

SCALING REGENERATIVE AGRICULTURE

This document is issued by Climate Asset Management Limited, (UK Company No. 12840064) with registered office at 3 More London Riverside, London SE1 2AQ, United Kingdom, ("Climate Asset Management"). Climate Asset Management is authorised and regulated by the Financial Conduct Authority ("FCA") under FCA registration number 944222. All views expressed were held at the time of preparation and are subject to change without notice. The material contained herein is for information only and does not constitute legal, tax or investment advice or a recommendation to any reader of this material to buy or sell investments.



The Need and the Barriers

Introduction

The past century has witnessed remarkable progress for humanity in terms of longer lifespans, improved health, and overall prosperity. However, this progress has been heavily dependent on the natural world and its resources, which sustain us in various ways, including food, air, and recreation. Regrettably the biosphere has significantly declined over the same period, with current species extinction rates 100 to 1,000 times higher than the background rate observed over millions of years. This acceleration is often attributed to negative impacts from agriculture and land use changes.

Food systems, which dominate land use, are the leading cause of nature loss, significant freshwater consumption, deforestation (accounting for 80%), and a fifth of global greenhouse gas (GHG) emissions. Conventional industrial land management has prioritized near term production efficiencies at the expense of biodiversity and soil health, posing challenges for sustaining food production amidst a rapidly growing population and increasing climate and weather volatility.

As a result, there is a growing urgency to shift global agriculture from degenerative practices to

regenerative approaches to reverse the degradation of biodiversity and soil fertility.

At Climate Asset Management (CAM), we believe that a restorative and regenerative approach to agricultural production is fundamental to ensure the economic and environmental resilience of future food systems. Being 'sustainable' is no longer enough - 38% of global agricultural land is already affected by degradation. We need to improve agricultural practices to reverse the damage caused by historic agricultural practices rather than simply making current practices sustainable¹. Delivering resilient agrifood systems which are net zero and contribute to the nature positive transition is at the heart of our investment philosophy.

Climate Asset Management's Natural Capital strategy aims to restore working lands and other nature-based real assets through holistic land use and land management changes with the objective of delivering investors measurable positive environmental and social outcomes alongside commercial risk-adjusted financial returns. The strategy invests in agriculture, forestry and other nature-based assets providing payments for ecosystem services (PES, e.g. carbon, biodiversity).

What is Regenerative Agriculture?

There is a wide range of definitions of “regenerative agriculture”. Unlike organic certification, which has a prescriptive set of rules together with agreed certification and audit processes, regenerative agriculture relies on adherence to a broad set of principles. An over-arching definition might be “a system of principles and practices that generates agricultural products, sequesters carbon, improves soil health and enhances biodiversity at the farm scale”. At its heart, regardless of the definition, it means the soil is covered (“soil armor”), with living roots in the soil for as much of the year as possible to keep the soil alive and feed microbial activity. Other important practices associated with regenerative agriculture include minimising soil disturbance / tillage, using diverse crop rotations and cover crops, encouraging plant and microbial diversity, improving water percolation, and, where appropriate, integrating on-farm livestock ^{2,3}.

Regenerative agriculture is the only way to decarbonise the food system and simultaneously to make farming more resilient to climate shocks. However, despite heightened levels of interest, regenerative farming is not scaling fast enough. To limit climate change to 1.5° degrees in accordance with goals of the Paris Agreement, the adoption of regenerative agriculture needs to grow by a factor of three to reach c.40% of global cropland. On this scale of cropland, regenerative farming would remove around 600 million tons of emissions, equivalent to the emissions footprint of Germany.

DELIVERING RESILIENT AGRIFOOD SYSTEMS WHICH ARE NET ZERO AND CONTRIBUTE TO THE NATURE POSITIVE TRANSITION IS AT THE HEART OF OUR INVESTMENT PHILOSOPHY.

Even where regenerative practices are gaining traction, implementation remains patchy: according to the USDA, more than one-third of U.S. farmers have implemented no-till cultivation techniques but only five per cent have implemented cover crops⁴ showing that some farmers are ‘cherry picking’ individual elements of a regenerative strategy rather than pursuing holistic implementation.

According to research by the Sustainable Markets Initiative (SMI)⁵ the three main barriers to adoption are:

1. **The short-term economic case is not compelling enough for most farmers** - even the most passionate advocates of regenerative agriculture acknowledge there is a cost to transition and this short term J-Curve is a potential deterrent to more rapid expansion of the adoption of regenerative practices
2. **There is a knowledge gap in how to implement regenerative farming** - many of the current generation of farmers have been schooled in a ‘high input – high output’ approach to agriculture. This has been reinforced by the role of large multinational fertiliser and agrochemical companies, as well as conflicted agronomic advisors who in many geographies also sell chemical inputs. Solid, independent peer-reviewed data on regenerative systems performance is harder to come by than with traditional input use⁶. Improving knowledge/ skills transfer will be critical to breaking down these barriers; and
3. **Drivers in the value chain are not aligned to encourage regenerative farming** - most global food supply chains remain highly commoditized, where decisions around sourcing are largely price-based. If there is little or no pricing or other differentiation from an off-taker to encourage a farmer to produce regenerative products, the rate of adoption of regen practices will be slower.


Regenerative Agriculture at Climate Asset Management

The strategy's core thesis is that we can demonstrate positive environmental and social impact within a commercial agricultural context. Our philosophy is informed by a regenerative approach, aiming to restore historic degradation of land and soils. This involves minimising soil disturbance; maintaining soil armor; keeping soils covered; and promoting crop diversity. While we consider organic production when suitable and economically viable, we prioritize a holistic approach to crop nutrition and protection, where cultural control, alternatives and natural approaches are integrated. Synthetic inputs should be a last resort. Our goal is to reduce pesticide and fertilizer use throughout our operations.

Asset selection and analysis play a crucial role in determining our production approach. For instance,

we have identified a greenfield project in Iberia that might be suitable for organic conversion based on its agroecology and climate. In certain cases, such as high humidity areas for nut crops, synthetic fungicides are currently necessary during flowering and fruit establishment. We tailor our production philosophy to each asset, crop, and supply chain.

We aim to build a mixed portfolio of brownfield and greenfield permanent crop assets. We anticipate this will incorporate regenerative row cropping assets through the investment period. Some of our properties, such as those in Iberia, produce both almonds and olives, and are exploring the integration of additional crops like avocados. When our plantations focus on a single crop type, such as Australian Macadamias, we aim to transform degraded land, negatively impacted by the long-



WE PRIORITIZE A HOLISTIC APPROACH TO CROP NUTRITION AND PROTECTION. WHERE CULTURAL CONTROL, ALTERNATIVES AND NATURAL APPROACHES ARE INTEGRATED. SYNTHETIC INPUTS SHOULD BE A LAST RESORT.

term production of sugar cane in this instance, into a sustainable indigenous perennial crop, making a positive impact on land use change. Many of our Iberian assets were previously used for intensively farmed crops like tobacco, which were heavily supported under the old Common Agricultural Policy.

Cropping diversity is central to our row cropping strategy. Unlike conventional practices that rely on a small number of cash crops like corn and soybeans, where possible we prioritize a more diverse rotation

KEEPING SOIL COVERED, MINIMISING SOIL DISTURBANCE, USING DIVERSE CROP ROTATIONS AND COVER CROPS, ENCOURAGING PLANT AND MICROBIAL DIVERSITY AND IMPROVING WATER PERCOLATION ARE CENTRAL TO OUR REGENERATIVE AGRICULTURE THESIS.

of cereals, oilseeds, and pulses. This brings economic and environmental resilience to our production system.

Our social impact thesis revolves around creating value for communities, including employment opportunities and optimizing synergistic land uses. In Iberia, we actively engage with other land users such as traditional graziers, conservation groups, and hunting groups. In Australia, we aim to collaborate with indigenous communities, on agriculture and conservation initiatives. We have impact targets related to diversity, equity, and inclusion (DEI) for our operating partners.

-
1. The History of Regenerative Agriculture - reNature
 2. [rodale-white-paper.pdf \(rodaleinstitute.org\)](https://rodaleinstitute.org/rodale-white-paper.pdf)
 3. What is Regenerative Agriculture? | The Climate Reality Project
 4. Overcoming the Financial Barriers of Regenerative Agriculture | AgAmerica
 5. Sustainable Markets Initiative (sustainable-markets.org)
 6. 3 missing ingredients for scaling regenerative agriculture | Greenbiz



Conclusion

Regenerative agriculture needs to scale to decarbonise the food system and make farming resilient to climate shocks. However, it will only happen if landowners, farmers and operators are successfully incentivized to manage this transition. Changing agricultural systems and farmer behaviour is the priority since they are key players in the fight against climate change.

An allocation to natural capital with a regenerative agriculture emphasis will:

- target delivery of comparable commercial risk-adjusted returns to traditional landscape-based (farmland and forestry) investment vehicles;
- deliver impact at scale, and demonstrate that delivering impact across biodiversity, climate, water and community targets is aligned with commercial farming objectives;
- support momentum for the regenerative agriculture transition, demonstrating regenerative agriculture best practice at scale; and
- enhance the case for industry-wide change within the landscapes and supply chains in which regenerative agriculture operates.



Carl Atkin-House is Senior Investment Manager in Climate Asset Management's Natural Capital Team, leading on the agriculture component of the strategy which focuses on a broad portfolio of regenerative agriculture, sustainable forestry and environmental assets.

**Climate Asset
Management**[®]

A partnership of  