reforestACTION

REGENERATIVE AGRICULTURE

A strategic Asset for your Company

5 KEY TAKEAWAYS

Explore How and Why to Incorporate Regenerative Agriculture into Your Production Model

PURPOSE OF THIS WHITE PAPER?

Does your business rely on natural resources? Structured in five key sections, this white paper offers a comprehensive overview of why transitioning to agroecology is essential for sustaining your operations and creating added value.

Agribusiness is one of the sectors with the greatest environmental impact and is also highly vulnerable to climate-related risks. To address emerging environmental, social, economic, and regulatory challenges, it's become crucial to adapt agricultural practices now.

Regenerative agriculture is a nature-based solution tailored for any company that relies on raw materials derived from the natural world.

THE BASIS OF REGENERATIVE AGRICULTURE

Who is it for?

Regenerative agriculture is a practical solution for any company that relies on natural raw materials — whether animal or plant-based — and wants to make its supply chain more sustainable. This approach is beneficial across various industries, including textiles and food production.

With the pressures from shifting to new production models, regenerative agriculture stands out as an effective nature-based solution[1]. It helps secure raw material supplies, creates measurable positive impacts on natural resources, meets regulatory standards, and strengthens brand value.

What is it?

Regenerative agriculture offers a sustainable alternative for farms and livestock operations that rely on conventional methods. This approach doesn't just extract resources — it works in harmony with natural ecosystems to produce responsibly, all while preserving profitability.

Falling within the broader field of "agroecology", regenerative agriculture builds on principles shared by organic farming and soil conservation. However, it takes things a step further, looking at the entire operation — from individual fields to the wider landscape. This holistic method delivers direct, positive impacts on climate, soil health and fertility, water cycles, biodiversity, and overall human well-being.

[1]Nature-Based Solution (NBS)

What does this look like in the field?

Launching a regenerative agriculture project means developing customized practices that fit seamlessly into a company's supply chain, whether on its own farmland or that of its suppliers. This approach involves hands-on work in the field, implementing regenerative methods in close partnership with farmers.

Each practice is adapted to local conditions, designed to build resilient and stable agricultural ecosystems while ensuring that farms remain economically viable through the transition.

3 MAIN PRACTICES

Each of these practices creates distinct, positive impacts across the entire agricultural ecosystem. When used together, their combined strengths enable holistic projects that drive meaningful value for businesses.

Agroforestry

or integrating trees into farming systems, is a major aspect of regenerative agriculture. This approach varies in form but always centers on adding or managing trees and shrubs along field borders or within crop fields.

Soil health

Maintaining healthy soil involves two key strategies: reducing tillage and keeping cover crops between planting cycles. These practices help enrich the soil — a fundamental goal in regenerative agriculture. By increasing organic matter and protecting the soil's micro- and macro-organisms, we can support more efficient and productive farming.

Crop rotation and diversity

Effective crop management relies on rotating and diversifying crops within the same field. Ideally, this means planting complementary crops that draw different nutrients, which helps maximize soil nutrient availability and overall health

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Discover why and how to integrate regenerative agriculture into your production model

1 ANTICIPATING RISKS

ENVIRONMENTAL RISKS OF **CONVENTIONAL AGRICULTURE**

The rapid expansion of agricultural areas and unsustainable management of farmland and pastures are the primary drivers of ecosystem degradation (soil depletion, erosion, desertification, etc.), biodiversity loss, and the collapse of global food security.

The conventional or "intensive" agricultural model is under significant strain, reflecting the limits of the resources it relies upon.

Conventional agriculture: an unsustainable model

•Accelerating climate change

According to IPCC[1], in 2019, around 22% of global greenhouse gas (GHG) emissions originated from agriculture, forestry, and other land use (AFOLU). This makes it the second-largest source of emissions, behind the energy sector. To meet the Paris Agreement targets and keep global warming below 1.5°C, the agricultural sector needs to cut its emissions by 80%[2].

•Biodiversity loss and habitat disruption

The FAO[3], estimates that agricultural expansion accounts for nearly 90% of global deforestation, with 40% attributed to grazing activities alone. Converting land for agriculture destroys countless habitats and species. Additionally, intensive farming practices degrade the microorganisms that maintain natural soil fertility and pollute natural ecosystems for decades. The annual cost of declining soil biodiversity and its ecosystem services is estimated at 10% of global GDP[4].

•Soil degradation and water resource strain

Over 1/3[4] of the Earth's surface is now dedicated to agriculture or livestock. These activities have progressively depleted soils through tillage, excessive chemical use, and continuous monocropping. Once cleared, land becomes highly susceptible to erosion. This degradation has resulted in a 23% la productivité de l'ensemble de la surface terrestre. Meanwhile, almost 75% of freshwater resources are used for agricultural purposes, while a quarter[5] of the world's population lives in water-stressed countries (less than 1,700 cubic meters of water per person per year).

•Deterioration of farmers' living conditions

Challenges related to the difficult socio-economic conditions in agriculture vary by region. In Europe, farmers face a declining sector, leading to a widespread crisis. In tropical regions, adapting sustainable agricultural practices has become essential to ensuring food security for local populations. Across all regions, farmers play a vital role in the agroecological transition, but the lack of resources remains a major barrier to the large-scale adoption of regenerative practices.

[1]6th Assessment Report (AR6) Synthesis Report, Intergovernmental Panel on Climate Change (IPCC), 2023
[2]McKinsey & Company, The agricultural transition: Building a sustainable future, June 27, 2023
[3]FRA 2020 Remote Sensing Survey, Food and Agriculture Organization of the United Nations
[4]Global Assessment on Biodiversity and Ecosystem Services, IPBES, 2019
[5]WRI's Aqueduct Water Risk Atlas

ECONOMIC RISKS OF **CLIMATE INACTION**

Globally, the challenges are already clear: climate events are threatening production, Europe's agricultural model is in crisis, and water stress is on the rise. Land-dependent industries need to act now to reshape their production systems and ensure long-term resilience against the impacts of climate change.

Understanding how businesses rely on natural ecosystems is the first step toward building a risk management strategy and uncovering new opportunities.

UNDERSTANDING THE CONNECTIONS BETWEEN ECONOMIC ACTIVITIES AND NATURAL ECOSYSTEMS

The **163** industry sectors analysed depend highly on nature.

55 % of global GDP —equivalent to approximately $58 trillion—is moderately or highly exposed to nature-related risks without immediate action[1].

[1]A PwC publication, Managing nature risks: From understanding to action, 2023

The economic vulnerability of agricultural supply chains

•Identified risks for businesses

Farmers, cooperatives, traders, industrial groups, and nature-based enterprises must recognize that risks are indeed real. According to the Global Risks Report 2024 by the World Economic Forum (WEF)[1] , four out of the five most severe risks identified by businesses for the next decade are environmental. Ranked fourth are natural resource shortages, while extreme weather events top the list. Respondents anticipate these risks will contribute to a global polycrisis, including an economic downturn that will first and foremost impact raw material supply chains.

•A financial cost that cannot be overlooked

According to ADEME[2] (the French Agency for Ecological Transition), in a scenario where no measures are taken to mitigate climate change and global temperatures rise by +3.5°C compared to pre-industrial levels, the damages associated with inaction could exceed 10 points of GDP. The primary driver of these costs would be natural disasters occurring elsewhere in the world but impacting raw material prices for French companies. In this scenario, declining agricultural yields in France would also result in damages equivalent to 3 points of GDP.

•A significant need for funding

The United Nations[3] reports that globally, aid and public spending for agriculture are decreasing despite the worsening global food crisis. Furthermore, harmful environmental subsidies remain the highest. According to the World Bank, achieving carbon neutrality in the agri-food sector by 2050 would require an 18-fold increase in funding allocated to its transition, which currently accounts for only 4.3% of total climate financing[4].

Faced with the vulnerability of the agricultural sector, the risks impacting the entire supply chain, and the scale of investments required, regenerative models offer practical solutions in the short, medium, and long term.

[1]The Global Risks Report, developed in collaboration with Marsh McLennan and Zurich Insurance Group, explores some of the most severe risks we may face over the next decade.
[2]ADEME, Rapport, Les risques climatiques et leurs coûts pour la France, Évaluation macroéconomique : modélisation des fonctions de dommages sectorielles et évaluation d'impact, novembre 2023
[3]United Nations, The Sustainable Development Goals Report 2023
[4]World Bank, Recipe for a Livable Planet: Achieving Net Zero Emissions in the Agrifood System, 2024

2 SECURING SUPPLY CHAINS

ECONOMIC BENEFITS OF REGENERATIVE AGRICULTURE

The global market for regenerative agriculture

In 2023, the global market for regenerative agriculture reached **$975M**

Between 2023 and 2034, it is supposed to grow at an average annual rate of approximately **16%**

In 2022, agroforestry accounted for a share of the market amounting to **22%**

[1] UNEP, State of Finance for Nature, 2023

The sustainability of economic models relies on the durability of raw material production. For companies dependent on nature, transforming agricultural production is an opportunity to secure supply chains while creating economic and social value. Beyond improving product quality, adopting sustainable practices also enhances brand image: regenerative agriculture addresses the growing expectations of stakeholders.

> **This approach not only strengthens resilience to climate risks but also boosts competitiveness by positioning companies as leaders in the global ecological transition. Additionally, ESG (Environmental, Social, and Governance) performance is becoming a key driver of financial valuation.**

Securing supply through sustainable practices

Regenerative agriculture, while addressing global socio-environmental challenges, also plays a critical role in reducing the risks faced by all stakeholders across the agricultural supply chain.

1. Develop projects directly with farmers

Agricultural supply chains are made up of a network of actors: intermediaries such as traders, producer cooperatives, industrial groups, and manufacturers of finished products. Due to the complexity of these systems, many brands lose their direct connection to the field. Developing a regenerative agriculture project is an excellent way to reconnect with suppliers and reclaim control of the value chain—an essential step in managing risks that could impact production.

The regenerative model involves working hand-in-hand with producers, from project design to implementation. The sustainability of the approach is strengthened by supporting farmers in independently carrying out activities, all within a collaborative framework with the company.

2. Securing the supply chain in the field

Agroforestry, reduced tillage, cover crops, the use of natural pesticides and fertilizers, crop rotation, and diversification—there are many agroecological practices that can be implemented in the field as part of a regenerative agriculture project. These practices generate numerous positive impacts, collectively contributing to stable agricultural yields and enhancing the overall resilience of operations.

A regenerative agriculture project is built on a pragmatic approach tailored to the local context, experimentation, and impact measurement. This is why the preliminary stages of design and auditing are crucial: they help to understand the dynamics of the area and the functioning of the production system in question. The goal is to propose a customized design that integrates seamlessly into the existing production system, minimizing disruption to current practices wherever possible.

3. Reaping long-term economic benefits

The relationships built with farmers and/or partner cooperatives as part of a regenerative agriculture project are a valuable asset for buyers.

These connections allow them to secure harvested volumes, potentially stabilize the cost of raw materials derived from a sustainable model, and negotiate directly with their supply chain through multi-year contracts.

REGENERATIVE AGRICULTURE: **A PROVEN SOLUTION**

Food systems offer numerous solutions to address the climate, environmental, and social crises.

> **Strengthening the resilience of natural ecosystems, sequestering atmospheric carbon, and implementing adaptation and mitigation measures represent strategic levers.**

According to the IPCC's[1], adopting sustainable agricultural practices is an **effective adaptation strategy** for reducing the vulnerability of populations to climate change and is a critical solution for limiting global warming. Experts emphasize that many agricultural practices can be implemented in the short term in most regions. Among these are practices such as agroforestry.

$400 billion per year

is needed by 2050 to close the current investment gap.

[1] 6th Assessment Report (AR6) Synthesis Report, Intergovernmental Panel on Climate Change (IPCC), 2023

SECURING SPPLY CHAINS
THANKS TO REGENERATIVE AGRICULTURE

Companies with value chains rooted in the natural world contribute to financing the transition of their producers and suppliers.

ECONOMIC BENEFITS FOR THE COMPANY

- **Strengthening the resilience** of its economic model ✓
- **Developing direct** partnerships with farmers ✓
- **Securing supply volumes** through the regenerative model ✓
- **Enhancing competitiveness** and boosting **brand image** ✓
- **Consolidating ESG performance** and financial valuation ✓
- Clear and actionable **impact measurements** ✓
- **Contributing to climate and biodiversity strategies** ✓
- **Ensuring** regulatory **compliance** (CSRD) ✓

ADDRESSING SOCIAL AND ENVIRONMENTAL ISSUES

With support from Reforest'Action, farmers implement regenerative practices within their agricultural operations.

- **-Carbon sequestration** in trees and soil ✓
- -Improving **soil health** and **fertility** ✓
- -Preserving and increasing **beneficial biodiversity** ✓
- -Combatting **climate events**, particularly **drought** ✓
- -Generating **alternative income** streams for farmers ✓
- -**Gradually reducing costs** (less water for irrigation, fewer chemical inputs, and lower fuel usage) ✓

The added value of integrating "agroforestry"

Agroforestry is one of the main pillars of regenerative agriculture. There are numerous types of agroforestry, primarily distinguished by their spatial arrangement: peripheral and intra-field hedgerows, tree alignments, wooded islands, intercropping or mixed cropping, and food forests. Silvopastoral systems, which combine trees with livestock activities, are also part of this approach.

Agroforestry is adaptable to nearly all agricultural systems, with plantation models tailored to the agricultural context and the company's goals.

Key consideration

Agroforestry requires expertise to select tree species suited to each context. A thorough understanding of the biological characteristics of agroforestry species is essential to ensure they meet intended objectives.

By promoting crop diversification and increasing plant layers, implementing agroforestry practices generates numerous net positive impacts across the following four regenerative pillars:

CLIMATE BENEFITS

- Carbon sequestration by woody species (trees and shrubs) and by soils (with increased organic matter content)
- Protection for crops from environmental stressors

LOCAL BIODIVERSITY BENEFITS

- Provide habitats for local wildlife and promotes ecological balance
- Increase populations of soil biodiversity and beneficial organisms like fungi and bacteria
- Support natural pest control by attracting predators such as birds
- Promote pollinator populations essential for crop production

SOIL AND WATER BENEFITS

- Enhance soil health and boosts fertility
- Deep roots stabilize soil and prevent erosion caused by wind and water
- Creates natural windbreaks to reduce the impact of drying or cold winds
- Barrière contre les vents desséchants ou froids
- Improve water absorption into the soil while reducing surface runoff
- Enhance water quality
- Reduces irrigation needs, making farming more sustainable

SOCIO-ECONOMIC BENEFITS

- Stabilize short-term yields while supporting long-term productivity
- Generate additional income from agroforestry products like fruit, firewood, and forage
- Strengthen food security, particularly for farming communities in tropical regions

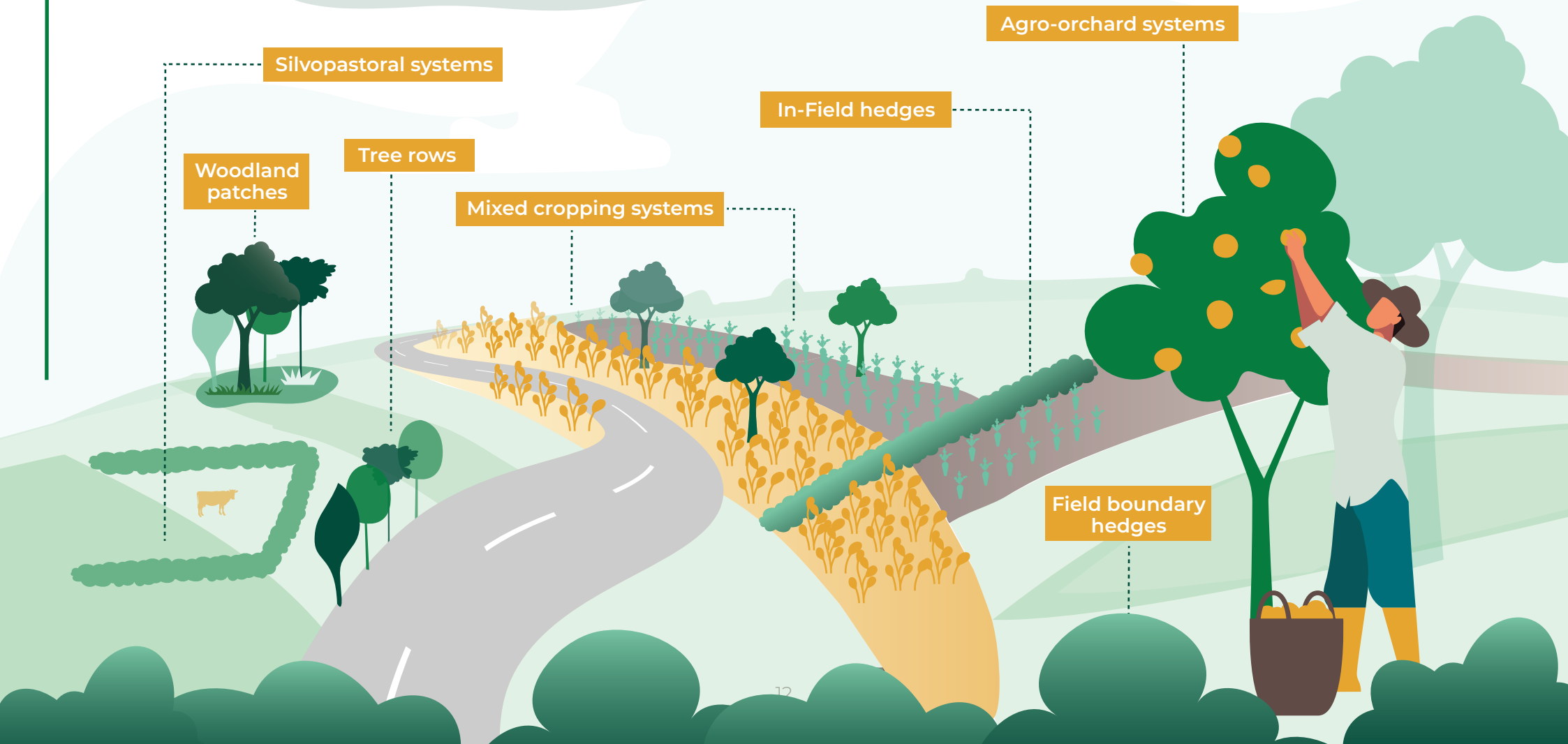
THE VALUE OF AGROFORESTRY

Agroforestry is a land management approach that can take various forms and practices, all sharing a common feature: the integration of trees and shrubs along the edges and/or within agricultural plots.

A CORE PRACTICE IN REGENERATIVE AGRICULTURE

POSITIVE IMPACTS ACROSS THE 4 PILARS OF MULTIFUNCTIONALITY

CLIMATE	LOCAL BIODIVERSITY	WATER AND SOIL	SOCIO-ECONOMICS CONDITIONS



3 CONTRIBUTING TO **CLIMATE STRATEGY** AND **COMPLIANCE**

FRAMEWORKS FOR LAND MANAGEMENT COMPLIANCE: **SBTi FLAG & CSRD**

Existing frameworks for measuring socio-environmental impact have become essential pillars for businesses, marking a shift toward greater accountability. They encourage companies to adopt sustainable and transparent practices, measure their footprint, and report their actions in a precise and consistent manner.

In light of the climate emergency and increasing pressure from stakeholders, these frameworks are no longer merely obligations to fulfill but true drivers of transformation. Proactive compliance is now inseparable from a company's reputation and long-term performance.

SBTi FLAG : incorporating land-use emissions into climate targets

The Science-based Targets Initiative (SBTi) was collectively established in 2015 by recognized organizations: the United Nations Global Compact, CDP, World Resources Institute (WRI), and World Wildlife Fund (WWF). Coinciding with the signing of the Paris Agreement[1], it encourages companies to set ambitious carbon reduction goals. Through the Net-Zero Standard, the SBTi supports organizations in defining a clear, four-step roadmap to reach "Net Zero." With this rigorously defined framework, companies commit to reducing their GHG emissions by 90 to 95% by 2050 at the latest.

[1]The 2015 Paris Agreement set a course to significantly reduce global greenhouse gas emissions with the aim of limiting global warming to 2°C over the current century, while continuing action to further limit it to 1.5°C.

SBTi FLAG : Incorporating land-use emissions into climate targets in its SBTi trajectory

In 2022, to engage as many businesses as possible—particularly those in the agri-food sector—the SBTi introduced the FLAG sector guide (Forestry, Land, and Agriculture). Science-based, this new methodology helps land-intensive companies account for both emissions and carbon sequestration related to land use when setting Paris Agreement-aligned targets.

Key consideration

The FLAG emissions inventory, as well as the associated reduction and sequestration targets, cannot be merged with SBT Net-Zero objectives. The global SBTi inventory is therefore divided into two distinct inventories: FLAG and non-FLAG.

What does FLAG inventory include?

Until now, emissions related to land use were not accounted for in the climate strategies of companies operating in relevant sectors, largely due to the lack of regulatory frameworks and methodologies. Since 2020, the GHG Protocol has been developing the "Land Sector and Removals Guidance"[1] to assist companies in calculating and reporting land-based GHG emissions and removals. Scheduled for release in 2024, this methodology will serve as the foundation for organizations to build their FLAG emissions inventory.

[1]The final version of the GHG Protocol guide entitled "Land Sector and Removals" is scheduled for the second half of 2024, and will provide guidelines for accounting for land use change.

Who needs to set FLAG targets?

- Companies whose activities are tied to land, its management, and use: forestry and agricultural production (both plant- and animal-based), processing of agricultural raw materials, manufacturing of agri-food products, and trade in agri-food products.

- Companies in other sectors where at least 20% of their total emissions (Scope 1, 2, and 3) are linked to land use, forests, and agricultural lands: textile, cosmetics, construction, hospitality, etc.

When to submit FLAG targets?

- Companies without a validated SBTi pathway must set their FLAG targets at the same time as their SBT Net Zero targets.

- Companies with validated SBTs must incorporate FLAG targets during the update of their objectives, no later than six months after the release of the final version of the GHG Protocol's "Land Sector and Removals Guidance" (end of 2024).

The FLAG inventory comprises three distinct components that enable companies to report their "net emissions":

1

Emissions from land management

emissions from agricultural, livestock, and forestry activities, as well as upstream emissions (e.g., production of chemical inputs, transportation, etc.).

2

Emissions from land use change (LUC)

emissions resulting from the conversion of one type of land use to another. The most prominent example is deforestation and forest degradation, where forest ecosystems are transformed into agricultural lands.

3

Terrestrial carbon sequestration

The quantities of atmospheric carbon sequestered through the adoption of responsible agricultural practices. This applies solely within the value chain of the relevant company and does not include carbon contribution actions. This third component serves as a significant lever for companies aiming to reduce their FLAG emissions.

Key consideration

The inventory of sequestered emissions should not replace essential efforts to reduce emissions and applies only to companies subject to the SBTi FLAG methodology.

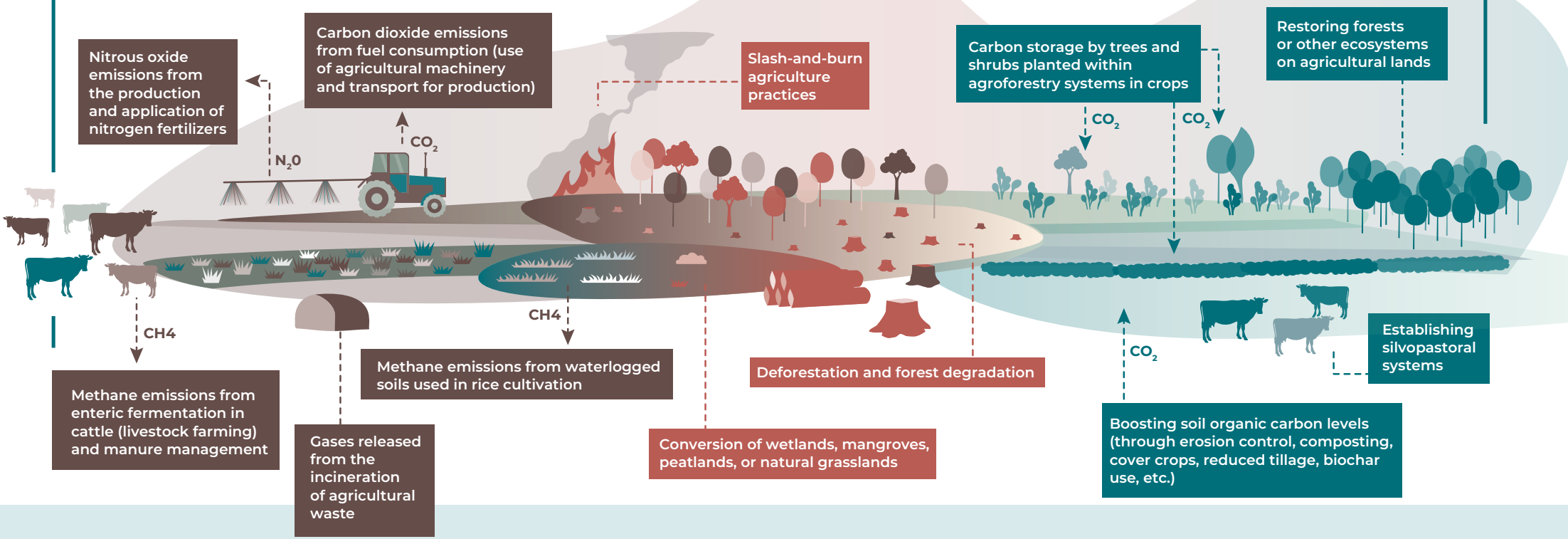
EMISSIONS INCLUDED IN THE SBTI-FLAG FRAMEWORK

WHAT YOU CAN ACT ON

GHG EMISSIONS FROM LAND MANAGEMENT 1

GHG EMISSIONS FROM CHANGES IN LAND USE 2

TERRESTRIAL CARBON SEQUESTRATION 3



What do FLAG targets entail?

Within 5 to 10 years: Set short-term decarbonization targets to reduce FLAG emissions. These targets must also account for sequestered emissions within the company's value chain, as declared in its FLAG inventory.

By 2025: publicly commit to a net-zero deforestation target across the entire value chain. Halting deforestation could provide up to 80% of the climate change mitigation measures linked to land-use change[1].

[1]Ecoact, Land-based emissions and FLAG SBTs

By 2050: reduce FLAG emissions by at least 72% (in absolute terms) in line with the SBTi Net Zero standard requirements.

CSRD : Non-financial reporting and standards ESRS E1 to E5

The Corporate Sustainability Reporting Directive (CSRD) is a European Union directive, in development since 2020, aiming to establish a new framework for corporate non-financial reporting. This initiative seeks to democratize and simplify the publication of information by the organizations concerned, promoting greater transparency. While reporting is already mandatory for certain large companies, the implementation of the CSRD will coincide with the introduction of new, ambitious measures aimed at increasing financial flows toward sustainable activities.

The CSRD is based on the concept of double materiality. This approach identifies the company's impact on its environment and evaluates it alongside the environment's impact on the company's activities. For example, the agricultural sector generates negative externalities on ecosystems due to intensive land use and the exacerbation of climate change. Conversely, the intensification of extreme climatic events, among other factors, also has an impact on agricultural production.

ESRS E1 = climate change

ESRS E2 = pollution

ESRS E3 = water and marine resources

ESRS E4 = biodiversity and ecosystems

ESRS E5 = resources use and circular economy

WHO IS SUBJECT TO THE REPORTING OBLIGATION?

The CSRD significantly expands the scope of European companies required to conduct non-financial reporting, encompassing approximately 50,000 large and small organizations, including listed SMEs.

WHEN SHOULD THE FIRST REPORTS BE SUBMITTED?

The CSRD came into effect in early 2024, making it the first reference fiscal year for large companies already subject to reporting obligations. For others, implementation will be gradual over four years, according to standards and company categories.

WHAT INFORMATION MUST BE PROVIDED?

The CSRD requires companies to disclose sustainability data through the European Sustainability Reporting Standards (ESRS), which are equivalent to ESG criteria at the European level. ESRS E1 to E5 pertain to environmental risk management and how organizations address them. Companies must disclose specific data regarding their policies on climate change mitigation, water and waste management, pollution reduction, biodiversity preservation, and the optimization of natural resource use.

USING REGENERATIVE AGRICULTURE **TO MEET COMPLIANCE GOALS**

The agroecological levers implemented at the heart of the value chain support the company's climate and biodiversity strategy by contributing to the reduction of its environmental footprint and that of its partners.

As a result, transitioning now to sustainable agricultural practices facilitates the company's future compliance with increasingly stringent regulatory requirements, particularly concerning land management.

These new reporting tools offer companies new opportunities by allowing them to showcase the best practices they choose to implement and ensure organizations' adaptation to climate challenges.

By combining emission reduction and carbon storage opportunities, land-related sectors alone could contribute 37%[1] of the global climate change mitigation measures needed by 2050.

1 Griscom et al., 2017

The role of agroecological practices in regulatory reporting

How to integrate regenerative agriculture projects seveloped within your value chain into SBTi FLAG and/or CSRD reporting?

By highlighting the **reduction in emissions** achieved through the implementation of more sustainable practices: reducing deforestation and forest degradation, conserving biodiversity, reducing the use of chemical inputs, and more.

By emphasizing the **carbon sequestration** enabled within your value chain through the development of practices such as agroforestry, cover cropping, crop rotation, composting, increasing soil organic carbon, or restoring forests on agricultural lands.

By showcasing **deforestation avoidance**, as implementing a regenerative agriculture project often represents a viable alternative to deforestation and land conversion, particularly in tropical regions.

4 MEASURING THE **IMPACT POSITIFS** OF YOUR COMMITMENT

MAXIMIZING IMPACT THROUGH EFFECTIVE MEASUREMENT

Evaluating and measuring the impacts generated by implementing sustainable agricultural practices not only optimizes project management and the long-term stability of ecosystems but also demonstrates the benefits generated through the financing of these projects. This is a key aspect of ecosystem restoration.

> **From the project design stages, precisely assessing the impacts delivered by the implementation of sustainable agricultural practices addresses both the needs associated with project development and the requirements of funding companies.**

Using impact measurement to guide model transitions

If measurement demonstrates the results, the real challenge lies in optimizing the impact.

1. Project design and impact projection
Impact management begins during the project design phase to establish priorities in the project layout and to estimate the future impacts of the restored ecosystems.

2. Project initiation and implementation
Before launching the project, a sampling plan is created to identify the areas that will undergo regular monitoring. The next step is to measure the "baseline states" of the selected indicators.

3. Assessment of ecosystem health and stability
On an ongoing basis, the impact indicators defined during the initial phase are used to evaluate the health and stability of the restored ecosystem, ensuring its positive evolution over time.

4. Measurement of long-term impacts
Various methodologies (remote sensing, surveys, geospatial analyses, and field protocols) are employed to measure the impacts generated by the ecosystem across the four regenerative pillars.

Benefits for the company

- **TRANSPARENCY AND TRACEABILITY**
  Meet reporting objectives (ESG, CSRD) and monitor climate trajectory (SBTi) through quantifiable impacts.
- **TRANSFORMATION**
  Transition to a regenerative model to generate net positive and measurable impacts on nature.

Benefits for the projects

- **TAILORED DESIGN**
  Address local challenges and sustain ecosystems over the long term by adapting to constraints.
- **SCALING UP**
  Support project adaptation and facilitate rapid scalability.

Indicators across four key pillars

Impact indicators are defined during the design phase of regenerative agriculture projects and are tailored to the project's context and type. They are organized within the four multifunctionality pillars that underpin ecosystem stability.

Specific measurement methods for each indicator then allow for precise evaluation of the project's performance.

CLIMATE & MICROCLIMATE IMPACT

Measure the project's contribution to combating climate change through changes in carbon storage as a key indicator of value creation and reveal the creation of a favorable microclimate for the agricultural system.

KEY INDICATORS: carbon sequestration (converted into tCO_2eq) in plant biomass and soil (SOC), changes in late frost risks, and damages caused by droughts, etc.

BIODIVERSITY IMPACT

Measure the project's contribution to biodiversity by creating diverse and structured habitats and ensuring the availability of complementary resources for local fauna and flora.

KEY INDICATORS: diversity of woody species, protection of associated habitats, improvement in faunal species diversity, variations in species richness, support for vulnerable species, intensification of biological activity, etc.

SOIL AND WATER IMPACT

Measure the project's contribution to the restoration and preservation of the soil and water system as well as the proper functioning of water and nutrient cycles.

KEY INDICATORS: changes in soil structure and fertility, variations in biotic activity, integrity of the soil food web and parasitic pressure, water flow speed, dissolved oxygen levels, pH, etc.

ECONOMIC & SOCIAL IMPACT

Measure the project's contribution to improving human well-being through community empowerment, increased livelihoods, and enhanced resilience of agricultural productions on which farmers depend.

KEY INDICATORS: changes in growth rates and quality of production, impact of climatic events (frost, drought), evaluation of resources generated as alternative productions, etc.

5 TAKING A **PRAGMATIC** AND **COLLABORATIVE** APPROACH

APPLYING REGENERATIVE PRACTICES ACROSS YOUR **SUPPLY CHAIN**

To ensure the relevance of its actions, a company looking to implement a regenerative agriculture project at the core of its supply chain must follow several key steps.

To support this process, the company can seek guidance from a team of experts, including agronomic engineers, who will assist in the project's development and in engaging stakeholders.

4 essential steps to building tailored projects

1

Conducting a feasibility study

A feasibility study is carried out to assess the viability of the project and establish an initial budget framework. The most suitable agricultural lands are identified, and stakeholders are actively involved to ensure the project's success.

2

Tailored project audit and design

Agronomic engineers design the project based on the specific context and strategic objectives. This involves a quantitative and qualitative approach to refine the project's design and define the framework for impact measurement.

3

Project organization and implementation

The project is implemented at a pilot scale to validate the design in the field. Carried out in collaboration with farmers, this stage is overseen by Reforest'Action experts and includes a training component and skills transfer.

4

Measuring impact over 30 years

The project's impacts are monitored over a 30-year period. This evaluation focuses on climate, biodiversity, water, soil, and socio-economic dimensions. It is broken down into various indicators defined according to the project's objectives.

CASE STUDY: **ORGANIC COTTON IN INDIA**

Kiabi recently sought the expertise of Reforest'Action to work within its organic cotton supply chain in India, specifically in the eastern state of Odisha. On the ground, a regenerative agriculture project is being carried out in collaboration with several cooperatives, indirect suppliers to Kiabi.

Company Challenges:

- **SECURING** a sustainably produced cotton supply while gradually reducing the use of conventional cotton.
- **IMPROVING** the economic viability of organic cotton farming and fostering the empowerment of producers.
- **REDUCE** freshwater consumption by 40% compared to 2022 levels by 2035, notably through the optimization of cotton cultivation.

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Agroforestry initiatives with Kiabi

The natural cultivation of textile fibers such as cotton in a sustainable and economically viable manner remains a significant challenge. For Kiabi, a leader in affordable fashion, the procurement of raw materials accounts for 21% of the company's greenhouse gas emissions. Cotton cultivation, representing 59% of the total weight of materials used by the brand, significantly contributes to its environmental footprint due to its high water consumption and reliance on chemical inputs[1].

[1]Kiabi, Extra-financial performance declaration, 2023

Key findings from the field study

- **Water scarcity:** The climate diagnosis of the area highlights an extension of the dry season, higher temperatures, and a reduction in the monsoon period. Consequently, the region, located in the Tel River watershed, faces water shortages that affect the irrigation of cotton crops.

- **Biodiversity loss:** Another challenge faced by the region is the loss of biodiversity, particularly due to the destruction of the Tikhari Forest Reserve surrounding the villages involved in the project, replaced by agricultural production.

- **Degradation of Socio-Economic Conditions:** Cotton farmers face worsening climate conditions that exacerbate their vulnerability. Additionally, local communities suffer from poor sanitary conditions, leading to an increase in severe diseases like malaria.

Solutions implemented

- **Establishing agroforestry systems:** The project primarily aims to develop agroforestry within organic cotton crops through the planting of multifunctional and locally adapted tree species.

- **Pilot phase:** A pilot project has been underway in the field for two years. In 2023, over 11,000 trees were planted across 25 hectares of cotton fields, following an intraplot and field-edge agroforestry model. In 2024, the plan is to plant approximately 30,000 trees in agroforestry systems on more than 280 hectares of land belonging to over 400 farmers. This second year will also activate other agronomic levers focused on soil conservation and include a socio-economic component such as farmer training and improved hygiene conditions.

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la mode à petits prix

Impacts and benefits

Environmental impacts: In the long term, introducing trees into cotton fields aims to diversify crops and preserve the natural capital of soil and water, a critical resource in the project area, which experiences prolonged periods of drought. Additionally, specific tree species will be utilized by local communities for the preparation of biofertilizers and biopesticides, thereby reducing reliance on external inputs.

Benefits for the company: By establishing a sustainable and scalable model, Kiabi is actively working towards securing its primary supply chain. The company mitigates the risk of shortages caused by intensified droughts and ensures the production of a future-oriented raw material: organic cotton. Furthermore, Kiabi will be able to showcase this project, implemented at the core of its value chain, as part of its climate strategy to achieve its SBTi FLAG objectives. Combining sustainable agricultural practices with agroforestry will enable Kiabi to reduce emissions linked to raw material production while increasing carbon sequestration in biomass and soil.

Socio-economic impacts: Simultaneously, the project helps improve the livelihoods of agricultural populations by creating alternative value chains. Fruit-bearing trees will allow cotton farmers to generate additional income through the sale of fruits (mangoes, cashews, moringa, guavas).

Reforest'Action is a company whose mission is to restore terrestrial ecosystems on a large scale to meet environmental challenges. As a global player in reforestation and agroforestry, Reforest'Action designs and develops projects with multiple benefits for the environment and communities that are monitored and measured over time. The basis of its action lies in the multi-functionality of ecosystems to optimize their resilience and stability over the long term.

Convinced that companies can be sources of regeneration for the natural world, Reforest'Action aims to contribute to their transformation through nature-based solutions, enabling them to act within or beyond their value chain.

3 key sectors:
large-scale crops,
cotton, and vineyards

1,650 projects
carried out in 45
countries worldwide

Research team:
30 in-house
experts

Why choose Reforest'Action?

- **Comprehensive and tailored support:** We provide end-to-end support to companies looking to transform their production models — from preliminary studies to impact measurement, including project design and implementation assistance.

- **Integration of projects into compliance objectives:** We help our clients integrate regenerative agriculture into regulatory frameworks, particularly within the SBTi FLAG (Forest, Land, and Agriculture) standards and the CSRD directive. Together, we define practices aligned with their goals, using specific methodologies and precise measurement of the benefits delivered.

- **In-house impact measurement tools:** We support organizations through every stage of impact measurement, a cornerstone of our approach. We monitor their projects over periods of up to 30 years using protocols and indicators recognized by international frameworks, as well as an in-house developed MRV platform.

CONTACT US

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Want to make a positive impact within your value chain?
Our team of experts is here to collaborate with you and support your journey.

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