SAI PLATFORM
20 YEARS

September 2023

REGENERATING TOGETHER

A global framework for regenerative agriculture

Content

01 Background

As the global population increases, dietary patterns change and the climate crisis intensifies, farming is increasingly under threat. Business as usual is not an option moving forward. We urgently need more resilient agricultural systems that address the challenge of food security, regenerate natural resources, minimise environmental stress and ensure secure long-term livelihoods for farmers and farm workers. Regenerative agriculture is proving to be a pathway that could significantly improve the resilience of agricultural supply chains. We can start building upon the important work that is already taking place on farms around the world.

Despite the increasing interest in regenerative agriculture in the last decade, limited action has taken place on the ground and the ambition for regenerative agriculture to drive systemic change across farming systems has yet to materialise at scale. Reasons include the absence of an aligned definition on what regenerative agriculture is and the difficulties in how to address the context specificity of farming. Challenges that arise due to the absence of an agreed definition, include the dilution of the term and in turn loss of credibility through "greenwashing", confusion among consumers with increasing food eco-standards and labels and difficulties developing laws, policies, and funding incentive programmes. In addition to an agreed definition, aligned metrics and technologies for measuring impact and progress over time are crucial for a sector-wide transition towards regenerative agriculture. Furthermore, global frameworks for regenerative agriculture need to be translated into locally applicable implementation plans that consider the socioeconomic and agroecological context of a given farm or farming system.

Together with farmers, industry experts, civil societies, non-governmental organisations, academics, and some of the world's largest food and agriculture brands, the Sustainable Agriculture Initiative Platform (SAI Platform) is leading a global transition towards regenerative agriculture. SAI Platform is uniquely placed to lead this initiative having a proven record of accomplishment in developing industry initiatives that continuously improve sustainability and deliver measurable outcomes in the agriculture sector. In collaboration with these stakeholders, SAI Platform has developed a global framework for regenerative agriculture that has the potential to bring about long-term, systemic change with a positive impact on the environment.

Our common goal is to create a food system embedded in regenerative practices that will regenerate natural ecosystems and improve the quality of farmers' livelihoods. We believe that a globally applicable, yet flexible framework will allow us to translate the often-ambiguous concepts of regenerative agriculture into regenerative agriculture transition plans that are actionable at farm level. By aligning on a definition, impact areas, outcomes, and metrics for regenerative agriculture, we aim to reduce the multiplication of standards and schemes, limit the additional work at the farm- and supply chain level with multiple assessments, and minimise the confusion related to outcome reporting and data collection. This in turn will facilitate the transition of value chains and farming systems to regenerative agriculture, at scale.

SAI Platform's Regenerating Together programme and its global framework for regenerative agriculture allow farmers and farm advisors around the world to assess their most material environmental and production risks, identify outcomes to help mitigate these risks and measure performance against them, and prioritise farm management actions (Figure 1). We believe that these steps are essential to transition towards regenerative agriculture independently of the production systems, agroecological, and socioeconomic context.

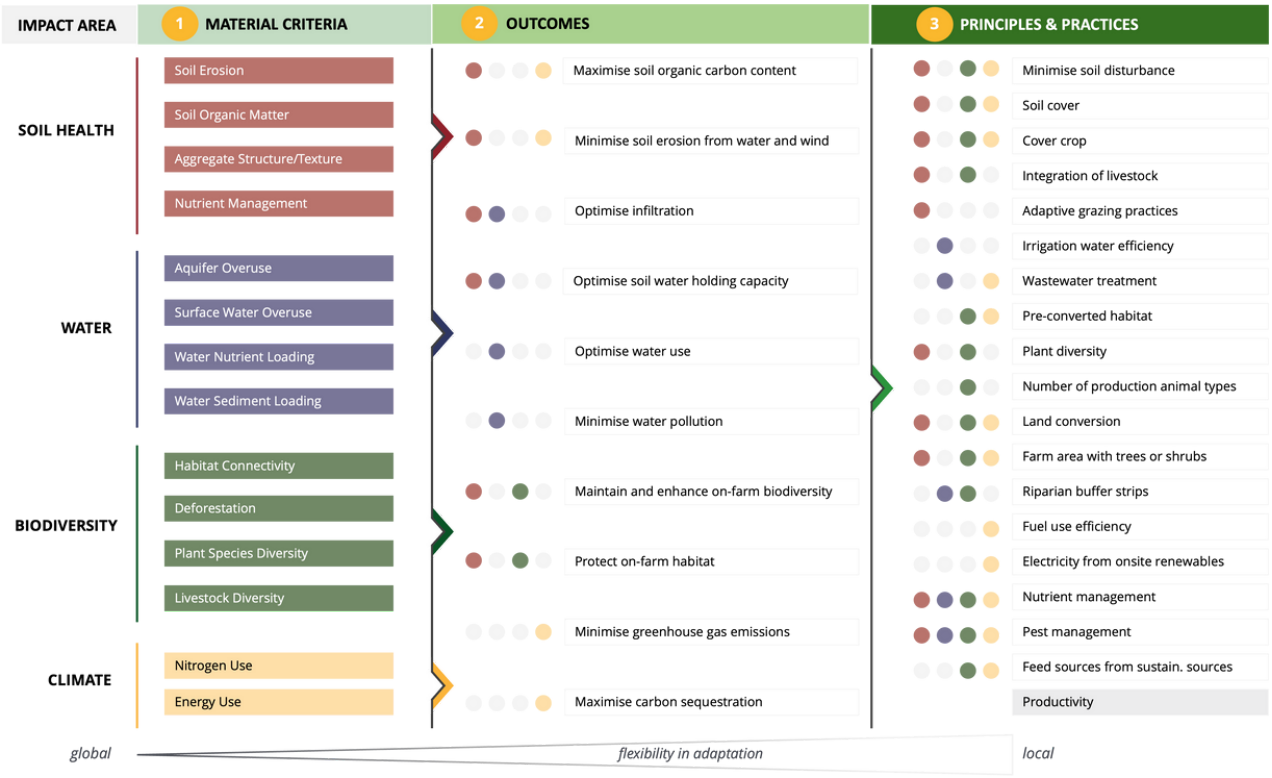

Figure 1: Visualisation of SAI Platform's Regenerating Together global framework for regenerative agriculture.

02 Methodology

Collectively with the programme's 33 founding members (Figure 2), SAI Platform defined design principles for SAI Platform's Regenerating Together global framework for regenerative agriculture. These included i) establishing impact areas that are universally relevant for beef, crops and dairy production systems, ii) focusing on outcomes rather than practices to acknowledge the context-specificity of regenerative agriculture and prioritising the selection and monitoring of outcomes based on the greatest environmental and production risks at farm level, and iii) ensuring that outcome metrics are science-based, meaningful and measurable.

To develop a framework that serves the design criteria as outlined above, SAI Platform engaged in literature and desk research around the definition, outcomes, and progress indicators of regenerative agriculture. Industry programmes and initiatives analysed included Danone, Global Farm Metrics, Nestlé, One Planet Business for Biodiversity, Regenerative Organic Certified, Regen1, Unilever, General Mills, and McCain. In addition, a landscape analysis was conducted in early 2022 mapping additional industry regenerative agriculture frameworks, standards, initiatives, certifications, and farm-level accounting tools. These frameworks were then mapped against SAI Platform's framework's design principles and a foundation was used to identify appropriate impact areas, outcomes, practices, and principles.

SAI Platform led several consultations and focus groups with technical subject matter experts in 2022 to review the definition and initial list of outcomes, practice, and principles. Feedback from farmers, farm advisors and technical advisors on the outcomes, practices and principles was collected during member-led pilots in 2023 in over 20 production systems and across five continents.

Figure 2. SAI Platform's Regenerating Together programme founding members.

03
A Global Regenerative Agriculture Framework

Regenerative agriculture represents a subset of topics within sustainability with a specific focus on the natural environment. SAI Platform's Regenerating Together global framework for regenerative agriculture covers the four impact areas of water, soil, biodiversity, and climate (Table 1).

Impact Area	Definition
Soil Health	An agricultural sector that ensures land use is appropriate given the characteristics of the terrain, maintains soil fertility and health, prevents damage, and provides benefits to the surrounding environment, and, whenever possible, ensures the land acts as a greenhouse gas sink.
Water	An agricultural sector that ensures water resources are optimally managed; water balance is maintained for the catchment, water runoff and pollution is minimised, water is managed for economic benefit, and equitable access to water is assured for all users (human and wildlife).
Biodiversity	An agricultural sector that maintains and enhances the biodiversity of the area as well as surrounding ecosystems, promotes the health of pollinators, ensures diversity of genetic material (commercial and wild), and hinders invasive species.
Climate	An agricultural sector that minimises greenhouse gases and air pollution, acts as a greenhouse gas sink whenever possible, enables adaptations to a changing climate and supports the resiliency of farmers and farming communities.

Table 1: The definition of the four impact areas of SAI Platform's Regenerating Together global framework for regenerative agriculture.

Consequently, SAI Platform defines regenerative agriculture as:

"an outcome-based farming approach that protects and improves soil health, biodiversity, climate, and water resources while supporting farming business development."

An outcome-based definition allows flexibility and context-specificity in the approach to achieve desired outcomes. The definition underlines farmer profitability and crop yield as foundational decision criteria when developing regenerative agriculture transition plans and acknowledges that thriving farm communities and workforces are critical in supporting regenerative outcomes. Defining metrics for livelihoods is both complex and challenging given the context specificity of farming and the existence of different interpretations for social impact criteria. Moving forward, we will work together with relevant stakeholders and experts in the field to determine the best method to include the livelihood and social elements into our framework.

Farms differ significantly in terms of production systems, size, assets, and socioeconomic and agroecological contexts. SAI Platform's Regenerating Together global framework for regenerative agriculture acknowledges the diversity of farming practices and geographies by utilising a risk screening assessment which allows for flexibility in reporting. The impact areas are globally applicable, while practices and principles are locally adaptable.

SAI Platform's Regenerating Together global framework for regenerative agriculture (Figure 1) is applicable to terrestrial systems, including crop and livestock, regardless of farm or ranch size and location. The framework aims to harmonise and ease the assessment, monitoring and verification of farm practices to transition towards regenerative agriculture. The framework can be implemented following four steps, described below in Figure 3.

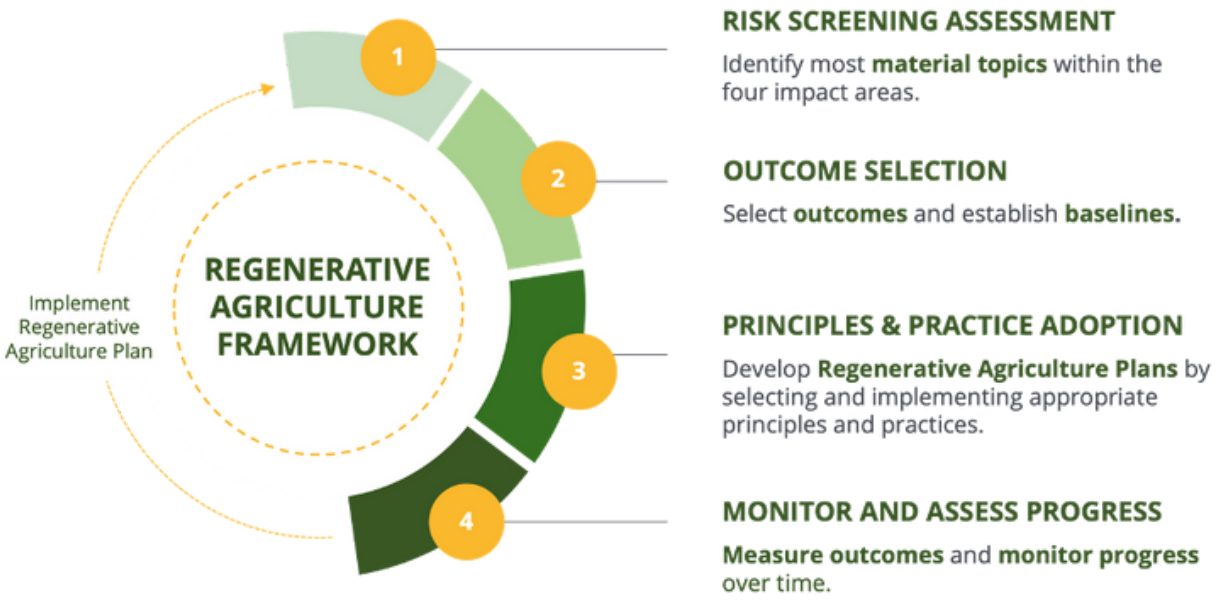

Figure 3. The four-step process to implementing SAI Platform's Regenerating Together global framework for regenerative agriculture.

1. Risk Screening Assessment

The first step of implementing the framework is to identify the most material risks to be mitigated on a farm. The high-level environmental and production risk screening is first conducted at a supplyshed[1] level by a subject matter expert[2] and validated together with the farmer and/or farm advisor at the farm level. Conducting a risk assessment helps farmers and subject matter experts build a shared understanding of risk exposure and supports the development of a management strategy by identifying key outcomes to prioritise actions and reporting performance against.

The risk assessment divides the four impact areas into 14 material criteria (Table 2). These criteria are scored between 1 – 5 against their likelihood of occurrence (frequency) and damage in case of occurrence (severity). Each risk criterion is linked to one or more outcomes (Figure 1).

Impact Area	Material Criteria
Soil Health	Soil Erosion
	Soil Organic Matter
	Aggregate Structure/Texture
	Nutrient Management
Water	Aquifer Overuse
	Surface Water Overuse
	Water Nutrient Loading
	Water Sediment Loading
Biodiversity	Habitat Connectivity
	Deforestation
	Plant Species Diversity
	Livestock Diversity
Climate	Nitrogen Use
	Energy Use

Table 2: The 14 risk criteria evaluated in risk screening assessment of SAI Platform's Regenerating Together global framework for regenerative agriculture.

1 *The supplyshed is a group of farms who together implement SAI Platform's Regenerating Together programme. They can consist of farms in a geographic region with similar production systems (i.e., same most economical crop / livestock).*

2 *The subject matter expert can be an internal or external individual who possesses in-depth expertise in a particular subject related to outcomes and how to assess them to obtain relevant, credible, and accurate data.*

2. Outcome Selection

After identifying material criteria on a farm, outcomes are prioritised. Their baselines are assessed using verified measurement tools. Setting a baseline allows impact to be tracked over time.

Currently, 10 outcomes have been identified as important indicators that serve as measurable proxies to report performance against the four impact areas (Table 3). The outcomes have been selected based on current scientific consensus, empirical evidence, and farm applicability to maximise positive impact on the ground. These outcomes are accompanied by universal metrics, which guide the farmer and farm advisor to report their results and can allow for global comparisons. The exact definition and metrics for some outcomes may be adapted to the local context.

Outcomes	Metrics
Maximise soil organic carbon content	SOC per area
Minimise soil erosion from water and wind	t per area
Optimise infiltration	mm/hr
Optimise available water holding capacity	m^3/m^3
Optimise water use	Blue water withdrawal per unit of production
Minimise water pollution	Total Suspended Solids of bordering water bodies
Maintain and enhance on-farm biodiversity	Total # species
Protect on-farm habitat	% natural or restored habitat
Minimise greenhouse gas emissions	$MTCO_2eq$ per unit of production
Maximise carbon sequestration	$MTCO_2eq$ per area

Table 3: The ten regenerative agriculture outcomes and proposed metrics to measure performance against in SAI Platform's Regenerating Together global framework for regenerative agriculture.

3. Principles and Practices

A regenerative agriculture plan is a continuous improvement plan developed to document farmer decisions and timelines as they address field- and farm-level concerns. This plan is developed by selecting and implementing appropriate principles and practices or management changes to address material risks and work towards improved performance on the selected outcomes. These take the socioeconomic and agroecological viability of farms into account and are co-created by the farmer and their trusted farm advisor or agronomist. The farmer can freely select appropriate practices and principles with the condition that they lead to improved performance on prioritised outcomes. Table 4 provides a list of suggested practices and principles to contribute to improved performance against outcomes. This list is non-exhaustive and will continue to evolve as we collect feedback and evidence on farms.

Practices and Principles	
Minimise soil disturbance	Number of production animal types
Soil cover	Land conversion
Cover crop	Farm area with trees or shrubs
Integration of livestock	Riparian buffer strips
Adaptive grazing practices	Fuel use efficiency
Irrigation water efficiency	Electricity from onsite renewables
Wastewater treatment	Nutrient management
Pre-converted habitat	Pest management
Plant diversity	Feed sources from sustain. sources
Productivity	

Table 4: The list of regenerative agriculture practices and principles as proposed by SAI Platform's Regenerating Together global framework for regenerative agriculture.

4. Monitor and Assess Progress

Outcomes are measured using verified measurement tools, for which validation criteria are provided. Our intention is that performance will be monitored in regular intervals over time and will follow a context-specific sampling and verification protocol that can be audited. The purpose of an audit is to validate that the framework has been implemented correctly and that the results are accurate. Based on verification, claims can be made to report on impact.

04
Regenerative Agriculture Farm Criteria

SAI Platform acknowledges regenerative agriculture is a continuous improvement journey. Capturing the various levels of farmer engagement, the following categories have been defined (Figure 4).

Figure 4: SAI Platform's proposed criteria for engaged and regenerative farms.

To be considered an **Engaged Regenerative Farm**, the farm follows the first three steps of the framework implementation, i.e., first conducts the Risk Screening Assessment and identifies the primary risk criteria in a production area. Thereafter, the farm selects appropriate outcomes to report performance against the most material risk criteria in at least two impact areas. This includes assessing the baseline of the outcomes. Once outcomes are selected, practices and principles that improve the performance of selected outcomes are chosen and implemented. We are aware that many farms across the world are already advanced in their journey towards regenerative agriculture. SAI Platform's Regenerating Together global framework for regenerative agriculture therefore counts already adopted practices against the eligibility criteria for an engaged farm.

To be considered a **Regenerative Farm**, the farm has completed the 'engaged' requisites and reports on improved performance against outcomes in at least two impact areas. The time requirement to implement practices and demonstrate improved performance will both depend on the outcomes selected and the context of a farm operation. The level of improvement will be context-specific and will be set at a local level by agronomists and/or technical subject matter experts and can be externally verified.

05
Framework Outlook

SAI Platform's global framework for regenerative agriculture proposes a process to translate the ambiguous concepts of regenerative agriculture into action on the ground. Doing so, we acknowledge that regenerative agriculture is a dynamic paradigm, and ideas are still developing about improving yields and protecting ecosystems. As more scientific discoveries and empirical evidence emerge, and we encounter promising innovations and draw on research and development data, SAI Platform's Regenerating Together programme will be refined and recalibrated.

By implementing SAI Platform's Regenerating Together global framework for regenerative agriculture and collecting first-hand data from farmers and farm advisors engaged with our members, we aim to continuously learn, adapt and illustrate regenerative farms and value chains at scale. The hereby presented framework is hence intended to serve as a basis to engage with farming communities, academia, and organizations in the food, feed, and fibre sectors to continuously improve, adapt and implement regenerative agriculture to ensure we translate the momentum we have today into action on the ground.

If you have questions or feedback on SAI Platform's Regenerating Together global framework for regenerative agriculture, get in touch:
RegenAg@saiplatform.org

To get more information about SAI Platform's Regenerating Together programme, visit our website:
https://saiplatform.org/regenerative-agriculture-programme/

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