Delivering environmental and biodiversity objectives through the CAP 2021-27: A synthesis of evidence by ENCA

Summary and Key messages

The publication of the Commission's legislative proposals for the next CAP has prompted ENCA to review the evidence behind the environmental and biodiversity challenges facing the CAP, draw on ENCA members' experiences with the current CAP, and reflect on the Commission's proposals.

Evidence reveals that substantial environmental and biodiversity challenges remain across Europe:

- European Union (EU) Member States have experienced a major decline in biodiversity associated with agro-ecosystems and grasslands and much of the remaining biodiversity is in unfavourable condition.
- Almost all grassland habitat types (86%) assessed in the 2013 reporting under Article 17 of the EU Habitats Directive have an unfavourable conservation status.
- Species associated with both croplands and grasslands generally have unfavourable conservation status. Populations of common farmland birds and grassland butterflies have declined by about a third between 1990 and 2014/2015 in EU countries.
- Nitrogen use per hectare and total consumption of phosphorus are both increasing after reaching a low point in 2009. Similarly, pesticide consumption remains high across the EU.
- Agricultural greenhouse gas emission trends compare unfavourably with other sectors. The downward trend in UK agricultural emissions ceased in 2011.
- Observed direct and indirect impacts of climate change are increasing.

Analysis of what CAP has delivered reveals:

- Compliance with basic standards (cross-compliance) has played a key role in the protection of environmental features, but is not sufficient to maintain a minimum level of biodiversity in intensively managed regions.
- Research in some Member States reveals that greening has had little, or even no significant impact on biodiversity.
- EFA's have the potential to provide biodiversity benefits. To prevent continued biodiversity decline, a minimum of 5% of farmland area needs to be dedicated to biodiversity, or less intensive use where farming systems are more intensive.
- According to delegated regulation 640/2014 some areas remain ineligible for direct payments due to the number of trees and presence of habitat features. This leads to discrimination against HNV agriculture and livestock grazing systems.
- Agri-environmental measures, both entry and higher level, are crucial to obtain and maintain favourable conservation status for habitat and species in agricultural landscapes. They also have an important role to play in delivering environmental and biodiversity benefits across the wider countryside and promoting more sustainable practices.
- Funding for AECM remains a critical issue to achieve progress in environmental and biodiversity targets. For example, research by BfN in Germany shows a continuing funding gap for biodiversity, i.e. implementation of Natura 2000.

- Current agri-environment schemes are delivering for climate change but evidence suggests they have a variable capacity to deliver climate adaptation measures.
- The area of farmland under organic management continues to increase, by 18.7% between 2012 and 2016, but the level of commitment and costs involved require support.
- Agro-ecological approaches that rely on the use of ecological knowledge and principles for the management of farmland have the potential to make agriculture systems more resilient and encourage circularity in the use of natural resources in agriculture. More diverse and HNVF systems will already provide this heterogeneity at a basic level.
- Information and guidance for farmers is important to increase their motivation for biodiversity promoting management measure and to foster sharing of knowledge;
- Cooperation between government agencies, nature conservation departments and farmers and land managers is vital for the acceptance of measures, uptake, and to develop new working cultures.
- To achieve transformational change at a landscape scale a proportion of the direct income payments needs to be related to biodiversity, with voluntary measures and capital funds available to support more specific outcomes.
- Experience from ENCA members shows that to move towards farming practices that foster biodiversity and produce ecosystem services while minimizing environmental harm, conditions need to be embedded in the support system through a reliance on a combination of voluntary and compulsory measures / standards.

Reflections on the CAP legislative proposals:

- Cuts to CAP funding fall disproportionately on Pillar 2 and will further exacerbate the inadequacy of funding for Natura implementation. This is inconsistent with the intention for better targeting, EU added value and a focus on the rural environment.
- Several of the proposals fall short on delivering the aim for a higher level of environmental and climate ambition, an aim which reflects current trends. There is no intention to apply the 30% ring fencing of Pillar 1, currently assigned to greening, to the proposed eco-schemes. The proposed minimum share of 30% for environment / climate in EAFRD is inadequate to deliver environmental objectives and an effective 'no backsliding' safeguard needs to be introduced.
- The intention for greater subsidiarity in the new delivery model is potentially a bold move. However, it requires robust accountability mechanisms if historic precedents are not to be repeated. To comply with a common market, common basic standards for maintaining biodiversity and to ensure a healthy environment are crucial.
- Expanding the existing cross-compliance requirements to form the basis of the new 'Conditionality' is a positive development. However, risks of downgrading arise from the responsibility, being given to Member States for determining the specific standards and requirements.
- To ensure the shift in focus to performance is successful, and to ensure a reliable assessment of the effectiveness of the CAP regarding protection of the environment, the depth and quality of data and monitoring systems will need to be strengthened. In particular, reporting on the HNV-Farmland indicator is essential and should be carried on.

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A reflections paper produced by the ENCA Sustainable Land-Use and Agriculture Interest Group, with input from the ENCA Plenary (Estonia, 21-22 May 2018)

1. Introduction

The European Commission's legislative proposals[1] on the Common Agricultural Policy (CAP) beyond 2020 seeks to ensure that the CAP objectives for the next programming period fulfil EU Treaty obligations and EU priorities, but also agreed objectives on the environment, climate change (COP 21), and a number of the Sustainable Development Goals.

The EU Commission's commitment to a "higher ambition on environmental and climate action" for the next CAP 2021-27 programme period is to be welcomed, but has to be underpinned with concrete standards and indicators. Climate change action, environmental care and preserving landscapes and biodiversity have been proposed as core objectives for the next policy.

Looking beyond 2020, substantial challenges remain at a European level in how we use natural resources and ensure that more sustainable patterns of land-use and lifestyle are developed[2]. The EC Communication[3] recognises that European farmers are responsible for 48% of the EU's land (with foresters a further 36%) and directly depend on these natural resources.

The Sustainable Development Goals and Aichi Biodiversity Targets as well as the EU Biodiversity Strategy to 2020, set key commitments at EU and international levels towards more sustainable management and reducing biodiversity loss in farmland areas. More specific objectives are set out by EU measures such as the Birds[4] and Habitats[5] Directives; the Nitrate Directive[6], the EU Water Framework Directive[7], the Sustainable Use Directive and Pesticides Action Plan[8], LULUCF framework[9] and the EU Soil Thematic Strategy[10].

Despite these environmental measures, many of the environmental challenges identified in the last two to three decades remain live. It is critical, therefore, that the impacts of the next CAP on the environment and climate are understood and a multifunctional model of agriculture remains at the heart of the policy. This should be the direction of travel and not simply an add on to the main CAP objectives.

Drivers to intensify and increase production continue to put pressure on the environment, farmland biodiversity, water, soils and landscape. Threats to biodiversity also come from abandonment and management decline of high nature value farming areas (HNVF). The progressive loss of agricultural land,

[1] European Commission (2018) Future of the common agricultural policy
[2] European Environment Agency (EEA) (2017): Food in a green light – A systems approach to sustainable food. EEA Report no 16/2017: 33 pgs.
[3] European Commission (2017) The Future of Food and Farming COMM(2017) 713 final
[4] European Commission (2016) The Birds Directive: In a nutshell
[5] European Commission (2016) The Habitats Directive: In a nutshell
[6] European Commission (2018) The Nitrates Directive
[7] European Commission (2016) The EU Water Framework Directive – integrated river basin management for Europe
[8] European Commission (2016) Sustainable use of Pesticides
[9] European Commission Land use and forestry regulation for 2021-2030
[10] European Commission (2016) Soil: Evaluation of soil protection aspects in certain programmes of measures adopted by Member States

stimulated by EU policies, to land-use change, soil sealing and the increasing demand for biomass, can lead to increased land use competition and higher management pressure.

The European network of Heads of Nature Conservation Agencies (ENCA) are contributing to the debate on the future of the CAP by:

1) Providing scientific evidence from EU biodiversity indicators;
2) Providing a synthesis of experiences from ENCA members regarding the effectiveness of current CAP tools;
3) Reflecting on the legislative proposal on the future CAP, based on the evidence provided in this paper.

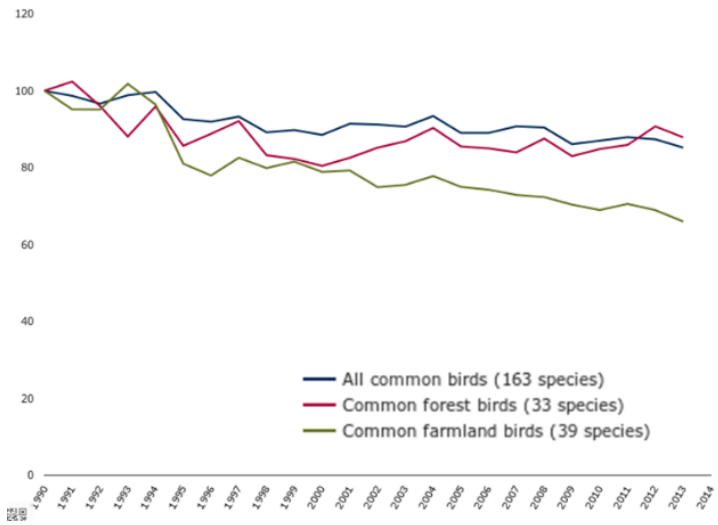
2. The Environmental Challenge - A synthesis of the biodiversity evidence relevant to the CAP

General trends show that substantial progress with biodiversity, water, climate and soils targets[11] will still be required over the next decade. Specifically concerning biodiversity, Target 3 of the EU Biodiversity Strategy aims to "measurably improve by 2020 the conservation of species and habitats depending on, or affected by agriculture (and forestry), and the provision of their ecosystem services". Available evidence from EU-wide biodiversity indicators in the agricultural landscape generally shows negative trends moving away from the target. In the following paragraphs, we would like to highlight some key indicators underpinning this:

- **Farmland bird trends**

The EU Common Bird Index shows that during the period 1990-2014 the population of common farmland birds declined by about one third (31.5 %) in the 26 European countries with monitoring schemes (Figure 1). It also shows that the decrease of farmland bird species is more pronounced than the overall trend for all common birds.

Figure 1 The EU Common Bird Index 1990-2014 (EEA 2017).

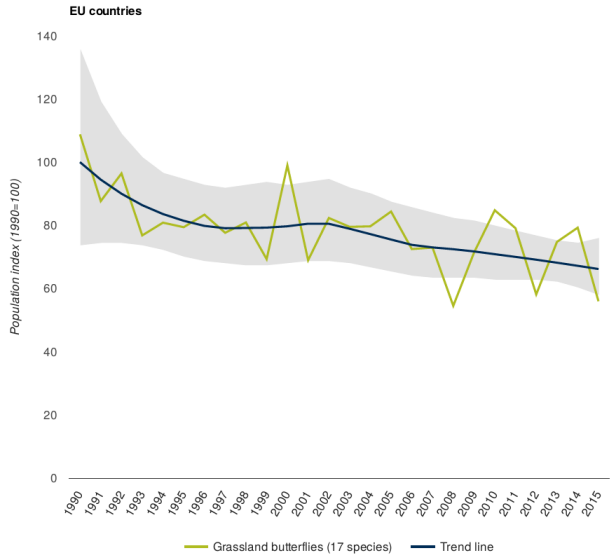


[11] Fuller versions of the Agri-Indicators are available in Eurostats and EEA (2017) SEBI 001 Abundance and Distribution of selected species with further analysis provided in CEEweb (2011) Towards a better integration of biodiversity concerns in the Common Agricultural Policy.

- **Grassland butterflies**

Grassland butterfly populations have decreased by 32 % between 1990 and 2015 in EU countries (Figure 2), even when considering year to year fluctuations which are typical for butterfly populations. The common bird and grassland butterflies indices take 1990 as a starting point, but significant losses have occurred before 1990. Both birds and butterflies are sensitive to environmental change and their population numbers can reflect changes in ecosystems and in other animal and plant populations. Therefore, trends of bird and butterfly populations in farmland areas serve as barometers of the health of the agricultural landscape as a whole.

Figure 2 EU Grassland Butterflies – population index (EEA 2017)



- **Natura 2000 species and habitats**

A significant proportion of the Natura 2000 network is associated with farmland (arable and grassland). The average proportion of Annex I targeted agricultural habitats per area of Sites of Community Importance (SCI) across the EU-27 was 20 %. The average share of targeted agricultural habitats in SPA terrestrial area (%) across EU-27 was 12 % in 2011[12]. This underlines that agriculture greatly influences the condition and development of biodiversity in Natura 2000 areas and other areas valuable for nature conservation.

Member States must ensure the favourable conservation status of the species and habitats listed in the Annexes to the Habitats Directive. Thus, they also must ensure that agricultural practices (or the lack of) do not deteriorate the quality of Natura 2000 sites. The State of Nature Report by the European Environment Agency (EEA)[13], summarizes the national reports by EU Member States under Article 17 of the Habitats Directive. The report shows that up to 86% of all grassland habitat types assessed through the Article 17 report have an unfavourable conservation status with 37% unfavourable-inadequate, and 49% unfavourable-bad (Figure 3). Furthermore, a high portion of species subject to special protection have an unfavourable

[12]Eurostat (2017) Archive: Agri-environmental indicator - Natura 2000 agricultural areas

[13] European Environment Agency (EEA) (2015): State of nature in the EU - Results from reporting under the nature directives 2007–2012. Technical Report No 2 / 2015: 178 pgs.

conservation status in cropland ecosystems, with 50% unfavourable-inadequate, and 20% unfavourable-bad (Figure 4). For grassland ecosystems 47% are unfavourable-inadequate and 17% unfavourable-bad.

Figure 3 Conservation status of grassland habitats according to the State of Nature Report by the European Environment Agency (EEA 2015). (green = favourable, orange = unfavourable-inadequate, red = unfavourable-bad, grey = unknown)

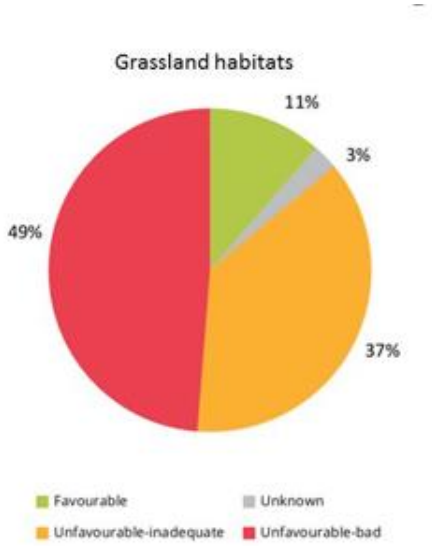
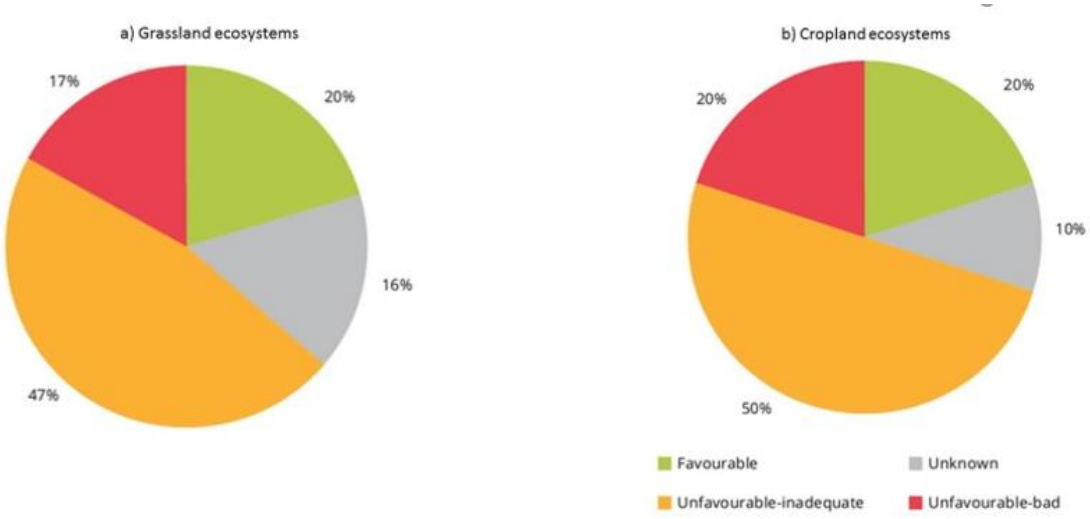


Figure 4 Conservation status of species in a) grassland ecosystems and b) in cropland ecosystems according to the State of Nature Report (EEA 2015). (green = favourable, orange = unfavourable-inadequate, red = unfavourable-bad, grey = unknown)



- **Conclusions related to species and habitat trends**

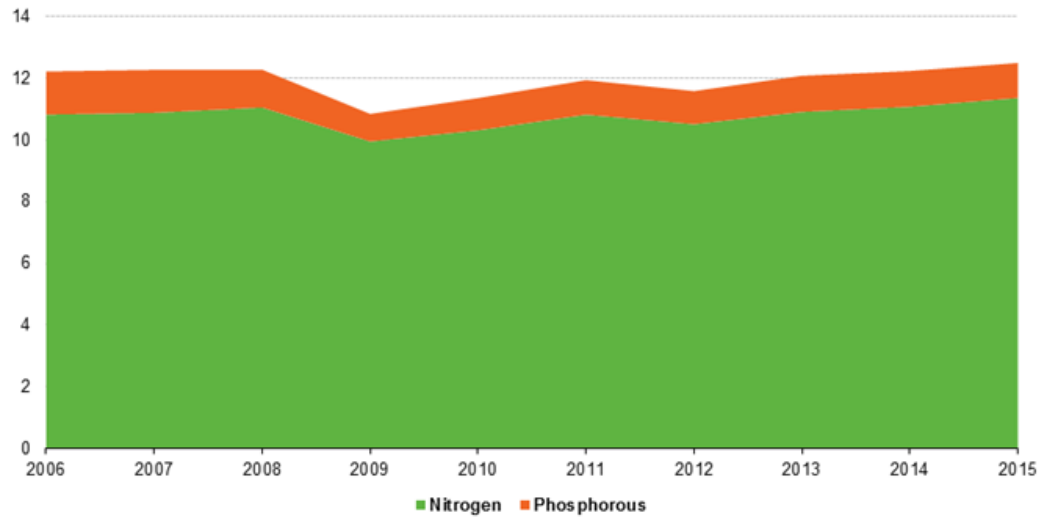
The long-term trends in common farmland birds and grassland butterfly populations, together with the results of the Article 17 reporting, demonstrate that Europe has experienced a major decline in biodiversity associated with agro-ecosystems and grasslands and that the remaining biodiversity is in unfavourable status. Therefore, the future CAP needs to move towards fostering farming practices that produce ecosystem services and minimize environmental harm. Namely, its role is to provide a suitable political and economic framework that allows farmers to practice sustainable and nature-friendly agriculture at a widespread scale.

- **Environmental pressures**

The CAP is a key driver of developments in agriculture critical to biodiversity and the environment. It has a key role to play in fostering a good use of resources and reducing the use of fertiliser and plant protection products that have an environmental impact. For example, the EU agri-environmental indicator on mineral fertiliser consumption[14] shows, how the total nitrogen fertiliser consumption volume remained high in the period 2006-2015 (Figure 5). Fluctuations have occurred, most notably during the years 2009-2010 when fertiliser use dipped significantly due to high prices (due to the impact of a strong demand for oil) and the impact of the Water Framework Directive. The average amount of nitrogen used per hectare UUA (utilised agricultural area) in the EU was 64 kg in 2015, compared with 58 kg in 2006. The trend shows the use of nitrogen fertiliser per hectare is increasing in the EU-28, although in individual countries some reductions have occurred.

The total consumption of phosphorous has declined 19 % from 2006 levels. Again, the 2009-2010 levels were the lowest over the period 2006-2015. Since 2010 an increase has kept the levels at around 1.1 million tonnes of phosphorous per year. Similarly, nitrogen emissions and depositions remain high, and pesticide consumption remains high across the EU (the only country to experience significant reductions between 2011-2014 is Denmark[15]).

Figure 5 Trends in total EU nitrogen and phosphorous consumption 2006-2015 (Source Eurostat, data)



Agricultural greenhouse gas emissions remain a significant challenge. Despite some decreases compared to 1990 levels the proportion of emissions from the agricultural sector is set to increase, in contrast to successful decarbonisation in other sectors. There is scope for the CAP to foster climate change mitigation by promoting the reduction of net emissions, fostering low emissions agriculture, helping restore degraded ecosystems, and protecting intact carbon-rich ecosystems.

Finally, it is worth noting that threats to biodiversity also come from abandonment and management decline of high nature value farming areas (HNVF), which represent a significant area at EU level.

[14] Eurostat (2018) Agri-environmental indicator - mineral fertiliser consumption

[15] Eurostat (2018) Agri-environmental indicator - consumption of pesticides

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3. Evidence from the CAP 2014-20

A major objective in the 2013 reform of the CAP was a 'greening' of the CAP, namely of the first pillar, in combination with agri-environmental and advisory measures as part of the second pillar. This took place because of ongoing biodiversity loss and failure to meet targets in biodiversity conservation (and environment protection). The intention was to generate positive effects for biodiversity conservation and for the protection of water, the climate and soils throughout agricultural landscapes. The success of these measures is examined in the section below, through evidence provided by ENCA partners in a questionnaire, drawing on experience with the current CAP across a range of Member States.

- **Cross-compliance**

Compliance with basic standards has played a key role in the protection of environmental features, land management and prevention of damage, **setting an important baseline for direct payments**. The requirement and conditionality to comply with some basic standards when in receipt of public funding is a well-established general principle and a core element of the CAP[16]. These minimum standards tend to be better followed and enforced through control mechanisms as studies from Germany and England have demonstrated[17,18]. Experience across different Member States shows that, overall, cross-compliance is considered an important baseline and prevention tool, which has a positive environmental impact[19]. This is particularly noted in some of the newer Member States (Czech Republic, Slovenia, Croatia), where implementation is more recent and noticeable. Cross-compliance relies on good advice and enforcement to be effective and raises awareness among farmers (Sweden). There may be instances, where its impact is less clear, due to insufficient enforcement or lack of information.

One example, where England has gone beyond domestic regulatory requirements in setting cross-compliance standards, concerns the good agricultural and environmental condition (GAEC) to **buffer hedgerows** with a two-metre uncultivated protection strip. Analysis underpinning the Regulatory Impact Assessment estimated the benefits of this requirement at £141–285 million per year, **with the majority of this linked to biodiversity benefits.**

Overall, cross-compliance contributes to maintain biodiversity in the agriculture landscape, even if it is not a mechanism to deliver environmental enhancement in intensively managed regions.

- **Greening**

Greening lay very much at the heart of the objectives of the CAP for the period 2014-2020. The aim of this novel approach was to make an impact on climate change and biodiversity loss through integration and by promoting a more sustainable agriculture model. Greening has nonetheless been subject to criticism for not making a sufficient impact on the one hand and for its restrictive rules on the other[20].

[16] It ensures there is a basic environmental baseline as part of direct payments, which thus contribute to some extent to the delivery of public goods. Includes requirements to protect soil from erosion, buffer strips, landscape features and prohibition to cut hedges during the bird nesting & rearing season as part of Good Agricultural and Farming Conditions.

[17] Oppermann R., Kasprczyk N., Matzdorf B, Reutter M., Meyer C., Luick R., Stein S., Ameskamp K., Gelhaus J., Beil R. (2013): Reform der Gemeinsamen Agrarpolitik (GAP) 2913 und Erreichung der Biodiversitäts- und Umweltziele. Bundesamt für Naturschutz. Bonn - Bad Godesberg. Naturschutz und Biologische Vielalf 135: 218 pages

[18] An evaluation of cross compliance in England ((Defra (2009)) identified that its main benefits were in providing additional leverage in compliance with existing regulatory requirements, as well as in raising farmer awareness of their environmental obligations

[19] In addition to the data drawn here, a comprehensive evaluation on cross-compliance in the EU 25 was commissioned by the European Commission in 2010 which is available here https://ieep.eu/publications/evaluation-of-cross-compliance-in-the-eu-.

[20] See for example the report by Euroactive (2016) Greening the CAP or greenwashing?

A large slice of the direct payments budget, 30%, is associated with greening practices. This has led to some questioning the value for money in terms of delivering its objectives. In Germany, for example, an annual expenditure of about € 1.5 billion is budgeted for greening payments to farmers until 2020, but research has shown limited positive impacts on biodiversity[21]. Set against this, there are examples where greening has been implemented more meaningfully or has the potential to deliver more (see below).

The evidence from some Member States is that often the design and **menu of Ecological Focus Areas (EFAs) was too broad to encourage the adoption of the higher biodiversity value options**. For example, in Germany, research undertaken has shown that the share of ecological valuable area was enhanced by only around 1% of the arable land, because a significant share of these areas already existed before the introduction of EFAs [22] The most frequently declared EFA types in Germany were catch crops, green cover and nitrogen-fixing crops[23]. These were options with very limited positive effects for biodiversity, as field research in Germany demonstrated. In the Czech Republic EFAs were identified as potentially the second most effective measure for biodiversity after agri-environment, considering these include buffer strips, fallow land and landscape features; but the most adopted options were catch crops and nitrogen-fixing crops rather than the former options.

Where greening has been designed in accordance with the intervention logic of providing environmental benefits, **EFAs have the potential to provide biodiversity benefits and encourage change**. In Scotland there is a significant area of fallow land, buffer strips and field margins being managed as EFAs, which will be delivering positive environmental effects i.e. areas with relatively more intense land use at a Scottish level**.** The adoption of cover crop and use of mixes with legumes is also beneficial for biodiversity (pollinators and birds), while delivering agronomic and soil benefits[24]. A Scottish Natural Heritage (SNH) survey showed that some farmers are deliberately managing more land as EFA than the required 5% to ensure they have sufficient area. A positive example in the northeast of Scotland has been the use of EFA fallow areas to plant wild bird seed cover to benefit the corn bunting. The advice of the Royal Society for the Protection of Birds (RSPB), support and sponsorship of the Wild Bird Seed for Farmland Birds scheme, and other measures have led to an expansion of the range of this declining species.

In Austria, 19% of farmers subject to greening fulfilled this obligation through an equivalent practice (representing 80% of the EU). Austria has implemented equivalence within the framework of Austrian agri-environment-climate measures: Environmentally friendly and biodiversity promoting management, which enables farmers to apply greening as part of the requirement of agri-environment and climate measures (AECM). In Austria the number of farmers that have used the equivalent measures is up to 11,831 participants (representing 19% of farmers and 53% of the arable land).

These equivalent practices, which simultaneously fulfil crop diversification and EFA requirements, are more demanding than the standard obligations under greening. At least 5 % of the arable land is dedicated to area beneficial for biodiversity. The main requirements are to seed/reseed using a seed mix with at least 4 insect-beneficial species, no plant protection products or artificial fertilisers, delayed mowing to protect birds and reduced ploughing. Farmers were also required to attend training. **This approach will increase the outcomes**

[21] Bundesamt für Naturschutzt (BfN) (2017): Agriculture Report 2017 Biological diversity in agricultural landscapes. Bonn – Bad Godesberg: 62 pgs.
[22] Nitsch, H.; Röder, N.; Oppermann, R.; Milz, E.; Baum, S.; Lepp, T.; Kronenbitter, J.; Ackermann, A. & Schramek, J. (2017): Naturschutzfachliche Ausgestaltung von Ökologischen Vorrangflächen. Bonn – Bad Godesberg: 196 pgs.
[23] They served to fulfil more than 50 % of the EFA-obligation (Value refers to weighted area).
[24] Lampkin N.H., Pearce B.D., Leake A.R., Creissen H., Gerrard C.L., Girling R., Lloyd S., Padel S., Smith J., Smith L.G., Vieweger A., Wolfe M.S. (2015): *The role of agroecology in sustainable intensification Report for the Land Use Policy Group.* Organic Research Centre, Elm Farm and Game & Wildlife Conservation Trust.

delivered and reward farmers for the additional effort, providing an example of the scope to develop greening approaches.

- **Conclusions on greening**

ENCA members' experience in terms of EFA impacts on biodiversity is mixed. Members acknowledge the considerable large-scale potential of this mechanism to influence trends at a landscape scale, benefiting the environment by decreasing intensity of use, and more directly by promoting landscape features as well as areas without production. The changes in 2017/18 to secondary greening legislation, which included a ban on the use of plant protection products, are an important step towards better management practices. The challenges to allow the use of mixes for nitrogen-fixing crops are also an improvement in line with more 'agro-ecological' practices[25]. **Looking ahead the overall trends on biodiversity decline show that the underlying rationale for EFAs remains sound and that a 5-10-% proportion of farm area is required to prevent the continued biodiversity decline.** However, more ambitious definitions and standards are required at EU-level in order to increase the effectiveness and efficiency of EFAs in all Member States. Examples such as Austria and Scotland provide good lessons on how the potential of this novel tool can unfold.

Experience gathered by ENCA members on other greening measures shows that there is still a need to further develop the greening practices to strengthen their impacts on biodiversity: the management of grasslands needs to be complemented with more comprehensive measures beyond the no plough rule, to ensure the maintenance of **permanent grasslands**. For **crop diversification**, there is scope to shift from field-level control to a more holistic and more ambitious farm-level approach. There is scope to encourage the design of EFA so that these follow the intervention logic of providing environmental benefits, as part of the agriculture system or for biodiversity.

Overall, the conclusion from the EC Evaluation of the payment for agricultural practices beneficial for the climate and environment [26]seems sensible. It states that 'The assessment shows that having the greening measures defined at EU level provides added value chiefly by setting a higher level of environmental ambition, a greater degree of uniformity (although with considerable scope for divergence in ambition due to the flexibilities in the EFA measure and equivalence schemes) and a stronger financial incentive than would be likely from all Member States if left to choose for themselves'.

- **Challenges related to extensive livestock grazing and HNV-farming systems**

A common theme across Member States is the strong association between extensive livestock grazing, and HNV farming systems and biophysical constraints. HNV farming systems provide significant biodiversity benefits with key habitats and species dependent on these practices (such as extensive grazing and mowing).

Experience across different Member States shows that challenges remain in how these systems are supported within the CAP. According to the delegated regulation 640/2014[27] some areas have remained ineligible for direct payment due to the number of trees and presence of habitat features. This is a common issue across several Member States (Estonia, Sweden, UK, Germany), which consequently leads to a systematic discrimination of HNV agriculture and livestock grazing systems.

[25] See footnote 24

[26] European Commission(2017) Evaluation of the payment for agricultural practices beneficial for the climate and environment

[27] Commission (2014) Delegated Regulation (EU) No 640/2014

Another challenge concerns the level of payments, which is lower in some of these areas compared to more productive land despite the move to area payments, and is not sufficient in order to provide an appropriate incentive to sustain extensive livestock grazing and HNV farming systems. Many high nature meadows and pastures are not being managed, because payment levels do not allow compensation of the labour costs and there is a restructuring of rural areas, with a decrease in the number of farmers.

In Sweden, there are more than one million hectares of grassland and over 350,000 hectares are grassland habitats listed in the EU Habitats Directive. Woodland meadows and woodland pastures, as well as open species-rich semi-natural grasslands and wet meadows, are of special importance. These meadows are of significant natural value. However, with limited incentive to farm these areas due to low economic returns, there is an increased risk of abandonment.

Small and middle size farms are more often associated with biodiversity in some Member States (e.g. Czech Republic, Latvia, Sweden, France). This explains why the use of the redistributive payment has had a beneficial impact. Experience from Latvia shows how smaller and medium size farms, which reconcile biodiversity, tradition and rural wellbeing, are often not well supported under direct payments. On the other hand, Germany opted for the application of the right to use a redistributive payment for the first hectares (up to 30% of the national allocation can be redistributed to farmers on their first 30 hectares), and this has been well received by small farmers.

Overall, it is crucial to provide appropriate support for extensive livestock grazing and HNVF systems. Eligibility rules for direct payment support should take into account the natural characteristics of these systems and need to be well designed to avoid their exclusion.

- **Agri-environment and Climate Measures (AECM)**

Experience across ENCA partners shows the key role AECM play in delivering biodiversity and other environmental priorities. Some of those considered most effective across different Member States (e.g. Czech Republic, Estonia and Sweden) are measures to support the management of valuable meadows and biodiverse grasslands (i.e. extensive grazing and mowing). Other important measures include delayed mowing/grazing payments for the protection of ground nesting birds such as waders (Scotland, The Netherlands) and other species of conservation concern such as corncrakes (Croatia, Scotland). Arable measures that help provide food resource and habitat e.g. for seed-eating bird species are still underrepresented, but critical at EU level in order to foster species that depend on extensively used farmland.

This experience shows how instrumental agri-environmental measures are to obtain and maintain favourable conservation status for habitats and species in the agricultural landscapes. Agri-environmental measures have also had an important role to play in terms of delivering biodiversity and environmental benefits across the wider countryside and promoting more sustainable practices.

In Austria, the evaluation of biodiversity in the current Rural Development Programme (2014-20) shows the key role played by nature conservation measures as part of the AECM on HNV farmland. These “deep green” measures, in combination with less favoured areas compensation, provide a beneficial effect on biodiversity conservation in maintaining extensive farming practices. Austria combines basic measures with some “deep green” AECM, which enabled an important contribution to the preservation and improvement in Natura 2000 areas. Austria provides a good example of how a strong use of Pillar 2 AECM options at both entry and high-level, maximises environmental benefits. The Czech Republic is another example of a sophisticated

system of AECM for grasslands, with a large coverage and broad range of management measures both for HNV and common grasslands.

Other countries have run more competitive high-level schemes (Scotland). These approaches have the draw back that there can be additional barriers for small units/farms due to the complexity of schemes and costs involved in applying.

Experience in England shows that in some cases effective delivery of improvements requires more targeted agri-environment activity. In England, recent published research has added to the evidence showing how higher-tier agri-environment schemes can have positive impacts on the abundance of priority farmland birds. The study, involving over 60 farms under Higher Level Stewardship (HLS) agreements in three English regions between 2008 and 2014, revealed that:

- 12 out of 17 priority species showed positive changes in abundance on HLS farms in at least one region (going against the 56% decline in the number of farmland birds nationally since 1970);
- 8 species (including house sparrow, linnet, reed bunting, skylark and starling) exhibited sustained responses to HLS management in at least one region.

Previous experience with broad and shallow schemes in England showed that these did not always deliver benefits, but to deliver the current more targeted approach across every farm would require a significantly increased level of resourcing.

Climate change adaptation and mitigation have long been overarching objectives of agri-environment schemes. However, it is often the case that an assumption is made that climate adaptation and mitigation will be achieved through those schemes other objectives, often those concerning biodiversity and water. Where action to support climate change adaptation overlaps with current best practice for biodiversity conservation, such as action to build resilience through reducing adverse pressures they perform well. Where issues are more climate change specific, for example accommodating change, they are less effective. The lack of support for measures that promote flexibility and adaptive management may also represent a weakness. Recent research in England suggests that the current agri-environment schemes have a variable capacity to deliver climate adaptation measures[28].

- **Conclusions on AECM**

These experiences show that it is important that strategic national plans develop an appropriate mix of environmental entry/basic-level and high-level measures that will fit with needs and targets identified for national/regional circumstances during the evaluation stage.

At a delivery level there is an increasing interest in changing the past prescriptive approach by designing more performance-based schemes. This is illustrated by the development of 'results-based pilots' in a number of Member States (e.g. Ireland, England, Sweden) and 'adaptive management' models where there is scope to adjust management activities to natural responses (The Netherlands). This trend **shows that there is a demand to move away from prescriptive rule-based systems towards 'performance-based' systems.** In such systems the focus is on the objectives or required management to achieve objectives

[28] Defra (2015) Evaluating the impact of agri-environment schems on climate change adaptation- LM0448

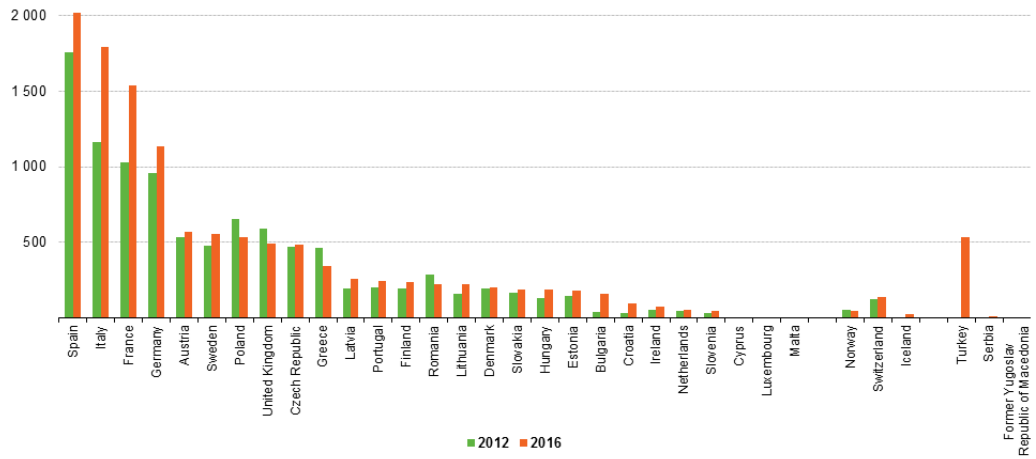
('adaptive management') that will improve the design and delivery of Adaptive Environmental Management (AEM) schemes as proposed in the draft CAP legislation.

The European Agricultural Fund for Rural Development (EAFRD) remains the most important tool for financing nature conservation in agricultural landscapes and specifically Natura 2000. However, evidence showed that funding under the current programming cycle remained insufficient to meet targets and level of demand. For example, in Germany a research project by BfN calculated the budget of biodiversity-related expenditure within the rural development programmes of the German Länder as adding up to ~ 324 million Euro per year including national co-financing and top-ups (= ~13. 4 % of the total second pillar budget in Germany)[29]. Even though this has meant a slight increase of funding for nature conservation compared to the last funding period, there is still a major funding gap for nature conservation objectives, since about 1.42 billion Euro annually are needed for the implementation of Natura 2000 in Germany. **Looking ahead, funding for AECM remains a critical issue to achieve progress in environmental and biodiversity targets.**

- **Organic farming**

The total area under organic farming in the EU-28 continues to increase with 11.9 million hectares (ha) in 2016 and expectation of growth in the coming years. The increase in organic area between 2012 and 2016 was 18.7 %.

Figure 6 Total organic area in hectares by EU Member State for 2012 and 2016



Source: Eurostat (online data code: org_cropar)

The expansion of organic agriculture has a considerable potential both for biodiversity and climate protection compared to conventional farming. Organic farming systems demonstrate the existence of a long-term commitment and strategy, requiring additional time, effort and cost. But also, management measures to improve soil management and organic matter can improve carbon storage and reduce emissions.

Looking ahead there is scope to incentivise the adoption of agro-ecological practices (Lampkin et al (2015) that rely on the use of ecological principles (use of functional diversity, cover crops, mixed systems etc) to encourage an improved use of natural resources, following the leading example of France.[30]

[29] Stratmann U., Pabst H., Horlitz T. (2018) How much nature conservation is in the second pillar – Second choice only? Natur und Landschaft 6: 266 - 272.

[30] Mottershead D. and Maréchal A. (2017) *Promotion of agroecological approaches: Lessons from other European countries. Institute for European Environmental Policy (IEEP): 73 pgs.*

It is important to note though that more diverse and HNVF systems will already provide this heterogeneity and diversity at a basic level. Under the last RDPs for 2014-20 we have seen an expansion of the range of environmental objectives pursued to include also soil and water management and climate.

- **Collaborative approaches and advice**

Experience across different Member States shows how important collaboration and cooperation measures are in terms of delivering improved environmental results and/or building social capital. Advice, sharing of knowledge, and integration of conservation advice with economic and agronomic advice are also crucial for effective engagement and results. Measures need to be provided within the CAP and future National Plans to allow and encourage further cooperation and advice targeted to environmental issues. Indicators could be used to ensure we can measure progress in this area. Some flexibility is required so that approaches can be tailored to Member States and local circumstances. For example, caution should be taken in some Member States, where for historic reasons cooperative/collective approaches are still associated with past negative experiences such as in the Czech Republic, and more time may be required.

Examples from Member States showing positive cooperative and advisory measures include:

- **France** has a notable innovation in the Groupement d'interet économique et environnemental (GIEE). It comprises several farm businesses, which are expected to propose a multiyear programme comprising agro ecological activities. The aim of this multi-annual project is to introduce changes or consolidate "agricultural patterns and systems and their agronomic practices aimed at economic, social and environmental performance". At the beginning of 2017, 411 GGIEE were accounted for. Their achievements are shared with the stakeholders of the entire community, and actions connected to projects part of a GIEE can benefit from assistance funding.

  Another outstanding example in France are the **Fermes DEPHY,** an experimental project that aims to demonstrate the feasibility of combining a more economically efficient form of agriculture that can be at the same time respectful of the environment and limit the use of crop inputs. They constitute a network grouping of farmers, technical advisers, agricultural engineers, agricultural education institution, that implements their activities on experimental sites and on a variety of farming units. The first DEPHY network was created in 2009 and included 180 farms that came together on a voluntary basis, as they had all embarked on a policy of reducing plant protection products and developing alternative agricultural systems and tools. Today the DEPHY Farm network brings together 3,000 farmers divided into some 255 groups of 8 to 12 farming units.

- **The Netherlands** has a strong tradition of agri-environment cooperation (AEC), but in the Rural Development Programme for 2014-20, the collaborative system has been taken to a new level, with all agri-environment support now being delivered via cooperatives. The AECS scheme is administered by 40 collectives covering the whole country. These certified collectives manage the application process and implementation of AEC measures. They rely on an adaptive management approach, focused on the activities that will benefit the relevant local species. The current system builds on earlier schemes seeking to address the decline of wading bird numbers.

- **Sweden** has cooperation with professional support, promoted by the County Administrative Boards. The example of Uppsala shows the scope to combine environmental and economic benefits. In this county

cooperation between farmers and landowners with grazing animals has allowed to manage biologically valuable grasslands and generate an income from 'nature-meat' from these grazing animals.

- **England** has the 'Farmer Clusters' concept, developed by the Game Wildlife and Conservation Trust (GWCT) and Natural England, which originally stemmed from a pilot project, has been gradually developed further in some cases with rural development funding support. A Farmer Cluster is designed to start at a bottom-up, farmer level, under the guidance of a lead farmer, working closely with a trusted conservation adviser or 'facilitator' to help devise their own targets and conservation plans and record progress to help wildlife on a landscape scale rather than single farms working in isolation. The approach has now helped to empower local farming communities and landowners to work more cohesively together in their locality, enabling them to collectively deliver greater benefits.

4. Reflections on the CAP legislative proposals

This section contains some reflections on the CAP legislative proposal, considering the ongoing biodiversity loss in farmland areas (section 2), and based on the experience of ENCA members with the current CAP (section 3).

Policy architecture

- **Conditionality – Ambitious EU wide standards and definitions are missing**

Generally positive is that the new conditionality will expand on existing cross-compliance rules by adding current greening requirements and new requirements associated with the protection of wetlands and peatland, sustainable management of nutrients, the sustainable application of pesticides and phosphorus pollution within the Water Framework Directive.[31] However, it will be the Member States' responsibility to determine concrete standards and requirements, e.g. defining a "*minimum* share of agricultural area devoted to non-productive features or areas", or an "*appropriate*" protection of carbon-rich soils. This bears a high risk that requirements will be watered down through Member State implementation choices. The key lesson from current greening requirements (see section 3) is that ambitious definitions and standards need to be set at an EU level to ensure that biodiversity and environmental benefits are generated by such mechanism. It is also in the interest of farmers, who expect the same rules and standards for all producers in a common market.

- **Eco-schemes – Loss of Pillar 1 ring-fencing for environmental measures**

This new tool supports voluntary annual, area-based measures beneficial for the climate and environment that go beyond conditionality. However, it will solely depend on the Member States what kind of measures will be offered and how ambitiously they will be designed, as EU-wide standards are not specified. In addition, the CAP legislative proposals suggest that the Commission does not foresee maintaining a 30% ring-fencing of the direct payments budget in Pillar 1 for eco-schemes, as it is currently assigned for greening requirements.[32] The effectiveness of the CAP Pillar 1 greening mechanism has been criticised (see section 3). However, its main positive innovation was in providing a substantial funding resource, earmarked for environmental purposes, which could then be built upon in subsequent reforms.[33] Now the decision is left to

[31] See, for example, DG AGRI Presentation at meeting of Civil Dialogue Group on Direct Payments and Greening on 9 March 2018, slide 7,
[32] European Commission, *Proposal for a Regulation of the European Parliament and of the Council establishing rules on support plans to be drawn up by Member States under the Common agricultural policy (CAP support plans) and financed by the European Agricultural Guarantee Fund (EAGF) and by the European Agricultural Fund for Rural Development (EAFRD) and repealing Regulation (EU) No 1305/2013 of the European Parliament and of the Council and Regulation (EU) No 1307/2013 of the European Parliament and of the Council*, COM(2018) 392 final, 1 June 2018
[33] Hart K, Baldock D, Buckwell A (2016), Learning the lessons of the Greening of the CAP, a report for the UK Land Use Policy Group in collaboration with the European network of Heads of Nature Conservation Agencies, Institute for European Environmental Policy, London.

Member States over what share of direct payments will be assigned to the support of improved environmental management across the agricultural landscape. The €12 billion that the greening budget represented looks set to be merged back into the overall funding pot. This is hard to reconcile with the reference to a "higher level of environmental and climate ambition" in the Commission's Communication.[34]

- **Rural development and agri-environment support is being cut disproportionately**

According to the Commission's proposals for the next Multiannual Financial Framework (MFF), the cuts in CAP funding will be disproportionately focused on the more worthwhile rural development and agri-environment support, following its decision to prioritise the protection of Pillar 1 direct payments.[35] Pillar 1 expenditure in real terms will be more than 11% lower in 2027 compared to 2020, but Pillar 2 expenditure will be almost 26% lower.[36] This is despite the key role of agri-environment schemes in terms of obtaining and maintaining favourable conservation status for habitat and species in the agricultural landscapes, and in terms of delivering biodiversity and environmental benefits across the wider countryside as highlighted by ENCA members (see section 3). This is not consistent with the Commission's overall message about a higher level of environmental and climate ambition, better targeting and EU added value, or with the 2016 Cork 2.0 declaration's focus on the rural environment, natural resources, and rural vitality.[37] Furthermore, this will further exacerbate the inadequacy of funding for Natura implementation, which is highlighted in section 3.

- **Minimum spend on environmental and climate objectives**

In light of the massive budget cut for rural development support, it is positive that the legislative proposal continues to include a requirement for Member States to spend a minimum of 30% of their Pillar 2 budgets addressing one of the following three specific objectives: contributing to climate change mitigation & adaptation; fostering sustainable development & efficient management of natural resources; and preserving nature & landscapes.[38] It is also positive that compensation payments for Areas of Natural Constraints or Natura 2000 or Water Framework Directive are no longer allowed to contribute to this 30% share. Nevertheless, the extent of this earmarking will by no means compensate for the cut of the Pillar 2 budget or effectively address the major underfunding for biodiversity measurers as discussed in section 3. Therefore, the proposed 30% minimum share for environment / climate in Pillar 2 would have to be enhanced further. Indeed, for the proposed 'increased ambition' clause to genuinely have some bite in creating a 'no backsliding' safeguard, it would need to set a minimum baseline against the aggregation of each Member State's greening budget and the amount it spent on Agri-environment and climate measures (AECM) in the previous programming period.[39]

- **Transfer between funds and co-financing**

In responding to criticisms over the disproportionate cut in rural development funding, the Commission cites a higher level of co-financing that will be provided to Member States for agri-environment schemes (with the EAFRD co-financing rates being reduced by 10 percentage points across the board, but with co-financing of AECM increased by 5 percentage points to 80%).[40] It can also point to the retained flexibility allowing

[34] See footnote 3
[35] Phil Hogan, EU Agriculture Commissioner, CAP Budget 2021–2027: A Fair Deal & Strong Support for Our Farmers, (2 May 2018)
[36] Alan Matthews, Commission assaults rural development spending to protect direct payments, (3 May 2018)
[37] Martin Nesbit, Institute for European Environmental Policy (IEEP), Commission budget proposals for 2021-2027: An IEEP guide to the environmental issues, (3 May 2018)
[38] Article 86(2) of the legislative proposals referred to at footnote 3.
[39] Alan Matthews, The Article 92 commitment to increased ambition with regard to environmental- and climate-related objectives, (30 June 2018)
[40] Press conference by Phil Hogan, Member of the European Commission on Multiannual Financial Framework (MFF), 2 May 2018, Article 85 of the legislative proposals referred to above at footnote 33.

Member States to transfer resources between the pillars, with the welcome option of additional transfers of up to 30% being possible for those wanting to devote extra funds at specific environmental and climate objectives.[41] However, it is unclear to what extent (if at all) Member States will opt for a transfer from Pillar 1 to Pillar 2 or if Member States would rather choose to transfer funds from Pillar 2 to Pillar 1. In this respect, experience from the last programming period is not encouraging. Critically here, the proposals recognise the importance of exempting such transfers to Pillar 2 from any national exchequer co-financing requirement which would otherwise act as a disincentive against such budgetary rebalancing. The Commission has clearly chosen an increased co-financing requirement against the rest of the rural development expenditure as a major plank in its strategy to mitigate for the impacts of the CAP budget cuts. Therefore – as has been highlighted elsewhere[42] – while this flexibility could allow the ambition that is necessary to move agricultural production in a more sustainable direction, at the same time it puts limited constraints on Member States for whom this goal is not seen as a priority, leaving open the risk that these opportunities will not be used.

Accountability mechanisms

- **Greater subsidiarity in new delivery model**

The new delivery model proposed by the Commission involves greater subsidiarity for Member States, with programming extended for the first time across both CAP Pillars.[43] This is a potentially bold move, representing a significant step change in the EU's agricultural policy, particularly in the way it will force Member States to spell out quantitative targets for the nine specific objectives in their CAP plans in the light of their needs assessment, as well as setting out explicitly their intervention logic for making income support payments. On the other hand, it could be felt that this is ceding too much control to Member States, without sufficiently robust mechanisms for holding them to account, when historic precedents are not encouraging. Previous experience e.g. with greening is not encouraging in terms of environmental standards. A common market requires common standards.

- **Relative merits of performance orientation**

On the face of it, the new performance orientation, including the incentive system for good environmental and climate performance, should be a welcome innovation.[44] In principle, devolving greater responsibility to Member States to decide what their specific objectives and targets will be and which measures and actions they will undertake to meet these offers the potential for a more tailored use of CAP money.[45] However, it will be important to guard against Member States reacting by deliberately setting unambitious targets or opting for 'easy' instruments, particularly given the limited administrative capacity in some countries. It will equally be important that sufficient time and resources are devoted both in Member States in working up their CAP Strategic Plans and also in the Commission to properly assess proposals. Transparency of information should offer one 'soft' means of providing some accountability. However, the environmental NGOs have also suggested the possible sanction of only approving the parts of the plan which meet equality

[41] Article 90(1) of the legislative proposals referred to above at footnote 3.
[42] Alan Matthews, The greening architecture in the new CAP, 30 June 2018,
[43] David Baldock and Kaley Hart, IEEP Reaction: CAP Communication Launch, 29 November 2017
[44] Article 125 of the legislative proposals referred to above at footnote 3.
[45] Hart K, Baldock D and Tucker G (2018), Defining EU environmental objectives and monitoring systems for a results-oriented CAP post 2020, a report for WWF Deutschland, IEEP, p.3,

and environmental adequacy criteria.[46] Another option could be that performance failure would lead to less funding being provided to the Member State concerned in the following financial period.[47]

- **Data availability and monitoring**

Investment in data collection and analysis will be essential to facilitate effective monitoring. If the shift in focus to performance is going to be successful, there will need to be a requirement on all Member States to assess the effectiveness of each individual scheme using robust, scientific methodology.[48] Extending the technical assistance budget would be a way to improve the depth and quality of data and monitoring systems, perhaps be applying the top-slicing not only to the EAFRD component of the CAP Plan, but also the EAGF contribution too.[49] In order to ensure a reliable assessment of the effectiveness of the CAP regarding the protection of biodiversity and to fill existing gaps in the current proposal of the Commission it should be mandatory for all Member States to set in place meaningful and suitable context, output and result indicators. They should reflect trends in farmland biodiversity. Furthermore, the implementation and the reporting on a regular basis of HNV farming indicators is essential and should be maintained. HNV farming indicators allow the identification and promotion of agricultural practices within the EU which support biodiversity.

Definitions

- **Maintenance of permanent grassland including high nature value grassland**

One key issue common to most ENCA members was the definition of permanent grassland, i.e. the exclusion of trees and shrubs from the area eligible for direct payments resulting in systematic discrimination of HNV grassland (see section 3). The definition provided in the legislative proposal for the CAP beyond 2020 still does not seem to overcome this issue, since only shrubs and trees, which can be grazed or produce animal feed, will be included in the eligible area. It is likely that this definition will lead to a continuation of the problem. Another related aspect that needs to be considered is that without direct payment support HNV grassland may also be deprived of the grassland 'protection' provided by the new conditionality. This will exacerbate the situation for HNV grassland.

The maintenance of permanent grassland has now been integrated in the rules for good agricultural and environmental condition. Generally positive is the introduction of GAEC 2 "appropriate protection of wetland and peatland". However, overall-binding definitions and standards are still missing. Without them the effects for the maintenance of permanent grassland i.e. HNV grassland are not predictable. The EU-wide ban on converting or ploughing permanent grassland in all Natura 2000 sites as referred to in GAEC 10 is an improvement in some Member States, whereas in other Member States current definitions for environment sensitive grassland already go beyond Natura 2000 sites.

[46] Environmental NGOs letter to Director Generals in DG Budget, Environment, Research & Innovation, Climate Action, Health & Food Safety, Agriculture & Rural Development, 8 May 2018, from EEB, Greenpeace, BirdLife International and WWF,
[47] See footnote 46
[48] Environmental NGOs letter to Commissioner Oettinger on allocation of funds for environmental and climate action in future CAP, 13 April 2018, from EEB, Greenpeace, BirdLife International and WWF
[49] See footnote 46