheme can be targeted at specific areas, but it also requires the farmer to engage with a biodiversity expert in order to tailor the management to the farm.

Box 1: Lithuania’s eco-scheme for integrated grassland and wetland management.

Lithuania’s eco-scheme ‘Integrated grassland and wetland maintenance scheme’ offers five sub-schemes to maintain grasslands, preserve grassland habitats and species and promote livestock farming. The sub-schemes target: extensive grassland; natural grassland in Natura 2000 sites; grassland in high-intensity areas with natural constraints; and grassland in low-intensity areas with natural constraints; as well as management of wetlands and habitats of wetland species or EU importance. For all schemes, the minimum livestock density is set at 0.3 LU/ha to ensure maintenance of grazing. The application of plant protection products, and mineral and organic fertilisers is banned. Farmers may choose from two grassland management options: 1) Mowing from 20 June or 1 July in wetlands; 20-30% of the area needs to be left undisturbed; 2) Grazing of animals (0.3-1 SG/ha) and mowing after 15 June with 20-30 % of the area left undisturbed. Special protection measures need to be implemented if the area features habitats of protected farmland and wetland bird species, turtle doves or butterflies. Farmers participating in the wetland management scheme must consult an on-farm biodiversity expert to enhance their knowledge of the species’ biological needs and to discuss and

¹⁰ See, for example, outcomes of the 2024 Thematic Group on the Design and Implementation of Eco-schemes in the new CAP Strategic Plans https://eu-cap-network.ec.europa.eu/thematic-group-design-and-implementation-eco-schemes-new-cap-strategic-plans_en



select the most appropriate management regime for the species and farm. Approx. 40 million euros are allocated to this intervention which is programmed to cover 41 675 ha of land¹¹ eventually.

Box 2 provides an example of an eco-scheme designed to contribute to biodiversity goals, although not specifically targeted at particular habitats or species. By increasing landscape diversity inside and outside of Natura 2000 sites through landscape features, the measure should benefit both protected species and wider biodiversity. Early uptake figures show high levels of uptake, which should help secure improved biodiversity levels and, hence, the resilience of these farming systems.

Box 2: Slovakia's whole farm multi-practice eco-scheme, tailored to crop types and land uses.

Slovakia has designed a multi-practice eco-scheme allowing farmers to select from seven sub-schemes tailored to different types of crops and land uses. Sub-scheme 2 'Increase of non-productive areas beyond GAEC8 on arable land, and 3 'Splitting of the land blocks into a maximum parcel size of 50 ha outside Special Protection Areas (SPA) or 20 ha (inside SPA) over the entire area of the arable land concerned' contribute to the protection and strengthening of biodiversity, ecosystem services, habitats, and landscapes. Sub-scheme 2 extends the minimum share of arable land to be taken out of production as defined under conditionality by GAEC 8* (4% and 7%, respectively, if catch/nitrogen-fixing crops are grown and at least 3% are covered by fallow/non-productive elements) by 1% outside and by 3% inside of SPAs. 10% of the non-productive areas must be sown with pollinator-friendly mixtures. Farmers opting for sub-scheme 3 must divide their arable land into parcels of 50 ha outside and 20 ha in the SPA through field margins at least 12m wide. The application of fertilisers and plant protection products is prohibited, and field margins need to be covered by clover grass or grass-herb mixtures. Figures from the first year of implementation show that more than half of the Slovakian farms receiving CAP payments have committed to the whole-farm eco-scheme; 7,518 field margins covering 8,188 hectares have been created under sub-scheme 3¹². The whole farm eco scheme is programmed to cover approx. 1.7 million ha of arable land with a total public expenditure of approx. 513 million euros.

*To note that the changes to conditionality to be introduced during 2024 will mean that this eco-scheme is likely to be revised in order to pay for the requirements that were previously a condition of GAEC 8.

EU countries have a long history of designing **agri-environment-climate schemes (ENVCLIM)** for biodiversity purposes and the 2023-27 period is no different. The flexibility of this measure allows national authorities to introduce schemes to reflect different bio-physical, climatic, environmental and agronomic conditions and therefore to tailor management options to suit the particular combination of local environmental needs and address the complexity of management that is often essential for both the management and restoration of a number of habitats (Pe'er et al, 2021). They can be designed to complement and build on the management supported under eco-schemes.

Many of these are similar in design to those in the previous period. Compared to eco-schemes, a far greater number of CSPs use this intervention for supporting the management of habitats within Natura 2000 sites, such as mires, fens and other peatland habitats/wetlands (18 schemes in 13 CSPs¹³), freshwater habitats (6 CSPs¹⁴), rough grazing, mountain, heath, scrub, and open unfenced grazing

¹¹ The figure reported here, and in other examples throughout the report, states the maximum annual planned output for the period 2023-2029.

¹² <https://www.euractiv.com/section/politics/news/first-year-of-eus-cap-reforms-created-unprecedented-space-for-nature-in-slovakia/>

¹³ DE, DK, EE, EL, FI, FR, HU, IE, IT, NL, PL, SE, SI

¹⁴ DE, FR, IE, PT, SE, SI



areas (28 schemes in 15 CSPs¹⁵). 15 CSPs¹⁶ also use the environment-climate intervention to support sustainable woodland management, with 31 different schemes. All national authorities have designed agri-environment-climate schemes that are relevant for species. Where target species are identified, birds occur most frequently (37 schemes in 21 CSPs¹⁷), followed by pollinators (17 schemes in 14¹⁸ CSPs), plant species (15 schemes in 11¹⁹ CSPs), and mammals (8 schemes in 8²⁰ CSPs).

One example of an agri-environment-climate scheme focussed on valuable biodiversity habitats and species is the case of Poland (see Box 3).

Box 3: Poland's agri-environment-climate scheme to conserve valuable habitats and endangered species inside and outside of Natura 2000 sites.

Poland offers three ENVCLIM schemes for Natura 2000 species or habitats. Two of these aims to conserve valuable Annex I and other habitats and endangered bird species (i.e. black-tailed godwit, snipe, common snipe, lapwing, great snipe, curlew, aquatic warbler, and corncrake) in and outside Natura 2000 sites. Plant protection products are banned and mowing and grazing activities need to be adapted to the respective habitat type. Because these interventions apply to all agricultural areas instead of being restricted to Natura 2000 sites, this potentially provides more benefits for the targeted bird populations. The two interventions together are programmed to cover an area of 614 500 ha with a total public expenditure of 538.9 million euros. The third scheme supports the extensive agricultural management of meadows and pastures on permanent grassland situated in Natura 2000 sites with rules for pesticide use, mowing and grazing similar to those defined for the first two schemes. A total budget of around 17 million euros is allocated to this intervention and programmed to cover approx. 31 358 ha.

However, although Natura 2000 and Annex I habitats are identified as important needs and addressed by both eco-schemes and agri-environment-climate commitments, the area anticipated to be covered by these interventions is variable. The target values for the result indicator which identifies the share of the total Natura 2000 agricultural and forest area supported (R33) show that only five CSPs (FR, RO, IE, DK, CZ) set a high target of more than 70%, with three others setting targets between 35% and 57% (PT, NL, BE Flanders) and the remainder between 28% and 3% (SE)²¹ (European Commission, 2023). An important caveat to note is that not all land in Natura 2000 areas that requires agricultural or forest management interventions such as restoration is categorised as Utilised Agricultural Area (UAA). This means these areas may not be eligible for CAP support and will require other sources of funding for their ongoing management.

3.2 Via result-based schemes

Six countries have put in place **results-based schemes for biodiversity** (AT, DE, ES, IE, PT, SI), schemes that provide payments based on the outcomes achieved, rather than being prescriptive about the precise practices to be implemented (see [Box 4](#) for two examples). The majority of these are implemented under the ENVCLIM intervention, although Germany has included results-based payment under both eco-schemes and ENVCLIM (see [Box 4](#)) and Ireland also uses the cooperation intervention. These types of schemes can incentivise uptake as they provide land managers with the

¹⁵ BG, CY, CZ, DE, DK, ES, FI, FR, HU, IE, IT, LV, PT, SE, SK

¹⁶ BE Flanders, BG, CY, CZ, DE, DK, EL, FI, FR, HU, IE, IT, LT, PT, RO

¹⁷ BE Flanders, BE Wallonia, BG, CY, CZ, EE, EL, ES, FI, FR, HR, HU, IE, IT, LT, LV, PL, PT, RO, SI, SK

¹⁸ BE Flanders, CY, CZ, ES, FI, FR, HR, HU, IT, LU, LV, PL, RO, SI

¹⁹ BE Flanders, BE Wallonia, CY, EE, EL, FR, HR, IT, LV, RO, SI

²⁰ BE Flanders, EL, ES, FI, FR, IT, PT, SI

²¹ LT, LU, and MT did not set a target for this indicator in their 2023 CSPs.



flexibility to use their experience, expertise and knowledge of their own land to determine what works best for them in terms of delivering the outcomes required, whether at the farm level or working in cooperation with other farmers at the landscape scale (Herzon et al, 2018). However, results-based schemes may also increase the risk for farmers, for example if target increases in species populations are not feasible because of atypical weather conditions and this has to be considered in scheme design.

Box 4: Examples of result-based payment schemes in Germany and Portugal

GERMANY- Result-oriented extensive management of permanent grassland with at least four regional characteristics (DZ-0405):

This result-based eco-scheme has a very high potential to contribute to the protection and enhancement of biodiversity by supporting the continued appropriate management of species-rich grasslands, many of which are Annex I habitats of European conservation concern under the EU Habitats Directive. The intervention is not entirely new, as it was part of the agri-environmental-climate measures offered to farmers in some federal states in the previous CAP funding period (2014 to 2022), but it only became available to farmers in all German regions as an eco-scheme in the current period. Permanent grasslands are eligible for support if farmers can demonstrate that at least four plant species from the list of grassland species or groups defined by the respective federal state are present in high population densities. A total public expenditure of approx. 720.7 million euros is allocated to the eco-scheme to eventually cover an area of approximately 640 605 ha.

Complementing the eco-scheme in some federal states is a results-based ENVCLIM scheme which rewards the management of grassland with more than six indicator plant species (EL-0105-04), which can be targeted at grasslands with the highest species richness to ensure that this diversity does not fall to the lower threshold level of the eco-scheme payment. Farmers must demonstrate the presence of at least six or eight species that are ecologically valuable and typical of the region's grassland.

PORTUGAL - Management of payments by results (ENVCLIM D.2.2): Farmers can receive payments for the environmentally sustainable management of agro-silvopastoral systems in cork oak and oak or black oak groves through the ENVCLIM intervention D.2.2 'Management of payments by results. Farmers are free to choose the management practices that are most suited to their specific local conditions. Payments are conditional on achieving measurable results indicating environmental and biodiversity benefits through the implementation of these practices. Result indicators are grouped around the four overarching outcomes to which the intervention is designed to contribute:

- Result A – Healthy and functional soil
 - Indicator A1 – Degree of coverage of Rumex and Lumaça
 - Indicator A2 – Extension of bare soil
- Result B – Quercus Regeneration
 - Indicator B1 – Regeneration density at the shrub stage
 - Indicator B2 – Conservation status of regeneration
- Result C – Bio-diverse Mediterranean landscape
 - Indicator C1 – Herbaceous balance level of the grassland
 - Indicator C2 – Degree of thistle coverage
 - Indicator C3 – Degree of bush cover
- Result D – Singular elements promoting biodiversity.
 - Indicator D1 – Level of diversity of singular items
 - Indicator D2 – Representativeness of singular items
 - Indicator D3 – Retention status of singular items

Using these indicators, each parcel is awarded a score on a scale from 0 to 10 by local monitoring authorities; farmers are paid once Level 5 is reached. This intervention is programmed to cover 6,500 ha with a total public expenditure of approx. 3 million euro.



3.3 Via securing the uptake required – flexibility with payment rates

Agri-environmental interventions often target small areas, which reduces their potential impact on environment and results in low levels of payment for farmers. In addition, in several large countries, such as Spain, Germany or France, regions can choose which national environmental and climate commitments they offer to farmers. As a result, some of these interventions are only used in a small number of regions, and sometimes, are not implemented in areas where they would provide the highest environmental and climate benefits (Midler et al, 2023). According to Buschmann, Narjes and Röder (2023), the adoption of environmental schemes in the last CAP programming period was too low to have a substantial impact on biodiversity, considering that only a small portion of agricultural land was enrolled in schemes. There are many reasons for this, but often this happens when there is a combination of the contracts being too demanding and/or not economically viable due to the payment rates not adequately reflecting the costs involved. Furthermore, the increasing impacts of climate change on farmland are making farming less and less predictable, which may influence farmers' decisions on whether or not to enter into multi-annual schemes.

Restrictions on the level of incentive that can be included within payments (beyond a strict interpretation of the income foregone and costs incurred formula) are often cited as a constraint on scheme design and the attractiveness of schemes to farmers (Contessa et al, 2024). This then leads to an argument for additional incentive elements to be incorporated into payments. However, there is already considerable flexibility possible within the existing rules to differentiate payments more than is often done currently (see for example Mögele and Scheele, 2024). They highlight that payment rates (i.e the opportunity costs of environmental action) need to be calculated in conjunction with the target area required to come under agreement. Basing the cost calculations on average costs may underestimate the payment rate required for sufficient participation, but equally data are not always available to calculate accurately the marginal costs of participation and therefore environmental payments will require fine-tuning based on experience of what payment levels secure uptake of the specific action required. One area where there is considerable flexibility that could be further investigated is the assumptions underpinning 'costs incurred' part of the payment calculation, whether that be the transaction costs involved in the application process (including the planning phase) or the labour costs (time) required to implement the actions on the ground, as well as identifying the evidence that can be used to substantiate these costs.

3.4 Via cooperation and landscape scale approaches

Conventional agri-environmental schemes operate at the level of individual agreement, with land managers working independently. However, increasingly, consideration is turning to how to enable interventions to operate at a **landscape scale** to enhance effectiveness, for example through **encouraging cooperation** between farmers and other land managers to improve the spatial coordination of scheme uptake, and thereby improve landscape-scale management (Nguyen et al, 2022). There are a number of ways to achieve this and the optimal approach will depend on the outcomes to be secured. For example, one approach may be to achieve concentrated uptake of particular management in a specific area (e.g. to achieve an increase in birds or pollinators), whereas for other outcomes, it may be that it is the connectivity between habitats that is necessary (e.g. to reduce habitat fragmentation and allow species to travel through the landscape), or contiguous agreements are required across a large area (e.g. for habitat restoration, such as to secure raised water levels for peatland rewetting).



An agglomeration bonus is one way of incentivising spatially coordinated action by providing a bonus payment if individual land managers' habitats are spatially connective or if a certain level of uptake of certain actions is secured within a defined area. This approach is taken in Switzerland, where bonus payments are made for the quality of the habitat (quality bonus) and for spatially connecting habitats with other farmers (network bonus)– see [Box 5](#).

Box 5: Bonus payments for enhancing biodiversity at the landscape scale

Switzerland supports farmers through direct payments to sustain their contribution to the country's food security, preservation of natural resources, conservation of the cultural landscape, decentralized settlement of the country; and ensuring animal welfare. In total, there are five instruments offering direct payments²². Two instruments support landscape-scale actions for maintaining and increasing biodiversity: 'Biodiversity payments' and 'Payments for landscape quality'. For the basic biodiversity 'quality bonus' payment, rates and management requirements depend on the quality of the committed areas. These are classified as 'Quality level' 1 or 2 according to indicator plants specific to the respective cropping system, agricultural habitat type or landscape element. The requirements for the 'quality bonus' as well as an additional 'network bonus' are defined through national legislation, but it is left to the Cantons to specify further the requirements for regional network projects. At a minimum, regional network projects need to document the initial situation, define conservation objectives, including target and indicator species as well as conservation measures, provide a map of compensation areas where measures are to be implemented, and draft an implementation concept identifying the organisation or 'trusteeship' responsible for the delivery of the project. Further, farmers need to have access to individual advice and the submission of a mid-term progress report which documents the achievements of the objectives. At the project's end, the accomplishment of the objectives is assessed. At least 80% of the implementation goals must be fulfilled to continue the project. Each networking project lasts eight years, and farmers must manage the area under commitment for the whole project duration. The second instrument, the landscape quality payment, aims to promote and develop diverse landscapes. It is implemented entirely at the regional level, with the canton or a different body (e.g., municipalities, NGOs, etc.) developing measures tailored to the conservation and enhancement of a specific landscape unit, a homogeneously shaped and used landscape region. Projects are implemented over a period of 8 years. In the first year of implementation, 71 projects were approved. In 2015, a further 40 landscape quality projects were kicked off²³.

Source: Bundesamt für Landwirtschaft (2024)

In the UK (England), a more bespoke approach to landscape management has been put in place with the introduction of a Landscape Recovery Scheme under the new agricultural support framework. This scheme provides long-term public funding (for 20 years or more) for projects to deliver outcomes that require collaborative action across a significant area, such as restoring ecological or hydrological function across a landscape, including the restoration of peatlands and other habitats. The agreements are bespoke for the area concerned and allow for new approaches to be tested, with the intention that the projects could attract private finance to co-fund the public funding provided. These projects have only been underway for two years, and it is therefore too early to have evidence of their impact, but some examples of biodiversity-focused projects funded so far are set out in [Box 6](#). Another approach used in England to try and achieve joined up action across specific areas is the Countryside Stewardship Facilitation Fund. This provides funding for organisations to bring individual farmers, foresters and

²² Direct payments for 1) maintaining cultural landscapes, 2) maintaining production capacity to ensure food security, 3) maintaining and improving biodiversity, 4) maintaining and improving landscape quality, and 5) environmentally- and animal-friendly production systems (for an overview see: <https://www.blw.admin.ch/blw/de/home/instrumente/direktzahlungen.html>).

²³ <https://www.blw.admin.ch/blw/de/home/instrumente/direktzahlungen/landschaftsqualitaetsbeitrag/bewilligte-projekte.html>



other land managers together to work cooperatively in order to maximise the impact the scheme has on the local environment, through bringing larger areas of land under active management. Evaluations of the scheme so far have shown that there have been significant benefits in terms of facilitating knowledge exchange between farmers leading to increased engagement with environmental activities, although data are not yet available to demonstrate the impact that this has had on biodiversity on the ground (Environment Systems Ltd *et al*, 2020).

Box 6: Examples of Landscape recovery projects in England

The Landscape Recovery scheme in England provides long-term funding to deliver outcomes that require collaborative action across a significant area. Two phases of projects have been funded under the Landscape Recovery scheme to date – 22 in 2022 and 34 in 2023. Amongst the successful projects working to secure biodiversity outcomes are the following:

- [Evenlode Landscape Recovery Project](#) in the Cotswold Area of Outstanding Natural Beauty involves 150 farmers covering over 43,000 hectares (the North East Cotswolds Farmer Cluster). Together they aim to restore streams and rivers, protect threatened native species, improve natural habitats and adapt to climate change while continuing to productively farm and create new revenue streams for farmers. The plan is to create and restore over 3,500 hectares of interconnected habitat throughout the river valleys, including the restoration of over 1,000 hectares of floodplain meadows, the creation and restoration of 150 hectares of lakes, ponds and wetland habitats as well as 800 hectares of woodland habitat management, planting and natural regeneration.
- The [Upper Duddon Landscape Recovery project](#) in the Lake District National Park aims to restore nature over nearly 3,000 hectares of the Upper Duddon catchment and protect and enhance species native to the area. This project is currently in the development phase, with the project being designed with local farmers, including tenants, so upland fell farmers have a sustainable and resilient future. Once the best ways to farm and manage the land to help nature recover have been identified, the farmers involved in the project will have the option to enter a long-term agreement to implement these changes on their land and bring their plans to life.

Ireland's new Agri-Climate Rural Environment Scheme (ACRES) has a cooperation dimension embedded in the scheme. The cooperation agreements are available to farmers with land in high priority areas. They are supported by Cooperation Project Teams in each of these areas to develop a local action plan for their particular area to improve the delivery of biodiversity and water quality (see Box 7). The total payments available per year are higher for the cooperation agreements than for general agri-environment commitments, a large proportion of which is results-based, with a pay-scale reflecting the results of a quality assessment of habitats on the holding each year. Training courses are also provided to all farmers entering ACRES, the first of which is mandatory.

Box 7: Landscape approach in Ireland's Agri-Climate Rural Environment Scheme ('ACRES')

Ireland's Agri-Climate Rural Environment Scheme (ACRES) combines two complementary ENVCLIM interventions, ACRES-General and ACRES-Co-operation. Together, they aim to contribute to achieving improved biodiversity, climate, air and water quality outcomes. The total public expenditure for both interventions amounts to around 1.1 billion euros. ACRES - General supports a range of measures for individual farmers (both targeted and general), and ACRES - Co-operation is available to farmers in eight high-priority geographical areas, which comprise (forage and commonage) land parcels identified as high nature value. By combining these two approaches, Ireland aims to ensure the participation of a significant number of farmers and the implementation of the right actions on the most appropriate land. Under both schemes, an 'approved ACRES advisor'²⁴ needs to prepare a Farm Sustainability Plan (FSP) to guide the selection of actions. All participants are required to attend a compulsory training course in the first year of scheme

²⁴ A person or persons who are registered by the Department as a Farm Advisory System (FAS) advisor and who has attended and completed all the relevant ACRES training as required by the Department.



implementation; farmers may choose to participate in another training session in year 3 of scheme implementation.

ACRES General is structured around a hierarchy of three tiers, with Tier 1 receiving priority over Tier 2, and Tier 2 over Tier 3. Tier 1 sets out mandatory actions for farmers with certain Priority Environmental Assets (PEAs), such as sensitive landscapes, priority water areas and rare breeds. Tier 2 targets farmers who do not have PEAs but whose lands include a Vulnerable Water Area. In such cases, appropriate actions as deemed appropriate by Advisor will be chosen to address relevant pressures. All other farmers fall under tier 3; they may choose from a list of general actions to address local/farm-specific environmental priorities. Combined with the ranking and selection criteria, this tiered structure is designed to ensure the targeted and prioritised delivery of environmental benefits. The FSP will inform the most appropriate selection of actions in all cases.

Under the ACRES Co-operation approach, all forage and commonage land within the predefined CP Zone is classified according to three main habitat types: grassland, peatland, and woodland/scrubland. For each habitat type, there is a corresponding scorecard which can be used to assess the ecological integrity of the habitat using a score ranging from 0-10. To increase scores over time and thus improve the landscape quality, farms may use non-productive investments (NPIs) and/or implement the landscape/cooperation actions which are detailed in the Local Action Plan for the respective CP Zone. All results-based scorecards must be submitted to the Department of Agriculture by an approved ACRES advisor in Year 1 of the ACRES contract and then again in each subsequent year for the duration of the commitment. The payments received by the farmer are differentiated according to the habitat score received, thereby incentivising a shift towards improved management over time.

Source: Department of Agriculture (2023)

3.5 Via knowledge exchange, advice and training

The adoption of biodiversity-friendly farming practices is strongly associated with farmers' positive attitudes towards the environment and the availability of training and advice (Alliance Environnement, 2019; Buschmann et al, 2023). Demonstration farms, networking and peer-to-peer learning and exchange between farmers are important tools to disseminate knowledge and challenge existing ways of working. Results-based schemes can also play a role here since they require a focus on engaging with and understanding the outcomes to be achieved. A number of case studies have further demonstrated the positive effect that advice can bring as well as highlighted the absence of awareness and advice as a reason for low uptake of schemes (Buschmann et al, 2023).

However, efforts to build capacity and support knowledge exchange, advice and training remain variable across the EU (Birke et al, 2022) and greater efforts are required to ensure that all farmers and land managers are able to access the information they need in the way that is most accessible to them and will motivate them to take action. Findings from Canessa et al (2024) backed up by feedback from ENCA members have shown that one of the barriers to the uptake of biodiversity-friendly farming practices relates to the lack of knowledge and/or advice and information sharing. Although many farmers recognise the need to transition to farming systems that are more resilient and nature-based, they are hampered by not knowing how to implement the changes required. This applies to two aspects in particular: how do the changes best fit to the economic model of the farm, and how are measures implemented in the most effective way. One of the issues is that farm advice is still being delivered predominantly by organisations and individuals who have little expertise in biodiversity and/or little motivation or mandate to deliver such knowledge (e.g. agriculture chambers, pesticide and fertiliser organisations, agronomy professionals, etc.). In contrast, many of the nature agencies with biodiversity expertise are not involved in farmer advisor training. In addition, biodiversity advice



is not delivered in a way that makes it easy for farmers to integrate changes into their farm operations (Canessa et al, 2024).

Nonetheless, there are positive examples of where advice, training and knowledge-exchange are having positive impacts on biodiversity outcomes. For example, the requirement for national authorities to introduce information on cross-compliance into the Farm Advisory System (FAS) has been shown to raise farmers' awareness of their obligations under the Birds and Habitats Directive (Milieu, IEEP and ICF, 2016). In recent years, the EIP-AGRI network and the operational groups have also helped promote exchanges between scientists, farmers, stakeholders and other relevant actors to develop innovative solutions to the challenges being faced. They have driven research on environmental and climate questions which in turn can improve the knowledge base and capacity to deliver (Alliance Environnement, 2019). In addition, some countries have placed particular attention on developing and delivering biodiversity-focused advice to land managers, examples of which are set out in [Box 8](#).

Box 8: Examples of advice provision tailored to biodiversity in Austria and Germany

AUSTRIA – Nature protection monitoring with farmers and Farming for Nature: In Austria the implementation of environmental objectives via the CAP is integrated in its overarching ÖPUL agri-environmental Programme. ÖPUL promotes an environmentally sound, extensive agricultural system that protects natural habitats through 25 interventions, including eco-schemes and environment-climate commitments. To enable greater engagement of farmers with the outcomes they are achieving, those engaged in ENVCLIM intervention 70.01 'Environmentally sound and biodiversity-promoting management' and intervention 70.02 'Organic farming' can register their interest in participating in the 'ÖPUL Nature protection monitoring' when submitting their application. Depending on the specific sub-programme farmers contribute to – there are four individual monitoring programmes – payment rates vary between 100 and 275 euros/year. Farmers record the occurrence of certain animal and plant species and support the documentation of climatic and phenological changes. In 2023, 715 farmers were participating in the monitoring²⁵.

Since 2021, a private organisation has set up the 'Farming for Nature' project in Austria which appoints five biodiversity ambassadors each year. Ambassadors are farmers who have implemented biodiversity-promoting practices on their farms and are keen to share their experiences with other farmers and interested parties. Through farm walks, online and in-person kitchen table discussions, short films, and social media, these ambassadors have shared their knowledge about how farming and biodiversity can go hand in hand with over 10 000 people to date²⁶.

GERMANY – Biodiversity advice of the Chamber of Agriculture for farmers in North Rhine-Westphalia:

A dedicated Biodiversity Team at North Rhine-Westphalia's Chamber of Agriculture offers advice to farmers on funding available for nature and species protection measures. The advice is delivered on-site, free of charge and starts with an analysis of all areas cultivated on the farm. On this basis, the advisors, together with the lower nature conservation authorities or the Biological Stations²⁷ recommend suitable measures from the current funding programmes for those areas that may benefit from biodiversity protection and promotion. Measures are compiled into a comprehensive plan, complete with implementation requirements and management instructions. Farmers can subsequently use this document to complete funding applications. By combining the know-how of the Chamber of Agriculture, nature conservation agencies and farmers, more targeted measures can be brought into the area. A vital co-benefit is the development of trust between the parties involved²⁸.

²⁵ <https://www.naturschutzmonitoring.at/de/>

²⁶ https://eu-cap-network.ec.europa.eu/good-practice/farming-nature_en; <https://www.farmingfornature.at/>

²⁷ There are around 40 Biological Stations in North Rhine-Westphalia. They are non-profit organisations whose work ranges from scientific fieldwork to developing and implementing nature conservation measures, advice, and environmental education (<https://www.biostationen-nrw.com/biologische-stationen/>)

²⁸ <https://www.landwirtschaftskammer.de/landwirtschaft/naturschutz/beratungbiodiversitaet/index.htm>



4. Understanding performance

The evaluation of the 2014-2020 CAP highlighted that whilst agri-environmental schemes undoubtedly had the potential to provide significant biodiversity benefits, assessment of its actual impacts was severely hampered by a lack of monitoring of their performance with quantified results and impact indicators (Alliance Environnement, 2019).

In order to ascertain whether or not support for biodiversity is delivering the outcomes intended, systems need to be in place to either assess or reliably predict how the support provided is affecting farm practices on the ground and how these in turn are affecting biodiversity. Biodiversity impacts of farm management practices will vary in different regions depending on bio-geographic and climatic factors. To do this requires a clear link to be made between the farm practices proposed/implemented via the different interventions, their predicted or actual uptake and the outcomes that these are planned to achieve in practice (backed up through monitoring *ex-post*). This requires a greater focus on both robust *ex-ante* assessments of the potential impact of actions funded under the CAP (based on scientific evidence) as well as ongoing scheme monitoring at a national level, focusing on the effects of specific farm management practices (Hart, 2024). This is an area for improvement also identified by the European Court of Auditors (ECA, 2022) who concluded that although the Commission held large amounts of data on CAP implementation, the existing data and tools did not contain significant elements, including details of the environmental practices applied nationally, which are necessary to inform policymaking.

For the CAP, this gap is being plugged to some extent by the creation of a farm practice classification scheme by the Joint Research Centre to enable a systematic way of reporting on the farm practices supported under the CSP interventions which in turn could then be linked to assumptions relating to their potential impact (Angileri et al, 2024). However, this does not avoid the need for robust monitoring programmes to be put in place at national level and this can be costly. The use of digital technologies and satellite data warrant further investigation. For example the Horizon research project [BirdWatch](#) focuses on how to use Copernicus data to protect agricultural biodiversity and improve farmland ecosystems health through assessing habitat suitability for farmland birds via satellite-enabled monitoring and evaluation which in turn is intended to enable national authorities to design their CAP interventions in a way that is optimised for farmland birds.

However, experience from some ENCA members shows that one of the barriers to monitor the effects of the CAP's interventions on Annex 1 habitats is where there is a lack of join up between data sources held by different organisations. For example, in some countries, information on farmer applications for CAP payments are held by the agriculture / rural payments agency and not shared with the nature agencies, meaning that the nature agencies are not able to access the data needed to evaluate impacts of CAP interventions for Annex I habitats, whereas in others agreements are in place that do allow the sharing of such information. New approaches to understand better the impact of schemes on biodiversity outcomes are being explored in some parts of the EU. For example, in Ireland, methods and tools for assessing and mapping biodiversity at a landscape level are being explored, using data from the rapid habitat quality assessments carried out in the field under their results-based schemes combined with expert knowledge (Volpato et al, 2024). There may also be opportunities arising from the evolution of the Farm Accountancy Data Network (FADN), into the Farm Sustainability Data Network (FSDN) which aims to increase the data collected from EU farms to include information on



environmental practices, including on biodiversity²⁹. Finally, in the UK (England), Defra have also been developing tools to understand the potential impact of their new suite of environmental schemes. This has included an assessment of the potential impact of a whole range of land management actions on environment outcomes (the [qualitative environmental impact assessment \(QEIA\)](#)) as well as the development of an Environmental Valuation Assessment Scenario Tool ([EVAST](#)) which is a multi-objective model which is intended to be able to estimate the biodiversity, carbon, water quality and air quality benefits that could be achieved through environmental land management schemes, highlighting the interactions between the different objectives and potential trade-offs and unintended consequences of different land management options. Although only in the development phase, this highlights the potential value offered by models to assess *ex ante* the potential impact of farm management actions to inform scheme design and targeting.

²⁹ Regulation (EU) 2023/2674 was adopted on 22 November 2023 and introduces amendments to Council Regulation (EC) No 1217/2009 converting the *Farm Accountancy Data Network* into a *Farm Sustainability Data Network*. The list of topics on which information must be collected is included in Annex 1



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Annex 1: Common Agricultural Policy conditions, interventions, and instruments relevant to biodiversity

Within the CAP there is a range of rules and tools that Member States can use to deliver biodiversity and other environmental and climate outcomes. These are collectively known as the CAP’s ‘green architecture’ (GA) and comprise mandatory practices farmers must adhere to in order to receive other area-based payments (conditionality) as well as interventions such as eco-schemes, environment-climate commitments (ENVCLIM), compensation for area-specific disadvantages (e.g. relating to Natura 2000 or the Water Framework Directive), as well as green and non-productive investments, knowledge exchange and cooperation (see [Figure 1](#) and Table 1). Member States are required to make eco-schemes and agri-environment-climate schemes available for farmers and land managers. Otherwise, they have the freedom to choose which interventions they want to use and design them in a way that addresses their needs.

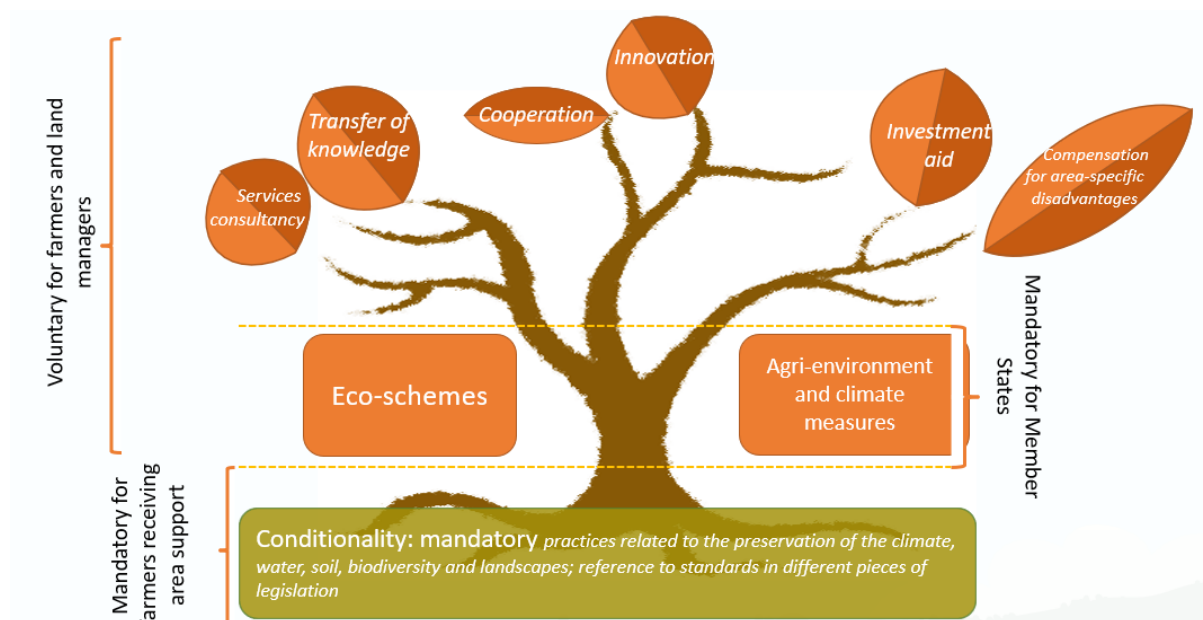


Figure 1: Range of CAP tools delivering biodiversity and other environmental and climate outcomes

Source, European Commission, 2023

Of the ten CAP specific objectives (SOs), three are focussed on environment and climate, with SO6 specifically focussed on biodiversity: ‘to contribute to halting and reversing biodiversity loss, enhance ecosystem services and preserve habitats and landscapes. This objective includes support for appropriate farming practices on the semi-natural habitats defined by the EU Habitats Directive (Annex I habitats), both within the Natura 2000 sites designated for those habitats and outside (see [1](#)) and for other appropriate farming practices in Natura 2000 or other protected areas. Another part of the objective is to support farming practices aimed at the conservation and restoration of populations of farmland birds, pollinators and other insects, and other priority species, and to support the co-existence of farming activities with protected species such as large carnivores.



Member States should scope out their needs and objectives with respect to biodiversity and nature (along with the other CAP strategic objectives) in the SWOT and needs assessment section of the CSP, a process that is informed by analyses, stakeholder consultations, and data. Every CAP intervention must be allocated to one or more strategic objectives and the corresponding national needs. In addition, Member States are required to set targets for relevant result indicators that relate to each specific objective. For the biodiversity objective (SO6) these are: Development of organic agriculture (R29); Supporting sustainable forest management (R30); Preserving habitats and species (R31); Investments related to biodiversity (R32); Improving Natura 2000 management (R33); and Preserving landscape features (R34). However, these indicators only report for the share of area that is under supported commitments, or in the case of R32 the share of farms that benefit from biodiversity related CAP support. There is no qualitative assessment on the effect on biodiversity by the commitments.

A recent study identified the various needs identified by Member States (European Commission, 2023). These were grouped into three categories for biodiversity (SO6) as follows:

- **Natura 2000 and Annex I habitats:** all but six CSPs identified specific needs related to protected areas or habitats. In the six where direct reference was not made, the identified broader needs may still encompass these areas. Most CSPs also identify needs related to the sustainable management of forests, and/or protection of forest habitats for biodiversity.
- **Species conservation and protection:** all CSPs contained needs that refer to farmland species conservation in some way, including farmland birds and/or wild pollinators.
- **Addressing challenges to the co-existence of biodiversity and agriculture:** this includes the need to support livestock farmers to prevent large carnivore damage, and the need to address invasive alien species but these are only identified in a few CSPs. This reflects the decision of some Member States to fund large carnivore prevention and compensation through national funds rather than the CAP.

In relation to the CAP, of the range of interventions available to Member States, overall, the CSPs use nine different interventions to support biodiversity under SO6 in the 2023-27 period, although most of the plans use just three – eco-schemes, agri-environment payments (ENVCLIM) and investments (INVEST) (excluding sectoral interventions). A smaller proportion of the plans also use the Natura 2000 compensation payment (ASD), coupled income support (CIS), cooperation (COOP), knowledge and advice (KNOW), and/or payments for areas of natural constraints (ANC) (European Commission 2023).

Table 1: Rules and tools as defined by Regulation (EU) 2021/2115, establishing rules on support for national CAP strategic plans

Conditionality requirements (Art. 12-13, Annex III and XIII): Statutory Management Requirements (SMRs) and Good Agricultural and Environmental Condition (GAEC) standards set the mandatory baseline for all CSP interventions. Voluntary commitments (Eco-scheme, AECM commitments as well as other area and animal-based payments) can only be supported if they go beyond the mandatory basic requirements and standards.

Ring fencing provisions - These are stipulations integrated into the latest CAP. They ensure that dedicated portions of the budget are allocated explicitly towards specified objectives. In this regard, two climatic and environmental budget allocations are relevant: 25% of Pillar 1 direct payments are earmarked for eco-schemes, while 35% of the Pillar 2 budgetary envelope is set aside for environment-climate measures (ECM), payments for area-specific disadvantages, investments linked to environmental and climate objectives and 50% of payments for areas facing natural constraints.



Schemes for the climate, the environment and animal welfare ('Eco-schemes') (Art. 31): These are voluntary schemes using direct payments to incentivise active farmers or groups of active farmers to take up practices beneficial for the specific climate change and environmental needs of the Member States. Schemes must support practices which go beyond GAEC standards and SMRs and there should be no double funding with actions supported under agri-environment-climate commitments.

Voluntary interventions

Environmental and climate-related management commitments (Article 70): These interventions aim to incentivise farmers or other beneficiaries to change or maintain practices that contribute to *inter alia* climate change mitigation and adaptation, foster the sustainable and efficient management of natural resources, prevent and reverse biodiversity. It is compulsory for Member States to put in place agri-environment-climate interventions, although these are voluntary for farmers. Supported practices need to go beyond the relevant statutory management requirements and GAEC standards established as well as beyond the relevant minimum requirements for the use of fertiliser and plant protection products or for animal welfare, as well as other relevant mandatory requirements established by national and Union law. Furthermore, they can be complementary to Eco-schemes but should not overlap in terms of the specific actions supported.

Green investments (non-productive and productive investment (Art. 73 and 74): These payments compensate for productive and non-productive investments, including investment in afforestation in line with sustainable forest management and irrigation operations.

Compensation for disadvantages due to certain mandatory requirements (Art. 72): This measure compensates farmers for costs incurred due to compliance with requirements of the Nature Directives and the Water Framework Directive.

Sectoral interventions (Art. 42-48): These types of interventions aim to *inter alia* improve competitiveness, adapting production to demand, placing products on market and marketing, research into sustainable production methods, contribute to climate change mitigation and adaptation as well promoting, developing, and implementing these methods and standards. This includes practices for the 'protection and enhancement of biodiversity and sustainable use of natural resources, in particular protection of water, soil and air'. In support of the specific objectives identified, Member States can choose to fund a range of intervention types, including investments in tangible and intangible assets, advisory services, training and awareness training, organic or integrated production etc.

Advice, training Knowledge exchange and dissemination of information: All Member States are mandated to provide Farm advisory services (Art. 15) to equip farmers with the requisite knowledge and instrumentalities, propelling them towards adopting greener agricultural methods. Voluntary actions to improve knowledge exchange and dissemination of information (Art. 78) may equally be incentivised.

Cooperation (Art. 71): Member States may take action to incentivise cooperation (Art. 71) by supporting the establishment of e.g., EIP operational groups, LEADER groups, cooperatives and inter-branch organisations, groups to prepare/implement smart village strategies, quality schemes as well as collective environmental and climate action.

Annex 2: Annex 1 habitats dependent on agricultural practices

Farming Europe's semi-natural habitats – the EU Habitats Directive Annex I habitats

The EU Habitats Directive defines 58 habitat types which are considered to be key farmland habitats because they are dependent on or associated with extensive agricultural practices (European Commission, 2014; Halada et al, 2011). All these habitats (except some areas that maintain their natural conditions because of the extreme environmental conditions) require a certain amount of disturbance from grazing or cutting to prevent them reverting to scrub or forest (an activity that was originally provided by wild grazers such as European Bison and wild horses and deer). Some only require periodic intervention, whilst most of the grasslands require regular grazing and/or mowing to maintain their species richness. However, all the habitats are sensitive to overgrazing, whether it is through too many animals, soil erosion, nutrient loading, or the wrong timing. And all the habitats are highly sensitive to the use of fertilisers and pesticides and changes in the natural hydrology and soil structure. They fall into eight broad habitat groups (European Commission, 2013), which are associated with farming as follows:

- **Coastal salt meadows and marshes** around the Atlantic, North Sea and Boreal coasts have often traditionally been grazed, and would deteriorate with rank vegetation if grazing were abandoned. **Inland salt meadows and marshes** are seasonally grazed. However, if grazing is too intense or prolonged or in the wrong season, the salt marsh degrades to species poor grassland.
- **Coastal and inland sand dunes:** Fixed dunes with grassland and scrub are often dependent on extensive grazing to stop succession and keep an open habitat. Machair is a special coastal sand landscape developed by centuries of low intensity grazing and rotating cultivation on the Atlantic coast of Ireland. Inland dunes and sandy heaths with grass and scrub need large-scale extensive grazing or mowing and small-scale disturbances to keep up a certain level of disturbance and keep down the scrub. However, the habitats are sensitive to erosion from intensive grazing.
- **Dry heaths** are semi-natural habitats derived from woodland through a long history of grazing and burning. Historically they were used as permanent pasture within mixed farming systems. They also provided fuel, livestock bedding, winter fodder, thatching and even road building material. **Wet heaths** are also sometimes extensively grazed but are very sensitive to damage by over-grazing. **Alpine heaths** have traditionally been seasonally grazed under a transhumance regime, as well as by wild grazing species. **Boreal heaths** are grazed by reindeer.
- **Sclerophyllous scrub habitats** are found around the Mediterranean. A few patches of natural vegetation occupy sites with extreme conditions, and these should be left alone. But most are secondary habitats formed by the destruction of oak forests and successive centuries of open grazing with sheep and goats and regular burning. For example, Juniper scrub formations on heath or calcareous grassland are widespread in nearly all regions of Europe, and rely on extensive grazing to maintain their characteristic mosaic of scrub and grassland.
- European **grassland formations** form a wide range of types and subtypes, from very dry, sparsely vegetated natural grasslands to alluvial meadows and wet *Molinia* meadows, and from alpine grasslands to dehesas with evergreen oak (*Quercus*) trees to steppe grasslands. Management systems and traditions are correspondingly varied, with grazing by livestock or mowing or a combination. **Hay meadows** have the widest distribution and are completely dependent on continued annual mowing and removal of biomass to maintain their species richness.
- Most **bogs** provide very poor and sparse forage and are sensitive to grazing. Therefore, many are not grazed, and if they are this needs to be at a very carefully controlled. **Fens** are not generally agriculturally used, but some fen habitat types that are not too wet are used for light grazing or for harvesting livestock litter material – **sedge grasslands**.
- **Rocky habitats** often form part of larger grazed semi-natural habitat mosaics, for example in alpine pastures or nordic alvar grasslands. Limestone pavements need grazing and/or coppicing to keep them open, and are grazed as part of habitat mosaics with semi-natural grassland and scrub.
- **Wooded pastures and meadows** are the remaining fragments of formerly widespread farming systems of grazing mixed with scattered trees and scrub, which were traditionally harvested for livestock forage, and are specifically protected in the Boreal region.



Source: European Commission, Directorate-General for Environment, Farming for Natura 2000 – Guidance on how to support Natura 2000 farming systems to achieve conservation objectives, based on Member States good practice experiences, Publications Office, 2018, <https://data.europa.eu/doi/10.2779/85823>