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Nescafé Plan's evolutionary journey towards living income and regenerative agriculture in Indonesia

Nescafé Plan 2030 Pilots

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1. Introduction

In June 2022, Nescafé launched an ambitious program aimed at tackling some of the most urgent problems in the global coffee supply chain. "The Nescafé Plan 2030" commits over one billion Swiss francs to activities focused primarily on seven priority countries: Indonesia, Côte d'Ivoire, Mexico, Colombia, Honduras, Vietnam, and Brazil.

In June 2022, Nescafé launched an ambitious program aimed at tackling some of the most urgent problems in the global coffee supply chain: 1) the impact of climate change and 2) the economic viability of small-holder family farms. "The Nescafé Plan 2030" commits over one billion Swiss francs to activities focused primarily on seven priority countries: Indonesia, Côte d'Ivoire, Mexico, Colombia, Honduras, Vietnam, and Brazil. The program employs innovative strategies aimed at accelerating adoption of regenerative agriculture practices as the means to lower greenhouse gas emissions and boost smallholder farmers' income and household resiliency. But of equal importance to these new strategies are organizational learning and established relationships with farmers, both of which have been developed over the course of as many as 40 years in some of Nescafé's priority countries.

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 the pilot program currently underway in Lampung, South Sumatra. To better resonate with farmers, the pilot is known locally as "RegenTa", an amalgamation of "Regen" from Regenerative and "Ta" from the Bahasa word for resilient, Tangguh.

Sustainable Food Lab, a US-based non-profit organization, has been working to support Nescafé's pilot learning agenda, as well as its technical approach to living income analysis, since 2022. In August of 2023, Sustainable Food Lab's team visited and interviewed farmers and Nescafé agronomists at several RegenTa program sites in Lampung, as well as conducted a living income learning workshop for Nescafé's local project team. To further its analysis of RegenTa, Sustainable Food Lab interviewed Nescafé management to understand their perspectives on the longstanding foundational work on which the pilot is built, along with the pilot's theory of change and program activities developed with the aim of reaching the 2030 targets. Among the key takeaways are five critical factors, which, above and beyond the pilot's design, create enabling conditions for its success:

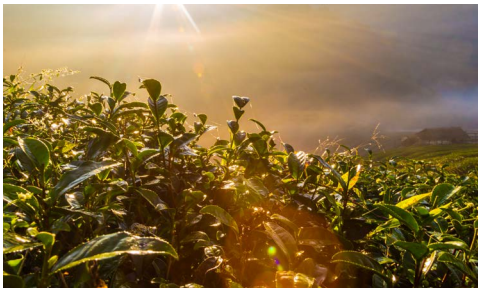
01 **Nescafé's direct access to farmers through a transparent supply chain and collaborative supply chain relationships;**

02 **A track record of learning and foundation building;**

03 **Clear direction on regenerative agriculture and living income from Nestlé's corporate strategy and the space given to the Lampung team to tailor program design to the local context;**

04 **The adoption of a living income framework for program design and progress measurement, with a monitoring and evaluation infrastructure to support it;**

05 **Integration of the program into the commercial components of the supply chain, and vice-versa.**



Near-term next steps, longer-term trajectory, and eventual program scale-up

During its Lampung visit, Sustainable Food Lab shared its recommendations for near-term next steps, as well as the longer-term trajectory of the pilot and eventual program scale-up. Finally, Sustainable Food Lab noted how, just as earlier work informed RegenTa, Nescafé's work in Indonesia is informing the development of pilots in other sourcing regions.

About the Sustainable Food Lab

The Sustainable Food Lab is an experienced team of strategists, collaborators, and implementers who work with partners to address complex sustainability challenges in the food system.

2. Years of learning and building a foundation

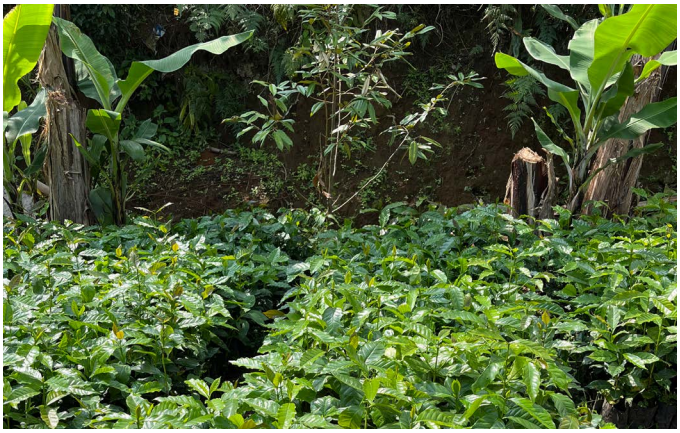
The Nescafé Plan 2030 draws lessons from over 25 years of farmer programs and leverages momentum created by Nestlé's climate and regenerative agriculture ambitions.

SETTING THE STAGE FOR REGENTA

One of Nescafé's priority sourcing origins is Indonesia – a country where smallholder coffee farming is the norm. When Sustainable Food Lab visited Lampung to investigate RegenTa, Nescafé's local team repeatedly spoke about the company's legacy farmer program and their fundamental importance to the development of RegenTa. While Sustainable Food Lab was not present to observe those earlier programs first hand, the message from the local team was that years of learning from farmer engagement were the foundation on which RegenTa was built. To better understand and convey the RegenTa case, Sustainable Food Lab interviewed Nescafé management about the trajectory of engagement with farmers.

SMALLHOLDERS IN NESCAFÉ'S SUPPLY CHAIN

The 2023 Coffee Barometer report notes that over 84% of the world's 12.5 million coffee farms are smaller than 2 hectares.[1] Operating at such a small scale – often in locations with limited resources, smallholder coffee farmers are particularly vulnerable to the challenges they face, including low productivity, agronomic know-how gaps, lack of resources to invest in farms, insufficient household income for a decent living standard and savings, global price volatility, and climate change. Aging coffee farmers find it difficult to convince younger generations to take over farms. Combined with the expected detrimental impact of climate change on coffee production, these dynamics imperil the global coffee supply. For Nescafé, these realities also create challenges in light of Nestlé's publicly stated ambitions on human rights and the environment.[2] Nescafé's assessment of the economic situation of farmers participating in Nescafé Plan field programs has shown the need to put livelihood and climate issues front and center in countries like Indonesia.



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NESCAFÉ'S PATH FROM QUALITY STANDARDS TO FARM ECONOMICS IN INDONESIA

As Nescafé's team described, in the mid-90s, the company began investing in ad-hoc training programs for farmers in Lampung. At the time this training began, Nescafé's supply chain was a typical one, with Nescafé several steps away from farmers. That changed in 1996 when Nescafé began supporting farmers to organize into farmer groups and helped local entrepreneurs set up "KUBs" – aggregation centers that sold directly to Nescafé and maintained strong connections with farmers. While training programs were limited to a quality-focus for another ten years, partnership with the KUBs enabled Nescafé to make the curriculum more systematic and goal-oriented – a dynamic that is still relevant today.

1 https://coffeebarometer.org/documents_resources/coffee_barometer_2023.pdf, page 14.
2 https://www.nestle.com/sustainability/human-rights and https://www.nestle.com/sustainability/climate-change.

Nestlé announced a goal to source 50% of key ingredients – including coffee – through regenerative agricultural methods by 2030.

In 2010, Nescafé launched the Nescafé Plan global strategy, a roadmap for reaching responsible sourcing and farmer engagement targets. In Lampung, that meant intensifying farmer programs, growing from the initial quality focus to include compliance with the 4C certification sustainability standard, farm economics, and resiliency. The Nescafé team recounts how, over the first ten years of the Nescafé Plan, Nescafé's Lampung agronomists and the KUBs launched farmer activities targeting increased productivity, lowered production costs, and financial literacy. A global pledge to purchase only "Responsibly Sourced" coffee, along with a commitment to establish and maintain 4C certified grower groups in Lampung to supply 4C certified coffee, further focused Nescafé's agronomic support for farmers. Importantly, it created a dynamic in which farmers' adoption of good agricultural practices to meet the 4C certification standard provides access to the market created by Nescafé factories, which need coffee from the certified grower groups year after year to fulfill Nestlé's responsible sourcing commitment. Concurrently, Nescafé and GIZ partnered to create the "Coffee+" program.[3] This paired Nescafé's farmer support with GIZ's "Farmer Business School (FBS)" pedagogy. As it reflects on this period, the Nescafé's team describes honing its approach to farmer livelihoods and resiliency in Lampung. Simultaneously, discussions on climate and living income evolved within the broader Nestlé corporate ecosystem, strengthening the case for Nescafé's next steps.

NESTLÉ'S CORPORATE CLIMATE AND LIVING INCOME AMBITIONS

As Nescafé advanced towards its 2020 goals, Nestlé's corporate headquarters was developing its global commitment to reach Net Zero greenhouse gas emissions by 2050, its regenerative agriculture commitment, and its living income ambition as reflected in the company's Salient Issues Action Plan.[4] This put the wind in the sails of Nescafé's eventual development of the Nescafé Plan 2030 – the second chapter in the brand's sustainability journey, including RegenTa and other pilot programs.

Carbon and regenerative agriculture

In 2019, Nestlé made its Net Zero commitment and took stock of its carbon emissions, finding that ingredients accounted for over 70% of its carbon footprint in a 2018 baseline assessment.[5] In 2020, in the context of the launch of the Net Zero Roadmap, Nestlé announced a goal to source 50% of key ingredients – including coffee – through regenerative agricultural methods by 2030. Nestlé's Regenerative Agriculture Framework lays out a broad set of agronomic practices to support company's goals.[6] With the latitude to adapt the framework for specific crops and local conditions, Nescafé's Lampung team was steered by the global level of the company - and given the support and guidance needed – to embed regenerative agriculture in its long-standing work with coffee farmers.

Living income

In parallel to momentum that was building in public forums like the Living Income Community of Practice (LICOP) during the 2010s, living income conversations within Nestlé became more prevalent and nuanced. Gradually, the living income concept became more visible in Nestlé's supply chain programs, starting in 2020 as part of a cocoa livelihoods project in Côte d'Ivoire.[7] As one of its program metrics, Nestlé chose to chart progress in the cocoa project against a living income benchmark - the annual income required for an Ivoirian household to afford a decent standard of living. Subsequently, as part of its Human Rights Framework, Nestlé identified living income as one of its salient human rights issues, creating an important space within the company for Nescafé to incorporate living income into the next phase of its work in Lampung and elsewhere.[8]

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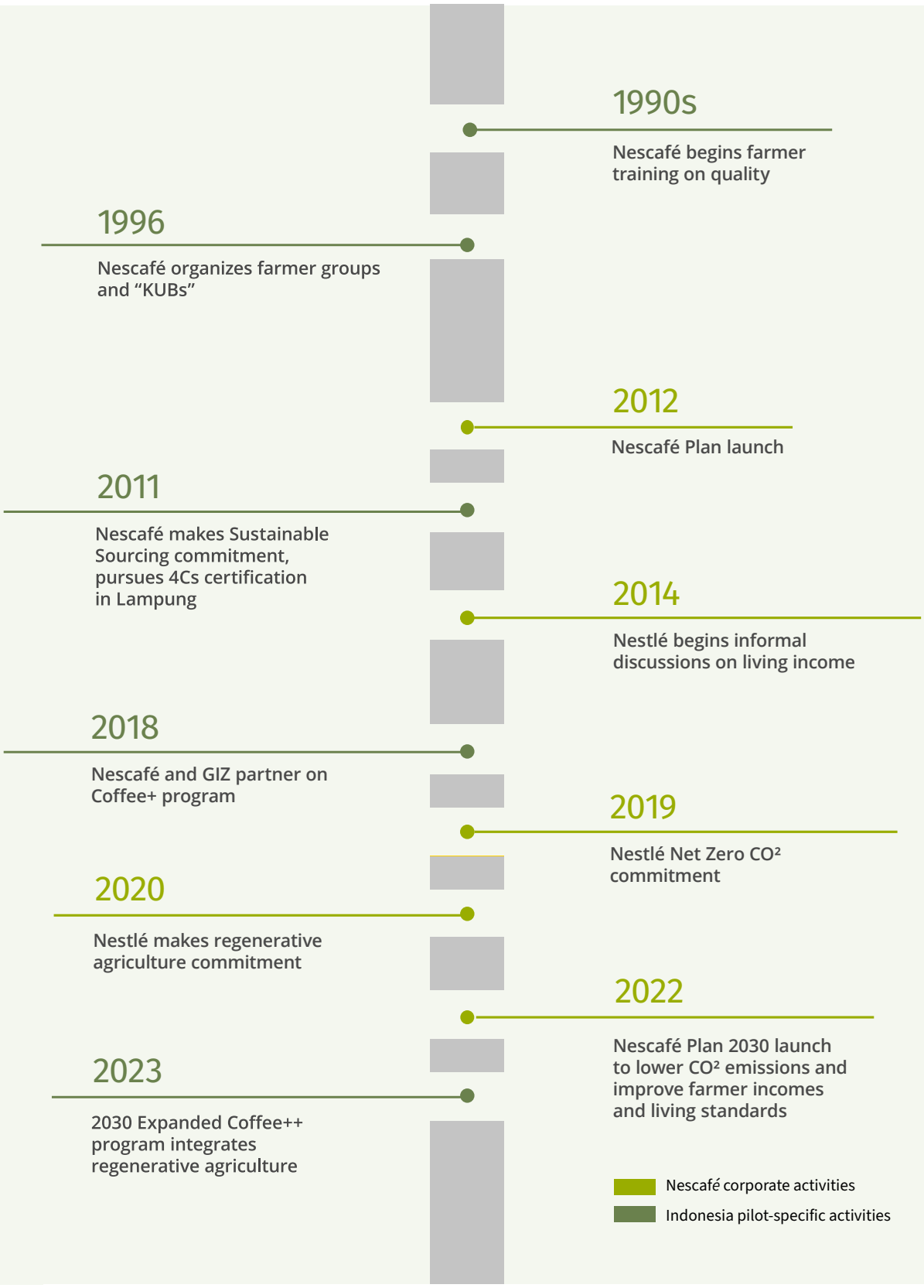
3 Nescafé and GIZ – Deutsche Gesellschaft für Internationale Zusammenarbeit (the German development agency), co-created the "Coffee+" project in Lampung, as well as the Philippines and Thailand. A second phase of collaboration, Coffee++, incorporates regenerative agriculture.
4 https://www.nestle.com/sites/default/files/2023-02/nestle-salient-issues-action-plan-living-income-feb-2023.pdf.
5 https://www.nestle.com/sites/default/files/2020-12/nestle-net-zero-roadmap-en.pdf, page 7.
6 https://www.nestle.com/sustainability/nature-environment/regenerative-agriculture.
7 https://www.nestle.com/sites/default/files/2023-07/nestle-income-accelerator-program.pdf.
8 https://www.nestle.com/sites/default/files/2023-02/nestle-salient-issues-action-plan-living-income-feb-2023.pdf.


1990s
Nescafé begins farmer training on quality
1996
Nescafé organizes farmer groups and “KUBs”
2012
Nescafé Plan launch
2011
Nescafé makes Sustainable Sourcing commitment, pursues 4Cs certification in Lampung
2014
Nestlé begins informal discussions on living income
2018
Nescafé and GIZ partner on Coffee+ program
2019
Nestlé Net Zero CO²
commitment
2020
Nestlé makes regenerative agriculture commitment
2022
Nescafé Plan 2030 launch to lower CO² emissions and improve farmer incomes and living standards
2023
2030 Expanded Coffee++ program integrates regenerative agriculture
Nescafé corporate activities
Indonesia pilot-specific activities

NESCAFÉ PLAN 2030

In October 2022, Nescafé launched the Nescafé Plan 2030, a strategy that draws lessons from over 25 years of farmer programs and leverages momentum created by Nestlé's climate and regenerative agriculture ambitions. The strategy promotes regenerative agriculture practices to drive carbon emissions reduction and higher farming household income.[9] The focus of Nescafé Plan 2030 activities for smallholder income improvement will be on five countries that are responsible for producing about a third of green coffee sourced by Nescafé: Indonesia, Côte d'Ivoire, Mexico, Honduras, and Colombia (regenerative agriculture programs in Brazil and Vietnam bring the total covered by Nescafé Plan 2030 to 90% of all green coffee sourced). For vulnerable smallholder farmers in particular, Nescafé Plan 2030 focuses on a multi-pronged approach that includes:

01 **Paying conditional cash incentives to farmers for accelerating adoption of regenerative agronomic practices, including tree renovation and rejuvenation, that catalyze long-term increases in yield and production efficiency; [10]**

02 **Promoting diversification and intercropping, two regenerative farming practices that also have the potential to increase household income and financial resilience;**

03 **Enhancing farmers' business decision-making skills;**

04 **Protecting farmers from adverse external shocks like weather events by employing such tools as climate and disease resilient tree varieties, shade cover, crop diversification, and weather insurance;**

05 **Stimulating younger generations' interest in continuing their families' farming vocation through mobilization of youth coffee service groups.**

Importantly, these program components are not designed as silos. Rather, each is intended to reinforce the others such that their impact is more than the sum of the parts. While each country's programs will share Nescafé Plan 2030's overarching themes, tactics, and impact assessment methodology, Nescafé's approach empowers its local teams and partners to design tailored strategies comprised of regenerative agriculture practices adapted to local contexts. These strategies, paired with financial incentives, are now being tested as part of pilot programs in Indonesia, Côte d'Ivoire, and Mexico; Colombia and Honduras will follow in the second half of 2024.

A common theme in the pilots is creating conditions conducive to farmers moving towards earning a living income. As framed in Nestlé's Living Income Action Plan, farming households' ability to earn a living income is dependent on a number of fundamental drivers: 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.[11] The Nescafé pilots focus their learning on three of those drivers: volume, cost of production and income diversification. Modeling, updated annually, takes into account predicted changes in productivity, costs, and market conditions, allowing the Nescafé team to estimate future coffee and net household income and then adapt pilot activities accordingly. Starting with around 1,000 farmers in each country, the pilots aim to validate the modelling, refine programs, and scale in the next few years. The RegenTa pilot in Lampung, Indonesia was the first to begin.

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9 https://www.nestle.com/media/pressreleases/allpressreleases/sustainable-coffee-nescafe-plan-2030.
10 Tree renovation refers to the process of removing aged trees and replanting with new plantlets. Tree rejuvenation refers to stumping or pruning to catalyze new growth.
11 https://www.nestle.com/sites/default/files/2023-02/nestle-salient-issues-action-plan-living-income-feb-2023.pdf, drawn from https://www.living-income.com/fileadmin/living_income/Tools_and_Resources/Living_Income_Toolkit.pdf and https://www.idhsustainabletrade.com/step-2-measure-current-income-and-the-gap.

3. RegenTa – designed for regenerative farming and resilience

THEORY OF CHANGE: THE PREMISE OF REGENTA'S PROGRAM DESIGN

After years refining its engagement with coffee farmers in Lampung, Nescafé's team identified three key inhibitors of 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.

Guided by Nestlé's Regenerative Agriculture Framework, Nescafé's Lampung team developed a program that uses regenerative agriculture practices and economic resiliency principles to chart a pathway for farmers into a virtuous cycle of investment and profitability.

Building on the foundation of past experiences with field programs in Lampung, the team developed the following theory of change to maximize impact with the pilot program that they called RegenTa:

If Nescafé starts with a group of farmers who have already been engaged in Nescafé Plan implementation and, through intensive training and cash incentives for practice adoption, spurs them to adopt regenerative practices that supports better productivity, as well as diversify their crops and income streams and hone their financial decision-making skills, then farmers can improve incomes, narrow the living income gap, and choose to make their own farm investments that can help them improve their incomes and standard of living.

PILOT DESIGN

To catalyze the *increased income → increased investment → increased income* cycle at the heart of the program's theory of change, RegenTa was launched to test activities with an initial group of 1,000 farmers. This work complements the support that Nescafé provides to its broader farmer-base as part of the ongoing 4C certification and Coffee+ initiatives. While the activities will take several years to create maximum impact, their intensity and focus on the three key income inhibitors (productivity, economic resiliency, and weather) are meant to deliver tangible impact to farmers early on to bolster enthusiasm for continuing participation. With promising initial results, the program has already been expanded to include an additional 500 farmers, bringing the pilot total to 1,500 farmers.

Aji, Senior Agronomist

Aji is a Senior agronomist with the Nescafé team in Lampung. He is core to the team (having been with Nescafé for over 10 years) and is responsible for the RegenTa program design and implementation. Aji, along with his team, strived to ensure that the program guidelines passed down from the global team were tailored to the specific context and challenges in Lampung. That culminated in a holistic strategy that aims to bring households to the next level of coffee production and ability to earn a living income.

Core activities

Soil analysis: As part of a focus on soil health, RegenTa distributes dolomite (a soil conditioner) and helps farmers track nutrients and balance soil pH. Soil analysis enables farmers to maximize productivity without extraneous application of costly chemical inputs.

Training and promotion of key regenerative agriculture practices: With productivity in Lampung far below its potential, adoption of regenerative agriculture practices – in particular, tree rejuvenation and making and applying compost – are key to the success of the program. Farmers receive training and ongoing support from Nescafé agronomists, as well as local NGO partner KMM, youth coffee service groups, and KUB-trained "champion-farmers."

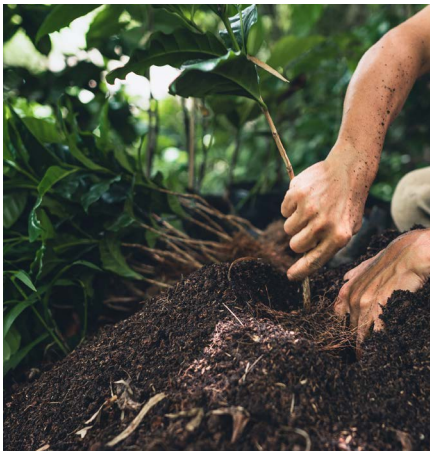
Demonstration plots: To supplement Nescafé's own "Edu-farm", demonstration plots worked by individual farmers who agree to be early adopters of the program's regenerative tenets provide other farmers with an opportunity to see how target practices are implemented and give results.

Youth coffee service groups: Both to add capacity to RegenTa's training programs and to stimulate the entrepreneurial sensibilities of young farmers who might otherwise be inclined to leave coffee farming, RegenTa is building the know-how of groups of young farmers. Members of these groups will sell advisory services and labor to older farmers who often have less capacity for labor-intensive practices like pruning and weeding. Nescafé will initially cover the service fees with the aim that farmers will see the value and pay for the services on their own in the future.

Farmer Business School (FBS): Through Nescafé' and GIZ's Coffee++ program – adapted to integrate regenerative farming practices – farmers in the RegenTa pilot partake in a five-day intensive Farmer Business School (FBS) course designed to help farmers adopt a vision of their farms as business enterprises, including tracking of profit and loss as a lens through which to make both coffee and non-coffee related economic decisions.

Income diversification: As foundational components of RegenTa's living income and resiliency goals, avocado intercropping and goat husbandry aim to supplement coffee income while catalyzing coffee productivity through regenerative agronomic practices like diversification, shade, and composting with vegetation and goat manure.

Weather insurance: With both untimely rainfall and drought impacting Lampung's productivity in recent years, a partnership with micro-insurer Blue Marble aims to mitigate farmers' loss of production-cost investment in the event of weather that would likely impede production.[12]



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Incentives

Key to the Nescafé Plan 2030's theory of change is the idea that both smallholder income and carbon impact need to be catalyzed by a rapid acceleration of regenerative agriculture practice adoption and sustained by rejuvenation of coffee plants for future productivity and climate resilience. To fuel that acceleration, Nescafé started deploying "conditional cash incentives" – cash payments to farmers who demonstrate adoption of key regenerative agriculture practices. In Lampung, these incentives are structured to reward productivity, tree rejuvenation, and adoption of regenerative practices like composting and soil cover being promoted through intensive training programs – drivers that Nescafé expects to impact long-term income gains and carbon reduction. Specifically:

- If a farmer rejuvenates his or her coffee trees on 25% of the farm for each of four years, Nescafé will give the farmer incentive payments for every rejuvenated hectare until the pruned or grafted trees are back in full productivity.
- If the 25 members of a farmer group achieve a specific average score on a regenerative scorecard and collectively deliver a minimum volume of coffee to Nescafé, then each farmer receives a per kg premium on the coffee they deliver.

12 https://www.nestle.com/media/news/coffee-farming-resilience-regenerative-agriculture.

One of the most notable markers of an evolutionary leap taken by Nescafé Plan 2030 is the adoption of a living income benchmark to measure the ultimate impact of program activities.

Monitoring program progress and charting impact against a living income benchmark

One of the most notable markers of an evolutionary leap taken by Nescafé Plan 2030 is the adoption of a living income benchmark to measure the ultimate impact of program activities. In Lampung, a partnership with Rainforest Alliance for impact assessment, along with additional advisory support from Sustainable Food Lab, helps Nescafé collect data annually and analyze different components of household income, along with coffee yield and production efficiency, on the farms in the Nescafé supply chain. Over the course of the project, this information will paint a picture of the average household's net income, which Nescafé will compare against an Anker Research Institute living income benchmark – the level of net income that a household in Lampung needs to earn in order to support a decent standard of living. Having collected baseline household income data prior to RegenTa's commencement, Nescafé will evaluate annual changes in household income and compare new income levels to the living income benchmark. This will provide crucial insight into whether program activities are helping farming families make significant headway toward earning a living income.

Alongside the income and productivity monitoring, the Nescafé Lampung team has set up a robust data collection regimen to track program implementation. The team tracks against activity participation indicators like farmer enrollment, training attendance, utilization of youth group services, and sign-up for weather insurance coverage. It also tracks behavior change indicators to understand the rates at which farmers are adopting the recommended regenerative agriculture practices. Sustainable Food Lab has recommended that the team also pay close attention to practice adoption and maintenance indictors over time to ensure that the program structure and cash incentives encourage farmers' long-term participation – the key to meeting RegenTa's goals. Qualitative measurement that shines light on why farmers did or did not adopt practices can also inform continued program refinement.

In addition to tracking these specific indicators, the pilot provides a crucial learning opportunity on higher-level program assumptions that test its theory of change and Nescafé's ultimate goals for household income and farm investment. As part of its engagement with the RegenTa team, Sustainable Food Lab has recommended a set of learning questions for the team to review annually:

- Do Nescafé's household economic models accurately predict impact of the program activity package?
- Which activities are exceeding or meeting impact expectations and which are underperforming? Which should be modified, scaled as-is, or left behind?
- Are the incentives sufficient to drive practice adoption? Is the payout timing right to optimize adoption?
- How will impact of the Farmer Business School (FBS) be measured? Is there a way to assess the value and the merits of including the activity in program scale up?
- Is the current, intensive monitoring regime viable at scale? How might it need to change?
- Does the weather insurance value proposition hold up as farmers come to understand the product and see the actual payouts? Is there a meaningful difference between farmers who see payouts versus those uninsured?

Creating time and space to discuss these questions will be key to fine-tuning the program and informing decisions about how to scale from the initial 1,000-farmer pilot to a program that includes Nescafé's network of 10,000+ farmers in the region. In addition to Nescafé's internal reflection and learning, results are shared publicly through annual progress reports and accompanying webinars.[13]

Syifa, Agronomist

Syifa joined Nescafé in 2022 as one of two female agronomists on the team. She is responsible for supporting farmer groups to understand and adopt regenerative agriculture practices. She also provides individualized coaching and tracks practice adoption at the farm level. Syifa is originally from the area and enjoys supporting farmers in her community to help them improve their farming practices and ability to earn a living income.

13 https://www.nestle.com/sites/default/files/2023-06/nescafe-plan-2030-progress-report-2022.pdf.

SUPPORTING INFRASTRUCTURE

Outside of the program design, key factors in setting up RegenTa for maximum success are the team members, external partners, unique elements of Nescafé's supply chain, and the resources Nescafé is allocating to the program.

The Nescafé team

In assessing the potential for success of RegenTa, the asset that is the Nescafé team cannot be overstated. To start, the presence of agronomists and project managers in Lampung, stationed in the field among farming communities and Nescafé's sourcing infrastructure, makes RegenTa stand out among peer smallholder programs. This proximity and cultural understanding, paired with the team's youthful enthusiasm, brings a dynamic to the program which will go a long way in winning farmers' trust in adopting new practices. At the global level, the project's investment in oversight by seasoned coffee supply chain experts and agronomists with data modeling and analytical capabilities brings a high level of experience, rigor, and mentoring for the local team. This puts the program on solid footing.

External partnerships

Another standout characteristic of the team's management is its willingness to embark on a continuous learning path and embrace partnerships with external organizations to bridge knowledge gaps and bring in different perspectives. Each bringing its own value, project partners include:

Karya Masyarakat Mandiri (KMM) A local implementation partner, KMM adds capacity to Nescafé's team by mentoring the youth service groups, visiting farmer group meetings and individual farms to troubleshoot farmers' agronomic challenges, and validating farmer practice adoption.

GIZ As Nescafé's strategic partner for the Coffee+ and Coffee++ programs, GIZ implements the Farmer Business School (FBS) training and developed the farm diversification models that guide income diversification strategy. Like Nescafé and KMM, GIZ has program staff in Lampung, which makes coordination smooth.

Rainforest Alliance A long standing Nescafé partner for data collection and analysis, Rainforest Alliance conducts annual farmer surveys and will track practice adoption and household income data that Nescafé will compare to the local living income benchmark.

Sustainable Food Lab Bringing a strong technical understanding of the living income framework, Sustainable Food Lab provides Nescafé additional analytical expertise, as well as support contextualizing data and developing a learning agenda for the RegenTa team.

Blue Marble With expertise in pairing technology with tailored insurance protection for underserved individuals, Blue Marble has developed a weather insurance product for RegenTa farmers which strengthens resiliency in the face of unpredictable climate events that severely impact coffee productivity.

Program resourcing

To state it succinctly, the ambitions set out in the Nescafé Plan 2030 are big, and resource requirements intensive. It is notable that the brand is committing over 1 billion Swiss francs to the program, with priority given to the seven countries where most of its coffee comes from, supplemented by the engagement of existing human resources.

Enablers in Nescafé's supply chain

In addition to the assets that Nescafé has specifically assembled to execute RegenTa, there are long-standing aspects of Nescafé's business which the program can leverage for success.

Local engagement: Nescafé is unique in that it manufactures and markets products in many of the same regions where it sources coffee. This has resulted in a presence of teams and infrastructure in sourcing regions, as well as a familiarity with the local context, that would be much more difficult to achieve with a centralized structure. In both the design and implementation of RegenTa, this is a significant asset.

Supply chain structure: While Nescafé's close partnership with the independent local aggregation centers (KUBs) in Lampung had its roots in quality control and supply chain efficiency, the KUBs became integral partners to verify farmers' adherence to 4C practices, and now to carry out regenerative agriculture practice training for farmers. Not only do the KUBs have direct connections to local traders and farmers, but the nature of those buyer-seller relationships allows the KUBs to integrate regenerative agriculture practices into the core business engagement with farmers.

Continuous sourcing engagement: The productivity-focus of the RegenTa program is only as enticing to farmers as there is a market opportunity for their coffee. Nescafé is able to create that incentive because of the importance of the region to the company's global sourcing strategy. And with the commitment to 4C certified coffee supplied by the certified farmer groups, as well as an interest in maximizing the return on the investment being made in RegenTa, both farmers and Nescafé benefit from greater production efficiency and deeper sourcing relationships.

4. Progress to date

- Much has been accomplished to establish program infrastructure and deliver benefits to farmers

The first communication to Lampung farmers about RegenTa began in early 2022. Activity implementation began shortly thereafter. While data about program participation and initial regenerative agriculture practice adoption has been captured since day one, it is premature to fully measure success in impacting productivity, income, and carbon reduction. Nonetheless, much has been accomplished to establish program infrastructure and deliver benefits to farmers. Moreover, the project team has already shown its ability to learn and pivot, which will be crucial as the effectiveness of specific aspects of the program reveals itself.

BASELINE DATA COLLECTION AND ANALYSIS

To track adoption of regenerative agriculture practices, reduction of carbon emissions, and progress toward a living income, Nescafé prioritized investment in a robust regimen of data collection and analysis. In late 2022, project partner 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. Nescafé plans to repeat the cycle annually. To oversee the process in Indonesia and other Nescafé Plan 2030 countries, Nescafé hired a Global Sustainability Intelligence Manager for its Green Coffee Sustainability Team to track progress and model outcomes – both of which have been critical to understanding program potential and pathways to success. As course-corrections are made to the program to prepare for scale-up, the analytical process will help identify activities with greatest impact and support the allocation of resources to them.

For example, the baseline data allowed Nescafé to begin to understand the productivity, production efficiency, and market conditions needed for the hypothetical "typical" Lampung farming household to make progress in closing the living income gap. It also suggested that targeting reduction in the cost of production – already fairly low – should not be a key focus of program activities. Knowing that under-fertilization was typical on farms, the data pointed to a strategy of promoting compost production and application, and projections suggested that those practices stand a good chance of boosting productivity and increasing household incomes. At the same time, modeling projected that promotion of diversified income generation could be crucial for helping to close the living income gap. Importantly, these data will help Nescafé predict the efficacy of cash incentives, as well as identify household income levels capable of supporting farmers' own investment in their farms.

Mauricio, Agronomist

Mauricio, an agronomist by training, joined the global Green Coffee Sustainability Team as its Global Sustainability Intelligence Manager in 2021 after working for Nescafé in Brazil for 5 years. Among other things, Mauricio is tasked with designing and managing data collection and modeling and analyzing data to predict and understand progress in narrowing the gap to a living income. Having Mauricio's role in-house is a benefit to Nescafé's ability to continuously learn and improve within and across regenerative resilient pilots.

PROGRAM ROLL OUT, LEARNING, & ADAPTATION

While not without challenges, RegenTa activity implementation has gone well. 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:

3500	cumulative attendees at farmer workshops
50	farmers received support to begin goat husbandry
400	farmers received youth group coffee services
680	farmers attended Farmer Business School training
520	farmers received support for avocado intercropping
860	farmers signed up for weather insurance coverage

Marzuki, RegenTa Farmer

Marzuki is a RegenTa Pilot farmer who hosts his farmer group's meetings on his farm. Marzuki describes how before using regenerative agriculture practices, his land did not absorb any nutrients, but now it absorbs nutrients and intercrops grow easily. Nescafé helped him to plan and structure his farm better. He also noted that his neighbors were initially doubtful of the practices he was employing (particularly the intercropping and goats producing manure for compost), but he now sees them clamoring to take part in the farmer group and trying to replicate his practices.

The team's early learning and adapting

Over the years, not every aspect of Nescafé's farmer programs went according to plan. In these instances, it has been important for the team to adapt quickly, be flexible, and find creative ways to adjust the program without impeding the activities' goals.

For example, years ago, one of Nescafé's farmer programs included a provision to transfer premium payments to farmers via a bank. However, Nescafé found that some farmers were unable to easily access the funds. Learning from this experience, Nescafé switched to a money transfer facility at local post offices for RegenTa's conditional cash incentives.

More recently, 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. Nescafé recognized that it needed to give farmers the flexibility of using valuable crops like pumpkin as a cover – perhaps not as effective for weed control as pinto peanut, but effective enough and far more suitable to farmers' enthusiasm for an additional cash crop.

There are other challenges that have not been solved yet, including the slow start to the youth farmer services program and establishment of demonstrations farms. Even adoption of the regenerative practices itself is not always an easy sell to farmers. The team's demonstrated ability to constantly reflect and fine tune RegenTa is key to solving these issues and to the program's ultimate success.

INITIAL RESULTS

Having recently received and analyzed the first set of farm household data since the RegenTa pilot began, Nescafé has an early sense of the program's progress. Nescafé's data infrastructure allows it to track results among pilot farmers and compare changes against the group of farmers who are not part of the pilot but received Nescafé Plan good agricultural practices training.[14] While it is far too early to make sweeping conclusions about impact, some important trends emerge that can inform Nescafé's work moving forward.[15] Highlights include:

Training

- An overwhelming number of RegenTa farmers report gaining and applying knowledge on climate risk, adaptation, and mitigation.

Practice adoption

- As compared to the Nescafé Plan farmer group, RegenTa farmers' use a larger percentage of organic fertilizer and apply it to a larger portion of their coffee farms.
- Adoption of regular soil testing and utilization of results for fertilization plans have low uptake among both farmer groups.
- More of the RegenTa farmers' land has soil covered year-round than their Nescafé Plan counterparts.
- 90% of pilot farmers qualified for the cash incentive for their regenerative scorecard score and volume-delivered, and 40% qualified to receive the incentive for rejuvenating 25% of their coffee trees.

Potential effectiveness trends

- In the face of severe drought, pilot farmers' yields fell slightly less than their counterparts, but their net cash income from coffee fell less because of greater production efficiency than farmers in the other groups.

Nescafé's data infrastructure allows it to track results among pilot farmers.

14 The data was collected by Rainforest Alliance from a sample of farmers participating in the RegenTa pilot and a sample of farmers participating in the long-standing Nescafé Plan activities. The program activities associated with each group of farmers are layered on top of each other. All 10,000+ farmers in Nescafé's Lampung sourcing program participate in Nescafé plan activities and approximately 1,000 of those were selected to also participate in RegenTa activities. For data collection, Rainforest Alliance randomly chose farmers from each group to comprise sample groups of using the (√n+1) methodology.

15 Given the early stage of this analysis, there is not yet an assessment of whether the group averages discussed in this case study are statistically significantly different across groups and survey years. As such, the comparisons between groups in this section can be thought of as early indicators of possible divergence in the group averages and promising signs of the program's results.

Farmers' perceptions of their learning and knowledge application are promising.

Training

With a significant portion of RegenTa focused on training, farmers' perceptions of their learning and knowledge application are promising. Over 80% "agreed" that they had gained knowledge in 1) risks related to climate change, 2) skills to better address climate risks, and 3) skills to adapt to or mitigate climate risks. Importantly, over 90% indicated that they were able to apply the knowledge and skills that they gained over the last 12 months.

Regenerative agriculture practice adoption

Organic fertilizer: A key objective of the RegenTa pilot is to boost soil health by catalyzing farmers' integration of organic fertilizer into their current synthetic fertilizer regimen in order to optimize crop nutrition. From the 2022 to 2023 production year, the percentage of organic fertilizer out of total fertilizer used increased for both farmer groups. But the percentage increase on RegenTa farms was more than double that of the other group, jumping 45 percentage points from 24% to 69% of total fertilizer used. Moreover, on RegenTa farms, 64% of coffee land received organic fertilizer or compost in the 2023 production year on average, as compared to 39% of coffee land on the Nescafé Plan farms. Organic fertilizer, particularly compost made by farmers, has the potential to reduce cost of production. However, it is labor intensive to make and needs to contain the right nutrient levels to have the intended impact on cost efficiency. These are factors for the local team to further investigate.

Soil analysis: To fully address the issue of soil health, the pilot promotes soil analysis as a way to prescribe a specific regimen of soil amendments to farmers. During the most recent data collection, 23% of RegenTa farmers reported conducting regular soil analysis, as compared to 7% of farmers in the Nescafé Plan group. Among farmers who reported doing soil analysis, 36% of pilot farmers reported using the analysis to inform their annual fertilizer plans, compared to 23% of farmers in the Nescafé Plan group. Of the soil samples analyzed by pilot farmers in 2023, about half met the recommended soil organic matter level and about 45% met recommended pH levels. Practice adoption takes time, and these data simply suggest that this remains an important opportunity area to create impact, as there are likely many farmers who are not aware that they need to improve their soil's organic matter and pH or how best to do so.

Rejuvenation:[16] Rejuvenation of coffee plots is a critical part of the RegenTa pilot and is linked to one of the two cash incentives available to farmers. About half of the pilot farmers had implemented some amount of rejuvenation, making them eligible for verification that they met the incentive's requirement of properly grafting 25% of farms' total trees. Of those verified, three quarters (or 40% of the total participants) successfully met the incentive's requirement to receive the incentive payment. It is noteworthy that some RegenTa farmers opted to not rejuvenate this year, delaying the practice in hopes that the drought will end soon. In the coming years, the rate of rejuvenation adoption will be a key indicator to watch in order to understand if the cash incentive, training, and uptake by peer farmers are enough to further encourage adoption of the practice.

Soil cover: Keeping soil covered throughout the year is an important regenerative agriculture practice for controlling weeds, maintaining appropriate soil moisture and temperature levels, and slowing erosion. Data show that farmers in both farmer groups have at least part of their land covered throughout the whole year by cover crops, crop residues, or coffee and other tree crops. Fifty-seven percent of RegenTa farmers have at least 75% of their coffee land covered during the whole year, as compared to 40% of the Nescafé Plan farmers.[17] As another core component of the program, trends in this metric will be important to track over time.

Preliminary indications of program effectiveness

Yield and income: Between the 2022 and 2023 crop seasons, coffee yield dropped substantially for both farmer groups due to extreme drought.[18] Prior to commencement of RegenTa activities, farmers selected for the pilot had yields 31% higher than Nescafé Plan farmers. From the 2022 to the 2023 harvests, RegenTa and Nescafé Plan farmers saw yields drop about 45%. This productivity drop led to corresponding coffee revenue reduction across both groups.

16 Data on rejuvenation verification and incentive qualification (volume and rejuvenation) comes from the Nescafé Indonesia team, which is responsible for collecting this for all RegenTa program farmers.
17 This indicator changed slightly from baseline to year 1, so it is not possible to show the difference in changes over time across the groups.
18 Yield includes unharvested cherries and coffee consumed by the farming household – not all is sold.

However, it is noteworthy that while the drought appears to have caused similar yield and revenue declines among the two groups, the percent drop in net cash coffee income (revenue less cash costs) is 20% for RegenTa pilot farmers compared to 31% for Nescafé Plan farmers. Data suggest that this difference is largely due to a significant increase in the pilot farmers' production efficiency (the ratio of the value of coffee sold to cost of production) between 2022 and 2023.[19] In 2022, the production efficiency ratio was similar across the two groups. In 2023, the ratio rose an astonishing 87% for RegenTa farmers, compared to an increase of 16% for Nescafé Plan farmers. This could be due to several important differences between RegenTa farms and the Nescafé Plan farms, including higher productivity and more optimal use of inputs. Because improvement of production efficiency through regenerative agriculture practices is at the very core of RegenTa's goals, this early trend is encouraging and one to watch over the coming years.[20]

In 2023, the production efficiency rose an astonishing 87% for RegenTa farmers.

Cash incentives: In addition to the 40% of RegenTa farmers who met the rejuvenation incentive criteria, almost all RegenTa farmers qualified for the regenerative scorecard and volume-delivered incentive. While both incentives are conditioned on the fulfillment of specific criteria, Nescafé does not dictate how farmers spend the incentive funds. Interestingly, 80% of farmers who received incentives indicated that they reinvested funds into their farms, and 88% of those farmers specified that the reinvestment helped to rejuvenate their farms and increase yield. This suggests both that most RegenTa farmers are in the position to reinvest the incentive funds in their farms and that they chose to do so – promising signs for the program. That said, 20% of RegenTa farmers indicated that they used the incentive funds for household needs, suggesting that they may need to realize significant productivity and income increases before they can divert extra income from household needs to farm investment.

Through RegenTa, 50 farmers received support to begin goat husbandry.

Farmer satisfaction: As a final encouraging indicator of the pilot's initial success, 93% of RegenTa farmers reported feeling "satisfied" with the program.

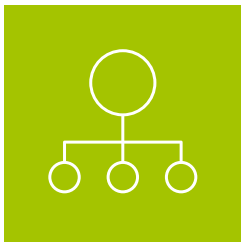
LEARNING AND PROJECT TRAJECTORY

These initial results set the stage for Nescafé to begin understanding the challenges and opportunities in catalyzing practice adoption, how RegenTa farmers' efficiency and income compare to their counterparts in Nescafé's other programs, and ways in which RegenTa will face ups and downs caused by factors outside of Nescafé's control, like drought. As Nescafé continues to scale RegenTa, its team will reflect back on the project's original learning questions: Are cash incentives and intensive technical support offered to farmers sufficient to catalyze adoption of regenerative agriculture practices? Will these practices boost incomes and instill confidence to sufficiently catalyze farmers' own investment in their farms? Are households resilient enough to continue that investment despite inevitable weather, market, or life-event shocks? These questions, along with others that were set out during the program design phase, will be discussed, learned from, and acted upon in a series of annual learning workshops with the local and global teams, facilitated by Sustainable Food Lab. The process will support Nescafé to fine-tune programs and scale RegenTa to include all 10,000 farmers in Nescafé's Lampung farmer groups, and beyond.

19 The revenue to cost ratio per ha shows how many dollars of revenue are earned for every dollar of cost.

20 While reduction in net coffee income during the drought year was significantly less for pilot farmers, reduction of net household income (coffee and all other income sources) was similar between the groups. Seemingly odd given the pilot farmers' better net coffee income results, the difference is explained by a disproportionately large decrease in off-farm income among the sample pilot farmer group. With no clear explanation for this data point, it may well be caused by a data anomaly, like outliers within a relatively small sample size. Nonetheless, the data merit attention and further investigation if the result reoccurs in coming years.

5. A model for other pilots



- The path to achieving goals at scale by 2030 will, as proven successful thus far in Indonesia, be charted by the teams and partners who know the regions best.

Eyes within Nescafé have been on RegenTa for early learnings that can be incorporated into other regenerative resilient 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, which are scheduled to begin in 2024. To facilitate this process, Sustainable Food Lab has proposed an annual learning agenda that would have teams from all of the pilot countries discussing and reflecting on each other's work.

Conceptually, all of the pilot programs are cut from the same cloth and broadly share elements of the same theory of change. However, the history of Nescafé's sourcing programs, not to mention supply chain structure, farm systems, agronomy, and household composition and income, are unique to each country (and sometimes within countries). To Nescafé's credit, frameworks and company commitments that have been crafted centrally are handed down to regional and local teams along with a mandate to use experience and common sense to design programs that are relevant to the local contexts. While the goals of carbon reduction and narrowing of the living income gap are consistent through all of the programs, the path to achieving them at scale by 2030 will, as proven successful thus far in Indonesia, be charted by the teams and partners who know the regions best.