



AgriCapture CO₂

Regenerating soils for climate and farmers

Advancing Regenerative Agriculture in the EU and UK

The importance of enabling policies



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Executive summary

The AgriCaptureCO₂ project seeks to make it easier and more profitable for farmers to adopt regenerative farming practices. Public policies are an important piece in the jigsaw of how to make this happen. Through a mix of rules and incentives, policies can steer the agriculture sector towards greater sustainability, or hinder change. This report provides an update on the AgriCaptureCO₂ Policy Report from September 2021, by reviewing how the EU and UK policy contexts have changed in the past two years and formulating recommendations for key emerging policy developments with the potential to substantially shape the transition to regenerative farming.

The main finding in the updated review of the EU and UK policy contexts is that while much progress has been achieved over the last two years, gaps remain, both in terms of ambition and effectiveness. The six key principles underpinning an enabling policy and legislative framework for regenerative agriculture identified by AgriCaptureCO₂ in 2021 remain entirely valid:

- Policy coherence & holistic approach
- Clear objectives and definitions
- Robust monitoring and safeguards
- Public support through agricultural policy
- Private financing within an enabling policy framework
- Enabling individual, social, and material factors for behavioural change

Building on these foundations, this report zooms in on topical policy debates and makes suggestions for how the above principles can be implemented effectively in three areas.

The EU's CAP until 2027 and beyond:

- Update national CAP Strategic Plans in line with the new Fit for 55 targets
- Start phasing out area-based "income support" payments and reallocate this budget to more targeted measures that support farmers to adopt climate- and nature-friendly Regenerative Agriculture practices
- Beyond 2027, work towards a structural transformation of the CAP to make the transition to genuinely Regenerative Agriculture its main objective

The EU's new Soil Law

- Strengthen the overarching objective
- Include legally binding targets
- Establish effective governance structures
- Focus on soil biodiversity
- Make the polluters pay
- Clean up soil pollution

The Polluter Pays Principle in agriculture

- Start by removing all harmful subsidies
- Do not reduce the PPP to 'pollution pricing'
- Consider all environmental impacts (and benefits)
- Do not equate emissions allowances with sequestration credits
- Build on what is already there
- Re-invest revenues into the farming sector for the transition to Regenerative Agriculture



Introduction

Agriculture is under pressure to re-invent itself. Intensive agricultural practices, based on high synthetic inputs use, use of heavy machinery, and high biomass extraction, are a major driver of biodiversity loss, greenhouse gas (GHG) emissions, and soil degradation¹⁶. On the other hand, the rapidly growing impacts of climate change and ecosystem degradation are starting to hurt farmers, with substantial impacts on yields in Europe and globally². Regenerative Agriculture has the potential to bring answers to all of these challenges, by placing the focus on the revitalisation of soils and agro-ecosystems to boost natural ecosystem services which support productive farming.

Achieving and maintaining healthy soils by increasing Soil Organic Matter (SOM) is central to Regenerative Agriculture, which makes it a potentially powerful natural carbon sequestration solution. Regenerative Agriculture could therefore be a key 'carbon farming' approach. In addition, Regenerative Agriculture could bring considerable benefits for ecosystems and biodiversity protection, as well as to farmers themselves through increased resilience and profitability. Finally, by having the potential to secure both high productivity and enhanced resilience in food production, Regenerative Agriculture can help Europe achieve its sustainability objectives without impacting its productive potential, thereby reducing the risk of 'leakage' or 'offshoring' of our environmental impacts. This could be an all-win scenario for climate, nature, farmers, and our food security.

Achieving these win-win-wins is not a guarantee, however. A robust, ambitious and coherent policy and regulatory framework around climate action, biodiversity protection, and agriculture is crucial to deliver on this potential. This report therefore sets out to map the evolution of the European Union's (EU) and United Kingdom's (UK) policy and legal framework, and to make some recommendations to EU and UK decisionmakers to design rules and incentives which will empower farmers to adopt Regenerative Agriculture for climate and biodiversity, while improving their economic sustainability and resilience to climate change.

1 What is Regenerative Agriculture

Regenerative Agriculture is a conservation and rehabilitation approach to food and farming systems, and seeks to focus on the core role of healthy soils and farmland ecosystems in producing sustainable food. There are many different practices which might be considered part of a regenerative farming system, and individual growers may draw on some or all of them. But in broad terms, it is based on five core principles:

1. Boosting biological diversity in the soil and farmed landscape
2. Keeping living roots in the soil for as much of the year as possible
3. Keeping the soil surface covered as much as possible
4. Limiting the amount of physical and chemical disturbance of the soil
5. Integrating grazing livestock and organic manures into the system.

In many ways Regenerative Agricultural principles are more a return to the farming practices of past – farming in harmony with nature – than a revolutionary new concept. A key attribute of past agricultural practices is the combination of exploitative and restorative phases within crop and livestock rotations. The development of an industrial



process which fixes nitrogen from the air into soluble fertiliser led to the abandonment of this approach. This has been a key driver in the depletion of soil carbon, as the restorative phases of the rotation were responsible for enhancing both soil nitrogen and soil carbon levels.

But it is in the fusion of modern technology, scientific understanding and a rediscovery of the sound agricultural methods of the past that points the way to a sustainable future in regenerative agriculture, building the health and resilience of our soils and wider farm ecosystems, leading to healthier, more resilient crops and ultimately healthier, more resilient and profitable farm businesses. This has never been more imperative than now, as climate change begins to seriously impact agricultural productivity across the globe.



Figure 1: The 5 principles of regenerative agriculture

2 The EU & UK policy context in 2023

The policy and regulatory landscape relevant to regenerative agriculture spans across levels of governance, from global to local, and across issues, with links to soil, climate, biodiversity, land use, and farming policies. Two years after the original Policy Report of the AgriCaptureCO₂ project, this section provides an update of the relevant EU and UK policy and regulatory context, with a focus on climate, agricultural, and soil policies.

A lot has changed since 2021, with the EU advancing to implement its European Green Deal and the UK moving forward with revising swathes of policies and legislation previously set at EU level.

2.1 Climate policy

Policy architecture and targets in the EU and UK

The EU's Climate Law adopted at the end of 2021 increased the EU's 2030 target to a net reduction of GHG by at least 55% and set the legally-binding objective to reach net-zero emissions by 2050. These objectives are implemented by a wide range of climate



legislations and instruments, with two pieces of legislation addressing agricultural GHG emissions explicitly: the Effort Sharing Regulation (ESR) and the Land Use, Land Use Change and Forestry (LULUCF) regulation. Furthermore, the Governance Regulation requires Member States to draw up National Energy and Climate Plans (NECPs) setting out the policy measures planned in each sector, including agriculture, to deliver on climate targets.

The ESR regulates climate action in the agriculture, transport, buildings, small industries and waste sectors. Agricultural emissions covered here are mostly non-CO₂ emissions (methane and nitrous oxide) from livestock and fertiliser use, representing 11% of total EU GHG emissions³. The EU-level ESR target is to cut GHG by 40% by 2030, compared to 2005. This target is translated in legally-binding national targets covering all ESR sectors, which vary from a 10% to a 50% reduction, based on the country's gross domestic product. According to the European Environment Agency (EEA), emissions from agriculture covered by the ESR remained stable between 2005 and 2021, while only a modest decline of 4% is expected by 2030 (of which 2% has already been compared with 2005 levels with existing measures, and 8% with additional measures⁴).

The LULUCF regulation governs carbon emissions and sequestration linked to land use, which includes forests and wetlands as well as croplands and grasslands. In the LULUCF sector, climate action is based on a "no debit rule" until 2025: emissions and removals in that sector should compensate each other to maintain emissions in line with a pre-determined "Forest Reference Level" baseline at the national level. For 2026-2030, the "no debit rule" will be replaced by an overall EU target to achieve net LULUCF removals of 310 million tonnes of CO_{2e} by 2030. This objective is distributed between Member States as annual national targets. MS also have some flexibility between their LULUCF and ESR targets, meaning that underachievement in one sector can be compensated by overachievement in the other.

By 30 June 2023, MS were required submit their draft updated NECPs for 2021-2030 to reflect the increased climate ambition stemming from the Green Deal. In its guidance to Member States on the process and scope of the NECP revision, the Commission acknowledges the urgent need to tackle emissions from agriculture. Unfortunately, a recent analysis of nine draft NECPs found that the suggested measures in the agricultural sector are generally weak, with emissions from fertilisers (so-called "agricultural soils") and livestock rearing (enteric fermentation and manure management) left largely untouched⁵. Now, the European Commission is expected to review the draft plans and send recommendations to EU countries by the end of the year. A final revision of the drafts is then due by 30 June 2024.

In the UK, the Climate Change Act formalises the UK's approach to tackling climate change – both on mitigation and adaptation. The Act requires the UK to achieve net-zero emissions by 2050 and to detail its emissions pathways in regular carbon budgets. It also puts in place a rolling cycle of statutory national risk assessments and a National Adaptation Programme (NAP) that must then address the risks. In 2023 the NAP was updated for the 2023 – 2028 period to include new measures including:

1. Planting of more drought resistant crops
2. Improving productivity and sustainability of agriculture and forestry
3. Protecting the natural environment
4. Mitigating international impacts on imported food supply



Since 2008 five carbon budgets have been approved by the UK Parliament. UK emissions have continued to fall since the 2008 Act, and by 2018 had reached 44% below 1990 levels. This means the UK has met the first two carbon budget targets, and is on-track to meet the third, but not yet the fourth or the fifth.

The English National Farmers Union (NFU) has also set a climate target for the industry, committing to achieve net-zero emissions by 2040. The key avenues for achieving it identified by the NFU are:

- Improving farming's productive efficiency;
- Improving land management and changing land use to capture more carbon;
- Boosting renewable energy and the wider bioeconomy.

Promoting carbon sequestration through carbon farming

The EU "carbon farming initiative" announced in the Farm to Fork (F2F) Strategy is particularly relevant to regenerative agriculture. It aims to promote "carbon sequestration by farmers and foresters" as a new "green business model" to be financed through the CAP and from private sources. The European Commission published a Communication on Restoring Sustainable Carbon Cycles in 2021, setting out how it sees carbon farming as part of its broader carbon removals policy.

In November 2022, the European Commission adopted a proposal for a Regulation for a framework for certification of carbon removals (CRCF). This framework distinguishes three different groups of removals, with "carbon farming" one of them, which is defined as a "carbon removal activity related to land management". The proposal sets out some criteria on quantification, additionality, and sustainability; although it has been criticised for leaving these concepts too open⁶. Furthermore, it is unclear what the generated certificates should be used for, although the preamble hints at them being supplied on voluntary carbon markets. It is also uncertain how such a framework interacts with national greenhouse gas inventories or how the generated certificates count towards the LULUCF targets. The proposal is currently going through co-decision, where progress has been slow, although both co-legislators still wish to finalise the process by spring 2024.

In parallel, the Commission has established an Expert Group to assist them in developing the certification methodologies. The first carbon farming practices to be addressed are likely to be rewetting of peatlands, forestry, and soil carbon sequestration, but this will most probably not be finalised before 2025.

In the UK the 2023 The Net Zero Growth Plan⁷ sets out how government plans to meet net-zero while supporting economic growth and prosperity in the UK, and decarbonising agricultural emissions is a key challenge.

Farming is one sector where there will be some residual emissions because some aspects of farming, such as raising animals or using fertiliser, have unavoidable emissions. The Plan recognises the need to continue those activities whilst at the same time reducing emissions as far as possible in a way that supports thriving farm businesses and maintains food production at current levels.

To achieve this a range of measures have been developed that can help decarbonise agricultural emissions. These are set out in the Carbon Budget Delivery Plan⁸, which was published alongside the Net Zero Growth Plan. These measures build on the progress that



farmers have already made. Since 1990, agricultural emissions have reduced by 12% overall. The dairy sector reduced greenhouse gas (GHG) emissions by 12% between 2000 and 2020, while still increasing milk production by 11% with 21% fewer cows.

Other measures outlined, for example introducing cover crops, also support the long-term foundations of a healthy environment and food production. The Plan recognises that farmers will also be important in reducing and sequestering emissions from the land use sector including through tree and hedge planting, peatland restoration and agroforestry.

Reducing further the greenhouse gas emissions of the sector will require a combination of incentives, clear and well enforced rules and supporting market driven innovations. The incentives for several of those measures are covered through the new Sustainable Farming Incentive and existing Countryside Stewardship options such as introducing grass-legume mixtures.

For some of the measures, there is a need to work out the best way to balance funding, between the industry, the market and government. The scale of that challenge requires a step change in investment. The Plan's intention is that farmers and land managers can earn income from public sources like the environmental land management schemes but also attract greater finance from the private sector for sequestering carbon, improving water quality and increasing biodiversity.

Towards carbon pricing in agriculture?

In 2023, the European Commission tasked experts with conducting a study exploring the applicability of the polluter-pays-principle in agriculture at the EU level. The study analyses five different approaches to pricing agricultural emissions through market-based mechanism, ranging from a fully integrated agricultural Emission Trading Scheme (ETS) whereby entities creating removals and those creating emissions are fully integrated, to disconnected markets where revenues from agricultural ETS are used by the government to procure removals.

The preliminary results show that with any approach linking removals with emissions (polluters), there are two key challenges of great concern: emission reduction deterrence (due to potentially cheaper low-quality removals, polluters over-rely on removals instead of focusing on decreasing actual emissions), and non-equivalence of emission reductions and removals (land-based removals differ fundamentally from agricultural emission reductions due to, for instance, high risk of reversibility of removals, uncertainty of monitoring, and the general limit to store carbon in the land sector). The study is expected to be published in Autumn 2023.

UK Carbon Trading

The UK Emissions Trading Scheme (UK ETS) was established on 1st January 2021 by the UK ETS Authority to incentivise cost-effective carbon emissions reduction in industry, power, and aviation and replace the UK's participation in the EU Emissions Trading System. Looking towards the next decade, the UK ETS Authority is committed to implementing a net zero consistent cap for the scheme, reviewing the Free Allocation policy, and expanding the use of emissions trading to cover waste and maritime sectors.

Carbon trading has become a major talking point for UK farmers and landowners, as interest grows in the potential to create new income streams by selling carbon credits. It is a rapidly evolving market with payments for a range of carbon credits being offered by



both government and a growing array of private companies. A central message is that landowners may need to be cautious about selling carbon credits until they understand how much carbon their land can sequester and how much carbon they are emitting as a business. This will allow businesses to assess whether there is any surplus that can be sold to third parties without affecting their own position, bearing in mind that it may become a requirement for land-based businesses to become carbon neutral themselves in the future.

Assessing soil carbon is a particular challenge because of the heterogenous nature of soils and their past history of management. Accuracy improves as the number of sampling points is increased but this can make the gathering of such high-resolution data uneconomic. AgriCaptureCO₂ provides significant steps forward in reconciling these conflicts.

2.2 Agricultural policy

The EU Common Agricultural Policy

A new legislative framework for the 2023-2027 Common Agricultural Policy (CAP) was agreed by co-legislators in the summer of 2021, opening the way for the finalisation of national CAP Strategic Plans, of which drafts were submitted to the European Commission in winter 2021-2022. The Commission then reviewed them and provided observations to Member States, and after a process known as “structured dialogue”, Member States submitted final plans at the end of 2022; which entered into force on 1st January 2023.

The Common Agriculture Policy (CAP) regulation adopted in 2021 offers significant flexibility to member states to design their CAP Strategic Plans with higher environmental and climate ambitions. Yet, an analysis by environmental organisations of 17 Plans concluded that by and large, member states had not used this opportunity⁹.

While based merely on budget allocations for “green” measures and targets on result indicators, the new CAP may seem much greener, the authors argued that a more detailed assessment of the concrete design of conditionality rules and “green” schemes showed huge inertia in redirecting public money towards targeted and meaningful spending that would support the transition to Regenerative Agriculture. Analyses by think tanks¹⁰ have made largely similar conclusions.

UK: A new Agriculture Act

The UK Agriculture Bill is the first of its type since the post-war 1947 Agriculture Act, UK Agricultural Policy having been determined by the CAP during the period the UK was part of the European Union. The 2020 UK Agriculture Bill provided the opportunity for Government to legislate to ensure that equivalent food, welfare and environmental standards were a condition of any future trade agreements post EU Membership. Whilst the Government provided consistent re-assurance that no trade deals would be negotiated which led to differing standards the requirement was specifically excluded from enshrinement in legislation. In order to pacify those who were concerned that this approach left the door open for deals which exported environmental impact or resulted in the importation of food produced to lower standards, under-mining UK food producers, the Government established a Trade and Agriculture Commission to scrutinise any future agreements and report back to Government any perceived discrepancies. However, the



role of the Commission is purely advisory and the legislation provides no recourse should Government chose not to head the Commissions advice.



2.3 Soil policy

New EU Soil Law

The EU Biodiversity strategy for 2030 made two key commitments of relevance to regenerative agriculture: the publication of a new Soil Strategy and a new Nature Restoration Law. In November 2021, the Commission presented its new EU Soil Strategy for 2030, which sets a vision to achieve healthy soils by 2050, provides a framework for the protection, restoration and sustainable use of European soils, and committed to bringing forward new legislation on soil.

In July 2023, the Commission therefore published a proposal for a Soil Monitoring Law, which provides a definition of soil health, puts in place a harmonised monitoring framework, and fosters sustainable soil management and remediation of contaminated sites. While such legislation goes some way towards filling the legal vacuum which had been identified by the EEA as contributing to the continued degradation of soil in the EU¹¹, stakeholders warned that its limited scope and ambition falls short of the promises of the Soil Strategy¹². The draft legislation is now going through co-decision, which is unlikely to conclude before the cut-off date of the June 2024 European Parliament elections, meaning that significant delays can be expected in its adoption.

The UK Environment Bill and Soil Policy

The Environment Bill sets out the legislative framework for environmental protection and to ensure the Government is held to account over its commitments. A key part of this is the establishment of an Office for Environmental Protection (OEP) . This Committee has



now been established under the Chair of Dame Gleny's Stacy with seconded experts and an Advisory Board currently being appointed.

The Bill was introduced through the Upper House and, as with the first iterations of the Agriculture Bill, contained no commitments to protect or enhance soil health. Given soil has a significant capacity to act as an environmental buffer as well as being a contaminant itself, amendments were brought forward to address this. Ministers agreed that soil health should be addressed and made the following commitment all-be-it outside the legislature.

"We are pleased to announce a soil health action plan for England. The plan will be a key plank in our efforts to halt the decline of species by 2030, as well as meeting our long-term legally binding targets on biodiversity. As we have heard, [...] our soils are in a perilous position. The action plan will be crucial in driving progress across government to restore the health of our soils. We will set out further details of what the plan will contain by the end of this year."

Despite this public declaration no consultation ensued, and no Action Plan emerged. However, a number of soil related measures and commitments are included in the 2023 Environmental Improvement Plan (EIP). These include:

- Publishing a baseline map of soil health for England by 2028 and bring at least 40% of English agricultural soils into sustainable management by 2028, increasing to 60% by 2030.
- Establish a soil health indicator under the 25 Year Environment Plan Outcome Indicator Framework.
- Publish a baseline map of soil health for England by 2028.
- Support farmers and land managers to establish their own soil health baseline, so they can best manage the health of their soil.
- Provide a methodology and tools to collect consistent information about the health of the soil under all land uses.
- Share current guidance and best practice with farmers and land managers to improve their knowledge and work with them on how to improve soil health.
- Secure the integrity of future soil carbon codes

Alongside these commitments the UK government is introducing three soil-specific measures into the Environmental Land Management Scheme. These are contained in the base part of the scheme, the Sustainable Farming Incentive (SFI) which is open to all. These measures include:

- A £5.80/ha payment for assessing soil, testing for organic matter content and producing a soil management plan.
- A £129/ha payment for multi-species winter cover crops
- £382/ha payment for sowing herbal leys on arable land.

The Sustainable Farming Incentive now allows participants to join the scheme at any time of their choosing, to adopt whatever measures they wish across the farm but most significantly chose exactly where on the farm the measures are applied. This means that farmers can choose to exclude areas from the scheme if they wish. Furthermore, payments will be made more regularly and there will be more self-assessment and trust. All these measures are likely to incentivise greater scheme uptake.

As soil management is a devolved matter this plan will only apply to England; the Scottish Parliament and the Welsh Assembly have yet to signal action on measures to protect soil.



3 Policy recommendations

The above analysis of the current policy landscape in the EU and UK shows strong progress compared to the state of play in 2021, but still much room and need for progress to accelerate the wide uptake of climate and nature-friendly regenerative farming practices. In 2021, the AgriCaptureCO₂ project made 6 key recommendations for creating an enabling policy and legal context for the large-scale transition to regenerative farming. These recommendations are summarised below and remain entirely valid (more details can be found in the 2021 AgriCaptureCO₂ policy report¹³).

3.1 Six key principles for an enabling policy and legal framework for regenerative agriculture

1. Policy coherence & holistic approach

The EU, its Member States, and the UK have committed to limit global warming to 1.5°C, to reverse biodiversity loss, to end hunger and to deliver a just transition. These objectives are deeply interconnected and can therefore only be achieved through holistic policy mixes which maximise synergies and minimise trade-offs. This requires for example ensuring that agricultural policies contribute to environmental and climate objectives and are not undercut by trade policy and trade deals; and that climate policies fully integrate biodiversity and socio-economic objectives.

2 Clear objectives and definitions

Targets give a clear direction to public policies and galvanise private sector action. To achieve a large-scale transition to Regenerative Agriculture in the EU and UK, a set of complementary targets should be set in laws and policies. Furthermore, better characterisation of Regenerative Agricultural techniques is necessary to improve recognition amongst farmers and the general public as well as avoiding corporate greenwashing which harms farmers' and public trust.

3 Robust monitoring and safeguards

Achieving change at scale requires strong foundations: common definitions, data collection and monitoring systems, strong legal safeguards, and mandatory baselines. The monitoring systems for soils and GHG emissions must be improved, and regulatory safeguards and mandatory baselines should be established to prevent further degradation of soils and ecosystems.

4 Public support through agricultural policy

Agricultural policy should establish well-targeted policy instruments to compensate the costs incurred by farmers in implementing more climate- and nature-friendly regenerative farming practices and to incentivise more farmers to adopt such practices. Ultimately, public money should pay for the delivery of public goods by farmers, meaning that agricultural subsidies should provide a revenue stream for farmers who deliver demonstrable benefits for biodiversity, climate, or the protection of natural resources.

Support schemes should be tailored to different farm structures and agronomic and climatic contexts and should include for example: practice- as well as result-based



measures, tiered measures for different levels of ambition with payment levels proportionate to ambition levels, whole farm schemes as well as narrower measures. As regenerative agriculture is about a holistic approach to the farming system and its agro-ecosystems, all schemes should be shaped from that perspective and seek to optimise the synergies on multiple environmental dimensions.

5 Private financing within an enabling policy framework

In a context of shrinking public budgets for farming subsidies, private funding can play a key role in promoting the uptake of regenerative agriculture. Different models have been tried and tested or are emerging. Most promising ones tend to be based on collaboration across supply chains¹⁴, such as environmental assurance schemes which provide farmers with a price premium on their product sales or give them access to new markets; or 'supply chain financing' whereby a retailer or food brand invests in promoting regenerative agriculture amongst its own primary producers.

On the other hand, voluntary carbon credit projects are gaining in popularity. Such carbon crediting schemes are highly controversial¹⁵ and are not well-suited to support the uptake or maintenance of regenerative agriculture in all contexts. Market-based financing should therefore not be considered as the first and main mechanism to support the transition to regenerative agriculture. The EU framework for the certification of carbon removals should bring clarity in how carbon farming can be financed through result-based schemes, while ensuring the highest degree of environmental integrity. Other policy measures should be deployed to promote investments in regenerative agriculture in food value chains, e.g. fiscal instruments and sustainable procurement standards.

6 Enabling factors for behavioural change

Insights from behavioural change theories point to three key levels where enabling factors are crucial to enable change: the individual, social, and material level. Based on this model, we draw particular attention to three key enabling factors: investing in farmers' knowledge ; steering a soil care revolution and a new regenerative farming paradigm ; and developing infrastructure & remove structural barriers.

3.2 The EU's CAP until 2027 and beyond

The reformed CAP entered into force in 2023 and will run until 2027, but Member States can request amendments to their National CAP Strategic Plans once per year. In light of the EU's new climate targets for 2030, **Member States should align their CAP Strategic Plans with the new LULUCF and ESR targets to provide clear incentives for farmers to prioritise carbon farming and wider farm practices that will reduce emissions and increase carbon sequestration** in soils, trees (e.g. through agroforestry), hedges, and wetlands.

The CAP should make a significant contribution to upscaling carbon farming across the EU by tightening conditionality rules to prevent further degradation of soils and carbon stocks as well as increasing the number, ambition, targets, and budget of voluntary support measures for carbon farming measures. Such measures should include the establishment and the maintenance of agroforestry systems and landscape features such as hedges, the rewetting and restoration of drained peatlands, including support for paludiculture (farming on wet peatlands), the extensification and high nature value management of grasslands, and regenerative soil management.



Following the example of the UK, **area-based “income support” payments should be reduced gradually starting now with the aim of phasing them out completely** by 2034 at the latest (i.e. by the end of the next EU budget cycle). This would allow to **reallocate this budget to more targeted measures that support farmers to adopt more climate-, nature- and soil-friendly practices**, such as eco-schemes and Pillar 2 measures.

Beyond 2027, the EU should work towards a **structural transformation of its agricultural policy to make the transition to genuinely regenerative agriculture its main objective** – for the benefit of climate, nature and farmers. This will require to repurpose the budget, instruments, and administrative systems of the CAP towards this new overarching objective. Proposals have been formulated by environmental organisations¹⁶ and think tanks¹⁷ that go in this direction.

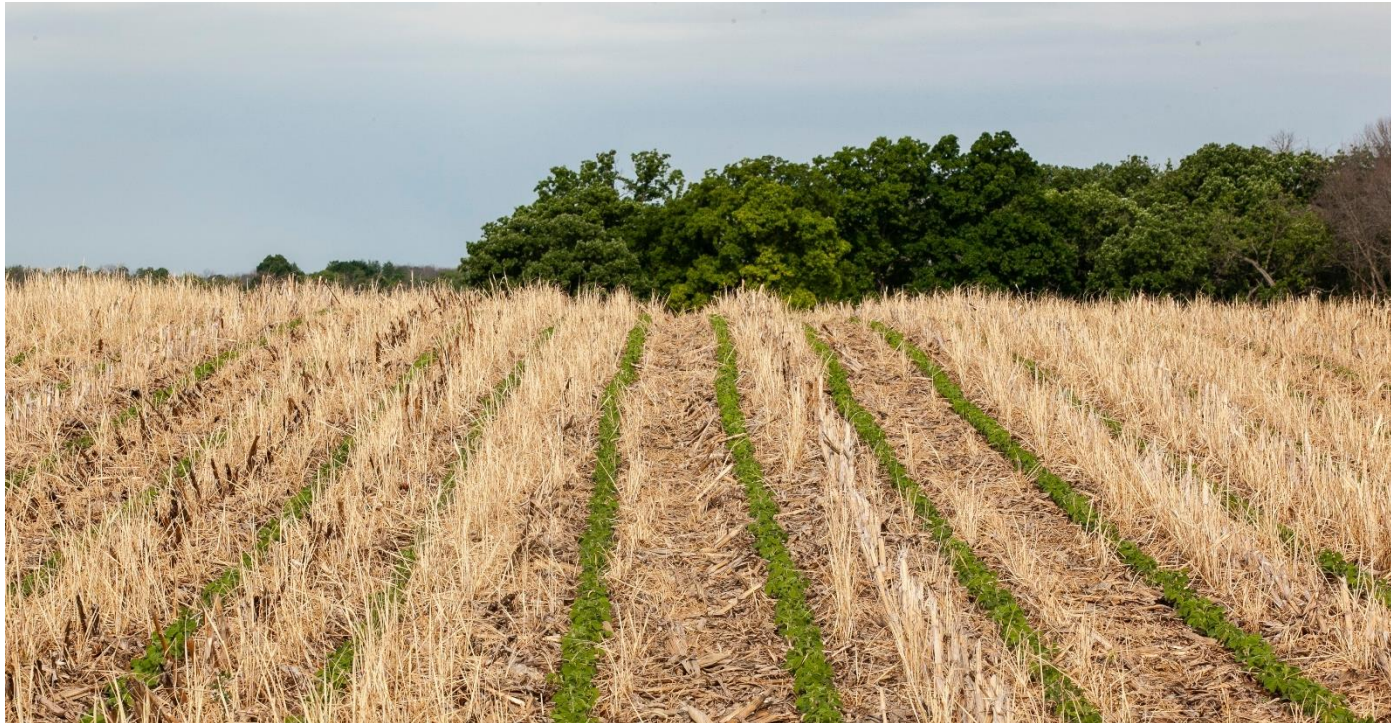
3.3 The EU’s new Soil Law

Soil health plays a key role in regenerative agriculture. While an ambitious piece of legislation is urgently needed to significantly improve the health of European soils, the Commission proposal for a Soil Monitoring Law fails to provide the necessary tools for effective change. The following policy recommendations should be considered when negotiating the Commission proposal:

- **Strengthen the overarching objective:** While the objective of achieving healthy soils by 2050 is only mentioned as a perspective and potential consequence of action, it should be at the heart of the proposal and represent a binding commitment.
- **Include legally binding targets:** Such targets are needed to pave the way towards healthy soils by 2050. They should include medium- and long-term targets and targets for priority issues such as restoring soil biodiversity, achieving no-net land take and reducing pesticide residues in soil.
- **Establish effective governance structures:** Reporting by Member States to the Commission should start earlier and should be carried out more frequently. The Soil Law should also require mandatory plans which are essential to ensure action, effective change and accountability. The articles on information to the public and access to justice must be maintained as they are a step in the right direction towards ensuring better enforcement and implementation of the law and promoting environmental democracy.
- **Focus on soil biodiversity:** The proposal must include sufficient and appropriate mandatory soil biodiversity descriptors with criteria for healthy soil condition. The lack of such descriptors is very concerning and such soil health assessment would deliver an incomplete picture of soil status.
- **Make the polluters pay:** Unfortunately, the proposal does not include concrete mechanisms to apply the polluter pays principle. The law should ensure that big players whose activities degrade soil are held accountable and contribute financially to soil monitoring and restoration.
- **Clean up soil pollution:** The Commission has opted for a risk-based approach to contaminated sites with a lot of flexibility for Member States. However, to adequately protect European citizens and the environment, the proposal should set science based mandatory thresholds for a list of key pollutants. The proposal should also address the issue of diffuse pollution, including by setting mandatory thresholds and targets for pesticide residues.



These elements would allow to transform the Commission proposal for a Soil Monitoring Law into a piece of legislation capable to bring about effective change in the agricultural sector. Together with a swift and effective implementation, an ambitious Soil Law can set the EU on the pathway towards healthy soils by 2050.



3.3 The Polluter Pays Principle in agriculture

A key recommendation of the European Court of Auditors (ECA) in their 2021 report on climate action in the EU agriculture sector¹⁸ was that the EU should improve the way in which the polluter-pays principle (PPP) is applied in this sector. This has led the European Commission to explore pricing mechanisms on GHG emissions from agriculture, in particular focusing on Emissions Trading Schemes (ETS). While this appears at first sight like a step in the right direction, caution is necessary in how such mechanisms are designed to ensure their effectiveness and avoid trade-offs in a complex sector such as farming. While it is beyond the scope of this project to formulate detailed proposals for a PPP scheme in agriculture, the following recommendations draw from the learnings gathered during the project and aim to contribute to the emerging debate:

- **Remove all harmful subsidies first:** The first priority should be to end environmentally harmful subsidies, which will remove continuing incentives for polluting activities (e.g. intensive livestock rearing) or for the overuse of natural resources (e.g. subsidies for unsustainable irrigation). Failing to do so before introducing a mechanism to apply the PPP would be completely incoherent, would reduce the effectiveness of the mechanism, and could even have distortive impacts between farmers on the common market.
- **Do not reduce the PPP to 'pollution pricing':** In its report, the ECA suggested that the PPP can be implemented (for climate purposes) as: "bans or limits on greenhouse gas emissions, or by carbon pricing (for example, by means of a carbon tax or a cap-and-trade system)." This is, rightly, a much broader translation of the PPP than a mere "the polluter pays off a right to pollute" interpretation. The EEB



further defines this principle¹⁹ as “making the polluter monitor, reduce, remediate and prevent pollution and provide a legal recourse for justice, enforcement and compensation for environmental and health damages.” In this light, pricing agricultural emissions through a tax or market-based mechanism may be a useful tool to reduce these emissions but it is not sufficient and must be complemented by other policy instruments, including binding targets specific to the agriculture sector and an overhaul of the EU’s agricultural policy.

- **Consider all environmental impacts (and benefits):** Regenerative Agriculture can deliver significant climate mitigation benefits and could therefore be promoted through emissions pricing and other instruments implementing the PPP in agriculture. However, in some cases further intensification can deliver similar emissions cuts without the wider environmental (biodiversity, soil health, resilience, etc) benefits provided by Regenerative Agriculture when it is implemented holistically and ambitiously. PPP instruments should therefore recognise and address the wider environmental impacts of the agriculture sector (e.g. water use, nitrogen balance) as well as environmental benefits of more sustainable farming models (e.g. biodiversity). This will be particularly important to avoid penalising more extensive animal rearing models which tend to be less GHG efficient but cause less environmental damage than intensive systems and may even provide crucial environmental benefits.
- **Do not equate emissions allowances with sequestration credits:** Despite progress in monitoring capacities and in our knowledge of carbon sequestration processes, soil and climate scientists remain unequivocal about the non-equivalence of carbon sequestration with reducing GHG emissions²⁰. Furthermore, the Intergovernmental Panel on Climate Change (IPCC) warned that in order to meet the commitments of the Paris Agreement, we cannot afford to choose between cutting emissions and increasing carbon sinks, both must be pursued at the highest speed and scale possible²¹. Any market-based mechanism for pricing GHG emissions, such as an Emissions Trading Scheme, should therefore treat emissions reductions and carbon sequestration separately and consider them non-fungible, to ensure progress on both fronts simultaneously.
- **Build on what is already there:** Emissions pricing could be implemented in many different ways, with varying levels of political and administrative feasibility. Given the urgency of acting on agricultural GHG emissions and unlocking a transition to Regenerative Agriculture, a pragmatic approach building on existing instruments seems advisable. This could be done for example by expanding the scope of the EU’s existing ETS to integrate methane and nitrous oxide emissions from agriculture by making up- and/or downstream actors liable for these emissions linked to their activities. As some of these actors are already covered by the ETS for their direct carbon dioxide emissions (e.g. fertiliser manufacturers, slaughterhouses, and dairy processors), this would strongly reduce administrative burden while also engaging bigger players in food value chains than individual farmers. Alternatively, a less centralised approach could be to require Member States to put in place an emissions taxation system, as some (e.g. Denmark) are already doing.
- **Re-invest revenues into the farming sector:** Whatever the concrete design of an emissions pricing instrument, it will be key for its acceptability among farmers as well as to maximise its impact that the revenues collected are re-invested in the sector to support the transition to climate- and nature-friendly Regenerative Agriculture. This could be done by creating a dedicated fund aimed at supporting farmers in the transition period to organic or regenerative farming models, financing carbon sequestration projects, compensating intensive livestock farmers who decide to retire and close down their business, or subsidising Regenerative Agriculture trainings, for example.



4 Conclusions

Nearly three years since the start of the AgriCaptureCO₂ project and just over two years since our first Policy Report, a lot has changed in the policy and legislative contexts for Regenerative Agriculture in the EU and UK, but a lot more remains to be done. In the EU, the European Green Deal breathed in a wind of change that brought many crucial new legislative developments and revisions of existing ones. However, this wind started turning in 2023, bringing much uncertainty about the future political willingness to challenge the status quo and drive change through policy and regulatory instruments. In the UK, the overhaul of the agricultural and environmental policy landscape post-Brexit has delivered promising innovations on some fronts but fallen short on others.

Throughout this period, AgriCaptureCO₂ partners – in particular GWCT and the EEB – have played a key role in engaging policymakers and pushing for an enabling policy framework for the large-scale uptake of Regenerative Agriculture in the EU and the UK. Through participation in expert groups, bilateral meetings, speaking engagements at external events, and informal exchanges in various contexts, the insights and recommendations of AgriCaptureCO₂'s 2021 Policy Report have been shared and discussed with policy-makers and other policy stakeholders, achieving greater awareness of the potential of the agriculture sector to contribute to climate action while also delivering benefits for nature, soils and farmers.

While the road ahead remains long, it is clear that change is happening, as demonstrated by the strong interest of many farmers in the potential of Regenerative Agriculture. The key question is: how far will decision-makers be willing to go in driving this change proactively? Should the will be there, we hope that this report provides useful suggestions for the way forward.



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