Scaling the Circular Bioeconomy: Unlocking Regenerative Agri-Food Systems

Regenerative agriculture offers a pathway to transform our agri-food system: strengthening supply chain resilience, supporting farmer livelihoods and regenerating the landscapes on which all food production depends. **This transition is no longer a matter of corporate sustainability strategy – it is an economic and food security imperative.**

Informed by the Circular Bioeconomy Alliance's (CBA) Roundtable on Regenerative Agri-Food Systems, the paper outlines five promising steps to accelerate the transition and the key barriers they address.

Understanding Regenerative Agri-Food Systems

The global agri-food system's contribution to climate change and biodiversity loss is immense, and its industries are some of the most adversely affected by these ecological crises. Responsible for around 30% of the total anthropogenic greenhouse gas emissions and linked to 80-90% of global biodiversity loss, agri-food systems are also a main victim of climate change and biodiversity loss. It is estimated that Europe's agricultural sector is losing about 28 billion euros per year due to the increasing impacts of climate change – losses that could double in the next 2-3 decades.

But these are not the only challenges that agri-food companies and farmers are facing. Consumers are demanding healthier, traceable, more affordable, and more sustainably grown food. At the same time, we have entered a new era of geopolitics: political instability, conflicts and trade wars are destabilizing global food markets and creating higher and more volatile input costs – for example, global fertilizer prices are expected to increase by 31% in 2026.

These shocks lay bare the fragility of input-dependent food systems, making a regenerative transition not just a climate imperative, but a necessity for food security and affordability. The Intergovernmental Panel on Climate Change is clear that achieving climate goals and improving global food security by 2050 requires improving land management and shifting diets toward lower-emission foods.

> **Regenerative agriculture is a holistic approach that aims to regenerate and restore the health, resilience and long-term productivity of soil and wider socio-ecological system, and support farmer livelihoods**. It employs techniques and practices that promote the reduction of synthetic chemical inputs and physical disturbance, focusing on building soil health, increasing biodiversity, enhancing natural carbon sinks, and in turn increasing the resilience of farms and value chains to extreme weather and climate events.

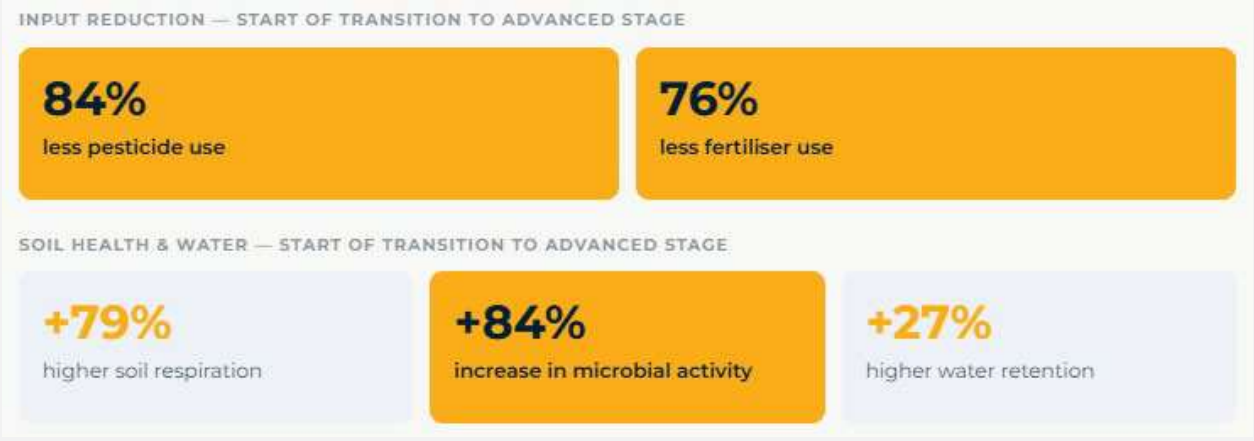
While there is no broadly agreed-upon definition of regenerative agriculture, common to all definitions is the idea that **regenerative agriculture is not a one-size fits-all approach**. Rather, it is a context-specific journey that depends for its specific implementation on the type and condition of the soil, the local ecosystem and microclimate, the crops to be grown, but also on local social, economic and cultural factors. Regenerative agriculture is a process that requires continuous learning, data collection and on-farm innovation. And this less prescriptive, outcomes-based

approach is why many consider regenerative agriculture a much more attractive proposition for farmers.

EVIDENCE: REGENERATIVE TRANSITION IN PRACTICE

The European Alliance for Regenerative Agriculture's (EARA) farmer-led research across 78 pioneering farms in 14 countries (2021–2023) shows regenerative farmers achieve comparable yields with significantly lower inputs, stronger margins, enhanced resilience and better ecological outcomes than conventional peers.

Regenified uses a five-tier certification system to track a farm's progress in regenerative land management – from tier 1 at the start of transition to tier 5 where 100% of the farm is managed on regenerative principles. Data from farms certified across this system shows the following improvements:



Source: Infographic created using data from EARA (2025). Farmer-led Research on Europe's Full Productivity and with data from Regenified's forthcoming publication (2026)

Suggested Actions and Promising Solutions

The following actions to scale regenerative-agri food systems were identified through the CBA's roundtable, pre-event survey and consultation.

1. Invest in knowledge, education and peer learning

The advisory gap at farm level is critical and underserved. Investment in trusted, independent agronomic expertise – advisors not tied to input sales, and able to provide timely, context-specific guidance – is essential to accelerating adoption. Peer-to-peer learning through farmer clusters and networks is one of the most effective and cost-efficient tools available, and should be actively and

collectively funded by buyers and investors. Getting farmers to the farm – to see what is working in practice – remains one of the most powerful conversion tools available.

EXAMPLES

Waitrose's 'Farming for Nature' programme supports independent advisory services and peer-to-peer workshops for 20,000 farms, investing in knowledge-sharing as a primary mechanism – alongside long-term contracts – for supporting farmers through the transition.

CBA Living Lab 1.0: The **Apulia Regenerative Cotton Project** was launched in June 2023 to introduce agroforestry-based cotton production in Italy. T-shirts are available in flagship stores crafted from Regenagri-certified cotton, with a Digital Product Passport (DPP) highlighting traceability across the entire regenerative supply chain – a practical blueprint for end-to-end transparent value chains.

2. Align financial support with the transition

Lenders and investors should incorporate natural capital metrics into standard credit assessment and underwriting – as economic decision-useful inputs, not optional add-ons. Financial products need to reflect the specific risk profile of transition: front-loaded costs and early yield volatility, followed by long-term resilience gains that current frameworks do not capture. Reframing regenerative agriculture as critical economic infrastructure opens the asset class to patient capital and a wider set of stakeholders who depend on functioning landscapes. Public-private blended structures and landscape-scale insurance products offer practical routes forward. Ultimately, capital markets need to remain flexible and nimble – developing the products and services needed to support the transition at scale.

EXAMPLES

Crédit Agricole has established dedicated transition funds to support farmers through the early stages of regenerative transition, including a multi-million euro debt envelope for potato farmers in France with McCain.

Royal London Asset Management acquired a £260 million UK farmland asset that will employ sustainable and regenerative farming techniques, signalling that institutional investors are beginning to treat regenerative land management as a viable long-term asset class.

LENs operates across ten landscapes in the UK, Europe and Australia, co-funding regenerative transitions across multiple landholders simultaneously – demonstrating how landscape-scale co-investment can aggregate and distribute transition risk in practice.

3. Commit to long-term offtake and procurement models

Long-term offtake agreements that incentivize regenerative agriculture are the single most powerful lever available to buyers. They send a credible market signal to farmers and investors alike – that demand is permanent, at scale and shifting in one direction. Buyers should explore committing to three-to-five-year supply arrangements as a starting point, with a clear trajectory toward longer horizons.

EXAMPLES

Nestlé supports agricultural suppliers in transitioning to regenerative methods through multi-year procurement arrangements that offer long-term stability.

Silver Fern Farms has established five-year **Nature Positive Partnerships** with its supplier farms to incentivize investment in native biodiversity, and on-farm carbon sequestration. The company has scaled the New Zealand Farm Assurance Programme Plus (NZFAP+) across its farms – a national standard supporting farmers to improve environmental, social and biosecurity management.

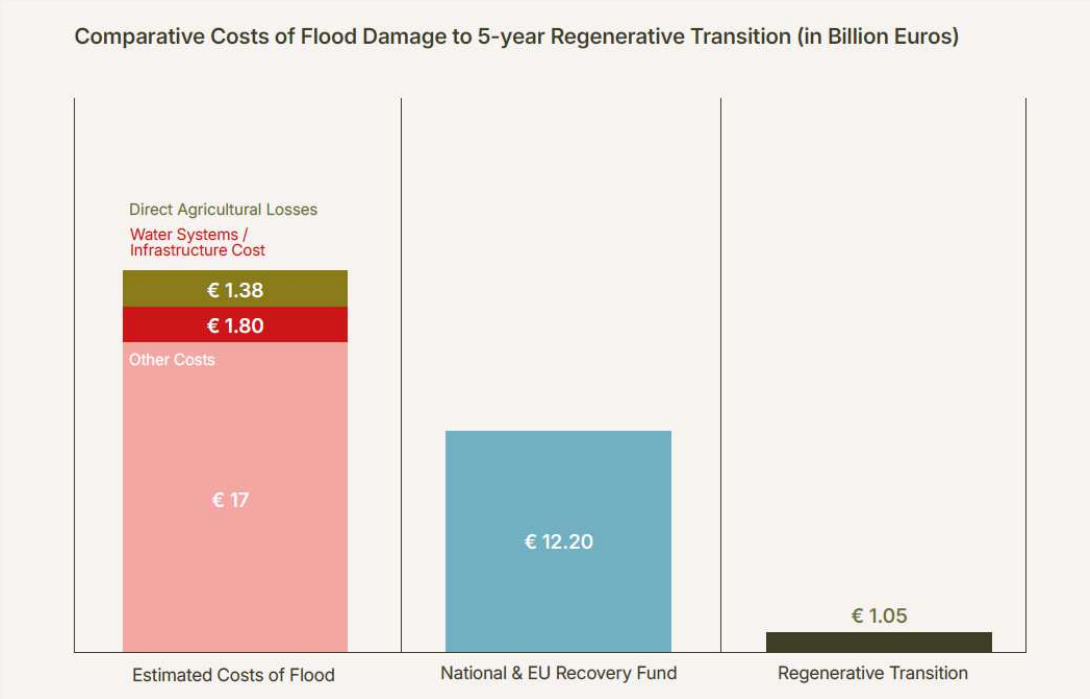
Levy is using its position as a large buyer to create demand for regenerative produce through procurement choices, prioritising British and regenerative suppliers including Wildfarmed flour and regenerative rapeseed oil.

4. Reframe the narrative

The most important strategic shift may be a communications one. There is a growing evidence base articulating the benefits of a regenerative transition. The challenge now is to ensure that evidence reaches the right audiences. This includes amplifying the voices of farmers who have made the transition and are thriving and moving firmly away from a cliff-edge framing toward one of opportunity and resilience. For investors and procurement teams, this means supply chain resilience and input cost reduction. For consumers, it means the convergence of planetary health and personal health: the growing demand for cleaner, higher-protein, higher-fibre, more traceable food is a powerful demand-side driver.

EVIDENCE: REGENERATING AGAINST SYSTEMIC RISK

A 2026 case study by EARA of the Valencia watershed – where the October 2024 floods caused over 230 fatalities and €30 billion in damages – found that a full transition to regenerative agriculture across affected farmland could **mitigate nearly 60% of similar flood impacts**, reducing surface runoff by up to 50% and significantly limiting mudslides and erosion. **A full transition is estimated to be achievable within four to six years at less than 5% of the cost of the flood damage** – and only 8.5% of the committed recovery fund.



Source: EARA (2026). Regenerating Systemic Risk: A Case Study in the Valencia Watershed on the Impact Potential of Regenerative Agriculture.

5. Strengthen shared methods and frameworks for a science-based transition

As regenerative agriculture moves from early adoption toward the mainstream, the credibility of regenerative claims depends on rigorous science-based, independent evidence. A range of approaches are being explored including: 1) harmonising a shared, outcome-based framework and 2) establishing a minimum credible standard that protects the meaning of regenerative

without prescribing how farmers work. Considerable work is already underway across the sector, and building on existing initiatives is key to accelerate the transition in a transparent and collective way. In both cases, the principle that farmers should be at the core is necessary for its successful implementation.

EXAMPLES

Regen10 is a global multi-stakeholder initiative working to support an inclusive, regenerative and equitable food systems transition. The 2026 Regen10 Outcomes Framework is the first globally co-developed reference for what regenerative agriculture can and should deliver across farms and wider landscape systems.

Regen Compass V1 represents a foundational, farmer-led effort to map and evaluate the complex landscape of frameworks, certifications, and claims related to regenerative agriculture globally.

Regenified is a certification organisation that uses a 6-3-4 verification standard that looks at soil health, adaptive stewardship and ecosystem processes to understand regenerative agriculture.

SAI Platform offers a global industry-aligned framework that works with over 190 food and beverage businesses to verify sustainable practices across diverse, international supply chains.

Key Barriers

The actions noted above are aimed at addressing the following key barriers and challenges.

1. **The knowledge, advisory and capacity gap.** There is a shortage of trusted, independent agronomic expertise at the farm level – advisors who are not tied to input sales and who can provide timely, context-specific guidance. Farmers have historically been prescribed to, rather than empowered. Peer-to-peer learning through farmer clusters and networks is beginning to fill this gap but could be better supported and funded at scale. Building an evidence and education base to understand regenerative principles and outcomes will also benefit from progress toward shared harmonised frameworks.
2. **Lack of understanding of the real transition risks.** While the evidence increasingly shows that transition timelines are shorter and yield volatility lower than commonly assumed, farmers still bear a disproportionate share of the uncertainty in the early years. Lending and insurance markets continue to price regenerative models as higher-risk than the evidence warrants, denying farmers access to the financial safety nets and specialised capital they need to manage the transition period with confidence.
3. **The lack of long-term offtake and investment security.** Even where the on-farm economics are sound, farmers and supply chain operators need security of demand. Corporate procurement structures remain misaligned: leadership teams understand the case for longer-term commitments, while procurement functions are incentivised to optimise on price and flexibility. Without a credible, permanent demand signal from buyers, it is difficult to unlock the investment needed – or to give farmers the confidence to commit to the transition.
4. **The framing challenge: risk, language and narrative.** The dominant narrative around regenerative agriculture remains risk-focused, and the positive economic and social case is insufficiently articulated. Language matters too: terms like 'regenerative' can be divisive and complicated, while 'nature-friendly', 'nature-positive' or 'resilience' tend to resonate better with a range of audiences. At the same time, there is a powerful – and underexploited – convergence between the story of planetary health and the growing consumer drive for healthier, cleaner, higher-quality food.
5. **Complex and fragmented value chains.** An overarching system design flaw is that many agri-food supply chains have been built around monocultural production systems,

optimised for volume and price consistency – ecologically simplified but commercially complex. They are not designed to recognise or transmit the value that regenerative practices create. Regenerative agriculture requires something different: more biological diversity in the landscape, and supply chains that are more direct and fully traceable, so that regenerative outcomes can be verified, rewarded and communicated with confidence. Supply chains for vegetables, grains and animal proteins are often highly fragmented and require collective action from landscape to supply-chain level.

Next Steps

We will not scale regenerative agri-food systems alone. Following the roundtable, the CBA is moving swiftly on three fronts:

1. **Building coordinated market commitment.** In collaboration with key participants, the CBA is developing a proposal to bring together committed buyers and retailers to create long-term demand for regenerative agriculture.
2. **Living Labs for challenging value chains.** The CBA is exploring the co-development of dedicated Living Labs focused on value chains where the transition is most needed and most complex in UK, Europe and beyond. These would support to the growing evidence base and support capacity building on the ground.
3. **Further convenings.** The CBA will continue to convene leading actors from across the value chain to catalyse action.

The economic case is clear. The evidence is building. The CBA is ready to play its role as a convening, enabling platform. For more information and to join this collaborative effort, please contact info@circularbioeconomyalliance.org.

This paper is informed by the Roundtable on Regenerative Agri-Food Systems, convened by the Circular Bioeconomy Alliance (CBA) and hosted at Windsor Castle on 15 May 2026, followed by a reception with His Majesty King Charles III.

Photo: Fergus Burnett

We would like to thank the following organisations for their participation and engagement:

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