

# Cultivating Resilience

Our Regenerative  
Agriculture  
Framework



# Why Regenerative Agriculture Matters

## Securing the Future of Tropical Fruit



**Bananas and pineapples are essential to global food security, rural livelihoods, and national economies across the tropics.**

These crops feed millions and sustain entire communities—yet the systems that produce them face mounting environmental, social, and climate pressures.

As a global leader in tropical fruit, we recognise our responsibility to improve how bananas and pineapples are grown. We believe regenerative agriculture must go beyond sustainability—our mission is to enhance soil health and strengthen ecosystems that allow our industry, and our planet, to thrive.

### A Grower-Centred Approach to Transformation

Developed in collaboration with banana and pineapple producers and leading agricultural experts, the Fyffes Regenerative Agriculture Framework is more than a set of practices—it is a strategic roadmap to fundamentally improve how tropical fruit is grown.

While tropical monoculture systems face inherent regenerative challenges, our framework identifies practical, crop-specific pathways to strengthen ecosystem performance.

### How the Framework Works

The Framework operationalises regenerative agriculture across Fyffes-own and third party farms through a robust measurement, reporting, and verification (MRV) system that quantifies key parameters and enables credible sustainability claims. Unless otherwise specified, data refers to Fyffes-owned banana and pineapple farms.

It prioritises practices and pilots that protect fruit productivity and quality while reducing environmental impact, using a phased approach that validates practices on our farms before extending proven methods to third-party suppliers across the value chain.

By restoring soil health indicators over time, enhancing biodiversity, optimising water use, reducing chemical dependency, and building climate resilience, we’re transitioning to production systems that reduce environmental pressures and progressively enhance ecosystem function.

### What This Means



#### For Retail Partners

A more resilient supply chain backed by sustainability practices that meet evolving consumer expectations and regulatory requirements



#### For Our Growers

More productive, profitable, and climate-resilient farms that generate long-term value without compromising the land



#### For the Planet

Agriculture designed to restore soil health, enhance biodiversity, and reduce environmental impact over time, supported by measurable indicators and verified progress

### Our Commitment

Expand regenerative agriculture practices across 13,000 hectares of banana and pineapple production, including grower farms, by 2035 to strengthen soil health, biodiversity and long-term supply resilience.

#### By 2030

Full implementation of the Regenerative Agriculture Framework across all our banana and pineapple farms, with proven practices that enhance yields and quality while reducing environmental impact.

#### By 2035

40% of our total fruit volume produced under regenerative practices, extending our validated approaches throughout our supply chain.



# What Is Regenerative Agriculture?

Regenerative Agriculture is an approach that aims to restore and strengthen the natural capacity of agricultural ecosystems to renew themselves and sustain food production in the long term. It is an approach to farming that:

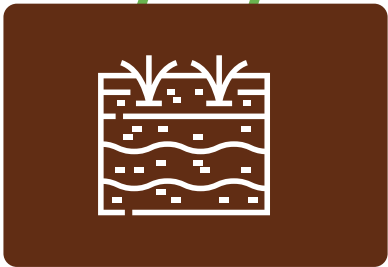
- Revitalises soils instead of depleting them
- Enhances biodiversity rather than reducing it
- Optimises water cycles and reduces waste
- Minimises external inputs
- Supports improved soil carbon storage and reduced GHG emissions, measured through our MRV system

In our framework, regenerative agriculture refers to a continuous improvement pathway based on defined indicators across soil health, water, biodiversity, agrochemical use, and climate performance.

## Soil Health

Three key dimensions make up the soil health definition:

WHAT REGENERATION IS BUILT ON



### Physical

Indicates the soil structure's capacity for proper water infiltration, deep root growth, and stability against erosion.



### Biological

Reflects soil biodiversity and microbial activity that drive nutrient cycling, organic matter buildup, and natural pest control.



### Chemical

Shows the soil's natural ability to supply balanced nutrients to crops, reducing dependence on external fertilisers, while maintaining proper pH, salinity, and cations and avoiding toxicities.

## Reduce Biodiversity Loss

Protecting and restoring the intricate web of life—from microorganisms to mammals. By stopping habitat degradation and enhancing species variety, we maintain the ecological balance necessary to support all life.



# Our Core Regenerative Principles

The Framework provides the measurement criteria for the achievement of our goals across different operational levels: from establishing baseline practices to achieving advanced regenerative systems. As growers expand the regenerative practices they implement on their farms, or adopt new ones, they progress along the continuum toward our 2030 and 2035 targets.

Every indicator and practice in our framework is guided by eight foundational principles that work together to restore agricultural ecosystems:



| REGENERATIVE PRINCIPLE                                                                                                                          | WHAT IT MEANS                                                                                            |                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  Minimise Tillage                                            | Preserves soil structure and microbial life by reducing disturbance                                      |          |
|  Maintain Soil Cover                                        | Prevents erosion, retains moisture, and moderates temperature, enhances soil carbon sequestration        |          |
|  Build and Sequester Carbon                                | Increases soil organic matter, enhances fertility, mitigates climate change                              |                                                                                         |
|  Decrease Synthetic Fertiliser                             | Reduces reliance on external inputs and lowers emissions                                                 |    |
|  Rely on Nutrient Recycling and Manage Nutrient Efficiency | Encourages biological nutrient recycling for improved fertility, promotes natural nutrient cycling       |    |
|  Foster Plant Diversity                                    | Enhances ecosystem resilience, pest control, nutrient balance                                            |                                                                                         |
|  Reduce Pesticides                                         | Minimises chemical exposure, protects beneficial organisms and maintains soil microbial communities      |    |
|  Encourage Water Percolation                               | Improves infiltration and groundwater recharge, reduces runoff and erosion, increases drought resilience |    |



Agrochemical Dependency

Water Management

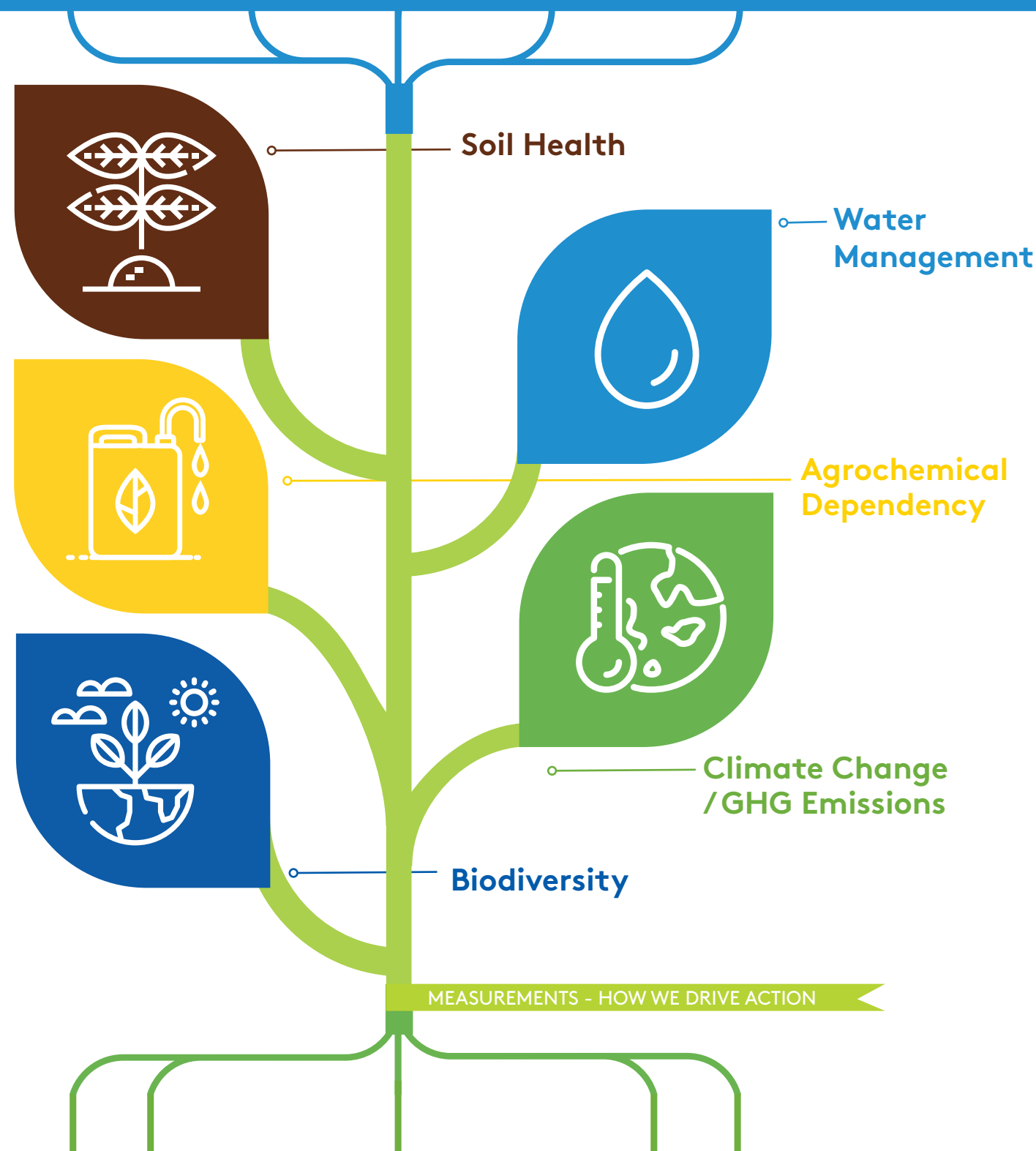
Soil Health

Climate Change/GHG Emissions

Biodiversity

# Measuring Progress: Impact Areas

Credibility depends on measurement. Our Measurement, Reporting, and Verification (MRV) system establishes baselines and tracks progress across five critical impact areas: soil health, water management, agrochemical dependency, climate change/GHG emissions and biodiversity. It is designed to ensure transparent, auditable, and data-driven reporting. By quantifying key indicators—from soil organic matter to carbon sequestration—we ensure transparent, verifiable data that drives informed decision-making and supports our regenerative commitments.



# Measuring Success: Key Baseline Indicators



| SUBTOPIC                                                                                                                             | WHAT TO MEASURE?                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
|  Soil Fertility                                   | (Ca, Mg, K, P, Zn, etc.) OM, pH Level and interchangeable acidity      |
|  Plant Nutrition Package                          | (N, P, K, Ca, Mg, S, micros)                                           |
|  Soil Fertility and Physical Properties           | Soil Cover                                                             |
|  Physical Properties                              | Bulk Density / Compaction                                              |
|  Physical Properties                              | Infiltration Rate                                                      |
|  Physical Properties                              | Erosion Protection                                                     |
|  Biological Activity                             | Soil Biodiversity Index - Microbial Diversity (F/B ratio, biomass ADN) |
|  Biological Activity                            | Soil Respiration & Enzyme Activity                                     |
|  Biological Activity                            | Mesofauna Diversity                                                    |
|  Biological Activity                            | Macrofauna Diversity                                                   |
|  Water Consumption                              | Water Consumption                                                      |
|  Water Quality: Nitrate Concentration           | Soil Solution Nitrates                                                 |
|  Water Quality: Biochemical Oxygen Demand (BOD) | BOD, COD                                                               |
|  Erosion Prevention on Slopes                   | Slope Protection                                                       |
|  Agrochemicals                                  | Recycled Nutrients in Use                                              |
|  Agrochemicals: Substances Classified by Hazard | Agrochemical by Hazard Classification                                  |
|  Fertilisers                                    | Synthetic Fertiliser Use                                               |
|  Fertilisers                                    | Bio-inputs/Synthetic Ratio                                             |
|  Fertilisers                                    | Reduced Fertiliser Technologies                                        |
|  GHG Emissions                                  | TonCO2e emitted - TonCO2e stored                                       |

# Our Work in Action

Regenerative agriculture isn't a distant goal—it's already in action across our operations. Here are some of the proven practices we've implemented:

IMPACT AREA

 **Banana Operations\***

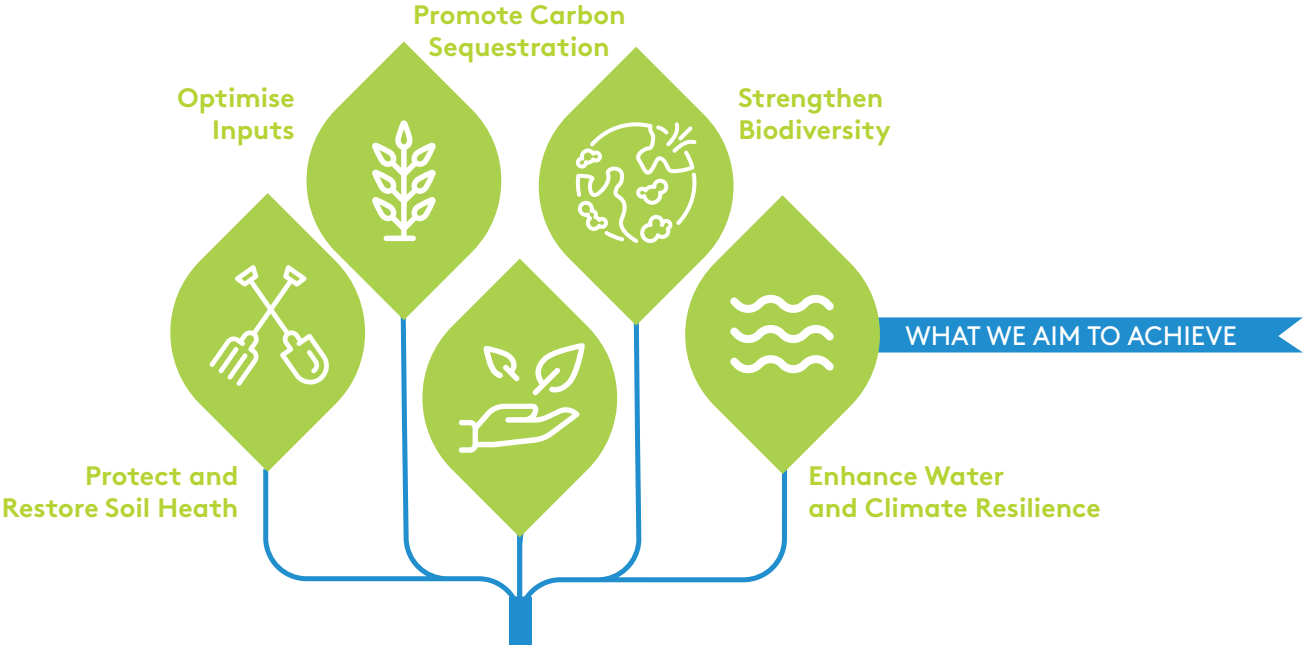
| PRACTICES                                                                                                                                                                                                                                                                                            | WHAT WE ARE ALREADY DOING                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    Need-Based Recommendations                      | 1 soil assessment/year                                                                                                                                                   |
|    Erosion Protection                              | 100% of slopes covered                                                                                                                                                   |
|    Drainage Slope                                  | 0 herbicide applied                                                                                                                                                      |
|    Cover Crops                                     | 100% of renovation areas with natural cover                                                                                                                              |
|    Soil Cover                                      | 100% soil covered with organic matter                                                                                                                                    |
|    Minimum Tillage                                 | 15-20 years without machinery intervention                                                                                                                               |
|    Field Monitoring                          | Black sigatoka disease: weekly assessment per farm block<br>Mealybug/scales: monthly<br>Nematodes: 1.5 months<br>Herbicides: monthly previous applications               |
|    Synthetic Fertiliser Reduction            | 20% reduction in synthetic nitrogen fertiliser since 2023                                                                                                                |
|    Water Management System                   | 28% of Belize farms with smart water irrigation systems                                                                                                                  |
|    Water Recirculation                       | From 200l/box to ~90l/box                                                                                                                                                |
|    Residue Reincorporation                   | ~10% of the whole weight that enters in the packing house corresponds to pseudostem, which is applied in the field as organic matter                                     |
|    Plastic Recycling                         | 100% of plastic recycled                                                                                                                                                 |
|    Fruit Donation/<br>Food Loss Valorisation | 14,298 repurposed boxes/year (Belize 2024)<br>255,678 repurposed boxes/year (Costa Rica 2024)                                                                            |
|    Forest Conservation                       | 23% of the total area under conservation                                                                                                                                 |
|    GHG Emissions Inventories and Reduction   | Emissions inventories since 2020 and implemented reduction projects accordingly. Since 2024, we have also been running a pilot programme for carbon accounting in soils. |
|    Resilience to Climate Change              | 100% farms with weather stations and real time data                                                                                                                      |

IMPACT AREA

 **Pineapple Operations\***

| PRACTICES                                                                                                                                                                                                                                                                                                           | WHAT WE ARE ALREADY DOING                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    Need-based Recommendations                              | 1 soil assessment/year<br>2 foliar tissue analysis/year                                                                                                                             |
|    Laboratory of Reproduction of Beneficial Microorganisms | Many species are being reproduced, including bacteria such as Bacillus, Pseudomonas, and Lactobacillus, as well as fungi like Paecilomyces, Metarhizium, Beauveria, and Trichoderma |
|    Digital Weed Control                                    | Reduction of 80-75% of herbicide application through drone image spot detection                                                                                                     |
|    Preventive Field Monitoring                             | Fruit pests: every 2 weeks before flowering<br>Root health: 3 times per cycle (25,60, 100 days after planting)<br>Stubble stable fly: monthly after cycle                           |
|    Synthetic Fertiliser Reduction                       | 10% reduction in synthetic nitrogen fertiliser since 2024                                                                                                                           |
|    Fruit Donation/<br>Food Loss Valorisation         | 1,058,067 repurposed boxes/year (2024)                                                                                                                                              |
|    Plastic Reduction                                 | 85% reduction in the use of plastics related to palletising (1:1)                                                                                                                   |
|    Resilience to Climate Change                      | 100% farms with weather stations and real time data                                                                                                                                 |
|    GHG Emissions Inventories and Reduction           | Emissions inventories since 2020 and implemented reduction projects accordingly. Since 2024, we have also been running a pilot programme for carbon accounting in soils.            |
|    Forest Conservation                               | 1185 hectares in conservation (% vs crop ~33%)                                                                                                                                      |

\* owned operations only  
 cross-cutting area



# Our Regenerative Agriculture Roadmap

Regeneration is a long-term transition requiring continuous measurement, adaptation and improvement



# Join Us on This Journey

Regenerative agriculture is a long-term transition. At Fyffes, we are in the early stages of implementing and validating our framework across owned farms, with pilots underway. Our focus is on:

### Building credible baselines

Establishing consistent measurement across soil health, biodiversity, water use, agrochemical dependency, and greenhouse gas emissions.

### Testing and validating practices

Piloting regenerative approaches on owned farms to understand agronomic, environmental, and economic outcomes before scaling further.

### Strengthening transparency

Developing our Measurement, Reporting and Verification (MRV) system to improve data quality, comparability, and auditability over time.

### Preparing for responsible scaling

Extending validated practices progressively across our supply chain in line with our 2030 and 2035 targets.

We recognise that measurable ecosystem regeneration takes time. Our commitment is to continuous improvement, transparent reporting, and collaboration with growers, customers, and technical partners as the framework evolves.



Join us in cultivating resilience across every farm

[sustainability@fyffes.com](mailto:sustainability@fyffes.com)



FYFFES INTERNATIONAL SA  
CHEMIN JEAN-BAPTISTE VANDELLE 3A  
1290 VERSOIX, SWITZERLAND  
[WWW.FYFFES.COM](http://WWW.FYFFES.COM)