

MONDELÉZ INTERNATIONAL COCOA LIFE 2023 COCOA & FORESTS INITIATIVE PROGRESS REPORT

PROGRESS IN A CHANGING
COCOA LANDSCAPE

MAY 2024



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FOREWORD: NAVIGATING THE CHANGING COCOA LANDSCAPE



These are complex and uncertain times. Our sector has been confronted by a convergence of global challenges – environmental changes, production shortfalls, price volatility, and regulatory plans, in addition to those we are already facing as we aim to make cocoa sourcing more sustainable.

Climate change remains one of the biggest threats facing the planet, its people, and businesses. For the cocoa sector, erratic weather, the El Niño climate phenomenon, drought, and disease have all seriously impacted cocoa harvests across Côte d'Ivoire and Ghana, as well as other cocoa-producing countries, putting farmers' livelihoods under pressure. Cocoa prices have soared to record highs. The reality is that we're facing a volume deficit for the third year running.

The EU Deforestation Regulation (EUDR), which will mandate deforestation-free supply chains from December 2024, requires companies to ensure that no cocoa bean imported to the European Union has contributed to deforestation. This regulation comes in addition to compliance with existing and new regulatory requirements in cocoa producing and consuming countries.

The EUDR is an important step for the sector as it has been reported that cocoa makes up 7.5% of the EU's contribution to global deforestation ([Bloomberg NEF](#)). As farmers continue to experience poverty, crop losses and environmental change, they may be pushed to expand into new forest areas, triggering a vicious cycle. This marks a pivotal moment for the EU, the global cocoa sector, and the Cocoa & Forests Initiative (CFI) – as well as [Cocoa Life](#).

Launched by Mondelez International (MDLZ) in 2012, Cocoa Life's core ambitions have always been to support farmers' livelihoods, help address deforestation and secure a more sustainable supply of cocoa. Collaboration has always been at the heart of those efforts.

When MDLZ helped found the CFI, alongside the governments of Côte d'Ivoire and Ghana and other world-leading chocolate and cocoa companies, it was the first sector-wide public-private cocoa partnership of its kind and represented a ground-breaking ambition to seek to end deforestation and restore forest areas.

While regulation will align the sector for global action to tackle deforestation, the sector is up against big challenges, and much uncertainty remains. Despite these challenges and dynamic developments, we remain focused on implementing the Cocoa Life program and continuing to deliver our program initiatives in collaboration with our valued partners.

Cedric Van Cutsem

Senior Director Cocoa Life, Mondelez International



TACKLING DEFORESTATION AND CARBON EMISSIONS IN OUR COCOA SUPPLY CHAIN THROUGH COCOA LIFE

At MDLZ, we believe that more sustainable snacking is about creating a future where people and planet thrive together. As a global snacking company, we encourage practices that respect land rights, invest in innovation and technology to increase transparency, and measure impact at scale across our supply chain. We continue to focus strategically on where we believe we can make an impact and where the world needs it most.

Deforestation is a major environmental challenge that has been caused by various factors, including global consumption. It contributes to global climate change as well as having an impact on local communities and ecosystem services in affected areas. It is critical that we take action to help reduce deforestation and promote more sustainable land use practices.

At MDLZ we're aiming for the end of deforestation across our primary commodities over the next two years. Our phased approach means we aim for cocoa, palm, soy, and paper materials placed on the market after December 30, 2024 and used by our European business, to be deforestation free – with our goal for other regions to follow by December 31, 2025. The cutoff date is December 31, 2020 in accordance with EU regulations and SBTi guidance. This is the date after which deforestation is counted in a company's supply chain, meaning that products have to be produced on land that has not been subject to deforestation or forest degradation after December 31, 2020. [Our full deforestation free position is available on our website.](#)

Cocoa, a key ingredient of our chocolate, is regarded as being at-risk of deforestation. We work closely with our key cocoa suppliers to supply us with deforestation-free cocoa. We also call on our suppliers to take steps to end deforestation in their own supply chains.

Developing a more sustainable, scaled and thriving cocoa supply chain can help us to reduce our total greenhouse gas (GHG) footprint and in turn, work towards our long-term goal to realize net zero CO₂e emissions by 2050. Cocoa Life, our signature sustainable sourcing program, helps to protect and restore forests in cocoa-producing countries. We collaborate with partners and governments to help farmers grow more resilient cocoa through agricultural practices. We implement initiatives to coach farmers, map farms and plant trees, and we work with farming communities, peers, sector partners, our external advisory council, and governments to drive solutions on a landscape level.



Christine Montenegro McGrath

SVP & Chief Impact & Sustainability Officer, Mondelez International & Chair of World Cocoa Foundation (WCF)

"THE WORLD IS CHANGING RAPIDLY, DEMANDING THAT WE CHANGE WITH IT. TO ACHIEVE A THRIVING AND EQUITABLE COCOA SECTOR, WE MUST CONTINUE TO COLLABORATE TO REVERSE DEFORESTATION, AS WELL AS PARTNER TO ADDRESS THE INTERRELATED SYSTEMIC ISSUES LIKE FARMER POVERTY AND CHILD LABOR. AT MONDELÉZ INTERNATIONAL, IMPLEMENTING MORE CLIMATE-SMART COCOA PRODUCTION PRACTICES, SUCH AS AGROFORESTRY MODELS, HAS BEEN AN IMPORTANT FOCUS OF OUR COCOA LIFE PROGRAM FOR YEARS. LOOKING AHEAD, WE BELIEVE THE COCOA AND FORESTS INITIATIVE CONTINUES TO BE A POWERFUL PLATFORM TO HELP DRIVE POSITIVE IMPACT FOR COCOA FARMING COMMUNITIES THROUGH GENUINE PARTNERSHIP AND COLLABORATIVE INVESTMENT BY COCOA AND CHOCOLATE COMPANIES, ALONGSIDE SUPPLY CHAIN AND GOVERNMENT PARTNERS."

Cocoa Life farmers are those that are registered with Cocoa Life; they are independent and not employed by MDLZ. Additionally, MDLZ does not own or operate Cocoa Life registered farms. Our ambition is to seek no deforestation on Cocoa Life registered farms. This is how we aim to help make cocoa right.

OUR APPROACH TO MORE SUSTAINABLE INGREDIENTS

A more sustainable supply of key raw materials such as cocoa, wheat, dairy, and palm oil is critical to the continued growth and success of our business, to the resilience and prosperity of the communities producing these raw materials, and to the protection of the landscapes the ingredients are grown in. Our ambition is to source our key ingredients – including cocoa and wheat – more sustainably and support more economically and socially resilient communities. These two ambitions mutually support and reinforce each other, and are at the heart of our aim to create a future where together people and the planet thrive. Our goal is to source ~100% of cocoa volumes for Mondelez International's chocolate brands through the Cocoa Life program by 2025.¹⁰ By the end of 2023, ~85% of cocoa volumes for Mondelez International's chocolate brands were sourced through the Cocoa Life program.¹⁰



Cathy Pieters

*VP Sustainable Ingredients & Cocoa Life,
Mondelez International*

"AS PART OF OUR AMBITION TO SOURCE OUR KEY INGREDIENTS – INCLUDING COCOA – MORE SUSTAINABLY, WE HELP TO BUILD GREATER END-TO-END RESILIENCE IN OUR SUPPLY CHAINS. INGREDIENTS SOURCING IS COMPLEX, AND RAPIDLY EVOLVING AT THE INTERSECTION OF CLIMATE, LAND AND HUMAN RIGHTS; ALL IN THE MIDST OF EVOLVING REGULATION. OUR LONG-TERM SOLUTIONS NEED TO BE THOUGHTFUL AND FLEXIBLE, TO ADAPT AND ANTICIPATE THE CHANGES WE'RE ALREADY SEEING. COLLABORATION REMAINS KEY FOR REAL IMPACT ON PEOPLE AND PLANET. THAT'S WHY PUBLIC-PRIVATE PARTNERSHIPS, SUCH AS THE CFI, ARE NEEDED SO WE CAN CONTINUE TO DRIVE PROGRESS AND SHAPE INNOVATIVE SOLUTIONS TOGETHER."

OUR APPROACH TO NET ZERO CARBON

We've been on a path to reduce our carbon emissions for several years now and took a key step in 2021 to set our long-term target of net zero GHG emissions across our full value chain by 2050. Most recently, our end-to-end emissions reduction targets of 35% by 2030 and net zero target by 2050 have been validated by SBTi.

Cocoa is one of the two largest contributors to our footprint. Three key elements drive our cocoa emissions reduction: lower land use change, agroforestry and farming practices. Building on our work from 2022, we're continuing to expand our list defining customized emission factors that will help us to understand where progress has been made, and where to continue efforts to reduce our carbon emissions intensity. In doing so, we're using data to translate our interventions in deforestation prevention, agroforestry as well as farming practices into custom emission factors.



Michael Weber

*Senior Director, Climate & Environment,
Mondelez International*

"OUR CLIMATE STRATEGY BUILDS ON THE FOUNDATION OF MANY YEARS OF COMMUNITY COLLABORATION, AS IS SEEN FOR EXAMPLE IN OUR SIGNATURE SOURCING PROGRAMS FOR KEY RAW MATERIALS SUCH AS COCOA LIFE AND HARMONY WHEAT. IT IS THE COMBINATION OF SOCIAL, ECONOMIC AND ENVIRONMENTAL OBJECTIVES THAT WE BELIEVE HOLDS THE KEY TO SUCCESS."



Find out more about MDLZ's efforts to reduce its carbon footprint in the 2023 Snacking Made Right Report. You can find additional details on MDLZ's ESG goals and reported information within the About This Report section.



THE CFI FRAMEWORK AND COCOA LIFE'S INTEGRATED APPROACH

After raising the issue of cocoa-based deforestation in 2015 at COP21 in Paris, in 2017 MDLZ became a founding member of the [Cocoa & Forests Initiative](#) (CFI), alongside the governments of Côte d'Ivoire and Ghana, and 36 other world-leading chocolate and cocoa companies to help decrease deforestation and restore forest areas.

We support CFI's ambitions and work towards its goals through the Cocoa Life program. Cocoa Life's integrated approach and [climate strategy](#) "Protect, Produce, People" aligns with CFI's three-pillared framework.



PROTECT – CFI PILLAR 1: FOREST PROTECTION & RESTORATION

We're helping to protect forests by scaling farm mapping and distributing trees for on- & off-farm planting, as well as expanding agroforestry, to help promote a wide range of environmental, social, and economic benefits. This also includes distributing cocoa seedlings as well as expanding the Payments for Environmental Services (PES) program. Additionally, the Modified Taungya System (MTS) helps to restore degraded forests and diversify farming to include planting food crops, which helps to improve the livelihoods of the farmers.



PRODUCE – CFI PILLAR 2: MORE SUSTAINABLE PRODUCTION & FARMERS' LIVELIHOODS

We're helping farming communities to grow more profitable cocoa businesses to help improve their livelihoods. This includes training farmers in Good Agricultural Practices (GAPs), on income-generating opportunities and Village Savings and Loan Associations (VSLAs), which allow communities to save money together and take small loans from those savings, helping to tackle gender inequalities and build financial resilience and household income.



PEOPLE – CFI PILLAR 3: COMMUNITY ENGAGEMENT & SOCIAL INCLUSION

Helping to lift cocoa communities remains core to what we do. We facilitate investments to help build capacity in communities so they can shape their own future and make decisions that reflect their diverse needs. This includes women's empowerment projects, building Community Action Plans (CAPs) and the establishment of Community Development Committees (CDCs) to assess needs and priorities for the community and forests.

CFI ACTION PLANS

CFI PHASE ONE

OCTOBER 2018 - SEPTEMBER 2022

Our action plans focused on laying the foundations and forging partnerships through pilot initiatives in West Africa (Ghana and Côte d'Ivoire). We successfully piloted our Payment for Environmental Services (PES) program in both Côte d'Ivoire and Ghana, and the Modified Taungya System (MTS) in Ghana. We also helped scale farmer trainings, farm mapping and tree distribution on- and off-farms.

CFI PHASE TWO

OCTOBER 2022 - SEPTEMBER 2025

We continue our approach of piloting, learning, and scaling – investing in innovative partnerships with the potential to help move cocoa forward. We aim to connect key stakeholders to pilot and scale landscape-wide environmental initiatives, as well as driving 'smart innovations' through advanced farm mapping technology, agroforestry techniques and on- & off-farm tree planting. The program will focus on scaling up what works, working collaboratively in landscapes and identifying new partnership opportunities with the ambition to help make transformational impact.



LOOKING AT THE LATEST CFI REPORTING PERIOD FROM OCTOBER 2022 TO SEPTEMBER 2023, PROGRESS HIGHLIGHTS FROM ACROSS GHANA AND CÔTE D'IVOIRE INCLUDE:



2023 CFI PROGRESS

Looking at the delivery of key activities, we have made strong progress since the last reporting period, continuing to collaborate with our network of sector-wide, long-term partners to support farming communities. Key CFI progress from October 2022 to September 2023 includes ~146,000³ farms mapped in Ghana and Côte d'Ivoire, ~323,000³ hectares with deforestation risk assessments in Ghana and Côte d'Ivoire, ~1,208,000³ multi-purpose trees distributed for on-farm planting via agroforestry in Ghana and Côte d'Ivoire and ~952,000¹ cocoa seedlings distributed in Ghana.

Our teams in Ghana have been co-leading industry partners on the Asunafo-Asutifi North Landscape initiative. Our teams in Côte d'Ivoire have been organizing a sector-wide workshop to share learnings to improve Payments for Environmental Services (PES). We are also driving agroforestry innovation as part of our Carbon Booster Project in both West African countries, aiming for a bigger positive climate impact through carbon removals. In addition, our ongoing partnership with Satelligence continues to increase understanding of our impact on forests, as we aim to help prevent future deforestation and rehabilitate impacted areas.



Teresa Amelia

Member of Asunafo Cocoa Farmers Cooperative Limited

"CLIMATE CHANGE HAS AFFECTED OUR FARMING ACTIVITIES GREATLY. FIRSTLY, WE HAVE SEEN CLIMATE CHANGE HAS RESULTED IN HIGHER TEMPERATURES AND EXCESSIVE RAINFALL. IF RAINS ARE NOT PREDICTABLE, AND THEY DON'T COME AS EXPECTED, IT REALLY AFFECTS OUR COCOA FARM, AND WE EXPERIENCE LOW PRODUCTIVITY. IF THERE'S LOW PRODUCTIVITY, THEN THIS LEADS TO POVERTY. AS FARMERS, WITHOUT SUPPORT AND HELP FROM ORGANIZATIONS, WE CANNOT OVERCOME THE CHALLENGES TO PROTECT OUR ENVIRONMENTS FROM CLIMATE CHANGE. WE WELCOME SUPPORT FROM ORGANIZATIONS THAT ARE INTERESTED IN FARMING AND HELPING US TO OVERCOME THESE CHALLENGES."



THE HIGHLIGHTS FROM THIS REPORTING PERIOD ARE DIVIDED INTO SIX MAIN SECTIONS:

Innovative Financial Incentives to Restore Forests

- Payment for Environmental Services (PES)
- The Modified Taungya System (MTS)

Promoting Agroforestry

- Our approach to Agroforestry
- The trial in Côte d'Ivoire
- The Carbon Booster Project

Multi-Stakeholder Landscape Initiative to Protect Forests

- The Asunafo-Asutifi North Landscape Project

Understanding Our Impact on Forests

- Farm Mapping
- The Satelligence Partnership

Targeting Farming Practices

- Good Agricultural Practices and Targeted Good Agricultural Practices
- Piloting solar-powered irrigation in Ghana

Climate Progress and Gender Equality

- The Climate Resolution Coalition
- The Climate-Friendly Cookstove Project

INNOVATIVE FINANCIAL INCENTIVES TO RESTORE FORESTS

PAYMENT FOR ENVIRONMENTAL SERVICES (PES)

Since 2018, we have been piloting the PES program to help communities better understand the importance of forest protection and provide incentives for community members to adopt our programs, including enhanced environmental practices. Our innovative PES program pays farmers a combination of financial and in-kind incentives for a variety of environmental services – from forest conservation to carbon sequestration to planting non-cocoa trees on their farms via agroforestry. This program was the first of its kind, introduced to the cocoa sector by MDLZ in 2018, and helps to balance environmental priorities with economic realities. It also acknowledges the benefits of forest-friendly practices and innovations tailored to local needs, including through farmer incentives. With our partners, we have introduced the PES program to cocoa farmers in Côte d'Ivoire, Ghana, as well as Indonesia. In the CFI reporting period from October 2022 to September 2023, our PES program has reached in total ~4,500² farmers in Côte d'Ivoire and ~4,600¹ farmers in Ghana.

Through a collaborative effort with the Ministry of Environment, Sustainable Development and Ecological Transition and local NGOs in Côte d'Ivoire, the Cocoa Life program introduced the first PES in the Nawa Region. The PES program is a shared vision in tune with Côte d'Ivoire's national strategy for protecting forests and carbon stocks. It includes a successful partnership with REDD+ which has enabled increased field visits, learning from and testing PES for farmers, as well as promoting this approach to other partners. Several sector partners are now implementing PES based on the Nawa project results, demonstrating the power of collaboration in helping to drive positive change.

At a national level in Côte d'Ivoire, a PES working group (PES-NWG) has been created through the MDLZ Nawa pilot project. This working group – under the REDD+ initiative – shows our ambition of helping to drive sector transformation by sharing pilot learnings and inspiring others. But we still face challenges. For instance, a lack of identity cards means PES e-payment does not suit all beneficiaries. Therefore, our partner, Impactum, is working with mobile banking service providers to address this issue and process PES cash payments.



Sare Play

Chief of Meagui Tribe, native of Krohon, (Nawa region, Côte d'Ivoire)

"WE ARE HONORED TO HAVE BEEN THE FIRST VILLAGE IN CÔTE D'IVOIRE TO FEEL THE IMPACT OF THE PES. NOT ONLY HAVE OUR PRODUCERS RECEIVED ADDITIONAL CASH INCOME THANKS TO THE PLANTING OF TREES, BUT THE WOMEN HAVE BENEFITED FROM THE CONSTRUCTION OF A SHED FOR ATTIEKE [A CASSAVA DISH] PROCESSING, ENABLING THEM TO PRODUCE MORE AND SELL MORE. WE CAN ONLY BE SUPPORTIVE OF THIS INITIATIVE OF MONDELÉZ INTERNATIONAL AND CALL ON OTHER PLAYERS TO FOLLOW IN THE FOOTSTEPS OF COCOA LIFE."



Based on the success of the PES pilot in the Nawa region, a testament to the collaborative efforts of all stakeholders, our partnership with the UK Government's Partnerships for Forests (P4F) and WCF scaled PES around the Tai National Park in the San Pedro region. As part of this Tai Landscape Project, a platform has been established to bring together various stakeholders, including government, suppliers, and private sector stakeholders, to work together at the landscape level to help restore and protect the San Pedro region's forest. This expansion has been extended by three months to finalize the payment of PES to beneficiaries and encourage Income Generating Activities (IGAs) for communities.

The Cocoa Life program continues to engage with partners to shape the PES agenda in Côte d'Ivoire. As agroforestry practices become more familiar and widespread, and cocoa-producing countries initiate their own protection projects, we firmly believe that PES will remain relevant. The Cocoa Life program therefore works with partners and consultants, including with the Alliance of Biodiversity International and CIAT to help finetune and evolve the PES approach and look for opportunities to share these findings with key sector stakeholders.



Ahmadou Cisse
Head of Cocoa Life, Côte d'Ivoire,
Mondelez International

"THE MAIN TAKEAWAY FROM THE WORKSHOP WAS THAT PES IS KEY IN THE FIGHT AGAINST DEFORESTATION, BY INCREASING AGROFORESTRY ADOPTION IN THE AGRICULTURAL SECTOR, AND PARTICULARLY IN THE COCOA SECTOR. FOR GREATER IMPACT AND TO SECURE INVESTMENT FROM THE PRIVATE SECTOR, THE ESTABLISHMENT OF AN INCLUSIVE INSTITUTIONAL FRAMEWORK AT THE NATIONAL LEVEL IS NEEDED."



REVIEWING THE PAYMENTS FOR ENVIRONMENTAL SERVICES (PES) FRAMEWORK WITH SECTOR STAKEHOLDERS FROM FARMER TO GOVERNMENT

In August 2023, the Cocoa Life team, in collaboration with the Ivorian Ministry of Environment, and Sustainable Development and Ecological Transition organized a regional experience-sharing workshop on PES. The objective of this workshop was to discuss the implementation of a regulatory framework for PES and carbon credits. Around 60 cocoa sector participants joined this meeting to discuss and contribute to the following recommendation outputs:

- Establish an institutional environment to foster the adoption of Good Environmental Practices (GEPs), Payments for Environmental Services (PES) and investments.
- Establish sustainable financing mechanisms with the involvement of the governments.
- Establish a synergy of actions considering the interests of various stakeholders (investors, beneficiaries, government).
- Strengthen the capacity of stakeholders on carbon and PES.

MODIFIED TAUNGYA SYSTEM (MTS)

MTS is an extension of PES in Ghana, relaunched as an evolution of a previous practice called the “Taungya System”. Under the pre-existing Taungya system, farmers cultivated agricultural crops during the early stages of forest replantation. In 2002, the government of Ghana – through the Forestry Commission – reviewed this practice, relaunching it as MTS. The ambition was to encourage the restoration of degraded forests. The new approach considers the financial benefits for farmers and other stakeholders, rethinking tree ownership. The ownership of the trees was transferred from a single entity (the government) to collective owners (farmers, local communities, government, and landowners), empowering community members and putting them in the driving seat as co-managers of forest reserves.

We are the first private cocoa and chocolate company implementing MTS in Ghana and have seen its benefits to farmers and forests. Cocoa farmers have the opportunity to earn more money from their MTS food crops than cocoa-only crops. This can help increase farmer household income, whilst also diversifying it, supporting communities with an economic shock absorber. As the leader of this approach that aims to help restore the degrading forest reserve, the Cocoa Life program has hosted a range of sector actors on the project site to observe the implementation progress and sharing learnings for replication.

Between October 2022 to September 2023 across Ghana, ~210¹ farmers were trained in MTS. Cash payments have been made to farmers to encourage restoration of the degraded forest under the system.

By rethinking tree ownership, the MTS approach not only considers the financial benefits for farmers and other stakeholders, but also provides tangible support. Through this system, bordering communities are assigned areas of degraded forest to plant new tree seedlings, which can help reforestation while adding food crops until the tree canopy closes. As part of this project, the Cocoa Life program provides farmers with seedlings and tools, enabling them to diversify and increase their household income. Approximately a 40% share of timber revenues will go to the farmers, with the remaining ~60% split among Forestry Commission, local community and traditional authority. The performance-based reward payment has been designed as part of an approach intended to motivate participants in the restoration and protection of natural resources. The payments are both in-kind and cash for individual farmers and the groups. In addition to the cash incentive, each participating farmer also receives tools, for instance, cutlasses and wellington boots. In two principal fringe communities – Akwaduro and Anwianwia – participating farmers were given tricycles as means of farm transport to help their movements to and from the project site, including the transport of their farm produce.

One barrier that cocoa farmers are facing is the unavailability of farmhands leading to high cost of labour. The cash reward for surviving trees helps participating farmers with this cost. Another ongoing challenge in MTS implementation is that farmers are less motivated to spend resources on maintaining plots when tree canopy has formed and food crops can no longer grow. Farmers’ interest in the plots decreases with dwindling earnings from food crop farming, and decades ahead to wait for the proceeds from the sale of timber species. To manage disinterest from the point of canopy closure onward and increase farmer income, the project has begun registering the beneficiaries, taking the required information needed by Forestry Commission to accurately document all participants. This then allows individuals to access the percentage of the timber proceeds due to them.

Atsu Titiati

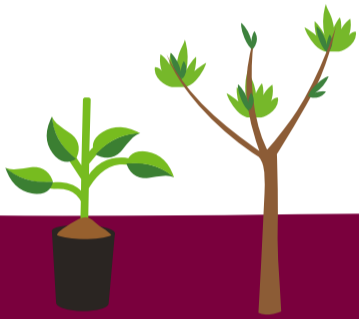
Project Coordinator, Environmentally Sustainable Production Practices in Cocoa Landscapes, United Nations Development Program – Ghana

“MONDELÉZ INTERNATIONAL’S SUPPORT FOR THE PROJECT IS A WELCOME INITIATIVE THAT HAS RESULTED IN THE REHABILITATION AND RESTORATION OF DEGRADED FORESTLANDS BY IMPLEMENTING THE MODIFIED TAUNGYA SYSTEM. SIMILARLY, THE PROJECT IS ALSO PROMOTING THE DEVELOPMENT OF COMMUNITY RESOURCE MANAGEMENT AREAS (CREMAS) AS A MECHANISM THAT ENABLES COMMUNITIES TO MANAGE FOREST AND TREE RESOURCES, IN ADDITION TO WILDLIFE, IN THE OFF-RESERVE LANDSCAPE FOR CLIMATE MITIGATION AND LIVELIHOOD OBJECTIVES. THIS COLLABORATION WITH MONDELÉZ’ COCOA LIFE PROGRAM, GHANA COCOA BOARD (COCOBOD), AND THE UNITED NATIONS DEVELOPMENT PROGRAM (UNDP) IS CONTRIBUTING TO MITIGATING THE IMPACTS OF THE CHANGING CLIMATE AND AN EXEMPLARY INVESTMENT IN NATURE THAT CAN ONLY HAPPEN ON A SCALE IF THE PUBLIC AND PRIVATE SECTORS WORK TOGETHER.”





These images show an MTS plot in Ghana where seedlings were planted one-to-two years ago alongside agricultural crops. The seedlings are still small at this stage and require regular maintenance by farmers for up to five years.



Here shows a different plot under MTS in which seedlings have been growing for four years. They have visibly grown high, and the farmers have left the plot to let the forest grow naturally.



Adjoa Adomaah

A project beneficiary from Akwaduro in the Asunafo North Municipal of the Ahafo Region of Ghana

"WE WERE WORRIED BECAUSE OF THE MASSIVE DEGRADATION OCCURRING IN THE AYUM FOREST RESERVE THAT WAS OUR MAIN SOURCE OF NON-FOREST PRODUCTS LIKE SNAILS, NUTS, FUEL WOODS, MUSHROOMS, AND MEDICINAL PLANTS, AMONG OTHERS, AS WELL AS SERVING AS A MODERATION FACTOR TO CLIMATE CONTROL IN OUR AREA. THEN, THE PROJECT TEAM CAME AND OFFERED TO SUPPORT US IN RESTORING THE FOREST THROUGH THE MODIFIED TAUNGYA SYSTEM. I JOINED THE PROJECT BECAUSE I WANTED THE FOREST TO RETURN FOR US TO BENEFIT. I AM HAPPY I JOINED THE PROJECT AND TO CONTRIBUTE TO THE RESTORATION OF THE FOREST. CURRENTLY, I HAVE FIVE ACRES OF FOOD CROPS FARM THAT I HAVE INTEGRATED WITH TREES IN THE DEGRADED AREA OF THE AYUM FOREST. THE YIELD IS GOOD BECAUSE THE RAIN NOW COMES OFTEN. I MIGHT SAY THERE ARE NO MORE QUARRELS IN MY MARRIAGE AND HOME OVER SCARCE INCOME AND FOOD AND THROUGH OUR COOPERATION WITH THE PROJECT TEAM, WE EXPECT THE FOREST TO COME BACK."

PROMOTING AGROFORESTRY

OUR APPROACH TO AGROFORESTRY

Agroforestry practices can make farms more resilient to climate change. However, to succeed, agroforestry also needs to make economic sense for farmers. Based on Cocoa Life's agroforestry experience working in Côte d'Ivoire, India and Indonesia, our agri-research team is working on several pilots to better understand and improve agroforestry recommendations and support for farmers.

Agroforestry practices can provide a wide range of environmental, social, and economic benefits:

- Enables farmers' income diversification, by planting a mix of shade trees including fruit and timber trees. If the tree is a source of income, it is less likely to be cut down for wood.
- Supports soil conservation, including improved soil quality, reduced soil erosion and increased soil fertility.
- Supports biodiversity.
- Provides a natural barrier to pests and diseases (when planting along the borders of the plot).
- Helps crops become more resilient to climate change and extreme climatic events.

The Cocoa Life program's efforts to promote agroforestry are aligned with the expectations of the African Regional Standard (ARS 1000), established by the governments of Ghana and Côte d'Ivoire, and where applicable, we go beyond with additional activities in line with CFI's agroforestry criteria:

1. An assessment is conducted, and a purposeful plan is developed based upon the needs and capabilities of the farmer and market opportunities.

~1,208,000³
multi-purpose trees
distributed for on-farm
planting via agroforestry
in Ghana and
Côte d'Ivoire

2. A minimum of 25 multi-purpose trees are planted per hectare.
3. The plan is developed to deliver three benefits: productivity, economic, environmental.
4. The number of trees selected is sufficient to deliver on these three benefits.
5. Support/technical assistance is provided to ensure trees are planted based on the selected and planned design.
6. Includes at least three different non-cocoa species.
7. The plan takes into consideration any national recommendations and aligns with any African Regional Standard (ARS 1000) requirements established by Ghana and Côte d'Ivoire governments.
8. If a farmer has already achieved the above-mentioned requirements, the plan should demonstrate the additional benefits resulting from further investment in agroforestry.
9. The implementation of the plan should be the result of company investment.

The CFI agroforestry criteria have been informed by sector recommendations on agroforestry development with the understanding that any agroforestry system will need to be developed based upon individual farmers' needs, interests and abilities. The minimum number of trees per hectare included in the criteria is not based upon scientific evidence in terms of the optimal number needed to achieve the three benefits (productivity, economic, environmental). Rather, this number helps to establish a minimum reference point only.

COCOA AGROFORESTRY TRIAL IN CÔTE D'IVOIRE

Over the past few years, we have collaborated with Barry Callebaut and CABI in a long-term trial (2015-2023) in Tiassale, Côte d'Ivoire, to evaluate the economic and environmental performance of cocoa agroforestry systems. This trial, a large agroforestry research project in Côte d'Ivoire spanning 12 hectares, is a testament to our collective efforts. It is intensively managed, featuring cocoa grown alongside a diverse range of timber and fruit trees, perennial and annual crops. Our shared ambition is to evaluate the economic and environmental benefits of different tree-crop combinations and spacings.

Some key challenges of the trial included selecting good soil for cocoa crops, to give them the best chance of survival, and ensuring that shade trees grow above cocoa trees to provide optimal shade, rather than competing for space at the same canopy level. The latter can be achieved through regular pruning. These learnings have culminated in developing a shade tree management protocol, a practical tool that can be implemented in cocoa agroforestry systems.

Our promising observations have paved the way for a crucial next step for pilot projects with farmers. These projects, launched in 2023, aim to validate the results of the trials in real life situations, such as applying the learnings on farms and in our new carbon booster project (learn more under "Carbon Booster Project" on page 16).

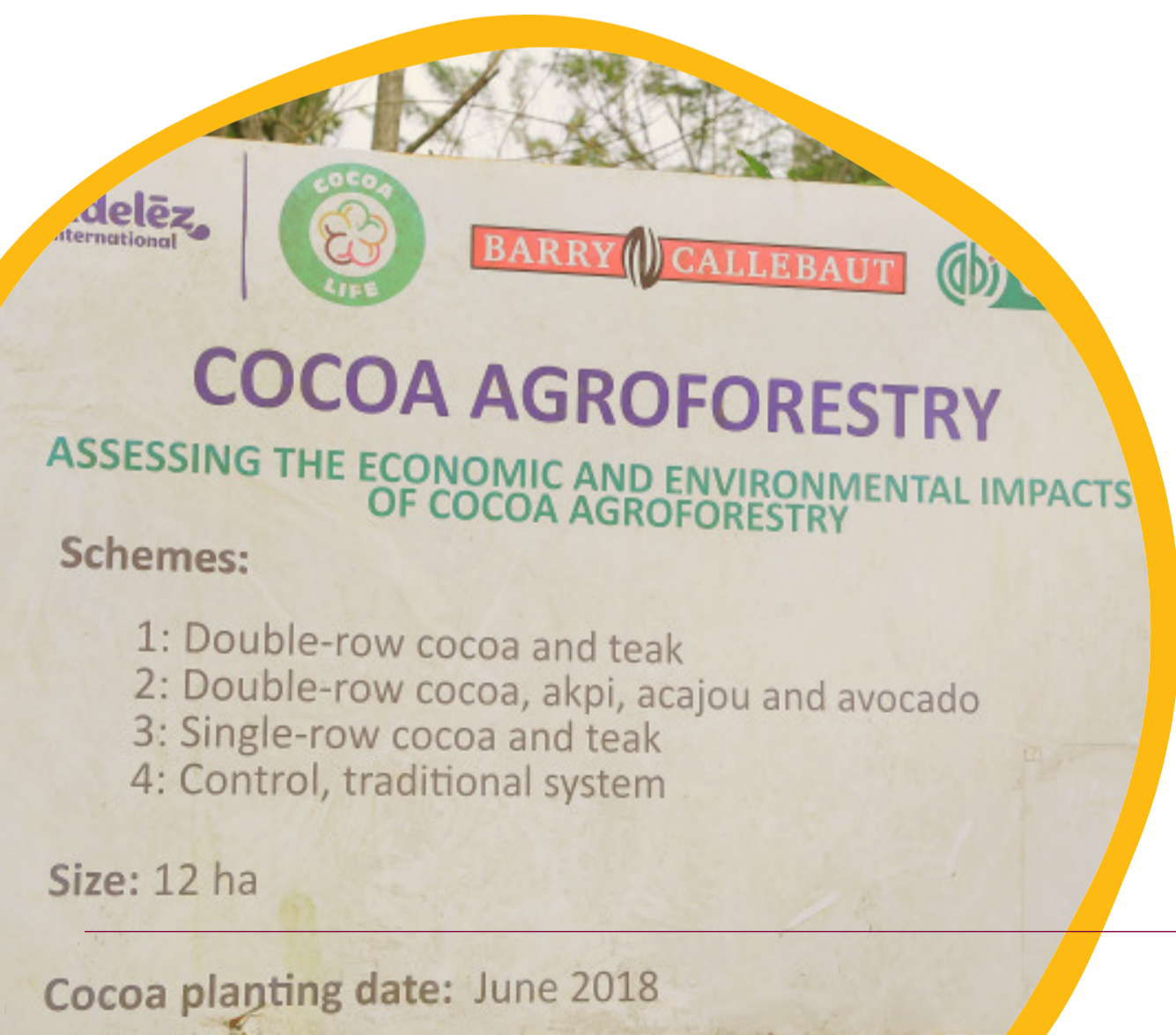
Additionally, in collaboration with CIAT, we have conducted a project in Indonesia to understand the effects of agroforestry on carbon, production and other cocoa farming metrics. This project is now being replicated in Côte d'Ivoire and Ghana, where the project protocols have been defined, and the sites for implementation selected.



Ghislaine Ada

*Country Sustainability Manager Côte d'Ivoire,
Barry Callebaut*

"AS AN IMPORTANT MEANS FOR FARMERS TO BUILD CLIMATE RESILIENCE IN THE PRESENT AND FUTURE, AGROFORESTRY HAS BEEN A KEY FOCUS FOR COLLABORATION IN THE LONGSTANDING PARTNERSHIP BETWEEN BARRY CALLEBAUT AND MONDELÈZ INTERNATIONAL. SINCE 2018, MDLZ HAS INVESTED IN THE TIASSALE PROJECT IN CÔTE D'IVOIRE, WHERE TOGETHER WE HAVE PILOTTED, AND LEARNED ABOUT THE BENEFITS OF COCOA AGROFORESTRY SYSTEMS, AS WELL AS THE IMPORTANCE OF GOOD FARM MANAGEMENT PRACTICES. THE PROJECT FOCUSES ON GENERATING DATA TO ENHANCE OUR UNDERSTANDING OF VARIOUS COCOA AGROFORESTRY SYSTEMS' IMPACT ON METRICS SUCH AS SHADE, BIOMASS PRODUCTION, YIELD, AND CARBON SEQUESTRATION. WE ARE NOW MOVING TO IMPLEMENT THESE INSIGHTS THROUGH PLANTING NON-COCOA TREES TO INCREASE FARMER RESILIENCE AT SCALE, WHILST HELPING TO REDUCE THE CARBON IMPACT OF COCOA."



CARBON BOOSTER PROJECT

In addition to helping diversify farmers' income and supporting biodiversity, agroforestry can contribute to carbon removals. Our Carbon Booster Project, focused on carbon removals, aims to help us achieve our SBTi net zero goals by scaling agroforestry across farms registered in the Cocoa Life program. Carbon removals are important to meeting our carbon objectives; we aim to sequester carbon by planting trees and creating a more positive climate impact.

Last year we planted trees in Côte d'Ivoire, Ghana, India, Indonesia and Brazil as part of this project. Tree survival rate is an important component of this project. And while transferring tree ownership to farmers improves the tree survival rate, climate challenges such as low rainfall in India and the El Niño phenomenon in Brazil lower it.

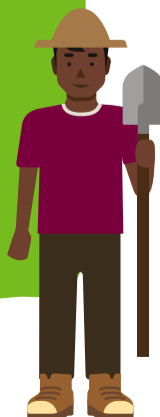
We are collecting field data on tree planting, species, and survival rates to follow upcoming guidance, such as the GHG Protocol Land Sector and Removals Guidance (GHGP LSR). To facilitate ongoing tree survival rate monitoring, we have launched an innovative pilot with our partner [Picterra](#), experts in geospatial AI, to explore if and how we could leverage remote sensing to better organise and prioritize field visits.

In Ghana's Ashanti Region, we are working to incorporate at least 80 shade trees per hectare of cocoa farm, an innovative approach on cocoa farms, implemented by our partner AgroEco. The average number of recommended shade trees per hectare is usually ~15-18, with the maximum usually at ~35-40. Participating cocoa farmers have positively embraced the strategy, and new farmers are interested in signing up.



Willem-Albert Toose
Managing Director, AgroEco

"WE HAVE BEEN PLANTING SHADE TREES IN GHANA SINCE 2010 AND PARTNERING WITH THE COCOA LIFE PROGRAM SINCE 2015. WITH A PROPER MIX OF TREE SPECIES (7-12) AND SPACING (10X12M, AROUND 80 TREES/HA), WE SEE SOIL IMPROVEMENT AND A MORE BALANCED MICRO-CLIMATE (TEMPERATURE, HUMIDITY); RESULTING IN A GOOD AND STABLE COCOA PRODUCTION OVER A LONGER PERIOD. COCOA THRIVES VERY WELL WITH 80% CANOPY COVER AND A SUNLIGHT REDUCTION (SHADE) OF 20-25%. CANOPY COVER IS NOT THE SAME AS SHADE, SO WE MAINLY WORK WITH TREES IN THE HIGHER STRATA, WITH DIFFERENT GROWING SPEEDS, WITH CROWNS THAT GIVE A LIGHT SHADE."



In Côte d'Ivoire's Tiassale and Duekoue regions, we have been working to pilot our Carbon Booster Project using findings from the Tiassale agroforestry trials. With Barry Callebaut, we collaborate with local partners to produce and distribute tree seedlings and improved cocoa planting materials (only for research purposes). This project aims to help increase cocoa agroforestry planting in line with the requirement of the African Regional Standard for Sustainable Cocoa (ARS 1000) and to help contribute to Côte d'Ivoire's country objective of 20% of forest coverage by 2030 ([REDD+ Côte d'Ivoire National Strategy](#)).

KEY LEARNINGS:

- One of the main challenges has been the accessibility of communities and farms during the rainy season, when most roads are not passable. This can cause delays which prolong the duration of distribution, and impact the health of the seedlings. We have identified two solutions: distributing the seedlings earlier in the season; and working to produce the seedlings at community level.
- Another finding was that farmers often don't have the time to plant the seedlings they receive. To counter this, farmers now receive support with tree planting in Côte d'Ivoire and Ghana. Our project partner Barry Callebaut has put labor groups in place in Côte d'Ivoire, increasing both planting rate and tree survival rate. Our project partner AgroEco in Ghana has a similar approach with the creation of community groups conducting the planting which greatly improved tree survival rate.
- There was also limited interest from farmers in Côte d'Ivoire to plant timber trees, as they preferred fruit trees. Timber trees play a critical role in providing canopy cover to the cocoa trees and can also be an additional source of income for cocoa farmers. Coaches provided information to the farmers about those wider benefits of timber. Understanding that mature trees can provide wood to build their own houses or furniture helped increase interest in timber planting, for instance.



MULTI-STAKEHOLDER LANDSCAPE INITIATIVE TO PROTECT FORESTS

ASUNAFO-ASUTIFI NORTH LANDSCAPE PROJECT

Collaborative action and working in partnership are important for facilitating our projects in cocoa landscapes. In the Ahafo Region of Ghana, we have been co-leading the Asunafo-Asutifi landscape initiative in partnership with stakeholders from the cocoa sector, farming communities and local partners, from the beginning.

The initiative seeks to address deforestation in what is known as the Asunafo-Asutifi Hotspot Intervention Area (HIA); one of the six landscapes under the Ghana Cocoa Forest REDD+ Program (GCFRP). The area has been prioritized for collective action as part of the Cocoa & Forest Initiative (CFI) Framework for Action and National Implementation Plan. About 10% of national cocoa output comes from this area, which suffers from deforestation as a result of expansive agriculture along with mining and illegal logging.

Despite its high cocoa productivity levels compared to other regions of Ghana, the landscape's productivity potential is declining due to moribund and diseased farms, as well as an aging population of farmers with small-scale cultivation and low yields. Within the Asunafo-Asutifi landscape, the direct supply chains of the CFI companies account for approximately 35% of the total farms in the HIA.

In 2020, an alliance of eight cocoa and chocolate companies came together to collectively support the landscape at a pre-competitive level. The WCF facilitated the effort, while MDLZ has been one of the companies helping lead the initiative and continues to contribute to the ongoing efforts. The goal of the project is to establish a landscape governance structure that will work with key stakeholders including regulators and private sector companies, to manage the area more sustainably.

So far, the initiative has completed socio-economic and ecological assessments to establish baselines and formulate support activities. Priority ambitions include cocoa rehabilitation and agroforestry, landscape restoration and conservation, and improvements to governance and farmer livelihoods. In 2023, the project distributed trees to help improve cocoa farm tree stock, built a rural service center and Community Resource Management Area (CREMA) office, developed a draft monitoring framework for landscape reporting, and initiated an ongoing carbon assessment.

As one of the initiators of the project, we hope that all stakeholders involved – farmers, government, industry members – continue to collaborate, consult, learn from each other and co-design the implementation plan for the landscape together so that it benefits farmers, communities and the environment. We also propose to leverage insights and learnings from the Asunafo collaboration in future projects as the cocoa sector works to design other landscape approaches.



Augustus Asamoah

Principal Project Manager at Proforest

“TO ESTABLISH A DEFORESTATION-FREE AND CLIMATE RESILIENT PRODUCTION LANDSCAPE WITH IMPROVED LIVELIHOOD CONDITIONS FOR FARMERS, PRIVATE SECTOR SUPPORT AND PARTNERSHIP IS KEY. MONDELÉZ INTERNATIONAL PLAYED A VERY PIVOTAL ROLE IN RALLYING PRIVATE SECTOR ACTORS FOR THE LANDSCAPE PROGRAM, WHILST ALSO MAKING A SIGNIFICANT FINANCIAL CONTRIBUTION TO THE DEVELOPMENT PROCESS, PARTICULARLY IN TERMS OF THE MANAGEMENT AND INVESTMENT PLAN. MONDELÉZ INTERNATIONAL WAS DIRECTLY INVOLVED IN THE ASUNAFO-ASUTIFI HIA MANAGEMENT AND INVESTMENT PLAN DEVELOPMENT PROCESS, WHICH WAS COMPLETED IN 2023 WITH SOME INTERVENTION ACTIVITIES BEING IMPLEMENTED IN PARTS OF THE LANDSCAPE. SINCE THIS COMPLETION MONDELÉZ INTERNATIONAL HAS CONTINUED TO DEMONSTRATE STRONG COMMITMENT AND SUPPORT BY DRIVING THE COLLECTIVE ACTION OF PRIVATE SECTOR COMPANIES TO ACHIEVE THE ULTIMATE AIMS OF THE LANDSCAPE PROGRAM.”

THIS COLLABORATIVE LANDSCAPE APPROACH HAS SEVERAL POTENTIAL BENEFITS:

- Sector actors coming together to seek joint and deepened impact; as any one entity in isolation cannot as effectively help address deforestation, restoration and conservation.
- Shared contributions with financial investments coming from partners across the supply chain.
- Expertise is exchanged, with a broad distribution of knowledge sharing across partners who are giving and receiving support.
- Joint efforts are future-proofed, with the responsibility of continuous engagement spread across partners.
- Carbon sequestration and payment are visible, allowing clear communications on the landscape's gains, such as reduced carbon emissions and payments.
- Supply chain farmers are rewarded with payment. Supply chain partners benefit from the reduced carbon emissions payments as additional income, which are managed by the Forestry Commission.
- Farmers are supported across the landscape instead of a supply chain focus only. For example, within the Asunafo District, the Cocoa Life program works with ~40 communities. However, there are many more communities in the region under the landscape initiative and even if a farmer is not within our supply chain, any activity taken can still impact them positively.



Jephthah Mensah

*Cocoa Life Ghana Operations Lead,
Mondelēz International*

"THIS INITIATIVE IS ALIGNED WITH OUR AMBITION TO MAKE AN IMPACT BEYOND THE COCOA FARMERS AND FARMS WITHIN OUR SUPPLY CHAIN. TACKLING DEFORESTATION AT A LANDSCAPE LEVEL WHICH IS THE INTENT OF THIS INITIATIVE HELPS TO ADDRESS IT SYSTEMICALLY AND PROMOTES WIDER COCOA SECTOR TRANSFORMATION, BEYOND ANY INDIVIDUAL COMPANY'S SUPPLY CHAIN. WE ARE KEEN TO CONTINUE ENGAGEMENT WITH THE PARTNERS INVOLVED TO HELP CREATE A VALUABLE IMPLEMENTATION PLAN."



UNDERSTANDING OUR IMPACT ON FORESTS

FARM MAPPING

Only by understanding where and under which conditions cocoa is produced can we help identify and address deforestation risks and adopt tailored approaches to conserve the surrounding forests. For example, when monocrops of ageing cocoa trees result in low productivity, smallholder farmers may make illegal incursions into forests for more fertile soil. Through farm mapping, we can help identify problem areas and take action where it is most needed. As new farmers register with the Cocoa Life program each year, GPS mapping often requires collaboration with agents across individual farms in hard-to-reach areas. We're also partnering with satellite companies to monitor potential deforestation events.



MEASURING DEFORESTATION RATES

We work with Satelligence, a remote sensing company, to understand Cocoa Life's impact on natural forests. The company applies satellite imagery to detect forest cover changes, a reliable indicator of potential deforestation events. It uses advanced machine-learning to measure deforestation rates, using data from 2018 until the latest available (2023) in line with our CFI ambitions. This year the analysis focused on our impact on forests in Ghana, Côte d'Ivoire, and Nigeria. The results show near no deforestation on or closely around Cocoa Life registered farms in West Africa⁴ since 2018 (approximately 0.9% in West Africa, 0.7% in Ghana, 1.1% in Côte d'Ivoire, 1.8% in Nigeria).

These results indicate that only a small number of Cocoa Life-registered farms have had any likely deforestation events since 2018. However, where deforestation occurs, we prioritize our engagements with supply chain partners to share deforestation monitoring results and help identify potential high-risk areas to prevent future deforestation; and help rehabilitate impacted areas as appropriate.

PILOTING TARGETED SUPPORT TO FARMERS

GOOD AGRICULTURAL PRACTICES (GAPS) AND FARM DEVELOPMENT PLANS (FDPS)

At Cocoa Life, we believe that profitable farming businesses can lead to more financial resilience. We work with suppliers and NGOs to help farmers improve cocoa productivity and generate income from additional businesses. Our support includes farmer trainings, incentives and purchasing practices. We have provided training on GAPs to around 157,400³ farmers in Ghana and Côte d'Ivoire during the CFI reporting period. These trainings aim to improve farm productivity. We have implemented a targeted GAP project since 2016 to coach farmers and co-create individually tailored Farm Development Plans (FDPs). A people-centric approach remains key. In Ghana and Côte d'Ivoire, we're seeing the benefits of moving from general GAP training to individual farmer coaching.

Cocoa Life is coaching farmers and creating FDPs tailored to the needs of individual farmers. The program informs interventions with suppliers and NGOs. We have also conducted research with technical support from François Ruf, agricultural researcher (formerly with CIRAD). The aim was to find ways to improve field level interventions leading to higher adoption rates of GAPs and the



effective implementation of farm development plans. We are working to integrate the results into our support package to farmers in the Cocoa Life program.

Today, in Côte d'Ivoire, a 2,000-hectare project that encompasses four cooperatives and two groups of farmers has been formed to promote sustainability and empowerment of the labor groups, e.g. by forming a VSLA with the labor group members. Working with Barry Callebaut and local cooperatives, a management committee regularly convenes to review progress and raise awareness. Meanwhile, the [2023 Agri-Logic Report](#) illustrated the successful transformation of labour groups into successful small and medium-sized enterprises, providing all agricultural services adapted to the regions.

SOLAR-POWERED IRRIGATION PILOT IN GHANA

The Cocoa Life program is implementing a project across five trial sites to introduce irrigation systems to cocoa farms in Ghana aiming to help make farmers more resilient to climate change. Access to water all year round via irrigation can allow farmers to plan agronomic practices more reliably, which may lead to higher productivity in the major and minor cocoa harvest seasons and help improve farmer income. Solar-powered drip irrigations can help reduce the cost of farm running and maintenance while also making the system more environmentally friendly.

Over the past three years, the project has collected agronomic data for yield evaluation on irrigated plots and non-irrigated plots, alongside the application of GAPs such as weeding, pruning, fertilizer use and chemical spraying of pesticides and fungicides. Preliminary analysis of results show positive results on cocoa yields from the irrigated sites compared to the non-irrigated sites.

While enhanced productivity may help provide increased income for cocoa households, the project is still at the proof-of-concept stage. Only a handful of participating farms have benefited from the project due to the initial installation costs, which are expensive for the average smallholder cocoa farmer to invest in. Targeting more advanced farmers and areas where irrigation is most appropriate can help overcome this challenge. The most recent data analyzed

will help build a business case for investing in irrigation systems for smallholder farmers in Ghana. Our R&D team is collecting data to develop the business model and advise farmers on potential returns on investment.



CLIMATE AND GENDER PROGRESS



DRIVING CLIMATE PROGRESS WITH A FOCUS ON GENDER EQUITY IN THE CLIMATE RESOLUTE COALITION

When women rise, cocoa thrives. Empowering women can help advance forest protection and climate initiatives in cocoa communities. MDLZ was the first industry member to join the Climate Resolute Coalition, a cross-industry effort to drive climate progress by focusing on gender equity and women's leadership, in turn, supporting gender equity through climate progress.

The Climate Resolute Coalition is organized by The Mara Partners and Kite Insights and launched in November 2021 at the 26th United Nations Climate Change Conference (COP26) in Glasgow. We joined the coalition to share learnings and discuss how we can advance progress in driving gender equity and women's leadership in companies' supply chains. The group is comprised of supply chain practitioners, and collaborates with experts, donors, and governments. Over time, members will be able to contribute to a field-building research agenda, establish new business cases for gender and climate action, and leverage the power of global supply chains to unlock environmental gains and economic opportunities for women.

CLIMATE-FRIENDLY COOKSTOVE

Around 25% of black carbon emissions globally come from burning wood and charcoal in households for cooking purposes — and the lack of accessibility to clean cookstoves was a key discussion at COP28 ([Cleancooking.org](https://www.cleancooking.org/)).

According to the World Health Organization, around 2.4 billion people worldwide, or one-third of the global population, do not have access to clean cookstoves ([World Health Organisation, Household Air Pollution Factsheet, December 2023](https://www.who.int/news-room/factsheets/detail/household-air-pollution)). Across Africa and Asia, daily cooking responsibilities are primarily held by women and girls, and clean cooking can ease the health problems and economic burdens that disproportionately impact them.

Every day, millions of women and girls around the world breathe in harmful smoke while cooking and spend hours walking long distances to secure cooking fuel. Reliance on polluting, open fires and inefficient fuels leads to health problems as well as economic impacts like the inability to achieve a complete education.

In collaboration with CARE International and funding from the MDLZ Sustainable Futures initiative, the Cocoa Life program has been piloting a solution of cleaner, climate-friendly cookstoves designed to help both people and the planet. Together, we have installed about 2,000 sustainable cookstoves already and aim to install about 2,000 more in 2024, to help improve the health conditions of those in Cocoa Life communities.

In 2023, a new cookstove mould with a more appealing design was introduced and resulted in quicker construction, a better performance, and a higher rate of adoption. A partner survey conducted by Southpole highlighted that burning wood more efficiently resulted in ~73% of respondents spending less money and ~98% declaring a less detrimental effect on their health (respiratory or eye problems).

The new cookstove, made from local clay, decreases biomass consumption with improvements to the grate, the combustion chamber, insulation, and openings, thereby reducing the demand for wood for burning. It helps decrease household air pollution, harmful particles, carbon emissions; and saves women time and money.

TWO YEARS INTO THE PROJECT, OUR APPROACH INVOLVES:

- Providing training to use the cookstove, particularly to women through VSLAs.
- Sharing further information after training sessions so people can remember the key facts.
- Increasing promotional activity in communities to raise awareness around the new cookstove.





LOOKING FORWARD: BUILDING A MORE SUSTAINABLE COCOA FUTURE

Our sector faces big challenges and complexities – environmental changes, production shortfalls, price volatility, and new regulations. The temptation could be to wait and see what happens. But we strive to act now and aim to be bold in how we plan for the future together. This is our moment to help drive the future of cocoa farming. It is our opportunity to collaborate to create a thriving and more equitable cocoa sector. It is our chance to work better together to help transform the sector and build the future for cocoa.

Farmer poverty remains one of the most prominent and complex challenges faced by cocoa communities across the world. Meanwhile, a lack of access to resources such as GAPs, quality seedlings, labor and financing can further impede the productivity and livelihoods of cocoa farmers.

With many of CFI's objectives and ambitions around deforestation now becoming mandatory through regulations, what does this all mean for its future? The sector should apply a human-centric approach to regulation. That means exploring what the European Union Deforestation Regulation (EUDR) means at ground level for cocoa farmers and their livelihoods. And we need to continue to collaborate and innovate beyond compliance to help current cocoa-producing regions remain viable in the future.

Given the challenges involved, the CFI will become more crucial in helping farmers comply with the new regulations, and we aim to help support cocoa farmers in managing compliance. We aim to do this by continuing work with partners to invest in training farmers on adopting good farming practices and mobilizing communities to plant trees and protect forests. We will continue to co-design systemic solutions, such as farm mapping while working in sector-wide partnerships to help deliver more positive impact.

Addressing the interrelated systemic issues in the cocoa sector needs a pre-competitive approach to knowledge sharing across agroforestry, traceability, and landscape-wide initiatives.

If we want to conserve land and forests for today and tomorrow, we need to act now. We aim to continue work on a sector-wide, integrated, and holistic approach aiming to protect both the landscapes and lift the people. We strive to come together to clarify how we will reach the ambitious but necessary CFI 2.0 ambitions on a landscape-wide level.

To do this, CFI stakeholders will have to reflect on the future of CFI in the context of the fast-changing cocoa sector environment. We believe this will be important to shape the way to help achieve our joint ambitions. So, let's keep trying. Let's keep going. Let's keep learning.

Cedric Van Cutsem

Senior Director Cocoa Life, Mondelez International

APPENDIX



ABOUT THE COCOA & FOREST INITIATIVE

COLLECTIVE ACTION TO END COCOA-RELATED DEFORESTATION

The governments of Côte d'Ivoire and Ghana and 36 leading cocoa and chocolate companies, representing 85% of global cocoa usage, joined together in the [Cocoa & Forests Initiative](#) (CFI) to end deforestation and restore forest areas. Their combined actions play a crucial role in protecting and restoring biodiversity, sequestering carbon stocks in West African forests, and addressing climate change in line with the Paris Climate Agreement. The CFI delivers on Sustainable Development Goal 13 (Climate Action) and 15 (Life on Land).

The CFI is a public private partnership based on frameworks for action ([Côte d'Ivoire](#) and [Ghana](#)) and action plans for the private sector ([Côte d'Ivoire](#) and [Ghana](#)) and public sector ([Côte d'Ivoire](#) and [Ghana](#)) that spell out commitments to:

- Protect and restore forests,
- Promote sustainable cocoa production and farmers' livelihoods,
- Engage communities and boost social inclusion.

To learn more, follow #CocoaAndForests on social media, or visit [Cocoa & Forests Initiative](#).

The [World Cocoa Foundation](#) (WCF); [IDH, the Sustainable Trade Initiative](#); and the Governments of Côte d'Ivoire and Ghana drive the Cocoa & Forests Initiative. The Prince of Wales launched the Initiative in March 2017 and reviewed implementation progress in November 2018.

Deforestation of tropical rainforests is a major issue in Côte d'Ivoire and Ghana, which together produce nearly two-thirds of the world's supply of cocoa, the main ingredient in chocolate. Côte d'Ivoire and Ghana respectively lost 26% and 9.3% of their humid primary forest between 2002 and 2020, with a significant portion of deforestation attributable to cocoa farming expansion.

A comprehensive analysis is needed to determine the exact contribution of cocoa production to deforestation. WCF, CFI members, and partners are working together on science-based methods to determine the share of cocoa production to overall deforestation rates with a high level of accuracy in cocoa-producing countries. Data reliability and a good knowledge of the cause and location of deforestation is essential to help develop effective and adequate mitigation measures and ensure that WCF members and partners are compliant with regulations such as the EUDR which will come into application in 2025.

Cocoa provides crucial income to communities in rural West Africa, but farmers are too often faced with poverty. Poverty is one of the causes of deforestation. Accelerating a transition to sustainable livelihoods is essential for farmers' economic security and a healthy planet.



THREE PILLARS OF CFI:

CFI PILLAR ONE: FOREST PROTECTION AND RESTORATION



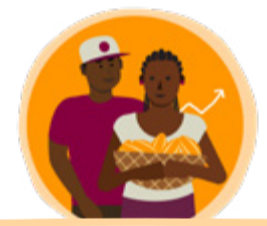
The first priority is the protection and restoration of forests that have been degraded. To this end, the governments and companies have pledged no further conversion of forest land for cocoa production and have committed to the phased elimination of illegal cocoa production and sourcing in protected areas.

Both countries are introducing a differentiated approach for improved management of forest reserves, based on the level of degradation of forests. In 2019, the government of Côte d'Ivoire adopted and published a new forest code which, among other things, put forth policies for the promotion of cocoa agroforestry to restore degraded land, improve forest cover, and promote sustainable livelihoods and agriculture in the classified forests and rural zones. Both governments have shared maps on forest cover and land-use, and continue to update the maps, including socio-economic data on cocoa farmers, to inform private sector investments. Companies have made significant investments in the promotion of cocoa agroforestry and the restoration of degraded forests.

To ensure effective implementation and monitoring of these commitments, companies have pledged to develop traceability from farm to the first purchase point for their own purchases of cocoa. They also work with governments to ensure an effective national framework for traceability encompassing all traders in the supply chain and to anticipate forthcoming due diligence legislation. The companies will similarly share information with the national satellite monitoring platforms to effectively monitor progress on CFI, as well as proactively address threats of new deforestation.

At Cocoa Life, our mission is moving cocoa forward faster by helping lift the people and protect the landscapes where cocoa grows. We're implementing landscape-wide initiatives for forest conservation and restoration by piloting and scaling ecosystem interventions that work for everyone and reduce carbon. We have an ambition to seek no deforestation on Cocoa Life registered farms.

CFI PILLAR TWO: MORE SUSTAINABLE PRODUCTION AND FARMERS' LIVELIHOODS



The next critical priority is sustainable agricultural production and increased farmer incomes. These are essential pre-requisites for reducing pressure for agricultural encroachment into forests and strengthening the resilience of cocoa farmers to climate change.

The governments and companies are accelerating investment in long-term productivity of cocoa in order to grow "more cocoa on less land." Key actions include provision of planting materials for the promotion of cocoa agroforestry, training in GAPs, soil fertility, land tenure reform, and capacity building of farmers' organizations.

Sustainable livelihoods and income diversification for cocoa farmers are being accelerated through food crop diversification, agricultural inter-cropping, and development of mixed agroforestry systems and shade-grown cocoa.

At the Cocoa Life program, we're helping to grow more profitable cocoa businesses by tailoring interventions with NGOs and suppliers to fit farmers' needs so they get more from their cocoa trees and other crops. We strive to help increase the number of farming households reaching a living income.

CFI PILLAR THREE: COMMUNITY ENGAGEMENT AND SOCIAL INCLUSION



The final area of focus is strong community engagement and social inclusion, with a particular focus on women and youth. The governments and companies have committed to full and effective consultation and participation of cocoa farmers in the design and implementation of key actions, and promotion of community-based management models for forest protection and restoration. The governments have adopted social and environmental safeguards and are assessing and mitigating the social impacts and risks of any proposed land-use changes on affected communities.

At the Cocoa Life program, we're helping lift communities by facilitating investments to build capacity in communities so they can shape their own future and make community decisions reflecting their diverse needs. Through trainings and community engagement activities our aim is to empower women, men, and youth and bring dynamic change to cocoa communities.

CFI GOALS AND CFI PROGRESS DATA FOR THE COCOA LIFE PROGRAM IN CÔTE D'IVOIRE

	CFI Progress ² (October 2022- September 2023)	Goals (October 2022- September 2023)	Goals (October 2023- September 2024)	Goals (October 2024- September 2025)	Goals (October 2022- September 2025)
FOREST PROTECTION AND RESTORATION					
# of farms mapped in direct supply chain: Total Active	71,900	73,000	87,000	117,000	
# of hectares in the direct supply chain with deforestation risk assessments completed	177,000	230,000	274,000	365,000	
# farmers informed, trained, and / or consulted on the new Forest Code, forest policy, law enforcement, forest protection, and restoration	21,600	19,000	24,000	34,000	
# Individuals receiving incentives to protect and restore forests and / or adopt agroforestry (e.g., PES): New ⁵	1,900	2,500	3,500	6,000	12,000
# Individuals receiving incentives to protect and restore forests and / or adopt agroforestry (e.g., PES): Total Active ⁵	4,500	5,100	8,600	14,000	
# farmers applying agroforestry: New	11,800				
# farmers provided with technical assistance to adopt and expand agroforestry	11,800	18,000			
# multi-purpose trees distributed for on-farm planting	480,000	492,000	348,000	418,000	1,259,000
# hectares cocoa agroforestry: New ⁶	16,200	19,000	13,000	16,000	48,000
# of trees distributed for off-farm planting	259,000	352,000	220,000	220,000	792,000
# hectares of forest area restored off-reserve / in rural zone	173	320	200	200	720
# farmers provided with technical assistance to be more resilient to climate change and reduce and remove carbon emissions on farm (e.g., CSC) ⁷	9,000	19,000	24,000	34,000	
SUSTAINABLE PRODUCTION AND FARMERS' LIVELIHOODS					
# farmers provided with technical assistance (based on plans) to professionalize & optimize cocoa farming practices ⁸	68,000	35,000	43,000	66,000	
# individuals participating in additional Income Generating Activities (IGAs)	27,700	29,000	32,000	34,000	
# individuals provided with technical assistance (based on plans) to increase income from non-cocoa sources / IGAs	27,700				
# Individuals provided with technical assistance to save money and access finance ⁹	6,400	33,000	32,000	34,000	
# of members of VSLA groups in the current year	27,300	29,000	32,000	34,000	
# of VSLA groups in the current year	1,430	1,400	1,600	1,700	
SOCIAL INCLUSION AND COMMUNITY					
# of cocoa communities with active forest restoration and protection program (CBNRM): New	150	300	200	200	700
# hectares under CBNRM	1,100	300	200	200	700
# of individuals participating in women's empowerment projects and activities	20,000	29,000	32,000	34,000	

CFI GOALS AND CFI PROGRESS DATA FOR THE COCOA LIFE PROGRAM IN GHANA

	CFI Progress ¹ (October 2022- September 2023)	Goals (October 2022- September 2023)	Goals (October 2023- September 2024)	Goals (October 2024- September 2025)	Goals (October 2022- September 2025)
FOREST PROTECTION AND RESTORATION					
# of farms mapped in direct supply chain: Total Active	74,100	65,000	65,000	65,000	
# of hectares in the direct supply chain with deforestation risk assessments completed	146,000	133,000	134,000	135,000	
# hectares restored in Forest Reserve / Forêts Classée	190	380	450	460	460
# farmers informed, trained, and / or consulted on the new Forest Code, forest policy, law enforcement, forest protection, and restoration	16,200	20,000	20,000	20,000	
# Individuals receiving incentives to protect and restore forests and / or adopt agroforestry (e.g., PES): New ⁵	4,500	25	25	50	100
# Individuals receiving incentives to protect and restore forests and / or adopt agroforestry (e.g., PES): Total Active ⁵	4,600	150	170	220	
# farmers applying agroforestry: New	4,700				
# farmers provided with technical assistance to adopt and expand agroforestry	7,100	30,000			
# multi-purpose trees distributed for on-farm planting	728,000	500,000	300,000	300,000	1,100,000
# hectares cocoa agroforestry: New ⁶	4,700	17,000	15,000	15,000	47,000
# of trees distributed for off-farm planting	270,000	137,000	137,000	137,000	411,000
# hectares of forest area restored off-reserve / in rural zone		120	120	120	360
# farmers provided with technical assistance to be more resilient to climate change and reduce and remove carbon emissions on farm (e.g., CSC) ⁷	43,300	10,000	10,000	10,000	
# of farmers trained in Modified Taungya System (MTS)	210	150	170	220	
SUSTAINABLE PRODUCTION AND FARMERS' LIVELIHOODS					
# improved cocoa seedlings distributed to farmers	952,000	900,000	900,000	900,000	2,700,000
# farmers provided with technical assistance (based on plans) to professionalize & optimize cocoa farming practices ⁸	89,400	20,000	20,000	20,000	
# individuals participating in additional Income Generating Activities (IGAs)	63,400	55,000	55,000	55,000	
# individuals provided with technical assistance (based on plans) to increase income from non-cocoa sources / IGAs	63,400				
# Individuals provided with technical assistance to save money and access finance ⁹	2,600	44,300	44,400	44,400	
# of members of VSLA groups in the current year	54,700	44,000	44,000	44,000	
# of VSLA groups in the current year	2,000	1,600	1,600	1,600	1,600
SOCIAL INCLUSION AND COMMUNITY					
# of cocoa communities with active forest restoration and protection program (CBNRM): New	0	0	50	70	
# hectares under CBNRM	0	0	10	14	
# of individuals participating in women's empowerment projects and activities	33,300	41,000	42,000	43,000	
# of individuals participating in youth focused projects and activities (15-35 years old)	17,300	9,000	9,500	10,000	

GLOSSARY

Agroforestry	Farmers are encouraged to plant non-cocoa trees alongside cocoa crops on their farms. This supports soil quality, encourages diversification, and provide new sources of income.
Additional income generating activities (IGAs)	People engaged in additional income generating activities have started their own business to earn an additional income in addition to their cocoa farming businesses.
Climate-smart cocoa (CSC)	The adaptation of Climate-Smart Agriculture (CSA) practices to the management of Theobroma Cacao (cocoa).
Cocoa & Forests Initiative (CFI)	A public private partnership to end deforestation and restore forest areas.
Community action plans (CAPs)	These plans are developed and implemented by the communities to ensure their development socially, economically and environmentally. Communities determine their community development actions – including forest protection and restoration – to encourage ownership and because communities are better placed to effectively protect and restore degraded forests if they have a decision-making role.
Community-based natural resource management (CBNRM)	These are plans developed with the cocoa-growing communities in partnership with the Cocoa Life to determine forest restoration and conservation actions.
Crop diversification	Growing a variety of crops on-farm and also off-farm, not just one. This expands production related activities and also reduces risk to farmers by allowing them to spread their income-generation over multiple crops.
Economic/shade trees	Shade trees are an important part of sustainable cocoa farming; they safeguard cocoa against too much sunshine and heat with a positive influence on long term productivity, help safeguard biodiversity, and can provide additional income for farmers.
Farm mapping	Farm mapping is usually done by people walking around the farm with a GPS device to delimit the borders. It helps us understand farm sizes and locations and therefore monitor that there is no expansion into protected areas. Understanding where and under which conditions cocoa is produced allows prevention of farms expanding into the forest.
Frameworks For action	CFI's landmark agreements to end deforestation and promote forest restoration and protection in the cocoa supply chain.
Good agricultural practices (GAPs)	Cocoa Life registered farmers receive training in good agricultural practices – yield enhancing farming methods and facilitating access to inputs such as improved planting material and fertilizers.
Inputs	Fertilizers, agro chemicals and tools for farm work that are crucial to a healthy cocoa farm.

GLOSSARY

Landscape approaches	A landscape approach is a multi-stakeholder effort to promote a sustainable landscape across a large area of land. It aims to go beyond the farm gate to a wider geographic area of land and forests reaching more communities.
Modified Taungya System (MTS)	The Taungya is a system whereby farmers are given the right to cultivate agricultural crops during the early stages of forest replantation. In 2002, the government of Ghana — through the Forestry Commission — reviewed this practice, relaunching it as the Modified Taungya System (MTS). The new approach considered the financial benefits for farmers and other stakeholders, rethinking tree ownership. The ownership of the trees is transferred from a single entity (the government) to collective owners (farmers, local communities, government, and landowners), empowering community members and putting them in the driving seat as co-managers of forest reserves.
Multi-purpose trees	Tree species that are included on cocoa farms for primary purposes beyond providing shade. They may be chosen to provide economical and/or ecological benefits to the farm. This may include tree crops such as fruit, oil palm, medicinal and/or timber trees for later harvest.
Payments for environmental services (PES)	Payments for Environmental Services – innovative financial incentives offered to farmers for adopting agreed agroforestry practices but also forest protection and reforestation.
Shade trees	Non-cocoa trees distributed to provide additional sources of income and shade to help cocoa grow.
Targeted good agricultural practices (TGAPs)	Supplying farmers with a tailored package of services – including yield enhancing farming methods and facilitating credited loans to access to inputs such as pest control and fertilizers.
Village Saving and Loans Associations (VSLAs)	flagship activity of Cocoa Life, their purpose is to encourage savings and access loans for cocoa farmers. Members of a VSLA make small, regular monetary contributions to a shared pool, from which they may each take out low-interest loans. At the end of a one-year cycle, the sum of the pool is shared out among members based on contributions made, and a new contribution cycle begins.

ABOUT THIS REPORT

Website references throughout this document are provided for convenience only. We assume no liability for any third-party content contained on the referenced websites.

About our ESG Goals

Information about our ESG goals, unless otherwise stated, (i) covers the annual reporting period from January 1 to December 31 of the stated year, (ii) includes manufacturing facilities under our direct and indirect control, (iii) excludes acquisitions since 2018, (iv) excludes Venezuela, and (v) excludes developed-market gum brands, which were divested as of October 1, 2023, in the United States, Canada and Europe. Information about our CFI-specific goals, unless otherwise stated, covers the annual cocoa season reporting period from October 1, 2022 to September 30, 2023. Where quantitative goals are linked to revenue, information is for Mondelez International revenue (excluding acquisitions since 2018 unless stated otherwise) except Venezuela, for which results are excluded from our consolidated financial statements. Where quantitative goals are linked to operations, information is for operations under the control of our integrated supply chain function (excluding acquisitions since 2018 unless stated otherwise); unless stated otherwise, data for external manufacturing includes estimates. Due to rounding, numbers presented in this report may not add up precisely to the totals provided and percentages may not reflect the absolute figures. Although the numbers presented in this report for this year's performance are rounded, some of the prior years' numbers were not rounded. Estimation is used in the reporting of some ESG data points, e.g., external manufacturing. The development of ESG reporting requires the use of estimates, judgments and assumptions that may affect the reported figures at the date of publication during the reporting period. Historical, current and forward-looking sustainability related information and statements may be based on standards for measuring progress that are still developing, internal controls and processes that continue to evolve, and assumptions that are subject to change in the future. The Company's goals are aspirational in nature. We caution you that this information is approximate, that these statements and information are not guarantees of future performance, nor promises that our goals will be met, and are subject to numerous and evolving risks and uncertainties that we may not be able to predict or assess. In some cases, we may determine to adjust our commitments or goals or establish new ones to reflect changes in our business, operations or plans.

Forward-looking statements

This report contains forward-looking statements. All statements other than statements of historical fact are "forward-looking statements" for purposes of federal and state securities laws, including any statements of the plans, strategies and objectives of management; any statements regarding our environmental, social and governance and sustainability strategies, goals, policies, initiatives and programs; any statements concerning proposed new products, services or developments; any statements regarding future economic conditions or performance; any statements of belief or expectation; and any statements of assumptions underlying any of the foregoing or other future events. Forward-looking statements may include, among others, the words, and variations of words, "will," "may," "expect," "would," "could," "might," "intend," "plan," "believe," "likely," "estimate," "anticipate," "objective," "predict," "project," "drive," "seek," "aim," "target," "potential," "commitment," "outlook," "continue," "strive," "ambition" or any other similar words. Although we believe that the expectations reflected in any of our forward-looking statements are reasonable, actual results or outcomes could differ materially from those projected or assumed in any of our forward-looking statements. Our future financial condition and results of operations, as well as any forward-looking statements, are subject to change and to inherent risks and uncertainties, many of which are beyond our control. Please also see our risk factors, as they may be amended from time to time, set forth in our filings with the U.S. Securities and Exchange Commission (SEC), including our most recently filed Annual Report on Form 10-K and subsequent Quarterly Reports on Form 10-Q. There may be other factors not presently known to us or which we currently consider to be immaterial that could cause our actual results to differ materially from those projected in any forward-looking statements we make. We disclaim and do not undertake any obligation to update or revise any forward-looking statement in this report, except as required by applicable law or regulation. The information included in, and any issues identified as material for purposes of, this report may not be considered material for SEC reporting purposes. In the context of this disclosure, the term "material" is distinct from, and should not be confused with, such term as defined for SEC reporting purposes.

ENDNOTES

- 1 Reported information for the period from October 1, 2022 to September 30, 2023 covers Ghana unless otherwise stated. This data is provided by third parties. Reported information based on latest estimate.
- 2 Reported information for the period from October 1, 2022 to September 30, 2023 covers Côte d'Ivoire unless otherwise stated. This data is provided by third parties. Reported information based on latest estimate.
- 3 Reported information for the period from October 1, 2022 to September 30, 2023 covers Ghana and Côte d'Ivoire unless otherwise stated. This data is provided by third parties. Reported information based on latest estimate.
- 4 Reported information for the period from January 1, 2023 to December 31, 2023 for West Africa includes Côte d'Ivoire, Nigeria and Ghana.
- 5 CFI indicator wording changed from "Individuals receiving PES" to "Individuals receiving incentives to protect and restore forests and / or adopt agroforestry (e.g., PES)."
- 6 CFI indicator wording changed from "hectares of cocoa agroforestry in development" to "hectares of cocoa agroforestry."
- 7 CFI indicator wording changed from "Farmers trained in CSC best practices" to "Farmers provided with technical assistance to be more resilient to climate change and reduce and remove carbon emissions on farm (e.g., CSC)."
- 8 CFI indicator wording changed from "Farmers reached by GAP training programs" to "Farmers provided with technical assistance (based on plans) to professionalize & optimize cocoa farming practices."
- 9 CFI indicator wording changed from "Individuals in the current reporting year enrolled in formal financial products and services with support from company" to "Individuals provided with technical assistance to save money and access finance."
- 10 Goal and reported information for cocoa volume sourced is based on a mass balance approach, which means that the equivalent volume of cocoa needed for the products sold under our chocolate brands is sourced from the Cocoa Life program. Reported information for the period from January 1, 2023 to December 31, 2023 includes volumes from cocoa producing countries Brazil, Côte d'Ivoire, Dominican Republic, Ecuador, Ghana, Indonesia, India, and Nigeria unless otherwise stated (which differs from prior years). Excludes markets where Mondelez International does not sell chocolate brands. Reported information based on latest estimate; independent, third-party verification in-progress. Any updates, if needed, will be included in the [ESG Datasheet](#).

You can find additional details on Mondelez International's ESG goals and reported information within the About This Report section of our [2023 Snacking Made Right Report](#).

