PROGRESS REPORT 2023



NESCAFÉ PLAN 2030







FROM FARM TO CUP, HELPING MAKE THE WORLD BETTER

At *Nescafé*, a small cup of coffee makes a huge difference. We work with coffee farmers on sustainable practices that help enhance resilience to climate change, improve incomes and build stronger coffee communities. We believe we all need to work together to uplift lives and livelihoods through every cup, and give everyone a chance to,



Driving positive change to	
address common challenges	3
The Nescafé Plan 2030	4
Nescafé progress highlights 2023	5
The Nescafé Plan 2030 in action	6
Viewpoint: Sustainable Food Lab	11
Acting together	16
Glossary	18

DRIVING POSITIVE CHANGE TO ADDRESS COMMON CHALLENGES

Transitioning to regenerative agriculture practices continues at pace



PHILIPP NAVRATIL

Senior Vice President, Head of Coffee Strategic Business Unit, Nestlé

Climate change is now affecting agriculture in many regions, including where we and others source coffee. Weather events such as water stress, flooding and drought, together with the depletion of soils and loss of biodiversity, make our commitment to the *Nescafé Plan* even stronger. We want to help create a bright future for coffee and the people that grow it and this is our plan to help us get there.

In 2023, we continued to make progress on increasing the uptake of regenerative agriculture among coffee farmers in our supply chain. This supports our vision to reduce greenhouse gas emissions, increase farmers' income and contribute to enhanced social conditions. From our work so far, our agronomists and partner organizations consistently report the following: many of the farmers practicing regenerative agriculture techniques are highly engaged with the practices, which can make them more resilient to environmental impacts, and improve their earning potential.

By the end of 2023, 92.5% of our global coffee supplies were Responsibly Sourced. In addition, coffee sourced from regenerative agriculture represented more than 20% of our total 2023 volumes. Our own actions were not the only factor at play in this transition toward regenerative agricultural practices. Many experts, both within our company and from partner organizations in the field, are playing critical roles in the Nescafé Plan. As farmers use techniques such as intercropping or soil analysis for the first time, technology and community groups are helping them to share their experiences and learn from others.

As you will read in this report, our teams and partners recorded doubledigit greenhouse gas emissions reductions for green coffee production among monitored farming groups. Farmers' yields have also risen in many monitored origins. We believe this is an indication that we are on the right path, and this is why we are continuing to expand our engagement. By helping farmers increase incomes and adapt to climate change, we can play our part in enabling all of us to enjoy our cups of coffee, long into the future.



THE NESCAFÉ **PLAN 2030**

Helping renew the world of coffee to uplift lives and livelihoods with every cup.

2030 Vision

An integrated strategy to use regenerative agriculture to help address climate change, aiming to:

REDUCE GREENHOUSE GAS EMISSIONS

INCREASE FARMERS' INCOME

CREATE BETTER SOCIAL CONDITIONS

Our goals:

By 2025

- 100% responsibly sourced coffee
- Source 20% of our coffee through regenerative agriculture methods

By 2030

- Source 50% of our coffee through regenerative agriculture methods
- 50% greenhouse gas emissions reduction

AGROFORESTRY

Help farmers to improve soil health, water management and biodiversity by combining coffee with shade or border trees.

$\bigcirc \bigcirc$ WOMEN AND YOUTH EMPOWERMENT

Enhancing business and financial skills through training, including record keeping and farm management.

(INCLUDING ORGANIC FERTILIZERS) Support farmers to improve productivity and quality, helping reduce CO₂ and improve soil health by tailoring the fertilizer to the soil needs.

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0 LAND RESTORATION

Support farmers to plant native trees to capture CO₂ in and around coffee farms, helping improve biodiversity and water management.

GREEN BORDERS (RIPARIAN BUFFERS)

Help farmers improve water sources and biodiversity by restoring vegetation along the water margins.



Supporting coffee farmers in accelerating their transition to regenerative agriculture practices.

HUMAN RIGHTS AND **CHILD PROTECTION**

Reinforcing monitoring and corrective actions across our value chains.

OPTIMIZED FERTILIZATION

FARM RENOVATION

Support farmers to improve yield and quality, and to reduce CO₂, while aiming to improve income through pruning and/or the introduction of new and improved coffee varieties.

COVER CROPS

Help farmers to improve soil health and biodiversity, while reducing agrochemical usage.

$\mathbf{S}\mathbf{\Theta}$ **INCOME DIVERSIFICATION** (INCLUDING INTERCROPPING)

Promoting different crops within the coffee farm to enhance income diversification, soil health and biodiversity.

NESCAFÉ PROGRESS HIGHLIGHTS 2023 CULTIVATING POSITIVE CHANGE

ACTIONS

148,000 coffee farmers in 16 countries trained in regenerative agriculture in 2023.

More than **800 agronomists and specialist staff worked with coffee farmers** in *Nescafé Plan* field programs.

Distributed 21 million coffee plantlets to help farm renovation and rejuvenation

for better yields (cumulative total above 290 million since 2010).

Independent assessment of regenerative agriculture practice adoption on 37 farmer units across 11 origins in 2023. The Nestlé Global Reforestation Program **planted more than three million trees in our coffee value chains** to capture carbon and support biodiversity (with a cumulative total of more than 4.5 million since 2022).

Started expanding conditional cash incentive schemes to accelerate farmer transition to regenerative agriculture for more than 3,000 farmers in Côte d'Ivoire, Indonesia and Mexico.

We supported a pilot deployment of **weather insurance for more than 800 smallholder farmers in Indonesia.** We established **Agrinest**, a social media platform for farmer-to-farmer connections and agricultural learning. More than 1,600 farmers in Vietnam and 240 farmers in Indonesia are already using the platform and the number is rising.

In Honduras, during 2023 we trained 12,000 young people from coffee communities in entrepreneurship, coffee quality and regenerative agriculture, supporting the next generation of farmers to manage their farms better and produce better quality coffee.

* 'Responsibly Sourced' indicates coffee that has been sourced from segregated value chains and that is traceable to <u>farmer units</u>. These <u>farmer units</u> are part of certification or verification programs with independent checks versus external sustainability standards and are aligned with the <u>Nestlé Responsible Sourcing</u> <u>Core Requirements</u>. Our Reporting Scope and Methodology for ESG Key Performance Indicators document provides details and definitions and can be found <u>here</u>. IMPACT

92.5%

of our coffee was Responsibly Sourced* globally, up from 87% in 2022.

~ 180,000 MT

of coffee came from farmer units implementing regenerative agriculture practices (more than 20% of our total 2023 volume).

15% - 30+%

lower greenhouse gas (GHG) emissions per kg of green coffee assessed for most origins in which primary data of GHG farming emissions was monitored, representing more than 20% of our green coffee supplies.

5% - 25%

higher coffee yield per hectare in many monitored origins like Honduras, India, Philippines, Thailand and Vietnam.



THE NESCAFÉ PLAN 2030 IN ACTION

How the *Nescafé Plan 2030* integrated strategy uses regenerative agriculture to help deliver positive change for farmers, their communities and the environment.

Regenerative Agriculture is the engine of change for Nescafé Plan 2030. It encompasses a range of interrelated actions that we expect will help address complex challenges and achieve our 2030 goals. In the following pages, we describe how we are deploying regenerative agriculture across our farmer field programs and supporting farmers to transition to regenerative agriculture. In this year's report, we are also focusing on how we are helping farmers optimize their fertilization practices with the right balance, to reduce GHG emissions and achieve better income results.



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IMPLEMENTING REGENERATIVE AGRICULTURE

Regenerative agriculture is an approach to farming that aims to improve soil health and soil fertility – as well as protect water resources and biodiversity.

SUPPORTING FARMERS' TRANSITION TO REGENERATIVE AGRICULTURE

Tailored and financial on-theground support to enable coffee farmers to accelerate their transition to regenerative agriculture.

OPTIMIZING FERTILIZATION

Supporting farmers manage soil fertility to help them enhance productivity and incomes, while also reducing GHG emissions per kg of coffee.



IMPLEMENTING REGENERATIVE AGRICULTURE

By supporting regenerative agriculture through the Nescafé Plan 2030, we aim to improve productivity and resilience to climate change, benefitting farmers' incomes and reducing greenhouse gas emissions in our supply chain

> Reduce greenhouse gas emissions (§) Increase farmers' income Create better social conditions

Expanding regenerative agriculture knowledge and adoption

We work with the Rainforest Alliance to monitor and evaluate (M&E) the With a range of techniques that adoption rate of our regenerative are adaptable to different growing agriculture practices. The analysis conditions, farm sizes and farming covers levels of soil organic matter, models, regenerative coffee farming application rates and types of fertilizers aims to improve soil health, biodiversity, and pesticides applied for different and water cycles. This awareness is yield results. The monitoring also growing among farmers in our supply gathers data on other indicators, like chain, and it requires the exchange of the presence and maintenance of knowledge between our agronomists, natural habitats and riparian buffers. the farmers, and suppliers. This year, we have continued to monitor the Expanding reach with suppliers take-up of practices on farms, such as efficient compost and fertilizer use, crop *Nescafé* is Nestlé's largest coffee diversification and mulching. We are brand and one of the world's favorite now also partnering with more suppliers coffees. Our ambition is to play our to encourage additional farmers to part in securing the future of coffee. join the Nescafé Plan 2030 journey. Regenerative agriculture is key to our support to farmers, and by working Supporting farmer yields with partners and suppliers, we can help farmers achieve more resilient We now have more than 800 agroand profitable coffee farming. nomists working in the Nescafé Plan

field programs, reaching more than 140,000 farmers. Relationship-building is key since new agriculture techniques often disrupt longstanding practices and may require time to see results.

Farmers in many origins like Honduras, India, Philippines, Thailand and Vietnam achieved 5% to 25% higher coffee yields per hectare when compared to 2022. In other origins, like Indonesia, coffee yields were negatively affected by adverse weather conditions.

Enhancing farm assessments

We are now working more closely with key suppliers to expand the number of farmers engaged in the Nescafé *Plan 2030* and to scale up the volume of coffee we source from them. We are co-developing new field programs together with our suppliers, based on their farming expertise and their ability to run high-quality programs. By the end of 2023, we had started Nescafé Plan field programs with more than 10 new farmer units across eight origins, through key supplier partnerships.

USING TECHNOLOGY TO EFFICIENTLY MANAGE PROGRAMS

Recording and easily accessing reliable data is essential for us to monitor progress on our Nescafé Plan and identify opportunities for improvement. Our agronomists monitor and profile farmer units using the tabletbased Koltiva tool. Data points include farm locations, sizes and household composition. Koltiva also records and enables the analysis of factors such as the rates of participation in training and the types of practices established on farms. Developed in 2022, the tool is now being used by Nescafé agronomists and partners in a growing number of our coffee-sourcing countries.



OUTLOOK

To increase the reach of the Nescafé Plan, we will continue enrolling more farmers in our regenerative agriculture journey. We will also expand engagement with the program through partnerships with key suppliers.



HONDURAS

Cover crops Mulching Optimized fertilization

COLOMBIA

Agroforestry Optimized fertilization Farm renovation through new coffee plantlets

MEXICO

Beehives Tree Planting: Riparian zones Farm renovation through new coffee plantlets

PERU

Composting Optimized fertilization Farm renovation through new coffee plantlets

REGENERATIVE AGRICULTURE PRIORITY **PRACTICES BY COUNTRY**

All coffee-growing environments have their own unique requirements. We promote the appropriate regenerative techniques best suited to the local farm, soil and environmental conditions.

Composting Rejuvenation through stumping Soil cover

BRAZIL

Composting Cover crops Optimized fertilization

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8

CÔTE D'IVOIRE

UGANDA

Agroforestry Intercropping Mulching

INDIA

Beehives Optimized fertilization Reduced irrigation

VIETNAM

Intercropping Optimized fertilization **Reduced** irrigation

CHINA

Agroforestry Optimized fertilization Reduced water use in coffee mills

PHILIPPINES

Composting Intercropping Rejuvenation through pruning

INDONESIA

Optimized fertilization Rejuvenation through grafting Soil pH correction

THAILAND

Cover crops Intercropping Farm renovation through new coffee plantlets

RWANDA

Agroforestry Mulching Soil pH correction **KENYA**

Agroforestry Mulching Soil pH correction



SUPPORTING FARMERS' TRANSITION **TO REGENERATIVE** AGRICULTURE

We recognize that the transition to regenerative agriculture might be challenging for coffee farmers. That's why, through the Nescafé Plan 2030, we are implementing new ways to incentivize acceleration.

> S Increase farmers' income Create better social conditions

Learning new ways to support smallholders

Throughout the year, we continued to run our conditional cash incentive pilot programs designed to help accelerate the adoption of regenerative agricultural practices. Taking place in Indonesia, Côte d'Ivoire and Mexico, farmers received expert and targeted help from agronomists.

The programs have yielded promising early results, with positive feedback from the farmers participating in the three pilots. By implementing regenerative agricultural practices, farmers became more resilient to adverse weather conditions.



Early results from our three pilots in Indonesia, Côte d'Ivoire and Mexico showed significant farmer satisfaction, increased adoption of regenerative agricultural practices and the efficient distribution of incentives. This feedback encourages us to continue to engage with thousands more coffee farmers over the coming years. We are prioritizing smallholders in Indonesia, Côte d'Ivoire and Mexico, as well as extending the conditional cash incentive programs to farmer units in Honduras and Colombia.

OUTLOOK

In addition to the cash incentives, we also piloted a partnership with insurance technology company Blue Marble. In the event of extreme weather events, the company's product aims to mitigate farmers' losses in production costs.

Promoting farmer peer learnings

Nescafé established the digital learning platform Agrinest to enable farmers to connect and share their regenerative agricultural experiences. Participation is growing fast. With over 1,600 farmers using it in Vietnam, the platform helps farmers acquire skills from their peers through direct interactions. The platform has already attracted around 260 farmer users in Indonesia and is now also growing followers in the Philippines and Thailand. As well as instant connections, the site also acts as a repository of useful information and training materials.



OPTIMIZING FERTILIZATION

Fertilizers require careful application, particularly in terms of when and where they are used on farms. The right combination of organic and synthetic fertilizers can enhance farmer incomes, protect water and soils and avoid GHG emissions.

Reduce greenhouse gas emissions
 Increase farmers' income

The importance of fertilizers in coffee production

When applied correctly, fertilizers have many benefits for growing crops, increasing production and lifting farmer incomes. Adding key nutrients such as nitrogen, phosphate and potassium to the soil, either through synthetic or organic inputs, can support both soil health and coffee trees.

Over time, coffee cultivation without proper soil management can lead to the depletion of nutrients in soils, reducing production capacity. Effective farming means applying specific amounts and combinations of inputs to sustain and increase soils' nutrient potential.

Excessive fertilization, on the other hand, results in high nutrient losses and misused investments. It risks the pollution of local water resources and, in some extreme cases, can contribute to poor health outcomes for local communities.

Synthetic fertilizers are expensive and contribute significantly to the carbon footprint of coffee farming through their manufacturing process as well as in their use in the field. It is vital, therefore, to help farmers optimize how they use them.

How farmers optimize fertilizer application

Coffee farmers grow their arabica and robusta varieties in a wide range of local conditions. The environmental factors

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include temperature, the availability of water, the soil type and its quality. We encourage farmers in the *Nescafé Plan* to test the conditions of their soil. This includes assessing the natural presence of nutrients, organic matter content, and levels of acidity, which all affect productivity. For instance, pH levels impact a plant's ability to absorb nutrients from the soil. Low pH levels lead to lower yields, and can result in misapplied, costly fertilizers.

We also support coffee farmers to assess soil composition. The levels of clay, silt and sand determine a soil's capacity to retain nutrients. Our agronomists train many coffee farmers in how to apply the '4Rs' to their fertilizer plans: Right source, Right rate, Right time and Right place. This balance aims to reduce losses to surrounding ecosystems, avoid excessive costs and lower GHG emissions.

2023 insights from the field

• Brazil

We see synergies between different farming activities, including coffee farms making use of organic waste compost from nearby cattle and poultry farms, in optimized combinations with synthetic fertilizers.

Côte d'Ivoire

We are helping farmers use their own organic compost to enrich the soil content of their farms.

Vietnam, China and India

In these growing regions, where fertilizer use is high, we are encouraging farmers to be more precise (see 4Rs) in the use of synthetic inputs, to protect water resources and save costs, while maintaining similar yields.

Indonesia

Farmers are enriching the local compost with manure and urea from goats provided by the *Nescafé Plan*, which also leads to extra milk products for own consumption and/or diversified income.



OUTLOOK

The Nescafé Plan field programs will continue to focus on driving lower greenhouse gas emissions per kg of coffee and support the optimization of fertilization for better yields. In origins like Brazil and Vietnam, where there is already widespread use of synthetic fertilizers, we will continue to work with farmers to advance more effective, timely and precise application of fertilizers, and the integration of organic composts and <u>cover crops</u>. In countries with historically low investments in soil fertility like Côte d'Ivoire and Mexico, we will support farmers to conduct soil assessments and implement sound and optimized fertilization approaches.



VIEWPOINT: SUSTAINABLE FOOD LAB NESCAFÉ PLAN'S SUPPORT FOR REGENERATIVE AGRICULTURE AND LIVING INCOMES IN INDONESIA

"So far, the *Nescafé* pilot program's success in Indonesia is largely due to a collaborative approach, where local expert teams and farmers are given real agency to make change happen."



SETH PETCHERS

Senior Program Director, Sustainable Food Lab



KEALY SLOAN

Program Director, Sustainable Food Lab Sustainable Food Lab is a US-based non-profit organization that has been advising *Nescafé* on the rural household income agenda since 2022. In 2023, a team traveled to Indonesia to visit and assess the impact of the *Nescafé* Plan 2030 pilot program, known locally as RegenTa.



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Creating the conditions for success in Lampung

In Indonesia, *Nescafé's* work with smallholder robusta farmers began in the mid-1990s. The evolution of this relationship, along with *Nescafé's* learning and the development of Nescafé Plan 2030's priorities, played a crucial role in the design of a pilot program currently underway in Lampung, South Sumatra. Called 'RegenTa', which includes the sound 'Ta' from 'Tangguh' – the Bahasa word for resilient – the program seeks to accelerate smallholder adoption of regenerative agricultural practices.

In August 2023, Sustainable Food Lab's team visited farmers at several RegenTa program sites in Lampung and conducted a living income learning workshop for the *Nescafé* local project team. In its analysis of RegenTa,

Sustainable Food Lab reviewed the foundational work on which the pilot is built, along with the pilot's theory of change and program of activities developed to reach its targets. A link to the full report can be found <u>here</u>.

RegenTa – designed for regenerative farming and greater resilience

The issues RegenTa addresses

After years of refining its engagement with coffee farmers in Lampung, the *Nescafé* team identified three key challenges to farming households' ability to earn enough to support a decent standard of living:

• Productivity: A typical Lampung coffee farm yields just 800 kg/ha, significantly below the productivity (and income) potential of the land.



 Economic resilience: Households' diversification of both crops and other income opportunities is ad-hoc, and farmers do not typically calculate and track profitability and make strategic farm investments.

• Weather: Irregularities, particularly in timing and amount of rainfall, have drastically impacted productivity in recent years.

Pilot design

Farming households' ability to earn a living income depends on land size, volume of raw material produced, the cost of production of the raw material, the price at which the raw material is sold, and other income the household earns. RegenTa focuses on three of those drivers: volume, cost of production and income diversification.

RegenTa was launched to test a range of activities with an initial group of

Core activities

Training and promotion of key regenerative agricultural practices

The adoption of regenerative agricultural practices is key to driving better productivity and income. Farmers receive training and ongoing support from *Nescafé* agronomists, as well as local implementation partner Karya Masyarakat Mandiri and youth coffee service groups. They also receive support from local coffee collectives called KUBS, who buy, process and sell coffee sourced from the *Nescafé Plan* farmers.



INCOME DIVERSIFICATION

Avocado intercropping and goat <u>husbandry</u> support RegenTa's goals, contributing to total household income and increasing farmers' resilience. These activities also support coffee productivity, providing shade, and adding compost to vegetation and goat manure.



INCORPORATION OF COMPOST FERTILIZERS

To improve water retention, increase fertility and to balance the pH of soils, farmers can use compost, generated organically from local waste streams, including their own farms.



REJUVENATION OF COFFEE TREE STOCK

To increase the productivity of coffee trees, farmers use grafting, where a healthy budding branch is attached from one healthy tree to the trunk of a less productive one, improving its output.



SOIL ANALYSIS AND CORRECTION

RegenTa supports farmers to assess their soils and also distributes dolomite to increase magnesium and calcium in the soil for plant growth and to balance its pH.

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1,000 farmers. This work complements the support that *Nescafé* provides to 10,000 farmers who are already part of the *Nescafé Plan*, including technical assistance, 4C (Common Code for the Coffee Community) coffee certification and the GIZ Coffee++ program. With promising initial results, RegenTa has already expanded to include an additional 500 farmers, bringing the total to 1,500 farmers.



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13

90%

of RegenTa farmers qualified for cash incentives based on the regenerative scorecard

40%

of RegenTa farmers qualified for cash incentives based on rejuvenation target (25% of coffee trees)

80%

of RegenTa farmers who received incentives indicated that they reinvested funds into their farms

88%

of RegenTa farmers who reinvested funds into their farms specified that the reinvestment helped to rejuvenate their farms and increase yields

The program's activities include:

- Demonstration plots: Supplementing the *Nescafé* education farm, these demonstration plots provide other farmers with an opportunity to see how target practices are implemented.
- Youth coffee service groups: Nescafé is supporting young farmers to develop and sell advisory services and labor to older farmers with less capacity for practices like pruning and weeding.
- Farmer Business School: Through the *Nescafé* partnership with GIZ's Coffee++ program, farmers participate in a fiveday intensive course designed to help them run their farms as businesses.
- Weather insurance: A partnership with insurance technology company Blue Marble aims to protect a portion of farmers' cost of production following abnormal weather patterns.

Financial incentives

Nescafé awards incentive payments to farmers who succeed in rejuvenating their coffee trees on 25% of their farms continuously for four years. The payments recognize every rejuvenated hectare until the pruned or grafted trees are back to full productivity. *Nescafé* also rewards farmers by the kg of coffee they deliver to the *Nescafé* supplier partners when farmers achieve a specific score on a regenerative agriculture scorecard.

Charting income progression and benchmarking against living income

In Lampung, *Nescafé* collects data and assesses household income on an annual basis, partnering with the Rainforest Alliance for impact assessment, and Sustainable Food Lab for additional advisory support. Household income assessments include components such as factoring in the coffee yield and production efficiency of the farms in the Nescafé supply chain. Over time, this information will paint a picture of the typical household's net income, which Nescafé will compare against a living income benchmark independently derived by the <u>Anker Research Institute</u>. This will provide insight into whether program activities are helping farming families make significant headway toward earning a living income.

Support and infrastructure

The *Nescafé* team

The Nescafé local team in Lampung includes agronomists and project managers, stationed in the field among farming communities and our suppliers.

External partnerships

- Karya Masyarakat Mandiri (KMM) A local implementation partner, KMM adds capacity to the *Nescafé* team by mentoring youth service groups, and providing counsel to farmer group meetings and individual farms.
- GIZ As a *Nescafé* strategic partner for the Coffee++ program, GIZ executes the Farmer Business School program and developed the farm diversification models that guide income diversification strategy.
- Rainforest Alliance The long-standing *Nescafé* impact assessment partner conducts annual farmer surveys and tracks adoption of practices and household income data. *Nescafé*, together with Sustainable Food Lab, compares the data to the local living income benchmark.

Enablers in the *Nescafé* supply chain

On-the-ground expertise is key to the success of the project.

- Local engagement The presence of teams and infrastructure in sourcing regions are vital assets to RegenTa.
- Supply chain structure KUBs have become integral to engaging and training farmers on 4C certification practices and regenerative agriculture.
- Buying commitment *Nescafé* incentivizes participating farmers by buying coffee from them on an annual basis.

Progress to Date

It is still premature to measure the full impact on productivity, income, and greenhouse gas emissions reductions of the RegenTa pilot. The early results, though, are very promising. Nescafé has managed to establish the program's infrastructure and is delivering measurable benefits for farmers. The project team has also demonstrated its ability to learn and adapt approaches, which will be crucial as the program reaches more farmers in different contexts.

Baseline data collection and analysis: Regenerative practices, carbon footprint and living income

The Rainforest Alliance, partner to *Nescafé* for impact assessments, conducted baseline surveys as part of the yearly monitoring and evaluation (M&E) campaigns. In late 2022, project partner the Rainforest Alliance conducted baseline surveys on a sample of the initial pilot farmers. A year later, a second round of data was gathered for analysis of year-one implementation.

The baseline data suggests that targeting farmers' costs, which are already relatively low, should not be a key focus for the program. With underfertilization typical on farms, the data indicates that *Nescafé* should promote compost production and application to boost productivity and increase household incomes. At the same time, modeling showed that the promotion of diversified income generation will also be crucial in the progress towards a living income.

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>90%

of RegenTa farmers trained indicated

that they were able to apply the

knowledge and skills acquired

Program roll-out, learning, and adaptation

Despite some challenges, the RegenTa activity implementation has been effective. As of November 2023, 1,518 farmers were enrolled in the program. Since initial enrollment in April of 2022, 500 new farmers have joined the program, with the team fielding a steady flow of requests from additional farmers to join. Some program highlights to date include:



of RegenTa farmers trained "agreed" that they gained knowledge in climate change risks and skills to address and mitigate them

680

farmers attended financial management training

520

farmers received support for avocado intercropping

3,500

cumulative attendees at farmer workshops



farmers received support to begin goat husbandry

900

farmers received incentive pay-outs 860

farmers signed up for weather insurance coverage

400

farmers received youth group coffee services



Early learning and adaptation

RegenTa initially promoted pinto peanut (Arachis pintoi) as a cover crop to control weeds. But the local team received feedback from farmers that pinto peanut held no financial or consumption value, and that it created a hazard by harboring snakes. The team needed to pivot quickly. *Nescafé* provided the farmers with a valuable and flexible alternative cover crop, pumpkin. Perhaps not as effective for weed control as pinto peanut, pumpkin provides sufficient soil protection and a fair balance between regenerative agricultural needs and farmers' safety.

To incentivize better practices such as renovating and rejuvenating coffee

plants, RegenTa rewards farmers with financial incentives. These were initially distributed via bank accounts but with low, regular use of these facilities, the funds often remained unclaimed.' During 2023, the farmers received the incentives via their local post offices, which resulted in a much higher take-up rate.

Initial results

Having recently received and analyzed the first set of farm household data since the program began, *Nescafé* has an early sense of how accurately initial income models reflect reality, particularly in terms of productivity and income.

PERCENTAGE OF COFFEE LAND THAT RECEIVED ORGANIC FERTILIZER



PERCENTAGE OF FARMERS CONDUCTING REGULAR SOIL ANALYSIS



PERCENTAGE OF FARMERS WHO USE SOIL ANALYSIS TO INFORM FERTILIZER PLAN



PERCENTAGE OF FARMERS WITH AT LEAST 75% OF COFFEE LAND COVERED DURING THE WHOLE YEAR



PERCENTAGE REDUCTION IN NET CASH COFFEE INCOME BETWEEN 2022 AND 2023, DUE TO ADVERSE WEATHER



RATIO OF REVENUE FROM COFFEE SOLD TO COST OF PRODUCTION



Nescafé Plan RegenTa Farmers
Mescafé Plan Farmers

OUR PARTNER: SUSTAINABLE FOOD LAB

Next steps

The team will be closely monitoring farmers' rates of practice adoption. This will help to finetune programs and potentially scale RegenTa to include all 10,000 farmers in the Lampung farmer units supplying *Nescafé*. The early learnings from RegenTa will also be incorporated into other pilot programs. In turn, learning from the Côte d'Ivoire and Mexico programs, now also underway, will help cross-pollinate programs in Honduras and Colombia, to begin in 2024. The goals of reducing greenhouse gas emissions and supporting farmers to achieve a living income are consistent in all of the programs. The path to achieving them at scale by 2030 will, as early success in Indonesia demonstrates, be charted by the teams and partners who know their regions best.



ACTING TOGETHER MAKING EXPERT GUIDANCE AVAILABLE TO ALL

Knowledge is key in the transition to regenerative coffee farming. Nescafé partnered with the Alliance for Bioversity and the International Center for Tropical Agriculture (CIAT) to help consolidate the key regenerative agricultural principles and techniques to transform coffee farming around the world.







Compiling knowledge to share

Regenerative agriculture can bring benefits to the whole coffee sector. Although many practices like agroforestry have been in place for a long time, their full impact on regenerating soil health, biodiversity and water have not yet been fully appreciated.

To help understand regenerative agriculture and its meaning, and to promote the coffee industry's application of these techniques, we sought the support of CIAT. Based in Colombia, this organization aims to deliver researchbased solutions that harness agricultural biodiversity and sustainably transform food systems to improve people's lives.

VESCAFE

Regenerative agriculture for low-carbon and resilient coffee farms A PRACTICAL GUIDEBOOK









Together with Nescafé, we developed 'Regenerative Agriculture for Low-Carbon and Resilient Coffee Farms, a Practical Guidebook'. Published in 2023, the guide is designed to help agronomists and technicians improve their fieldwork with coffee farmers. It tackles the main principles of regenerative farming and the positive impacts that the toolbox of practices can have on farmers, the environment and their communities. From the renovation of coffee trees and agroforestry to optimal and efficient fertilizer and water use, the expert writers describe regenerative agricultural techniques and their potential positive impacts on reducing greenhouse gas emissions, increasing yields and raising farmer incomes.

The guidebook has a global perspective but adaptation to local contexts requires knowledge of local agronomists, technicians and farmers.

ENGLISH VERSION HERE

SPANISH VERSION <u>HERE</u> Regenerative agriculture for low-carbon and resilient coffee farms A PRACTICAL GUIDEBOOK



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Resultin CBB sponds intert of its file cycle inside the coffee bear, the influency of corrective control is integer many and explored tament should consider long term preventive control based on pesternic measures. Large, continuous analy eventing CBB dispensal. Natural enemies of CBB include parasiteids, such as Cratelonnesis repeated with effective at preventing CBB dispensal. Natural enemies of CBB include parasiteids, such as Cratelonnesis repeated with effective and Phymetrochus coffice (Figure 3.16); different species of pivelatury ands, and enterropertrogenic menancies, among others. Concervation practices that promote biodiversity and improve microthesite conditions (such as the use of shade trees, entercorporation and natural vegetation around field bonders) can enhance the potential for coronal by natural enemies in their native range followerst African species of parasitoids has been variable, depending us local agreeological conditions.

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104

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What challenges does adoption of the practice pose, and how can these be overcome?

The main challenge in promoting adoption of IPM is that it requires a deep understanding of both pest and disease ecology as well as their natural biocontrol agents. Fortunately, only a limited number of pests and diseases significantly affect coffee yields in particular regions. Moreover, these organisms have been the subject of much scientific research, as is the case with CBB and CLR. It is crucial for farmers and agricultural advisors to receive technical training either through local research organizations or public institutions.

In addition, limited access to labor may limit the implementation of cultural control methods as well as routine monitoring. For example, while alcohol-bailed traps are effective for monitoring, they may capture large numbers of native non-target insects. Sorting and identifying specimers may thus prove territors.

Finally, IPM does not offer one-size fits all solutions. Diological control is a long-term strategy that relies on adequate production system design, and its benefits take time to materialize. In managing held conditions to inhibit pest and disease reproduction, it is often necessary to strike a deficate balance, as with shade levels, and this may entail trade-offs, since methods used to control one pest or disease might create a beneficial habitat for another. Ecological balance can be especially difficult to maintain in highly disturbed or altered environments, where the success of biological control partly depends on landscape dynamics, which are beyond the control of individual producers.



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"When we answered the request for a proposal from Nescafé in 2022, we knew that there were lots of individual scientific papers on topics such as agroforestry in coffee. With their ambitious targets on sourcing from farmers transitioning to regenerative agricultural practices, it made sense to bring all of this knowledge together in one place, so that people have a credible, single reference point to draw from. Hopefully, this book will help the company reach its 2030 targets, and also positively influence the wider industry."



MIRJAM PULLEMAN

CIAT scientist and co-author of 'Regenerative Agriculture for Low-Carbon and Resilient Coffee Farms, a Practical Guidebook'

GLOSSARY

4Rs fertilization

The optimizing principles of Right source, Right rate, Right time, and Right place to avoid waste, minimize costs and environmental impacts.

Agroforestry

The intentional integration of trees and shrubs into farming systems to increase soil health and biodiversity.

Agronomist

An agricultural expert in various aspects of plant biology, soil science, and environmental management to enhance the efficiency and effectiveness of farming operations.

Compost

Decayed (decomposed/rotten) organic material used as a plant fertilizer.

Cover crop

A crop grown to cover the soil for its protection and enrichment.

Farmer unit

A group of identified farmers, organized and managed by a specific entity. This is the starting point for traceability of green coffee lots.

Husbandry

The care, management, and production of plants or animals that are raised for various purposes.

Inputs

The resources that are used for farm production (e.g. fertilizers, equipment, energy).

Intercropping

To grow two or more crops simultaneously on the same plot.

Living income

The net annual income required for a household in a specific location to afford a decent standard of living for all its members.

Monocropping

Mulching

Coffee lots that are traceable to the farmer unit where the coffee was grown, and are independently certified or verified The practice of growing a single as produced in accordance with crop. external sustainability standards validated, as equivalent to our Nestlé Responsible Sourcing Core Requirements. Our Reporting Organic matter that protects the Scope and Methodology for ESG soil, the roots of plants and soil **Key Performance Indicators** life from heat, cold, or evaporation, document provides details and preventing soil loss, suppressing definitions and can be found here. weeds and enriching the soil.

NESCAFE

Grafting

A technique whereby tissues of different plants are joined to continue their growth together.

Organic fertilizer

Naturally produced fertilizers, mainly derived from plant matter, animal manure and food waste, that can be added to soil or plants, providing nutrients and sustaining growth.

Regenerative agriculture

A holistic production system that aims, through practice adoption, to conserve and restore farmland and its ecosystem (biodiversity, water), to improve soil health and soil fertility while benefitting the farmer and communities.

Renovation

Removing old coffee trees and replacing them with new coffee plantlets.

Responsibly Sourced

Riparian buffer

A vegetated area (combination of trees and shrubs) near a stream, lake, or wetland which helps to protect from the impact of adjacent land uses.

Smallholder

A farmer who cultivates a smallsized farm, compared to the average farm size of the country.

Synthetic/mineral fertilizer

A chemically manufactured product, typically from the petroleum industry, containing specific concentrations of essential nutrients for plant growth and development.







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