⊇arthworm

Regenerating Soils

How we are working with businesses and farmers to restore soil health

Earthworm Foundation #LookDownToo

Introduction

Our food, medicine, cosmetics and many other products originate from agricultural soils.

Healthy soil stores water, prevents floods, provides habitat for a thriving biodiversity, and has the potential to store carbon and reduce emissions.

Yet a third of the planet's soil is degraded. This is why Earthworm Foundation works with businesses, cooperatives, scientists and farmers to restore soil health.

Farmers may tend to their land every day, but they need support to make the transition from traditional farming to regenerative agriculture practices.

Business can play a leading role in this transition. This report shows how they are doing so. Together we can restore soil health, reduce pollution, help meet global food demand, store carbon and transform the way we produce food.



- Bastien Sachet, CEO

U | Where we work in soils



⊒ | France



Living Soils

France is one of Europe's biggest agricultural producers. The north-east of the country is a **key arable region**, producing vast amounts of beetroots, cereal and potatoes.

Yet in recent years, French farmers have seen productivity fall as the costs of fertiliser, pesticide and other tools have risen.

Farmers needed a different approach and **the Living Soils (Sols Vivants)** initiative is providing it, working with businesses, cooperatives and scientists to support farmers make the transition to regenerative agriculture.

It has been reported that 60 to 70% of soil in the European Union is considered unhealthy, therefore losing its ability to regulate the climate and grow food.

U | Our approach in France



Supporting farmers who are keen to transition to regenerative agriculture practices and improve soil health, but do not have the technical support with training.



Measure and Act: Our soil health indicator tool evaluates the biological, chemical and physical properties of soil. This enables decision making around soil health practices..



Working in **Partnership** with experts in agronomy & ecology and technicians from different organisations to support farmers with training in the transition to regenerative agriculture.



Incentivise: focus on developing new financial tools to accelerate farmers' transition to regenerative agriculture practices.



U | Our soils work in France in numbers

2030

Year our soils partner Nestlé aims to source 50% of its supplies in France from regenerative agriculture. 1,570

Number of supermarkets Lidl France began selling potatoes grown from regenerative agriculture in October 2021. 200+

Number of farms Earthworm Foundation visited to measure soil heath in France in 2021. 75%

Three quarters of soil we sampled in France is degraded highlighting its fragility. **55%**

Over half of carbon stocks in the soil we sampled are stable or increasing. This is encouraging, it shows soils can be regenerated.

E | France: aims for 2025



Engage and support **10,000 farmers in** France to transition to regenerative agriculture. This equates to **1 million** hectares of land.

⊇ | India

Punjab is known as India's bread basket, three quarters of the 30 million living there work in agriculture.

But the chemicals used in farming have found their way into the state's food, water and soil, eroding farmers' ability to grow crops and causing a rise in cancer in the population.

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Punjab and Haryana:

In 2011, we launched an agroforestry project in Punjab and Haryana in partnership with leading furniture retailer Maisons du Monde.

The work focused on planting Sheesham trees on the boundaries of farms in order to improve soil health and increase farmer resilience.

Much of the soil in this area is degraded and therefore sensitive to erosion. Sheesham's deep roots maintain the structure and improve the health of soil. This increases its ability to store carbon.

The Sheesham trees also serve as natural capital, as after 10 to 15 years they can be sold for timber, providing farmers with extra income.

I Our approach in India



Agroforestry

In Punjab and Haryana soil degradation is due to reliance on chemical and pesticides and the prevalence of monocropping. We support farmers with agroforestry to mitigate this.

Planting saplings

We have supported thousands of farmers to plant Sheesham saplings, ensuring they have a high survival rate so green cover and biodiversity can be enhanced and they grow quickly to provide farmer income.



Monitoring and tests

The carbon stock and sequestration stored by saplings is monitored. While the chemical and physical properties of the soil are tested and analysed.



Improving soil health

To improve soil health and farmer livelihoods we recommend a multi-species agroforestry approach. We are coaching farmers on this.

■ | Our soils work in India in numbers

2,417	269	135k	70%
Number of farmers that we have supported to regenerate soils and improve livelihoods.	Number of villages which have joined the project.	135,445 Sheesham saplings planted in Haryana and Punjab.	Amount of soil samples tested nearby Sheesham trees with higher organic content compared to other samples.

Next steps in India

We will continue to **coach farmers on best agroforestry practices**, particularly land and nutrient management practices to increase carbon levels in soil.



Multi species agroforestry is required in Haryana and Punjab to regenerate soil health further. **They will reverse the damage done to soils**, but farmers need continued support.

We will also carry out intensive soil and water studies to identify relevant species that farmers can grow alongside Sheesham to further regenerate their soil.

In order to continue supplying farmers with high quality saplings nurseries in each region will be developed too.

We are also developing this work **with a focus on regenerative agriculture in Bhatinda and Fazilka within Punjab**. Bhatinda is known as cancer capital of India so there is a strong need to work on soil health.

We are also facilitating linkages with relevant government welfare schemes so that **farmers can get some direct or indirect financial support**.

⊇ | USA

Wheat ranks third among US field crops in terms of planted acreage, production and sales.

While soil erosion in the US estimating to cost \$67 billion a year.

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Kansas

The US Department for Agriculture reported the **2021 wheat harvest was the lowest since 2002**, as extreme heat and droughts hit the USA.

In 2021 **we began supporting Grupo Bimbo**, our member and the world's largest baking company, to embed regenerative agriculture practices within their supply chain.

In 2020, we toured dozens of farms in Kansas along with several key Grupo Bimbo suppliers in order to concretely **support the development of its Regenerative Agriculture Policy**.

Kansas is a strategic wheat sourcing region for Grupo Bimbo. More than 90% of farms visited already use one or more practices that could be considered regenerative, including no-till, succession and mixed cropping, and intercropping or improved organic residue management.

Approach and next steps in the US



Sourced wheat

By 2030, Grupo Bimbo aims to source 200,000 hectares of wheat that is farmed from regenerative agriculture practices.



Key ingredients

By 2050, Grupo Bimbo aims for 100% of its key ingredients to be sourced from regenerative agriculture.



Next steps

We will continue to support Grupo Bimbo to enable agricultural change.

Looking at making regenerative agriculture the norm?

Get in touch with us on info@earthworm.org