



Cocoa & Chocolate

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About this chapter

This chapter refers to the crop year 2021-22 as well as 2022-23 up to and including June 2023. Information in this chapter is for that time period unless otherwise noted. For previous progress reports, visit [our website](#) [↗].

In 2012, when we launched our comprehensive sustainability program, the Cargill Cocoa Promise, we hoped that path would take us to the top of a hill, where we'd look back at a job well done. Little did we know, we were setting out to scale Mount Everest, we were doing it without a map, and behind every ridge, we'd find a series of new hills to climb.

It's been a decade since those early days, and we've learned an enormous amount. Today, we manage a holistic program, built on the understanding that the sector's issues are multifaceted, and that Cargill is uniquely positioned to connect the dots and apply smart solutions.

Throughout this chapter, you can learn about how we are working to close gaps and drive positive change. As we step up our effort going forward, two axes for action stand out: gender and technology.

As a signatory to the U.N. Women's Empowerment Principles, we adopted our cocoa-specific **Gender Equity & Women's Empowerment Strategy** [↗]. Through training and financing, we are helping women increase their earning power and become community role models. As incomes go up, kids are more likely to stay in school and households grow more resilient.

Meanwhile, in parts of Ghana and Côte d'Ivoire where GPS polygon mapping of farms is largely complete, we observed less than 0.01% gross primary forest loss since 2014, showing that, with the appropriate technologies and farmer engagement, we can leverage digital tools to help accelerate transparency and target interventions for impact.

We are proud of what we have achieved, but there's much more to do. We will continue to go deeper, expand due diligence measures across our sourcing regions, intensify our focus on learning, and bringing everyone along on the journey. We know we haven't yet reached the top of the mountain, but working with our valued partners, we now know that we have the map, the tools, and the team to get there.



Emiel van Dijk
Managing Director
Cocoa & Chocolate Europe & West Africa

Supply chain overview

We create cocoa and chocolate products to meet the global market’s growing demand for quality, innovation, transparency, and sustainability.

Our customers are chocolate, confectionery, and manufacturers across the globe.

Our products include cocoa powder, cocoa butter, and cocoa liquor as well as chocolate, coatings, and derivatives for cosmetics and personal care products.

Our operations span five continents. We directly source, trade and implement the **Cargill Cocoa Promise** TM in Brazil, Cameroon, Côte d’Ivoire, Ecuador, Ghana and Indonesia.

43
years of experience in cocoa and chocolate

64
locations across the globe

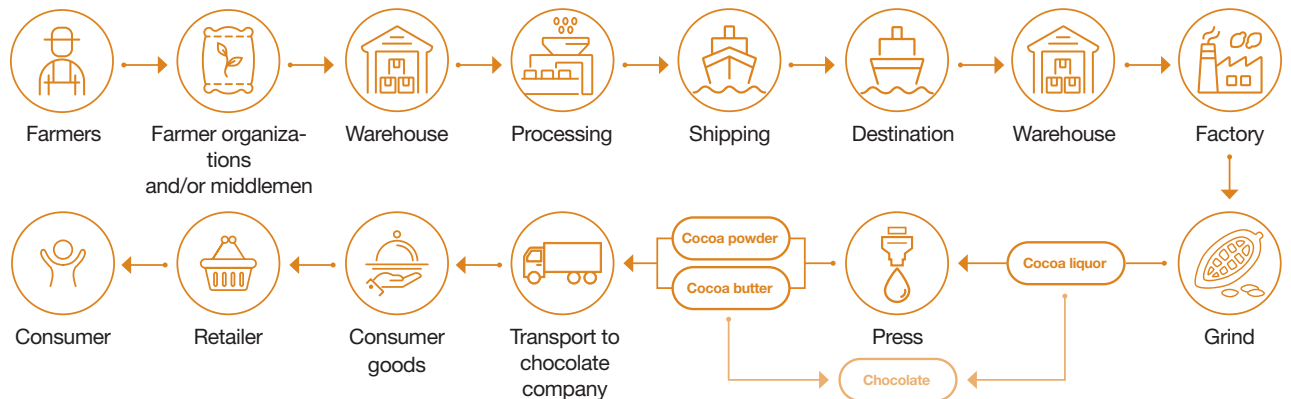
31
processing plants

6
origins from which we source cocoa directly

4,700
employees

Creating delight: The journey from bean to bar

How we make our products



Dashboard

Each year, we report on our sustainability progress. We have been reporting on this for several years, in accordance with our [theory of change](#)³⁷. In the sections following this dashboard (“Programs and partnerships”), we detail the efforts we made toward achieving these goals.

We work with an external assurance provider, KPMG, to provide limited assurance on the selected sustainability KPIs in the table below. KPMG’s assurance report is included on [pages 109-110](#).

The assured datapoints in the chapter are listed below:

Sustainability goals	Assured KPIs	Definition	Scope of assurance: country of origin					
			Côte d’Ivoire		Ghana		Cameroon	
			2021-22	2022-23	2021-22	2022-23	2021-22	2022-23
	1. # of farmers supported through Cargill Cocoa Promise activities³⁷	The number of farmers that are sustainability certified and take part in at least one Cargill Cocoa Promise activity, such as training or coaching.	107,572	127,595	25,818	32,582	38,055	40,237
	2. # of farmer organizations, districts, and buying stations in Cargill Cocoa Promise	The number of farmer organizations in Ivory Coast, districts in Ghana, and buying stations in Cameroon defined as organized associations of farmers in CCP.	131	147	10	13	12	12
Farmer livelihoods	3. # and % of farmers coached³⁸	The number and percentage of farmers that received one-on-one coaching on Good Agricultural Practices (GAPs).	75,921 71%	94,993 20%	11,720 45%	1,635 5%	12,559 33%	17,425 43%
	4. # and % of farmers GAP compliant³⁹	The number and percentage of farmers that are successfully implementing the Pruning GAP, as well as 3 out of the other 4 GAPs.	5,315 7%	10,011 39%	7,180 61%	761 47%	4,492 36%	5,410 31%
	5. Average yields⁴⁰	Amount of cocoa beans produced per area, an indicator of productivity of a cocoa farm.	574	742	547	715	695	715

(continued)

37 Certified/verified farmers are considered farmers that are in various stages of the sustainability certification/verification cycle of Rainforest Alliance, Fairtrade or Promise Cocoa Verified: Cargill’s independent verification scheme.

38 % farmers coached in Ghana for CY22/23 is lower because coaching started later in the year, and this was the figure at time of assurance. It is expected to reach YoY consistent figures during the full implementation cycle.

39 All indicators involved in the GAP compliant show an enhancement in Côte d’Ivoire for the current crop year (22/23). There is a significant difference in the pruning and the pest & disease GAPs. This explains the large increase between CY21/22 and CY22/23 numbers.

40 Yield calculation relies on what farmers report as cocoa production of prior year (for 22/23 farmers reply with 20/21 production).

Sustainability goals	Assured KPIs	Definition	Scope of assurance: country of origin					
			Côte d'Ivoire		Ghana		Cameroon	
			2021-22	2022-23	2021-22	2022-23	2021-22	2022-23
Farmer livelihoods	6. % of farmers using crop protection	The percentage of coached farmers that have reported to use either fungicide or insecticide.	75%	73%	62%	67%	94%	95%
	7. % of farmers reporting to do composting and applying it on farms	The percentage of coached farmers that have reported to apply compost on their farms.	9%	16%	11%	22%	3%	10%
Community wellbeing	8. # of farmers monitored through Child Labor Monitoring and Remediation Systems (CLMRS)	The number of households that received a CLMRS monitoring visit.	24,835	55,475	9,235	21,557	6,843	6,792
Protect our planet	9. # of farms GPS/polygon mapped	The number of plots that have been GPS/polygon mapped.	104,979	134,791	61,532	73,844	20,458	32,190
	10. # and % of farmers GPS/polygon mapped	The number of mapped farmers that do not have duplicate polygons or polygons that overlap by at least 20% with one or more polygons.	94,586 88%	122,238 96%	24,873 96%	30,529 94%	16,971 45%	28,130 70%
	# and % of farmers that do not have duplicate polygons and/or >20% overlap		77,179 72%	94,000 74%	19,176 74%	24,780 76%	14,792 39%	21,234 53%
Consumer confidence	11. # and % of farmers delivering volume through first-mile traceability system ⁴¹	The number and percentage of farmers who have delivered cocoa beans through either Cooperative Management Systems or digital first-mile traceability.	97,178 90%	122,684 96%	13,632 100%	19,458 100%	5,857 15%	11,364 28%
	12. % of sustainable volume in first-mile traceability	The percentage of Rainforest Alliance or Promise Verified beans that were delivered through digital traceability solutions such as the Cooperative Management System in Côte d'Ivoire and the barcode system in Ghana to trace cocoa from the farm level to the first purchase point.	98%	95%	100%	100%	15%	38%
	13. # and % of farmers paid via mobile banking	The number and percentage of farmers that have received premium payments through a mobile money solution.	4,168 4%	10,582 8%	13,632 100%	19,458 100%	Not in scope	Not in scope
	14. % of sustainable volume sold ⁴²	The percentage of cocoa and chocolate products in bean equivalent sold as sustainable (Rainforest Alliance, Fairtrade, Promise Verified, or customers' own programs.)	49% globally	48% globally	49% globally	48% globally	49% globally	48% globally

41 For Ghana the % of farmers delivering volume through first-mile traceability is smaller than the farmers supported through CCP, but the percentage is still 100%. This is because we are looking only into farmers who chose to deliver and sell volume to Cargill.

42 For KPIs 1 through 13, the timeframe for assurance is Crop Year 2021-2022 as well as Crop Year 22-2023 up to and including June 2023. These KPIs refer to our direct supply chain. For KPI 14, the timeframe is Calendar Year 2022 and Calendar Year 2023 up to and including June 2023. It covers our entire supply chain (direct and indirect).

Focus areas

Delivering on our commitment to a thriving cocoa sector

Our vision

At Cargill, we take a holistic approach to sustainability within the cocoa sector, recognizing that many challenges are deeply intertwined. We are in a unique position to help connect the dots and spur progress across the value chain. We work with partners from ground level to government, advancing best practices and deploying cutting-edge technologies for full transparency. Our shared goal: a thriving cocoa sector for generations to come.

Our program

Since 2012, the **Cargill Cocoa Promise** [↗] has been the cornerstone of our sustainability approach. Our goals are aligned with the UN Sustainable Development Goals (SDGs) and our **theory of change** [↗]. Following our **results framework** [↗], we continuously monitor and evaluate our programs, so that we can maximize our positive impact.

Cargill Cocoa & Chocolate goals



Farmer livelihoods

We will champion professional cocoa farming practices, to strengthen the socio-economic resilience of cocoa farmers and their communities.

[+ Read more](#)



Community wellbeing

We will enhance the safety and wellbeing of children and families in cocoa farming areas.

[+ Read more](#)



Protect our planet

We will promote environmental best practices in our business and across our supply chain.

[+ Read more](#)



Consumer confidence

We will help consumers around the world choose sustainable cocoa and chocolate products with confidence.

[+ Read more](#)



Transformation, together

We will use the power of partnerships to accelerate and magnify our efforts to achieve a level of sector transformation that cannot be accomplished alone.

[+ Read more](#)



Responsible business

Across our business operations and supply chain we increase efficiency, maximize safety, and minimize our environmental footprint.

[+ Read more](#)

Our approach



Farmer livelihoods

We empower farmers who manage their farms as businesses, maximizing profitability, and growing prosperous. We do this through a holistic approach that goes beyond productivity to diversify farmers' incomes and strengthen their resilience.

[+ Read more](#)



Community wellbeing

To meet specific community needs with the Cargill Cocoa Promise, we work with partners to implement concrete solutions related to accessing quality healthcare, nutrition, and education, addressing child labor, and improving access to economic opportunities for women and youth.

[+ Read more](#)



Protect our planet

Cargill's "Protect Our Planet" strategic action plan details the steps we are taking to make our supply chain deforestation-free. It outlines concrete actions to achieve 100% cocoa bean traceability, programs to grow more cocoa on less land, and support for farmers to adopt agroforestry and conservation practices. This also contributes to reducing our supply chain carbon footprint in line with Cargill's science-based targets and the Paris Agreement.

[+ Read more](#)



Transformation, together

Farmers and farmer organizations are our key partners to ensure a sustainable supply of cocoa well into the future. Our success is linked to theirs. To create a more sustainable cocoa supply chain globally, we work with a multitude of stakeholders across the industry, using individual strengths and abilities to drive lasting and transformational change.

[+ Read more](#)



Consumer confidence

We seek to provide clear, robust, and transparent information powered by technology, and to partner with independent parties to ensure our data is accurate and assured. This applies both to our direct supply chain, which is covered by the Cargill Cocoa Promise and accounts for about half of the cocoa we source, and to our indirect supply chain.

[+ Read more](#)

Programs and partnerships

Farmer livelihoods

We empower cocoa farmers to grow their incomes in sustainable ways. With our partners, we help them optimize their businesses while improving access to education and financing, and enabling women to become successful entrepreneurs.

Want to know more?

- Learn how we aim to [expand our reach](#) with the [Cargill Cocoa Promise](#) by 2030.
- Explore the [Living Income Roadmap](#) developed by our partner IDH.
- Backgrounder: Why closing gender gaps is [crucial to closing income gaps](#)

Farmer livelihoods are deemed to be benefiting from the Cargill Cocoa Promise are sustainable-certified and participate in Cargill Cocoa Promise activities. Our impact measurement is not limited to farmers in our direct supply chain. Although farmers are not obligated to sell their cocoa to Cargill they can always participate in Cargill Cocoa Promise activities. We also cover our indirect supply chain in our impact measurement.

At a glance

222,000+

Farmers reached by the Cargill Cocoa Promise from January 2022 through June 2023.

This includes: 810 in Brazil, 40,237 in Cameroon, 127,595 in Côte d'Ivoire, 32,582 in Ghana and 21,041 in Indonesia benefiting from training on sustainable agriculture, business management, and gender equity.

Key progress

In Côte d'Ivoire, we reached 80,000 farmers with our long-term Farm Development Plans. To create these plans, we work with farmers through one-on-one coaching, and formulate tailored sets of recommendations to help improve farm productivity and profitability, including pruning, the smart use of inputs, and other best practices.

In Côte d'Ivoire, we helped our customer Nestlé expand its [Income Accelerator Program](#), which delivers mobile cash payments to help cocoa farming families close the living income gap and reduce child labor risks by encouraging changes in behavior and rewarding positive practices. Participants are rewarded for keeping kids in school, and receive support to adopt GAPs and participate in additional income-generating activities.

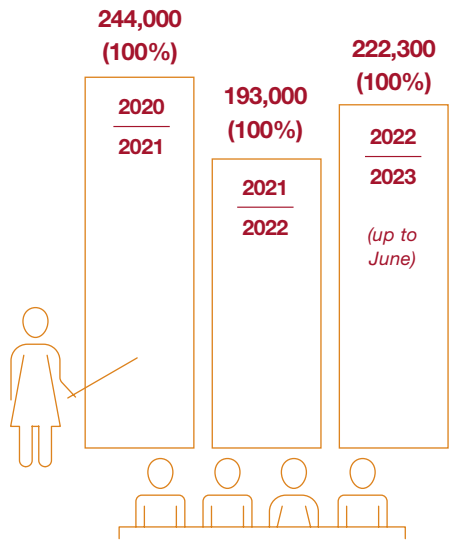
To deliver on our gourmet brand Veliche's [sustainability promise](#), we collaborated with TechnoServe on the Awalé project, supporting 1,400 women and youth in Côte d'Ivoire. [The program](#) helps build entrepreneurship skills and has invested \$40,000 in income-generating activities. Participants' incomes increased by an average of 56%.

Our Ghana Chillies project, which helps farmers boost their incomes by growing hot peppers, expanded from 1,800 to 5,000 participants. With [Unilever](#), through its AWA by Magnum female empowerment program, and [100WEEKS](#), we co-funded digital cash transfers to 400 women in Côte d'Ivoire, promoting financial literacy and gender equity. In Ghana and Côte d'Ivoire, we helped cocoa cooperatives set up shared services to increase yields and incomes.

Learnings and next steps

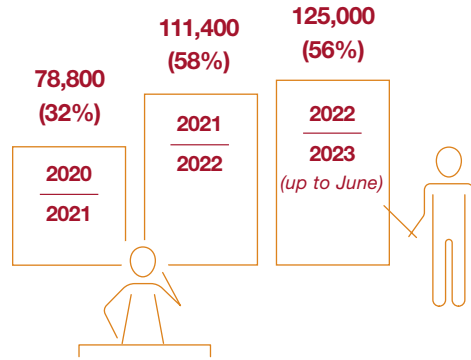
We will continue to partner with farmers and farmer organizations to expand our farm service delivery models, providing producers with access to the tools and support they need to implement Farm Development Plans, maximize profitability, and sustainably increase their incomes.

Through a new strategic collaboration with [IDH The Sustainable Trade Initiative](#), we will determine the most effective methods to close the living income gap across the Cargill Cocoa Promise network and use that information to help customers contribute to closing this gap.



CCP farmers trained

Farmer training, offered in group setting, builds foundational knowledge of GAPs and key social and environmental topics.



CCP farmers coached

Farmer coaching provides individualized support, including on-farm diagnostic surveys and tailored Farm Development Plans addressing key improvement priorities.

CCP farmers using crop protection

	Côte d'Ivoire	Ghana	Cameroon
2022 - June 2023	18,769 (73%)	1,096 (67%)	16,611 (95%)
2021-2022	57,222 (75%)	7,309 (62%)	11,743 (94%)
2020-2021	31,575 (69%)	5,583 (62%)	6,893 (92%)

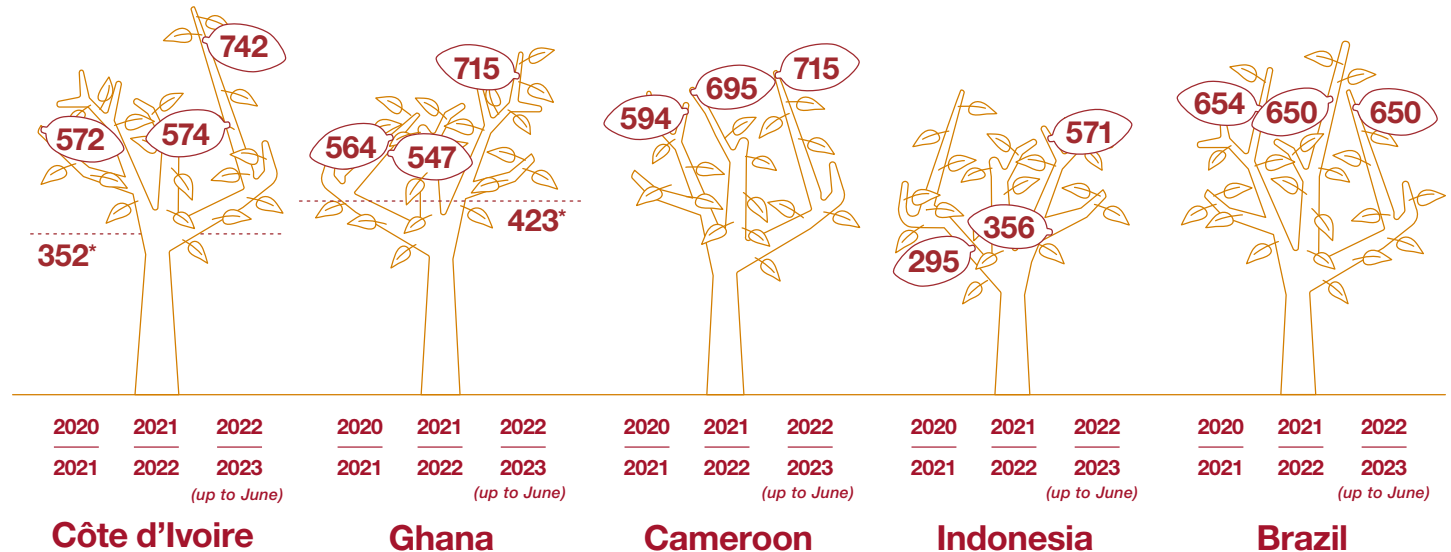
CCP farmers composting and applying it on farms

	Côte d'Ivoire	Ghana	Cameroon
2022 - June 2023	4,151 (16%)	353 (22%)	1,683 (10%)
2021-2022	6,978 (9%)	1,323 (11%)	396 (3%)
2020-2021	1,812 (4%)	251 (3%)	12 (0.2%)

When Good Agricultural Practices are used, yields increase

Over the years, results show that when cocoa growers implement GAPs, they see higher yields and returns. Although productivity depends on many factors and practices do not change linearly, the trend line within the CCP network is consistent.

Average yields in kilograms of cocoa per hectare, calculated as reported production divided by the mapped farm size.



* Country averages according to a study by KIT, the Dutch Royal Tropical Institute.

Community wellbeing

Over the past decade, we have addressed the links between child labor and gender equity in cocoa-growing communities. Our Child Labor Monitoring & Remediation System (CLMRS) has evolved into a holistic community well-being approach with a strong emphasis on access to education and women's empowerment.

Want to know more?

- An [explainer video](#) from the World Cocoa Foundation lays out the challenge of child labor in the cocoa sector. Here's [what Cargill is doing about it](#).
- Watch this [video](#) to learn how Village Savings & Loans Associations (VSLAs) bolster the economic position of women in cocoa communities.

At a glance

In 2022, we launched our [Gender Equity & Women's Empowerment Strategy](#). The roadmap for implementation, set for publication in 2023, consolidates what we have learned and accelerates our impact. At the same time, we continue our effort to bring water, sanitation & hygiene (WASH) and nutrition training to cocoa communities.

Key progress

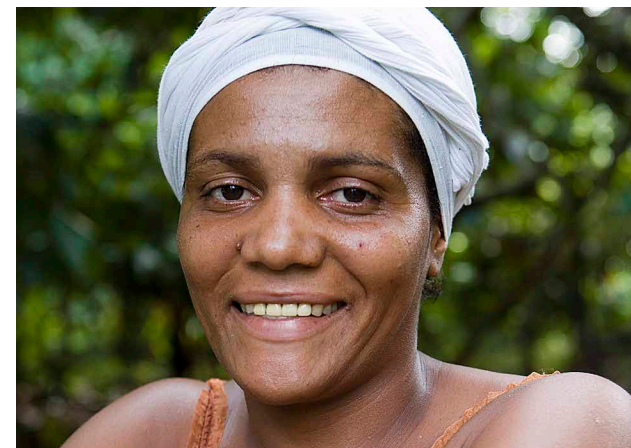
2022 saw the successful conclusion of the Promoting a Sustainable and Food Secure World Program (PROSPER) II, a three-year collaboration between Cargill and CARE. In West Africa, this partnership focused on improving the economic position of women through women-led Village Savings & Loans Associations (VSLAs), which finance small, non-cocoa businesses that improve families' resilience and resulted in an overall 31% decrease in poverty, and a 27% reduction in food insecurity. The next phase aligns with three change areas in the Cargill-CARE framework: access to inclusive markets, access to productive resources and agency, and strategic partnerships and advocacy.

Doubling down on what works, we are expanding other partnerships that support closing gender gaps, including income generation and diversification activities for women. With our partner Empow'Her and the International Finance Corporation (IFC), we are offering financial literacy and entrepreneurship training through the Cargill Coop Academy. Our collaboration with LadyAgri focuses on high-potential members of women's groups, provides them with financing and technology, and connects them with professional women from Africa and elsewhere for coaching and mentorship.

Throughout our cocoa sourcing countries, we continue to advance our integrated approach to child labor and community wellbeing. To address the root causes of child labor, we are combining CLMRS with preventative measures such as community development, women's empowerment, and opportunities for youth. We continue to refine our current CLMRS approach by rolling out a risk-based CLMRS approach across all origins, which allows us to target tailored remediation steps where they have the greatest impact. This approach has been in place in Cameroon since 2022. Implementation is underway for Côte d'Ivoire, with other origins to follow.

Learnings and next steps

When women can act on an equal footing with men, become entrepreneurs, and raise their incomes, families are more resilient and children are more likely to stay in school. For that reason, we aim to strengthen our efforts to break inequitable gender patterns and empower women. We will continue to drive change and intensify our impact, using an integrated approach to child labor and gender equity, and concentrating resources in high-risk areas to achieve the best results.



Expanding CLMRS

By June 2023, more than 93,000 farming households were monitored through CLMRS in Côte d'Ivoire, Ghana, Cameroon, Indonesia, and Brazil, up from nearly 52,000 in 2020-2021.*

*The proportion of farmers monitored by CLMRS increased significantly across our sourcing sites, with most of the country results doubled since the last report. Varying results across origins can be explained by level of maturity of CLMRS programs and farmer turnover rate.

We are rolling out a risk-based CLMRS approach across all origins, which allows us to target tailored remediation steps where they have the greatest impact. We will continue to expand our scope of regions covered and improve the model where possible. We are also in the process of aligning all origins to a shared approach consistent with ICI guidance.

Broadening access to education

With our partner CARE, we built six schools in Ghana, benefiting 730 students from kindergarten to junior high school.

More communities, greater impact

Our reach has grown along with our expertise. Our programs and partnerships are present in more communities than ever, promoting health, nutrition and gender equity.

Community action plans

2020-2021

613

2021-2022

841

Changing lives with WASH

Working with Global Water Challenge, Cargill financed and installed water wells in cocoa-growing communities. One community hadn't had access to a well since 1992.

In total:

67,000

people benefiting from improved WASH

+36

boreholes giving access to clean and potable water

+83

water committees established

We apply an integrated approach to WASH. For instance, at one school, we installed a well that also irrigates vegetables growing in an adjacent field. Furthermore, we built separate sanitation spaces for girls, so they no longer have to stay home during their periods.

Nearly 48,000 people in Cameroon, Côte d'Ivoire and Ghana benefited from improved WASH thanks to Cargill Currents, in partnership with the Global water Challenge. This includes 17 communities, 12 schools, and four health facilities. An estimated 17,000 women were empowered through time savings and other project activities, and more than 28,000 people were educated on safe water and hygiene.



Empowering women, inspiring men

While we're helping women grow, we're bringing men along and including both women and men in gender awareness programs. The benefits are shared by all.

Understanding

By June 2023 all 222,265 farmers took gender awareness training. Furthermore, more than 50% of women reported improved participation in decision-making.

Financing

In Crop Year 2021/2022, 1,012 Village Saving & Loan Associations (VSLAs) helped 17,318 women boost their incomes, up from 11,359 last year

Training

2,040 women received entrepreneurial training through the Coop Academy.

Protect our planet

We aim to drive lasting change across the cocoa sector. Grounded in the belief that sustainable cocoa farming and forests can and must flourish together, we pursue a holistic approach, combining digital traceability tools with hands-on collaboration on the ground.

Want to know more?

- Our [2022 Cocoa & Forests Initiative \(CFI\) report](#) highlights our progress in Côte d'Ivoire and Ghana, where most of the world's cocoa is grown, and presents a detailed plan for future efforts.
- Read our broader [Protect Our Planet Strategic Action Plan](#) to learn how we will help transform the cocoa supply chain.
- As public regulation increasingly drives sustainable development, the new EU Regulation on Deforestation-Free Supply Chains ([EUDR](#)) will be transformative for the sector.

Progress at a glance

1,400,000+
non-cocoa trees planted in West Africa in 2022.

Agroforestry helps promote biodiversity, climate resilience, and stable yields and incomes for cocoa farmers. Planting shade trees also sequesters additional carbon in above-ground biomass.

Key progress

Land use change represents 66% of CO₂ emissions from our cocoa and chocolate supply chain. Based on an assessment by sustainability consultant Quantis, we developed a strategy to eliminate deforestation-related emissions. (Learn more on [p.105](#))

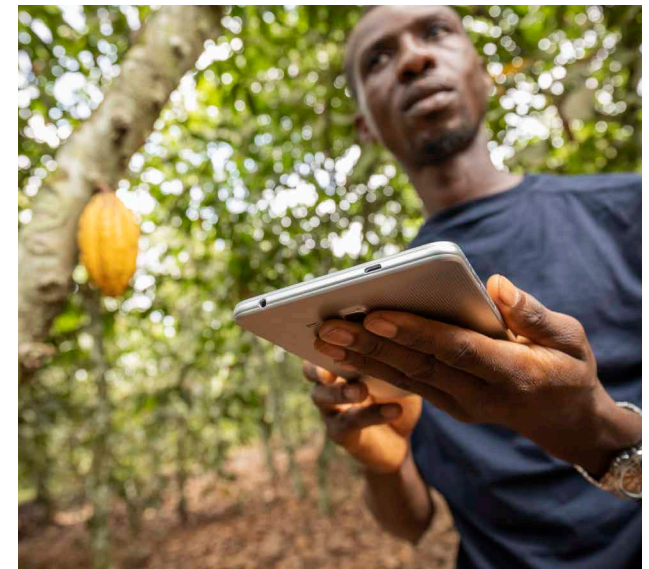
We identify deforestation hot spots intersecting with our supply chain through the use of GPS polygon maps of cocoa farms. Once we know farms' exact locations and perimeters, we can determine whether they operate on recently deforested lands or in proximity to still intact forests. Through on-site audits, we can mitigate issues and provide farmers with tailored training, and other support for sustainable practices.

Land rights issues are among the most prominent risk factors for deforestation. Working with government, industry, and our partner Meridia through the Côte d'Ivoire Land Partnership Program (CLAP), we aim to participate in delivering more than 10,000 land rights documents to farmers by 2024. With their rights secured, farmers are more likely to intensify production within property lines rather than deforest new areas.

We have significantly expanded the number of farmers we have trained in agroforestry and planted more than 1.4 million non-cocoa trees in 2022 alone. These extra trees sequester carbon, promote biodiversity, improve climate resilience, and protect the cocoa trees, which grow better in the shade. When GAPs are applied, shade trees can help stabilize cocoa yields. Fruit- and nut-bearing varieties can also provide additional income.

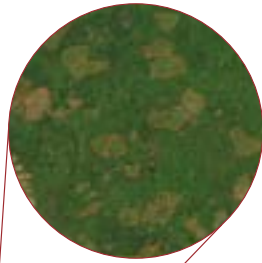
Learnings and next steps

Scaling up digital mapping and monitoring will allow us to focus and optimize our on-site engagement practices, and offer our farmer partners the best ways to work profitably and sustainably. The new CFI 2.0 action plan guides our efforts along these lines in Côte d'Ivoire and Ghana. It will serve as a model for other countries. We also continue to support emerging regulations, driving transformative action on issues including deforestation, decarbonization, and human rights.



Mapping farms to protect forests

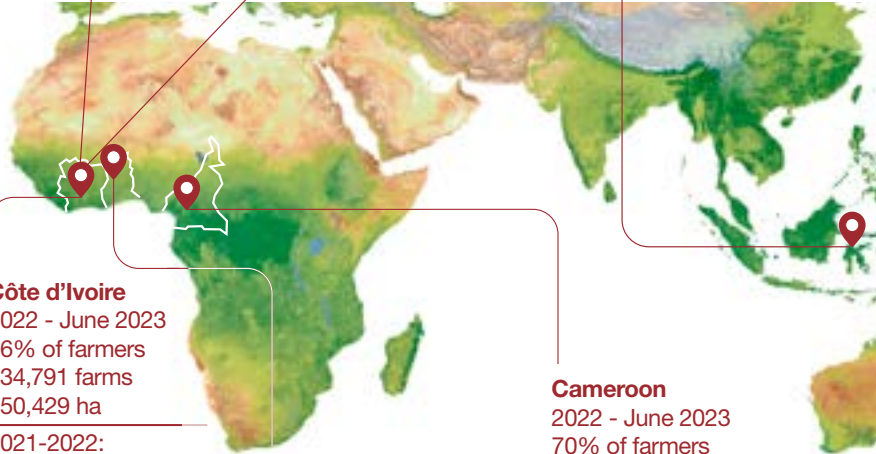
2022 - June 2023: **72%** of farmers in our direct supply chain have been fully GPS-polygon-mapped.



We use GPS polygon mapping and satellite imagery to detect and remedy deforestation. (See next page)



Brazil
2022 - June 2023
60% of farmers
522 farms
15,814 ha
2021-2022:
75% of farmers
2020-2021:
95% of farmers



Côte d'Ivoire
2022 - June 2023
96% of farmers
134,791 farms
550,429 ha
2021-2022:
88% of farmers
2020-2021:
77% of farmers

Ghana
2022 - June 2023
94% of farmers
73,844 farms
193,141 ha
2021-2022:
96% of farmers
2020-2021:
63% of farmers

Cameroon
2022 - June 2023
70% of farmers
32,190 farms
129,462 ha
2021-2022:
45% of farmers
2020-2021:
43% of farmers

Indonesia
2022 - June 2023
94% of farmers
32,159 farms
24,792 ha
2021-2022:
98% of farmers
2020-2021:
88% of farmers

More community and landscape-level restoration initiatives

16,600+

Farmers in West Africa adopted high-intensity agroforestry systems in 2021-2022. Since 2017, we have reached 22,024 farmers, based on deforestation risk at jurisdictional and cooperative levels.

2.6+ million

Trees distributed since 2017-2018. It takes an estimated 3.3 trees planted in a cocoa agroforestry setting to sequester 1 metric ton of CO2e over a twenty-year period.

- We source more than 60% of our cocoa beans directly from farms or farmer groups and implement direct supply chain action within our direct sustainable supply chain. We install the traceability tools ourselves, in partnership with farmer groups and technology service providers such as Farmforce and Koltiva.
- For indirect volumes, we rely on intermediaries. Knowing that supply chain transparency may vary, we perform due diligence to assess risk and provide traceability information. Due to local regulatory environments, sourcing 100% of our volumes directly is not possible everywhere. Furthermore, we value working with local partners.

Through our supplier engagement efforts, we support them in creating value, improving transparency, and building domestic sustainable supply chain capacity.

- We assess deforestation risk by overlaying farm mapping data with geospatial satellite data made available by the World Resources Institute (WRI)'s Global Forest Watch Pro platform. We also assess legality of production. Production in protected areas is primarily measured using data from national governments on Protected Area boundaries. Where this is not possible, we rely on IUCN and UNEP-WCMC's World Database on Protected Areas.

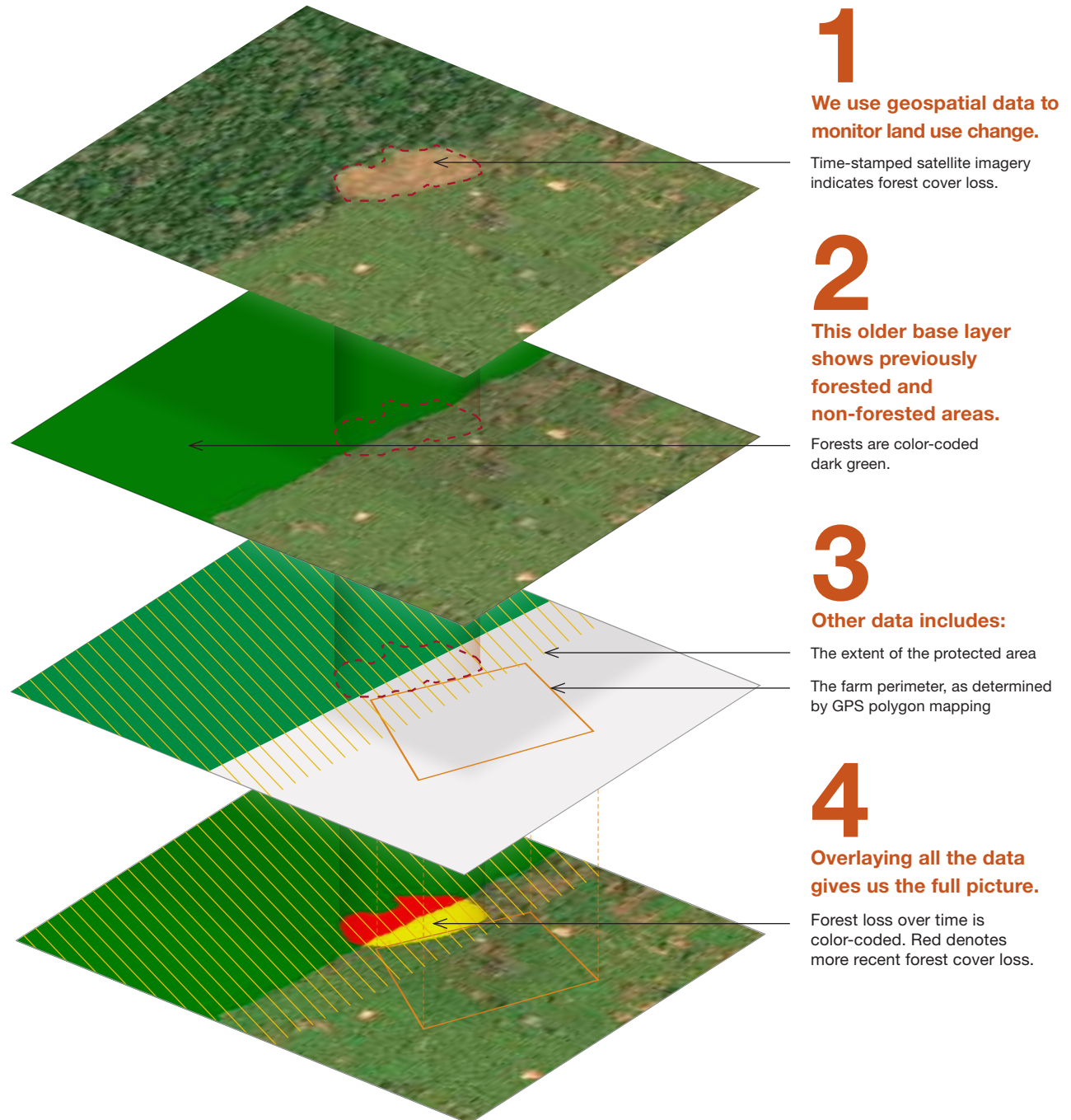
- We refer with GPS polygon mapped farms to all farms of certified farmers that have been mapped in either 2021-2022 or 2022-2023. Farm maps reported here may include geometry issues. We found that, depending on the country, 6% - 22% of our mapped farmers have duplicate polygons or polygons that overlap by at least 20% with one or more other polygons. Solving these issues is among our key priorities in the coming years.
- In Brazil, the number of farmers participating in the Cocoa Promise has more than doubled since 2020-2021 (203 farms). Because our mapping effort has much more ground to cover, the overall mapped percentage has decreased.

GPS polygon mapping explained

Overlaying satellite imagery with GPS polygon maps, we can detect forest cover changes on our suppliers' farms and in nearby forests and protected areas. Creating a GPS polygon map requires walking around a farm's perimeter with a smartphone or another small GPS-equipped device.

Once we know each farm's shape, location, and ownership, we can engage directly with farmers to remedy existing issues or mitigate future deforestation risk. Action steps can include training on sustainable practices like agroforestry and the correct use of inputs, solving land rights issues, and income diversification.

While cocoa cultivation is an important driver of deforestation, it is not the only factor. In many cases, deforestation is driven by third-party wood extraction, mining, or conversion for other crops, such as rubber.



Consumer confidence

Global demand for responsibly and sustainably sourced cocoa is rising. Customers and consumers expect transparency. Government regulations are growing more ambitious. As we expand our use of digital traceability technology, we are increasing our capacity to provide the sustainable products the market expects.

Want to know more?

- Learn what the new EU Regulation on Deforestation-Free Supply Chains (EUDR) [means for the cocoa sector](#).
- Read this [Environmental Research Letters article](#) on why full farm-level traceability is a prerequisite for deforestation-free cocoa.
- Find out how Cargill's [CocoaWise™ portal](#) helps our customers access sustainability data for our supply chain directly.

Progress at a glance

100%
of our partner cooperatives in Côte d'Ivoire have implemented digital traceability.

Key progress

The way forward is best illustrated in Côte d'Ivoire, where we are approaching our goal of 100% verified traceable cocoa. As of October 2022, all 147 of our partner cooperatives had implemented digital traceability measures. As of June 2023, 96% of certified farmers in our Côte d'Ivoire supply chain had their farms polygon-mapped, up from 88% in 2022. Collaborating closely with key digital technology provider Farmforce, we expect to reach 100% before the start of Crop Year 2023-24.

As a result, the cocoa delivered to our Cargill facilities as Promise Verified and Promise Rainforest Alliance in Côte d'Ivoire is now digitally traceable to the farm, and digital sustainability premium payments are growing rapidly. During the 2021-22 growing season, we paid out CFA 450M (\$750,000). Midway through the 2022-23 season, farmers had already received CFA 850M (\$1.4 million).

We are partnering with the Ivorian Conseil du Café et Cacao to implement a national traceability and digital payment system. In Ghana, we are supporting a traceability pilot launching late 2023 in the Assin Fossu district. Traceability efforts are expected to accelerate as the sector works to meet the EUDR by the end of 2024. With our NGO partners TechnoServe and Meridia, we are supporting compliance efforts throughout our direct and indirect supply chains.

Learnings and next steps

We will complete polygon mapping globally for the Cargill Cocoa Promise, and work with our farmer partners, NGOs and governments to expand the use of traceability and digital payment technology. At the same time, we will support farmers in their efforts to adapt to the EUDR's requirements. Combined, these measures will accelerate progress toward a transparent, sustainable global cocoa supply chain.

Certified sustainable cocoa volumes sold



2020-2021

49%

2021-2022

49%

2022-June 2023

48%

Expanding traceability throughout the supply chain

2022-June 2023

Up to farmer organization / first point of purchase level



Up to farmer level



Up to farm level



100%

of cocoa in our direct supply chain is traceable up to the first point of purchase. For our indirect supply chain, through our due diligence system with suppliers, 14% of the cocoa is traceable to the first point of purchase, up from 10% in 2020-2021.

75%

of farmers in our direct sustainable supply chain, 165,768 in total, are delivering volume through first-mile digital traceability systems, up from 48% in 2020-2021.

72%

of farmers in our direct supply chain are GPS polygon mapped and monitored for deforestation risk (see Protect our planet), up from 70% in 2020-2021.

More mobile payments accelerate digitalization

2020-2021

56,700

farmers registered with mobile banking systems (23% of total)

26,200

farmers receiving mobile premium payments (11% of total)

2021-2022

66,600

farmers registered with mobile banking systems (35% of total)

19,800

farmers receiving mobile premium payments (10% of total)

2022-June 2023

73,400

farmers registered with mobile banking systems (33% of total)

36,600

farmers receiving mobile premium payments (16% of total)

Responsible business

In everything we do, we aim to save valuable resources, and minimize our environmental footprint. Across the supply chain, from bean to bar, we work around the clock to deliver delightful products in a safe, responsible, and sustainable way.

Want to know more?

- Go to our [website](#) to learn more about our approach to sustainability governance, ethics, and compliance.
- Familiarize yourself with Cargill's [CDP responses](#) and our ESG scorecard.

Progress at a glance

66%

of our carbon emissions stem from land use change.

That's why our climate action roadmap makes tackling deforestation our #1 priority, in line with Cargill's commitment to make our agricultural supply chains deforestation-free by 2030.

Honoring ethical standards, every day

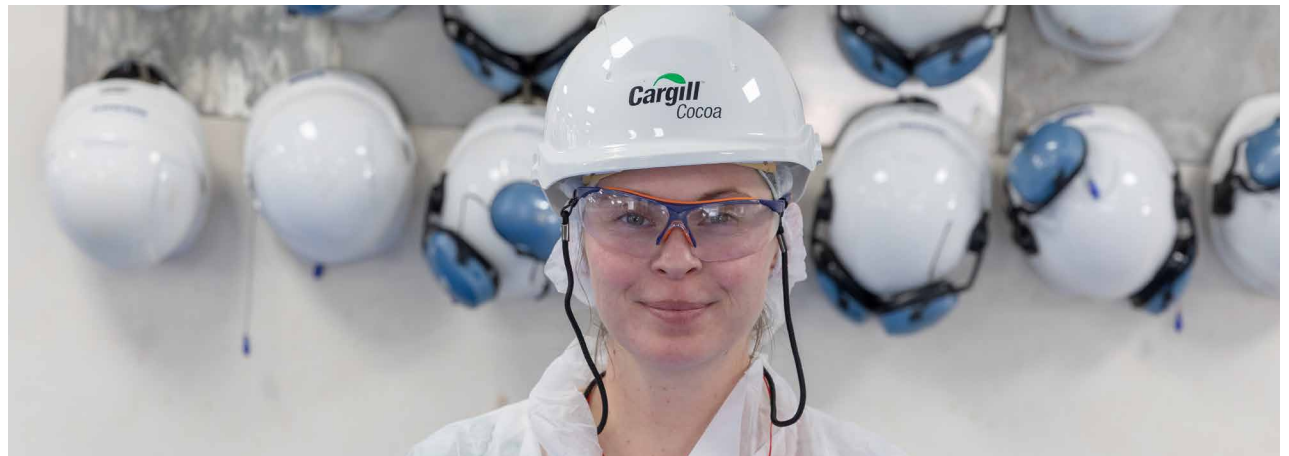
Cocoa & Chocolate adheres to Cargill's corporate [Code of Conduct](#) and Supplier [Code of Conduct](#). These codes set standards for doing business around the world based on the company's seven [Guiding Principles](#).

A climate action plan for cocoa and chocolate

In 2022, we worked with environmental consultancy firm Quantis to assess Cargill's cocoa and chocolate-related carbon footprint. Together, we determined that 4% of our emissions are linked to our manufacturing activities (scope 1 and 2) and 96% to our supply chain (scope 3). We identified four carbon hot spots – energy use, transportation, dairy ingredients, and land use change from cocoa cultivation – and formulated a plan to address them.

This roadmap identifies 32 quantifiable actions. Taken together, we estimate that the top 10 actions can help us reduce our emissions by more than 65%. Among these, eliminating deforestation is the most impactful action we can take, as it remains the supply chain's largest source of emissions.

We will intensify our effort to end deforestation within our supply chain by increasing traceability and investing in programs to protect forests and develop agroforestry approaches. For further details, see the [Protect our planet](#) and [Consumer confidence](#) sections in this chapter, as well as our [website](#).

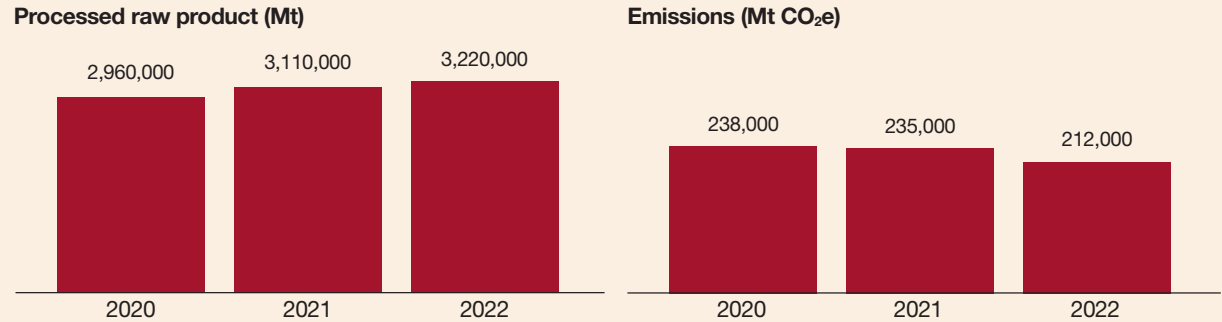


Decarbonizing our facilities

Despite growth in production volumes, emissions from our own locations (scope 1 and 2) have steadily fallen since 2020 (see chart). These results account for improved energy consumption reporting due to better data gathering, and a revision of the 2017 baseline to include facilities that were not included previously.

Cargill is working to identify opportunities for green energy use at its facilities company-wide.

As production grows, processing emissions fall



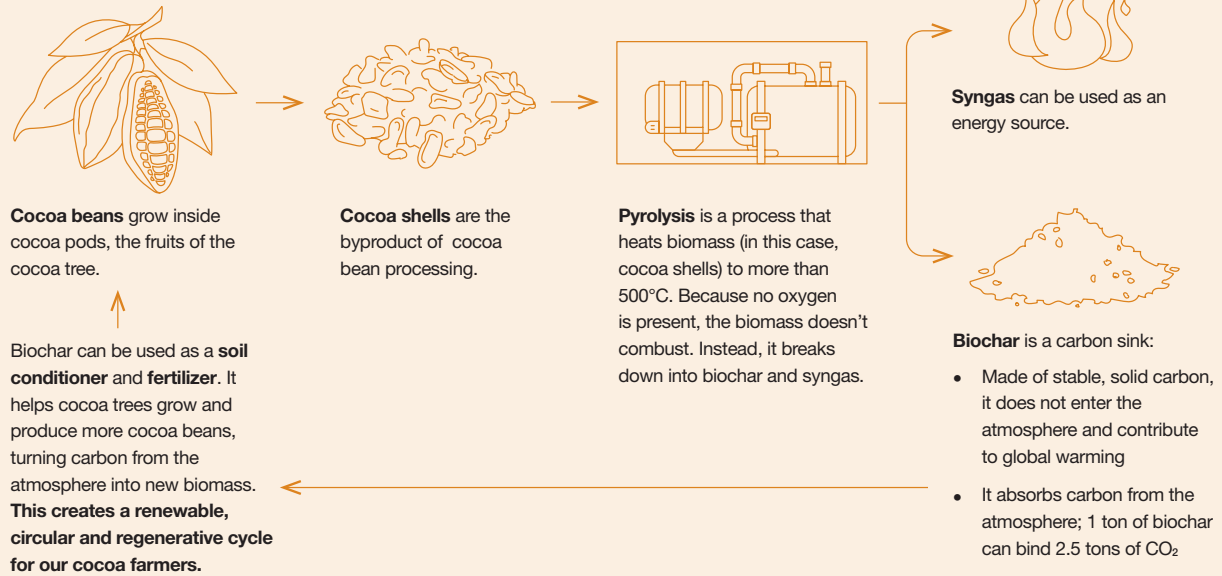
Making renewable biochar to bind carbon and boost yields

Cocoa bean shells have traditionally been discarded as waste, but that is changing. Working with the U.K. Biochar Research Centre at the University of Edinburgh and our NGO partner PUR Projet, we have launched a pilot project to convert cocoa shells into syngas, a renewable fuel, and biochar, a carbon-sequestering fertilizer.

Our pilot facility in Côte d'Ivoire is expected to start production by the end of 2024. The installation can create up to 5,000 tons of biochar per year. We will use the syngas to make steam for our processing requirements.

Pyrolysis can potentially be applied at all our cocoa processing facilities. We plan to supply the biochar to farmers free of charge, driving circularity, regenerative agriculture and higher yields and incomes.

How it works



Transformation together

One of the most important things we learned in the decade since we launched the Cargill Cocoa Promise is that issues facing the cocoa sector are interlinked. Creating lasting, industry-wide progress requires holistic solutions that connect the dots and benefit all people, organizations, and ecosystems involved.

Want to know more?

- Learn how we apply the power of partnerships to [deliver systemic change](#).
- Follow the stories on [Cargill Cocoa Promise website](#) to find out how our partnerships make a positive difference for the people and communities who grow our cocoa.
- As new E.U. sustainability regulations take effect, the [European Cocoa Association](#) (ECA) acts as the voice of the industry.

Progress at a glance

More than
60 partnerships

26 NGOs and foundations, 5 producing governments, 11 multi-stakeholder initiatives, 7 social enterprises, 4 knowledge institutes, 5 technology providers, and 4 financial institutions.



Key progress

At Cargill, we use our position at the center of the supply chain to bring stakeholders together and accelerate our combined impact. That is especially true in the cocoa sector, with its many interwoven issues facing the many tens of thousands of smallholders across our six origin countries. In response, we have developed an equally tightly woven web of partner organizations, providing hands-on expertise with farm mapping, land rights, digital payments, agroforestry, child labor prevention, and many other issues.

The last two years saw the successful renewal of several key partnerships, for instance with CARE, Empow'Her and LadyAgri (p. 98). As we move forward together, we will continue to combine practical, cutting-edge technology with time-tested relationships on the ground, making a tangible difference for our farmer-partners and their communities.

At the same time, we are involved in several industry associations and public-private partnerships, collaborating across borders with government agencies, NGOs, customers, and even our competitors to address the big issues facing the sector. Among the most notable example is our CFI 2.0 Action Plan (p. 100).

Learnings and next steps

Our goals remain as relevant as ever. Through new and existing partnerships, we aim to accelerate progress toward a truly sustainable cocoa supply chain. We will strengthen our focus on gender equity and scale up successful partnerships in support of food security and living incomes. Working with our partners from the farm level to the international forums, we will advance compliance with the EUDR, which we see as a strong impetus for sustainable cocoa.

Making a difference for real people

Beyond the project charters, acronyms and abstractions that come with the daily realities of ESG, we never forget that the work is about human beings and their communities. Farmers are always the focal point of our efforts. In the 2021-2023 period, we have steadily expanded our reach

and worked with our farmer-partners to promote sustainable agriculture, advanced management skills, and gender equity, and supporting women as economic actors and community leaders. Here are just some of the remarkable individuals we are privileged to know.



Photo credit: Sandrine Bénitah

When her husband's cocoa-buying business fell on hard times, **Marie Adjehi Nanou Bla** from Côte d'Ivoire worked with her local Village Savings and Loan Association (VSLA) to start her own venture, selling fish, chicken, and eggs. "I am completely financially independent and I am the one who provides for all my family's expenses," she said soon after.



Photo credit: LadyAgri

Farmer **Dorothee Messina** supports a household of 11. Starting with trainings to grow her management skills – from food safety to social entrepreneurship – she worked her way up to become a leader in her local farming cooperative, representing the voice of women. "We are the heart of the Cameroon food system," she said.

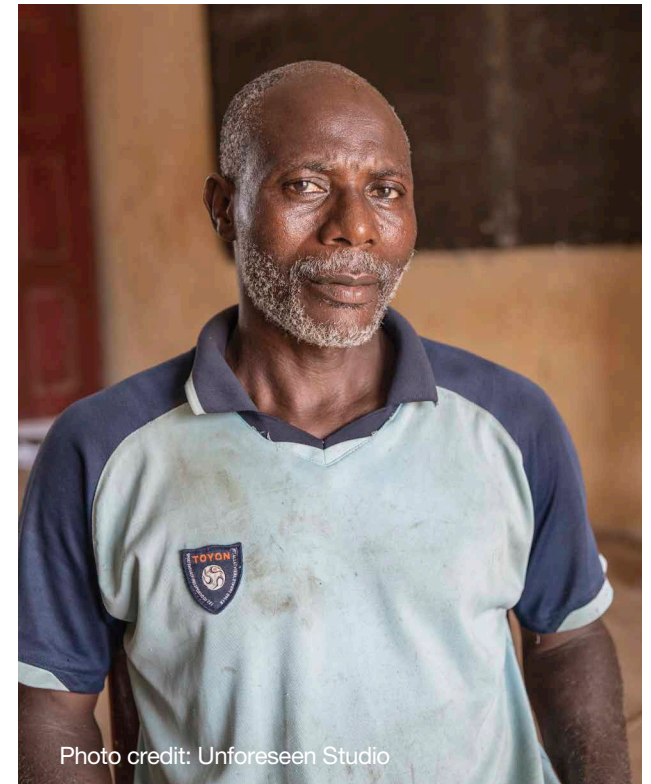


Photo credit: Unforeseen Studio

If there's one thing that breaks **Ouatarra Shaka's** heart, it's the sight of trees going down. That's why this Ivorian cocoa farmer became a champion of agroforestry. "I am replanting trees for my children, to keep living from cocoa and provide a livelihood for my family. Trees are our common heritage, that's why we must take care of them."



Assurance report of the independent auditor

To: the Executive Team of Cargill B.V.

Our conclusion

We have reviewed the selected sustainability indicators as included in the Sustainability chapter of the Global ESG report 2023 (hereafter: 'the Report') of Cargill B.V. (hereafter: Cargill) at Schiphol for the crop-years 2021-2022 and 2022-2023 (2022-2023 ending at 30th June) (hereafter: the sustainability indicators). A review is aimed at obtaining a limited level of assurance.

Based on the procedures performed nothing has come to our attention that causes us to believe that the sustainability indicators are not prepared, in all material respects, in accordance with the reporting criteria as described in the 'Reporting criteria' section of our report.

The sustainability indicators in scope consist of the indicators included in the report in the table at pages 92 and 93.

Basis for our conclusion

We performed our review in accordance with Dutch law, including Dutch Standard 3000A 'Assurance-opdrachten anders dan opdrachten tot controle of beoordeling van historische financiële informatie (attest-opdrachten) (assurance engagements other than audits or reviews of historical financial information (attestation engagements)). This engagement is aimed to obtain limited assurance. Our responsibilities in this regard are further described in the 'Auditor's responsibilities' section of our report.

We are independent of Cargill B.V. in accordance with the 'Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten' (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence). Furthermore, we have complied with the 'Verordening gedrags- en beroepsregels accountants' (VGBA, Dutch Code of Ethics). We believe the assurance evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Reporting Criteria

The sustainability indicators need to be read and understood together with the reporting criteria. Cargill is solely responsible for selecting and applying these reporting criteria, taking into account applicable law and regulations related to reporting.

The reporting criteria used for the preparation of the sustainability indicators are the applied internally developed reporting criteria as disclosed in the section 'Dashboard' on pages 92 and 93 of the Report.



Materiality

Based on our professional judgement we determined materiality levels for each relevant part of the Report / the sustainability indicators and for the sustainability information as a whole. When evaluating our materiality levels, we have taken into account quantitative and qualitative considerations as well as the relevance of information for both stakeholders and Cargill.

Limitations to the scope of our review

The sustainability indicators includes prospective information such as ambitions, strategy, plans, expectations and estimates. Inherently the actual future results are uncertain. We do not provide any assurance on the assumptions and achievability of prospective information of the sustainability indicators.

References to external sources or websites related to the sustainability indicators are not part of the sustainability indicators itself as reviewed by us. Therefore, we do not provide assurance on this information.

Our conclusion is not modified in respect to these matters

The Executive Team Responsibilities

The Executive Team of Cargill is responsible for the preparation of the sustainability indicators in accordance with the applicable criteria as described in the 'Reporting criteria' section of our report, including the identification of stakeholders and the definition of material matters. The choices made by Management regarding the scope of the Sustainability chapter and the reporting policy are summarized on pages 92 and 93 of the Report.

Furthermore, The Executive Team of Cargill is responsible for such internal control as it determines is necessary to enable the preparation of the sustainability indicators that is free from material misstatement, whether due to fraud or error.



Auditor's responsibilities

Our responsibility is to plan and perform our review in a manner that allows us to obtain sufficient and appropriate assurance evidence for our conclusion.

Procedures performed to obtain a limited level of assurance are aimed to determine the plausibility of information and vary in nature and timing, and are less in extent, compared to a reasonable assurance engagement. The level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

We apply the 'Nadere Voorschriften Kwaliteitssystemen' (NVKS, Regulations for Quality management systems) and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We have exercised professional judgement and have maintained professional skepticism throughout the review, in accordance with the Dutch Standard 3000A, ethical requirements and independence requirements.

Our review included among others:

- Performing an analysis of the external environment and obtaining an understanding of relevant societal themes and issues, and the characteristics of the company;
- Evaluating the appropriateness of the reporting criteria used, their consistent application and related disclosures in the sustainability indicators;
- Obtaining an understanding of the reporting processes for the sustainability indicators, including obtaining a general understanding of internal control relevant to our review;
- Identifying areas of the sustainability indicators where a material misstatement, whether due to fraud or error, are most likely to occur, designing and performing assurance procedures responsive to these areas, and obtaining assurance information that is sufficient and appropriate to provide a basis for our conclusion. These procedures included, amongst others:
 - Interviewing management and relevant staff at corporate level responsible for the strategy, policy and results;
 - Interviewing relevant staff responsible for providing the information for, carrying out internal control procedures over, and consolidating the data in the sustainability indicators;



- Determining the nature and extent of the review procedures for reporting countries. For this, the nature, extent and/or risk profile of these reporting countries are decisive. Based thereon we selected countries to visit. The visits to 2 countries, Ghana and Cameroon, are aimed at, on a local level, validating source and registration data by evaluating the design and implementation of internal controls and validation procedures;

- Obtaining assurance information that the sustainability indicators reconciles with underlying records of Cargill;

- Reviewing, on a limited test basis, relevant internal and external documentation;

- Performing an analytical review of the data and trends.

- Evaluating the consistency of the sustainability indicators with the information in the report which is not included in the scope of our review;

- Evaluating the presentation, structure and content of the sustainability indicators;

- Considering whether the sustainability indicators as a whole, including the disclosures, reflects the purpose of the reporting criteria used.

We have communicated with the Executive Team of Cargill regarding, among other matters, the planned scope and timing of the review and significant findings that we identify during our review.

Amstelveen, 31 October 2023
KPMG Accountants N.V.

D.A.C.A.J. Landesz Campen RA
Partner