

COCOA COMPASS
Impact report



THE FUTURE OF COCOA

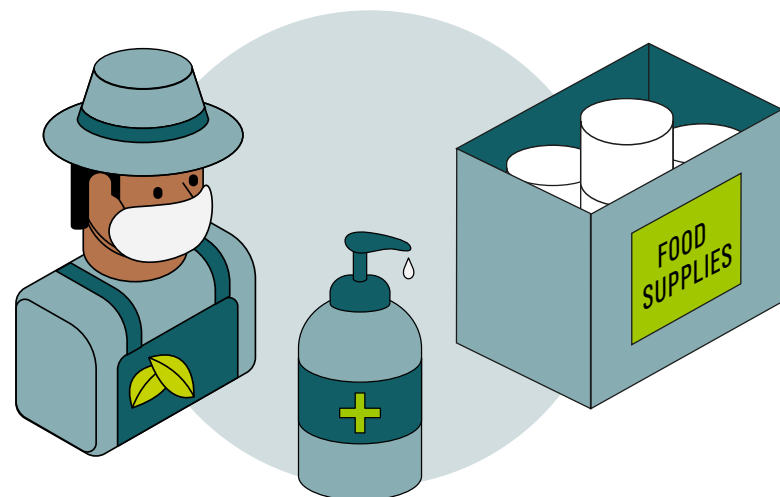
In October 2019, we announced the launch of Cocoa Compass, which further develops our ambition to make the future of cocoa more sustainable. Aligned with the United Nations Sustainable Development Goals, Cocoa Compass sets measurable targets in the three areas in which we believe we can have the most impact: putting children first, helping farmers achieve a living income and protecting the environment. This report will give you a comprehensive review of our progress to date.

UNPRECEDENTED CHALLENGES

When we launched Cocoa Compass, the choppy waters of 2020 were not yet visible. As a result of Covid-19, our global sustainability teams had to find novel ways to run essential farmer training programmes and deliver vital support like medical and food supplies to vulnerable cocoa communities worldwide.

Despite these hurdles, I'm incredibly proud to share that we have achieved our first set of Cocoa Compass milestones in collaboration with our customers, sustainability partners and national governments. We now have child labour monitoring in our managed sustainability programmes and 100% deforestation monitoring in our direct supply chain across nine countries, which is underpinned by full traceability back to the individual farm or community.

Why is this important? Because these monitoring systems are a lodestar, shining a light on our supply chain, from how many farmers' children are attending school to the number of forest trees being planted. As consumers increasingly demand products with strong ethical credentials, the granular data can be tracked and easily shared with customers through our sustainability platform, AtSource. Together, we can harness these insights and take meaningful action towards our longer-term goals.

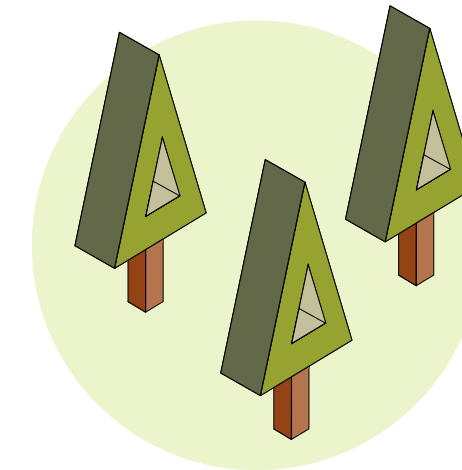


TANGIBLE PROGRESS

We have taken the lead on rolling out a digital child labour monitoring and remediation system (CLMRS) app, a ground-breaking tool in countries like Brazil, Cameroon, Indonesia and Uganda. As a result, we can more quickly and efficiently act when children are at risk. Forced or slave labour is rare in cocoa and is not the same as child labour. We have zero tolerance for forced labour. If we were to identify any instances in our supply chain, we would immediately act, including notifying the appropriate authorities.

Although child labour in cocoa is never acceptable, our data shows that school attendance is on the rise, in line with the findings of the recent report¹ from NORC at the University of Chicago. We have also scaled up our community initiatives and contributed to multi-stakeholder projects like the Child Learning and Education Facility to aid millions of children in Côte d'Ivoire access better education.

Due to the pandemic and a softness in demand for confectionery products, cocoa farmers' ability to earn a living income has been disproportionately affected. We support the initiatives of various governments worldwide to increase the income of farmers. Our local teams doubled down on their sustainability efforts by reaching even more farmers with tailored Farm Development Plans, distributing inputs to help them get the most from their land and sharing best practice techniques from our new agronomy manual.



Meanwhile, we collaborated with a consortium of our peers to publish the first-ever living income reference values for Cameroon, Nigeria, and Papua New Guinea. This marks a significant step towards our goal to do more than break the cycle of extreme poverty for cocoa farmers by 2030.

Finally, as I reflect on the opportunity for collective climate action at COP26, and the proposed environmental legislation in the EU and UK, I am resolute that the cocoa industry can be a lever for change. The progress made under the Cocoa & Forests Initiative shows the potential strength of public-private partnerships in practice, and not just on paper.

We're also looking at how we account for our impact on the natural world at both the farm and processing level. Thanks to investment in green energy initiatives, we have cut our GHG emissions in line with our commitments and are pushing ourselves to go even further.

LOOKING AHEAD

I am buoyed by the continued commitment of our teams to embrace the Cocoa Compass ambition. Even when faced with significant personal challenges due to Covid-19, they've been the driving force behind our progress. And they've ensured that we could keep delivering high-quality, sustainably sourced cocoa ingredients to our chocolate and confectionery customers, bringing familiar comforts to households worldwide.

There is a limit to the kind of transformational impact that any one company or government can have. But I'm confident that, along with our customers and partners, we have the energy and passion to take what we've achieved so far and build on it for the future.

Gerard A. Manley, CEO of Olam Cocoa

¹Assessing Progress in Reducing Child Labor in Cocoa Production in Cocoa Growing Areas of Côte d'Ivoire and Ghana, NORC at the University of Chicago, October 2020

"I'M INCREDIBLY PROUD TO SHARE THAT WE HAVE ACHIEVED OUR FIRST SET OF COCOA COMPASS MILESTONES IN COLLABORATION WITH OUR CUSTOMERS, PARTNERS AND NATIONAL GOVERNMENTS"

PROGRESS SNAPSHOT

OUR APPROACH

We have achieved our 2020 goals of 100% traceability, child labour monitoring in our managed sustainability programmes and 100% deforestation in our direct cocoa supply chain.

By first establishing direct supply chain traceability and putting in place these monitoring systems, we now have the valuable data insights we need to advance towards our longer-term sustainability goals. All of which can be measured and shared with our customers on the AtSource platform.



AtSource is Olam’s sustainability insights platform, cultivating change from the ground up. Customers can track where their cocoa has come from, as well as the social and environmental impact it’s had on its journey from source to manufacturer.

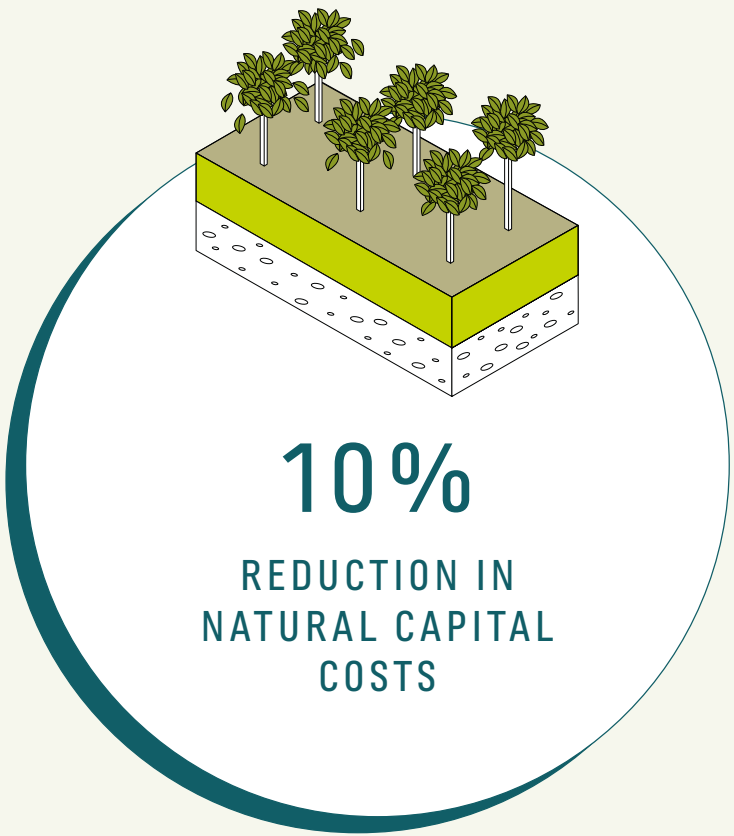
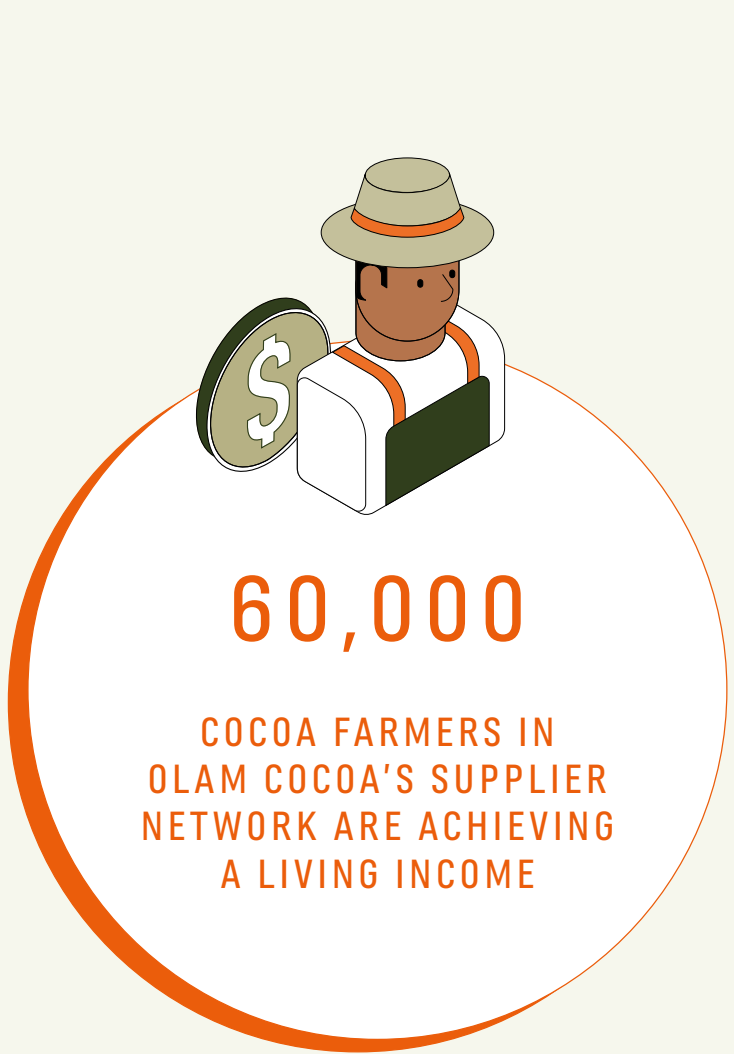
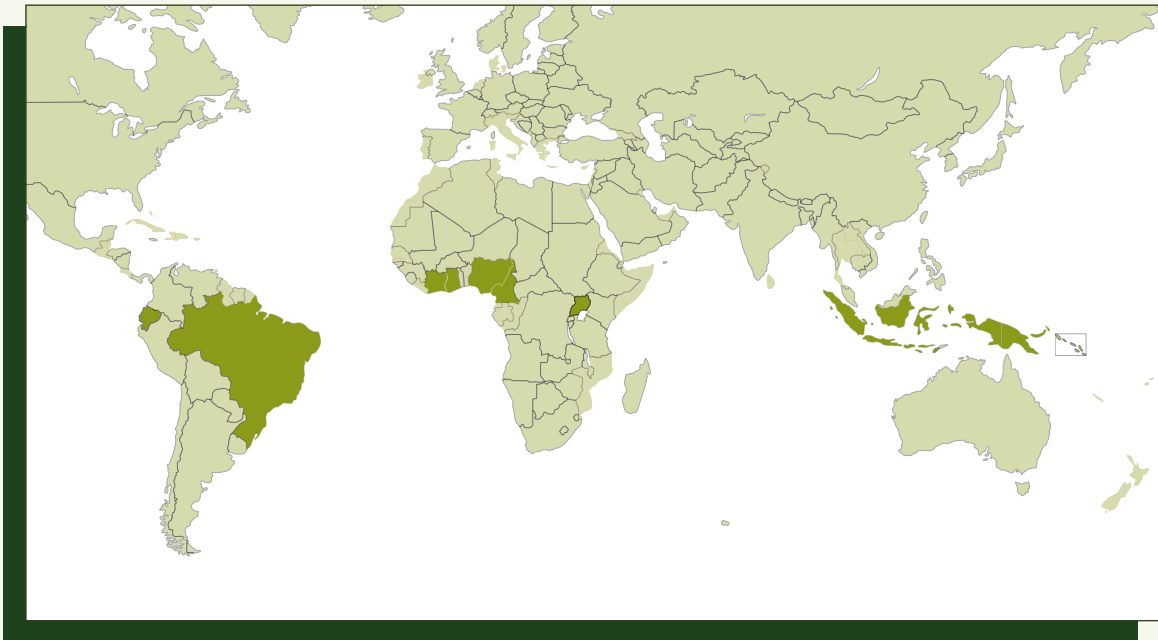
2020 → 2024 → 2030



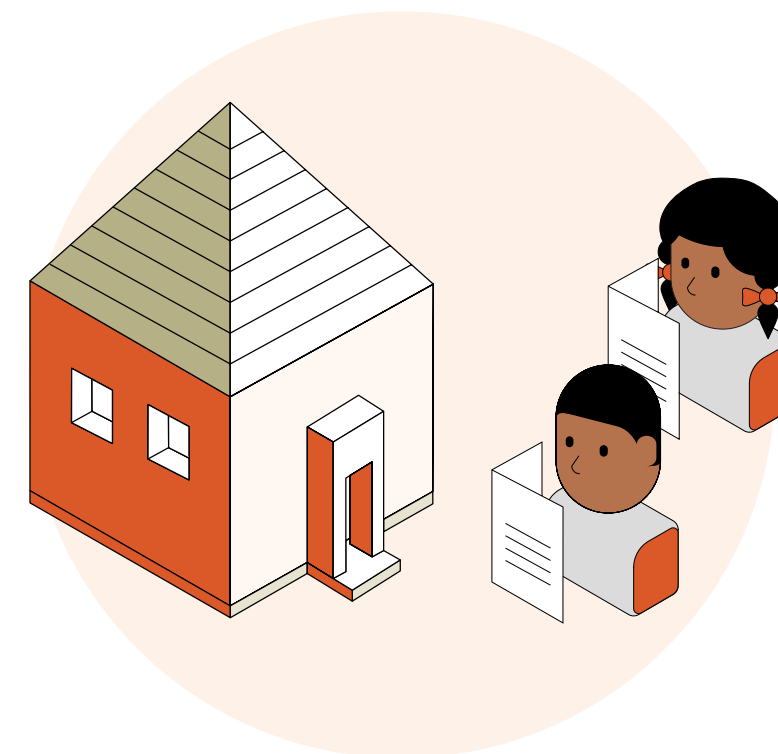
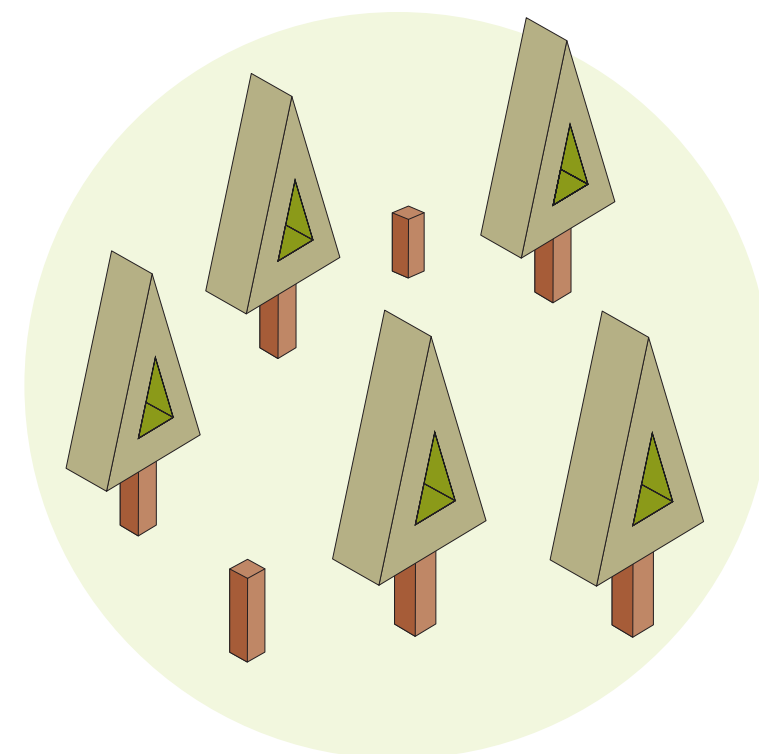
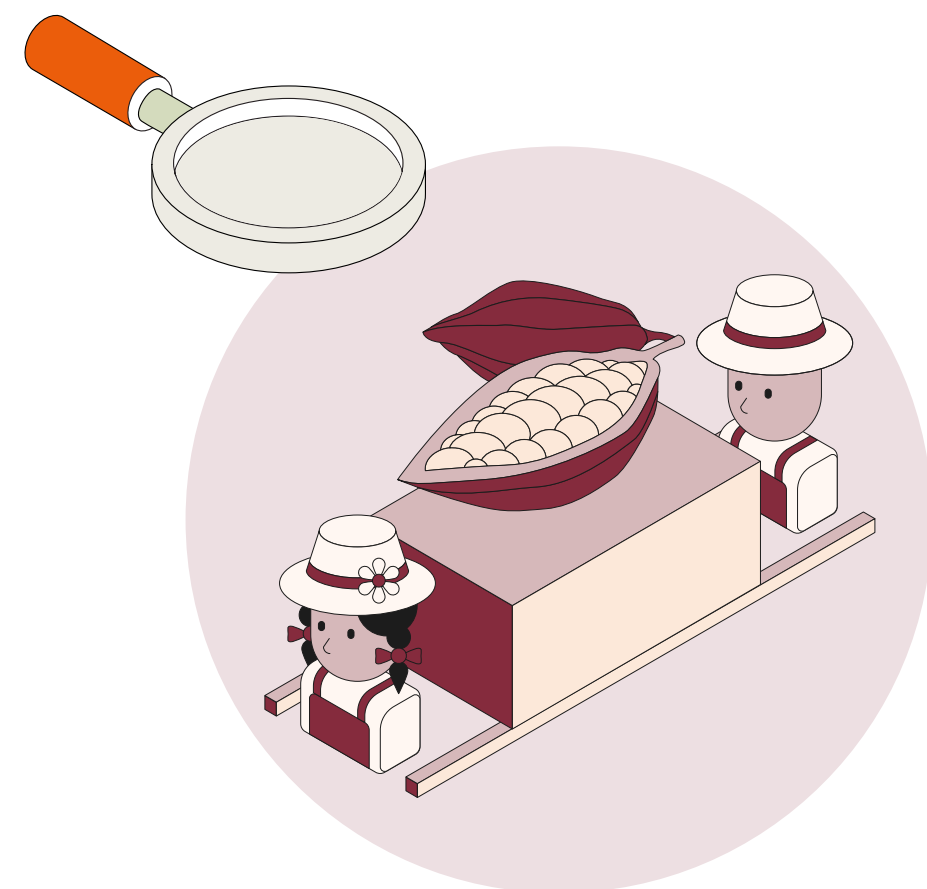
A GLOBAL PERSPECTIVE

From Ecuador to Papua New Guinea, we can monitor and track our entire direct supply chain. This covers:

NINE COUNTRIES AND 12% OF THE WORLD’S COCOA



EVEN BETTER TRACEABILITY



BUILDING ON OUR 2020 GOAL

In 2020, we achieved our first Cocoa Compass milestone of 100% traceability in our direct supply chain. Via an end-to-end system, we can now track cocoa at every stage of its journey from the farm or community. This is the equivalent of 12% of the world's cocoa and results from a combined effort with farmers and customers over many years.

We also published details on our [website](#) of our direct supplier network across Africa, Asia and South America as part of our commitment to building a more transparent supply chain. All of these farmer suppliers, including those we source from indirectly, are required to identify and disclose child labour and deforestation risks as part of Olam's

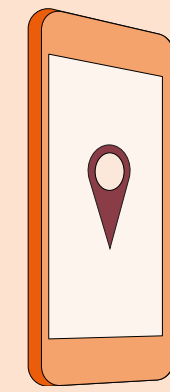
[supplier code](#). We cease working with any supplier found to be in breach of this agreement unless they take steps to rectify their actions.

Looking ahead, we have turned our attention to further strengthening our traceability proposition for customers and driving forward our Cocoa Compass ambition to make the future of the sector more sustainable. In 2019/2020, we digitally traced 118,287 metric tonnes of cocoa to farm gate. Our approach is an enhanced version of the International Standard for Sustainable and Traceable Cocoa (ISO34101) and is aligned with the United Nations definition of traceability*. We are progressing with newly available capabilities such as real time reporting and bag/lot level traceability with QR or bar codes. All of this means

that environmental and social sustainability metrics can be closely tracked and measured. Any issues are flagged quickly and allow us to take targeted action on the ground.

These traceability tools provide essential learning for the future to improve our efforts to tackle child labour, protect forests and help farmers earn more from their crop. From the African Standard to proposed mandatory human rights due diligence in the EU and USA, we will work together with peers, customers and governments worldwide to build a more traceable and sustainable cocoa supply chain.

* The ability to identify and track the history, distribution, location and application of products, parts and materials to ensure the reliability of sustainability claims in the areas of human rights, labour (including health and safety), the environment and anti-corruption.



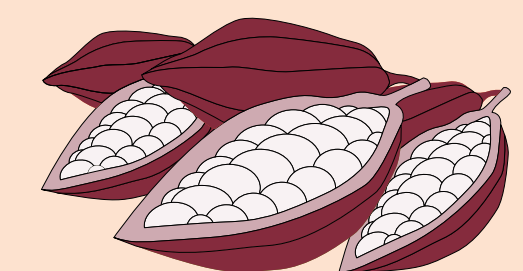
2020

100%
TRACEABILITY IN THE
DIRECT SUPPLY CHAIN



2019/2020

118,287
METRIC TONNES OF
COCOA DIGITALLY TRACED
TO FARM GATE



TRACING COCOA IN INDONESIA

In Indonesia, we are the largest exporter and processor of cocoa beans and high quality cocoa ingredients, supplying confectionery manufacturers in the region.



WE WORK WITH NEARLY **67,000*** INDONESIAN COCOA FARMERS [16,500 OF WHICH ARE WOMEN] IN SUSTAINABILITY PROGRAMMES ACROSS SEVEN PROVINCES.

*47,577 farmers can be part of AtSource programmes

Our traceability teams and buying stations give us a direct link to these farmers and detailed data on their practices, all of which can be shared with customers. As a result, customers have complete assurance that their programmes positively impact cocoa communities.

The three visuals below show the granular levels of data that sit behind key sustainability metrics on the Olam & Farmers Information System (OFIS) from country mapping down to individual farm level.



Farm level mapping



Community level mapping



Farmer group mapping



EXAMPLE METRICS FOR INDONESIA FROM OFIS

0.95 HA AVERAGE NUMBER OF HECTARES, PER FARMER, OF THE TARGET CROP UNDER PRODUCTION		45,901 HA TOTAL NUMBER OF TARGET CROP HECTARES UNDER PRODUCTION OR PLANTED IN A FARMER GROUP	
518 KG/HA ESTIMATED AVERAGE YIELD PER FARMER GROUP IN THE CURRENT YEAR	47,577 ASSESSED NUMBER OF FARMERS IN A FARMER GROUP	25,907 NUMBER OF FARMERS GPS POLYGON MAPPED	

EMPOWERED TO GROW



SUPPORTING CHILDREN AND COCOA COMMUNITIES TO THRIVE

Child labour in cocoa has no one cause. Often, there are complex and deep-rooted cultural, social and economic challenges at play. Farmers cannot always afford to pay for farm labour, so their children help on the farm. Some have no school nearby or cannot provide the documents needed to enrol. Sometimes labour laws are misunderstood or poorly enforced. And now, these cocoa-growing communities are also battling a global health pandemic.

“Any form of labour that endangers the wellbeing of children or adults has no place in our supply chain. When we talk about child labour in cocoa, in most cases, we are talking about children working with their parents and relatives on their family farm. When finances are too tight and help on the farm is needed, child labour might occur. Customs and habits also play a role. Some children are expected to follow in their parent’s footsteps and learn how to grow cocoa from an early age. We find that sometimes, neither the parents nor the children realise child labour can hurt the child’s future. Part of the work that we do is to sensitise farmers on the legal definitions of child labour, as well as the consequences it may have on the life of a child.”

AUGUSTIN LIGNON, COMMUNITY DEVELOPMENT LEAD IN CÔTE D’IVOIRE,
OLAM COCOA

OUR GOALS

BY 2020



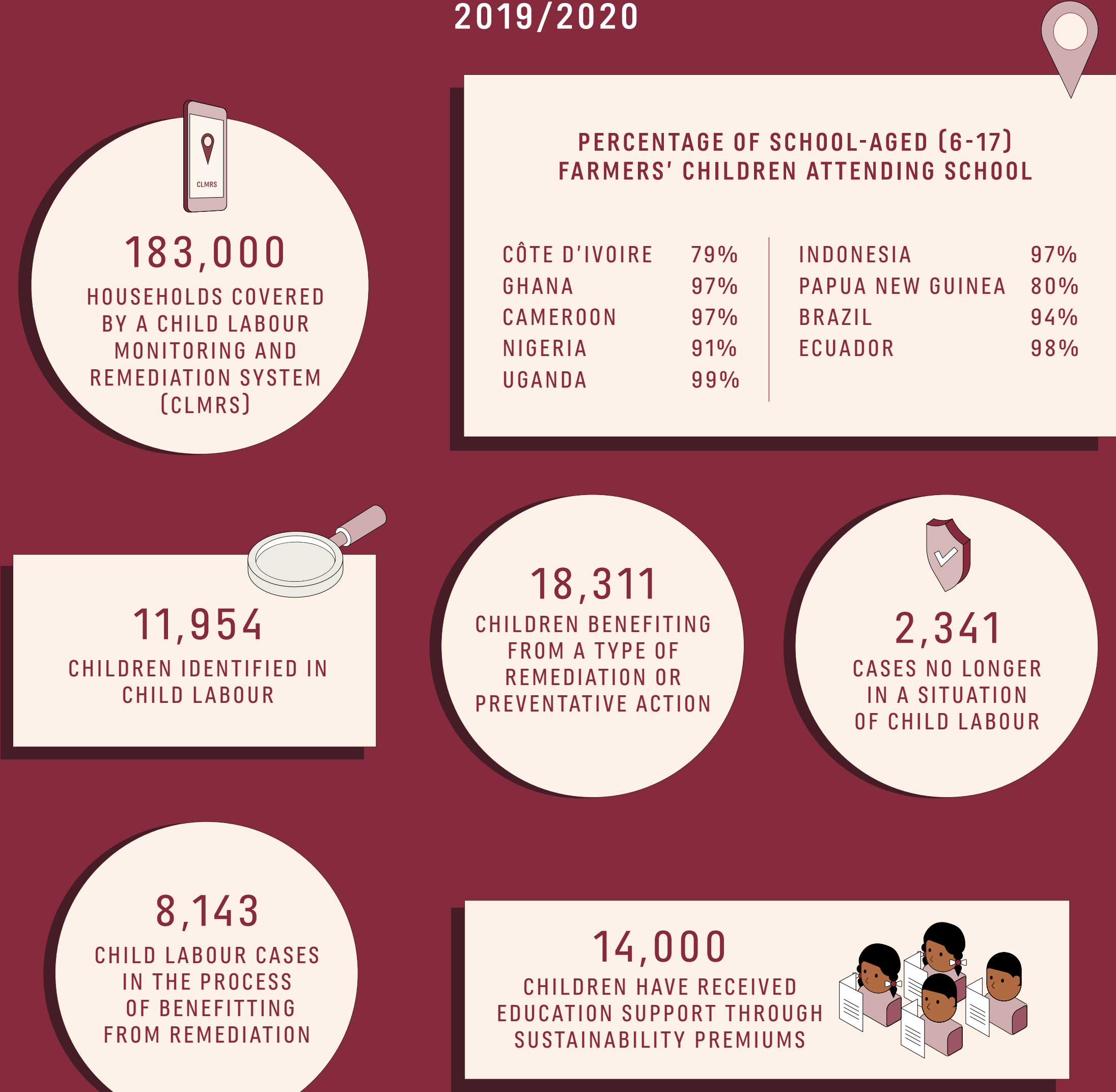
*IN ALL MANAGED SUSTAINABILITY PROGRAMMES

BY 2030



PROGRESS TRACKER

2019/2020



100% CHILD LABOUR MONITORING

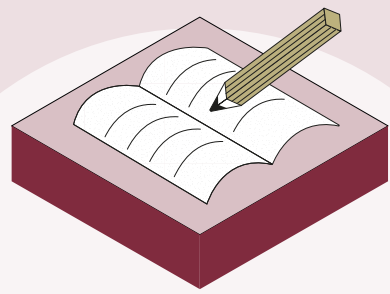
We have continued to work with customers, partners, farmer groups and communities to deliver tailored programmes that put children first. In 2019/2020, we built or rehabilitated 114 classrooms and distributed 18,368 school kits. We issued 2,244 birth certificates so more children can attend school. We helped Village Savings and Loans Associations (VSLAs) save USD1,200,000 to promote women’s financial inclusion and help cover education expenses. The Global Child Forum recently recognised our efforts in its 2020 Southeast Asia benchmark*. We scored 7.7 out of 10, which makes us a leader among the other companies surveyed.

In 2019/2020, we identified 11,954 cases of child labour. Of these cases, 2,341 are no longer in a situation of child labour and 8,143 are in the process of being remediated. For the remaining cases, we are working to remediate and remove these children from child labour. Remediating child labour is difficult as there is no one-size-fits-all solution to guarantee that its multiple causes are addressed simultaneously. External factors can also add to the challenge, such as when a child’s family move to a different location or an event like Covid-19 causes sudden labour shortages and school closures, pushing children back into child labour. Effective and sustained remediation takes time and requires multiple stakeholders, including local authorities and farmer groups. We are committed to testing new approaches and adapting our efforts based on what works best.



Forced or slave labour is not the same as child labour and occurs rarely in cocoa. We have zero tolerance for this and if we were to identify any instances in our supply chain, we would immediately act, including notifying the appropriate authorities. Our commitment to human rights is embedded in our **Modern Slavery Policy**, which is in line with the United Nations Guiding Principles on Business and Human Rights and the International Labour Organisation’s (ILO) Declaration on Fundamental Principles and Rights at Work. We also require all of our suppliers to ensure there is no exploitation in their operations by adhering to the **Olam Supplier Code**.

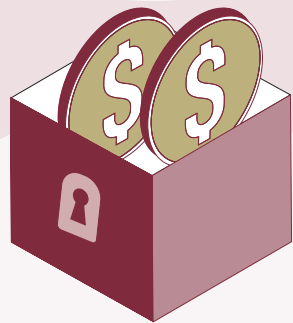
*<https://www.globalchildforum.org/internal-report/childrens-rights-in-southeast-asia-2020/>



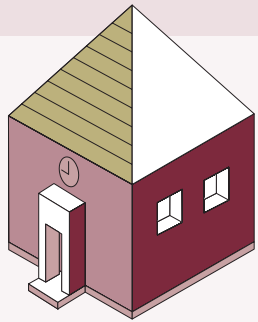
2,244
BIRTH CERTIFICATES
PROVIDED FOR SCHOOL
ATTENDANCE



USD\$1,200,000
SAVED VIA VILLAGE
SAVINGS AND LOAN
ASSOCIATIONS



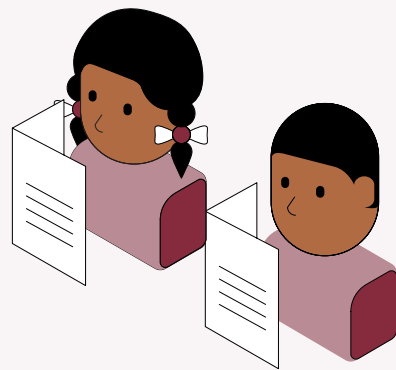
9 EDUCATIONAL FUNDS
CREATED ACROSS
9 COMMUNITIES IN
GHANA TO SUPPORT
UNDERPRIVILEGED
HIGH-PERFORMING
STUDENTS



114
CLASSROOMS BUILT
OR REHABILITATED

8
TEACHER
RESIDENCES

4
SCHOOL CANTEENS
CONSTRUCTED FROM
SUSTAINABILITY
PREMIUMS



18,368
SCHOOL KITS
DISTRIBUTED

2019/2020, in partnership with customers



A vital piece of the puzzle has been the continued roll-out of our Child Labour Monitoring and Remediation System, designed in collaboration with the Fair Labor Organisation (FLA). It is conducting risk assessments in all our cocoa sourcing countries and providing recommendations for developing a comprehensive CLMRS programme in each. With training and the help of a smartphone, community leads or field officers now collect detailed social data on communities and individual farming households, identifying children at risk and tailoring our interventions based on the issues identified.

The app has been rolled out in all nine countries, covering a total of 183,000 farmer households. It is a ground-breaking new tool for monitoring child labour in Brazil, Cameroon, Indonesia and Uganda. The unprecedented visibility that it provides helps us focus our resources and work with our customers towards eradicating child labour from our direct supply chain.

THE APP HAS BEEN ROLLED OUT
IN ALL OF OUR 9 COCOA SOURCING
COUNTRIES COVERING A TOTAL OF
183,000 FARMER HOUSEHOLDS



ASSESSING OUR SOCIAL IMPACT WITH THE FLA

In 2020, we asked the FLA to evaluate our interventions to address child labour in Côte d’Ivoire and help further refine our approach. It used a revised due diligence methodology called Social Impact Assessment (SIA). This involved collecting data beyond a compliance methodology and gathering preliminary information to evaluate whether cocoa farmers, workers, and their families have benefited from our programmes. It also measured their perception and satisfaction levels.

The FLA team collected data from ten communities which supply cocoa to four cooperatives and interviewed 451 people, including producers, women, children, and local stakeholders. Based on the results, they found that we have invested time and effort to improve cooperatives’ capacity, which plays an essential role in changing child labour perceptions in cocoa communities.

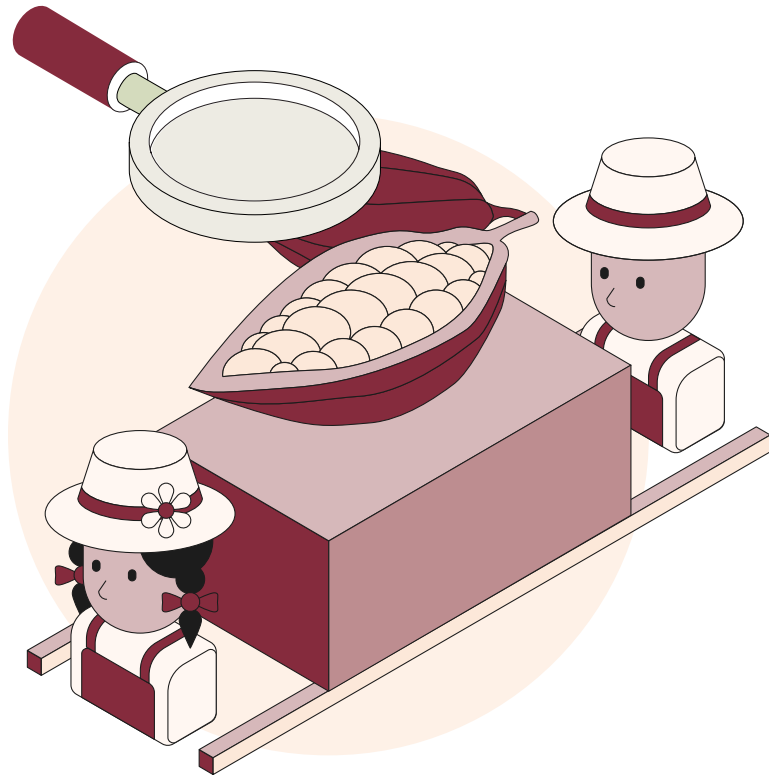
More than 80% of the assessed producers were aware that people younger than 16 should not be hired and that it is compulsory to send children to school. Over two-thirds of community members perceived that child labour in their communities was on the decline, and 80% believed that the community-level interventions by Olam Cocoa and our partners were contributing to protecting children. The FLA noted that among all the activities undertaken as part of CLMRS, the monitoring of child labour awareness and enabling access to education are the most advanced and have the greatest impact.

Going forward, it has highlighted the vital need to set up Community Service Groups in these cooperatives. Even in the communities where they already exist, there is more to be done to help farmers resolve their workforce needs. The FLA also recommended more follow-up with VSLAs to maximise their impact on child protection.

80% [OF COMMUNITY MEMBERS] BELIEVED THAT THE COMMUNITY-LEVEL INTERVENTIONS BY OLAM COCOA AND OUR PARTNERS WERE CONTRIBUTING TO PROTECTING CHILDREN

“Since 2013, the Fair Labor Association has conducted and published independent external assessments in Olam Cocoa’s supply chain primarily in Côte d’Ivoire and Cameroon. In 2020, the FLA’s due diligence activities expanded to Nigeria, Uganda, Indonesia, and Papua New Guinea. We started gathering information from the local Olam Cocoa teams and conducted stakeholder interviews to understand the cocoa supply chain structure and local labour standards landscape. The FLA plans to start field visits as soon as the Covid-19 related travel restrictions are lifted. We are encouraged to see that Olam Cocoa is building on its efforts in West Africa and developing a global workplace standards assurance programme for cocoa. Having a structured approach to resolving labour issues will help improve the lives of thousands of cocoa farmers, their families and the workers in the cocoa supply chain. The FLA will continue to independently verify and publicly communicate about Olam Cocoa’s on-the-ground progress”.

RICHA MITTAL, SENIOR DIRECTOR, SUPPLY CHAIN INNOVATION AND PARTNERSHIPS, FLA



TRANSLATING DATA INTO ACTION



COUNTRY	AGES 6-17 % Attending school	AGES 6-11 % Attending school (primary)	AGES 12-17 % Attending school (secondary)	SCHOOL ENROLMENT (primary, %NET)	SCHOOL ENROLMENT (secondary, %NET)
CÔTE D'IVOIRE	79%	75%	89%	90%	40%
GHANA	97%	97%	96%	86%	57%
CAMEROON	97%	97%	98%	93%	46%
NIGERIA	91%	91%	92%	64%	N/A
UGANDA	99%	99%	99%	95%	22%
INDONESIA	97%	95%	98%	93%	79%
PAPUA NEW GUINEA	80%	71%	88%	74%	32%
BRAZIL	94%	87%	100%	96%	82%
ECUADOR	98%	100%	96%	91%	85%
SOURCE	OLAM CLMRS DATA			UNESCO INSTITUTE FOR STATISTICS	

The data we have collected helps to paint a more accurate picture of child labour across our cocoa sourcing countries. For example, in Côte d’Ivoire and Ghana, two of the highest risk countries for child labour, our data shows that school attendance is on the rise, in line with the recent report from NORC at the University of Chicago. In Côte d’Ivoire, 79% of school-aged children attend school, and 75% of children identified as in child labour combine work and school. For Ghana, 98% of children identified in child labour were attending school.

When looking at school attendance rates amongst children surveyed across all our cocoa sourcing countries in 2019/2020, they compare well with national enrolment rates (see table below). Similar to recent studies showing a very low prevalence of forced labour in cocoa, our data also shows that in 97% of cases in both Côte d’Ivoire and Ghana, children worked for their parents or another family member. For children identified as working for someone outside of the family unit, we undertake an assessment to ensure that the children are not in a situation of forced labour, using the forced labour indicators defined by the International Labour Organisation (ILO).

The data tell us several things. First, collective interventions in Côte d’Ivoire effectively drive up school attendance, which we are contributing to at both community and national levels, such as through our participation in the Child Learning and Educational Facility (CLEF). Second, like NORC, we still see children take on hazardous tasks like using sharp tools and carrying heavy loads. We will continue to explore how this issue can be more effectively addressed through training, incentives, and multi-stakeholder collaborations.

IN CÔTE D'IVOIRE AND GHANA... OUR DATA SHOWS THAT SCHOOL ATTENDANCE IS ON THE RISE



SAFER AT SCHOOL IN BRAZIL



The introduction of digital CLMRS in our Brazil supply chain came at an especially crucial time. Covid-19 led to school closures, meaning that many children stayed at home and helped on the farm with their families instead. We stepped up our on-the-ground support, visiting cocoa households more often to raise awareness of the importance of education and to ensure children did not engage in hazardous work on the farm.

CLMRS builds on our existing process for ensuring that farmer suppliers adhere to the Olam Supplier Code, designed to safeguard labour standards and human rights in our cocoa supply chain. We also closely monitor the Brazilian Ministry of Labour's database of reported labour abuses against our network of farmer suppliers. If we find a breach, we exclude the supplier from our network.

"COMBINED WITH THE CLMRS TECHNOLOGY, WE'RE IN AN EVEN STRONGER POSITION TO PROTECT AGAINST INSTANCES OF CHILD LABOUR. AND WE HAVE THE MONITORING AND LOCAL PRESENCE IN PLACE TO QUICKLY ACT IF WE SPOT ANY POTENTIAL RISKS."

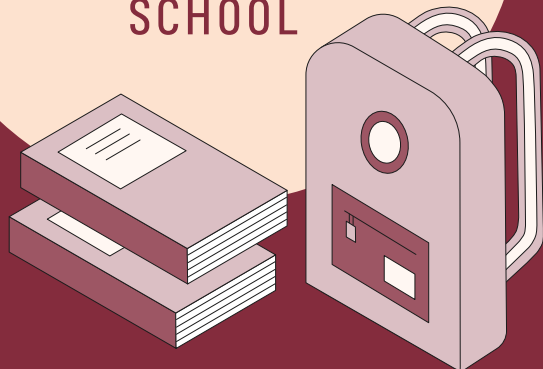
GAGANDEEP REHAL, ORIGATION AND SUSTAINABILITY MANAGER,
OLAM COCOA IN BRAZIL



SCHOLARSHIP STUDENTS IN PARÁ, BRAZIL

94%

CHILDREN AGED
6-17 IN BRAZIL
ARE ATTENDING
SCHOOL

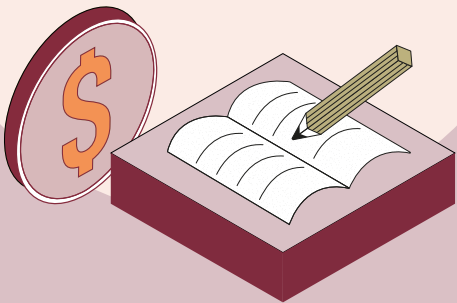


Part of putting children first in cocoa communities involves increasing access to education. Data collected in our supply chain to date shows that 94% of 6-17-year olds in Brazil are attending school. This is primarily due to the government support given to low-income families to help them afford to educate their children.

We have supported such efforts by funding scholarships for children and providing approximately USD24,000 as a loan to improve school facilities in the Pará region, where the quality of school infrastructure is poor.

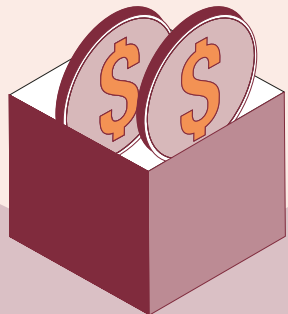
SCHOLARSHIP
FUNDS

FOR CHILDREN IN
THE PARÁ REGION



USD24,000
LOAN

TO IMPROVE THE
SCHOOL FACILITIES





GERARD A. MANLEY, CEO OF OLAM COCOA,
WITH STUDENTS AT THE SCHOOL



PUTTING CHILDREN FIRST IN INDONESIA

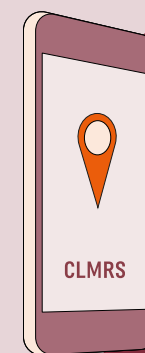
Since launching CLMRS in Indonesia in mid-2020, we have already trained over 80 sustainability field officers on using our app to gather detailed social data and monitor for any risk of child labour. As a result, 1,050 households in 270 communities have now been mapped and profiled.

Most children in these communities can access primary and secondary education, and we have yet to identify any child labour cases to date. However, we have found that sometimes, children help their families with cocoa farming activities during school holidays. To ensure that children are not carrying out any hazardous tasks, we run awareness-raising campaigns that include one-to-one and group training and distribute posters in local villages.



80

TRAINED
SUSTAINABILITY
FIELD OFFICERS



1,050

HOUSEHOLDS IN
270 COMMUNITIES
MAPPED AND
PROFILED

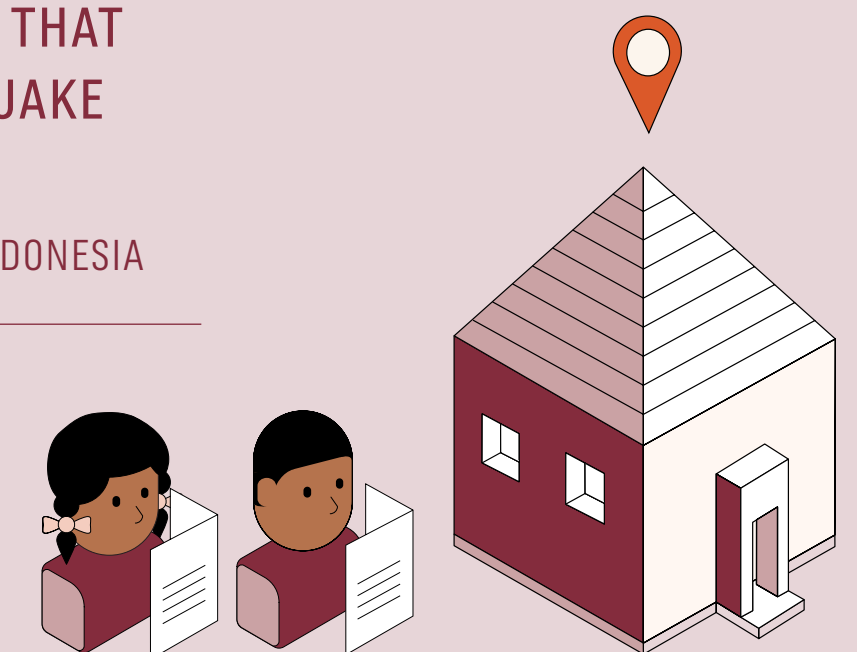
"SCHOOL CLOSURES DURING THE COVID-19 LOCKDOWN PERIOD PRESENTED CHALLENGES FOR CHILDREN TO KEEP UP WITH LEARNING. TO SUPPORT THE GOVERNMENT'S ONLINE EDUCATION SYSTEM, WE COLLABORATED WITH A LOCAL TELECOMMUNICATIONS PROVIDER TO DISTRIBUTE 22,000 FREE SIM CARDS TO FARMER HOUSEHOLDS, FACILITATING ACCESS TO THE INTERNET AND HELPING CHILDREN FOLLOW THEIR ONLINE CLASSES.

AND LAST YEAR, TO SHOW OUR COMMITMENT TO POSITIVELY IMPACTING FARMING COMMUNITIES, WE ALSO COMPLETED THE REFURBISHMENT OF A LOCAL PRIMARY SCHOOL FOR 210 CHILDREN IN LAWUA VILLAGE IN CENTRAL SULAWESI THAT HAD BEEN SEVERELY DAMAGED IN THE 2018 EARTHQUAKE AND TSUNAMI."

IMAM SUHARTO, HEAD OF COCOA SUSTAINABILITY, OLAM COCOA IN INDONESIA



THE REFURBISHED SCHOOL IN LAWUA VILLAGE



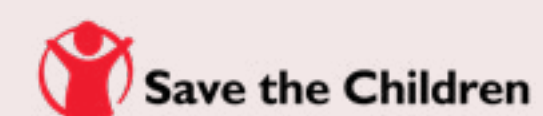


COLLABORATING WITH SAVE THE CHILDREN

Working collaboratively with customers, partners, and NGOs is key to tackling supply chain issues, especially one as complex as child labour. That is why we invited Save The Children and its Centre for Child Rights and Business to assess how effectively we combat child labour across four of our key cocoa-growing countries (**Cameroon, Côte d'Ivoire, Ghana and Nigeria**) and to identify areas where we could be doing more.

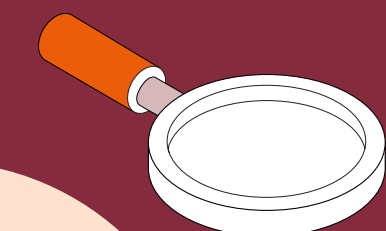
Save The Children found our programmes have real reach and impact. Such as in Cameroon where we trained 6,000 smallholder farmers in child labour sensitisation, or in Ghana where we have set up protection committees covering 210 communities. It found that our strengths lie in our holistic approach, which considers a range of root causes, the link we have made between traceability and child labour monitoring, and the roll-out of our digital CLMRS app.

As a result of the study, we intend to build on child labour training programmes and measure their impact through before and after assessments. We plan to more strongly link community protection programmes with our supply chain operations and create more robust outcome indicators to ensure we are making a real difference.



"WE REALLY WELCOME OLAM'S READINESS TO ALLOW AN INDEPENDENT THIRD PARTY TO REVIEW THEIR EXISTING CHILD LABOUR PREVENTION AND REMEDIATION PROGRAMMES IN ORDER TO DEFINE THEIR STRATEGY GOING FORWARD. THE TRANSPARENCY DEMONSTRATED BY OLAM IN THIS PROCESS IS REMARKABLE AND PROVES TO WHAT LEVEL OLAM IS COMMITTED TO FINDING THE BEST POSSIBLE STRATEGIES TO PROTECT CHILDREN IN THEIR SUPPLY CHAINS. WE ARE LOOKING FORWARD TO CONTINUOUSLY SUPPORTING OLAM IN THIS ENDEAVOUR."

INES KAEMPFER, CEO OF THE CENTRE FOR CHILD RIGHTS AND BUSINESS, SAVE THE CHILDREN



6,000
SMALLHOLDER FARMERS
TRAINED IN CHILD
LABOUR SENSITISATION
IN CAMEROON

PROTECTION
COMMITTEES SET UP
COVERING
210
COMMUNITIES
IN GHANA

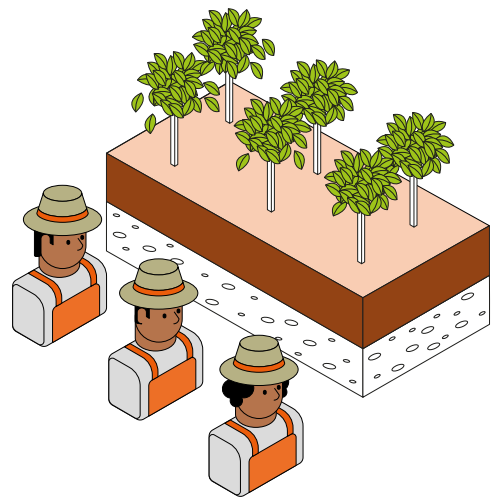
FOCUSED ON FARMERS



HELPING COCOA FARMERS TO PROSPER

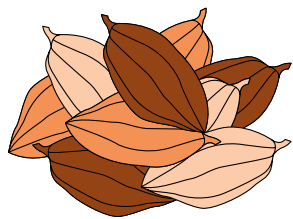
Low productivity, a lack of income diversification, costly inputs and limited access to microfinance. These are just a few of the reasons why many farmers struggle to live on their cocoa crop proceeds. And all add to the cycle of multi-generational poverty, which is the root cause of other intractable problems like child labour and deforestation.

For over sixteen years, we have built close relationships with cocoa communities and partnered with our customers to address these issues, giving farmers the tools they need to professionalise their practices and get the most from their farms. In 2019/2020 in our managed programmes, we shared an additional 46,074 Farm Development Plans (FDPs) with tailored advice on Good Agricultural Practices (GAP) adoption, inputs, and farm rehabilitation. We trained 108,417 farmers in GAP and distributed 3,321,123 cocoa seedlings to increase yields and, therefore, incomes.



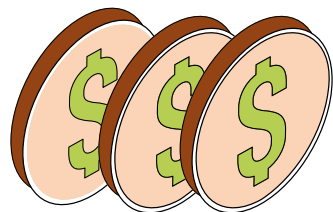
46,074

FDPs SHARED WITH FARMERS



3,321,123

COCOA SEEDLINGS
DISTRIBUTED



USD40.53

MILLION IN PREMIUM
PAYMENTS TO FARMERS
AND FARMER GROUPS

OUR GOALS

BY 2020

100%

ATSOURCE COMPLIANT



BY 2024

60,000

COCOA FARMERS IN
OUR SUPPLIER NETWORK
ARE ACHIEVING A
LIVING INCOME



BY 2030

150,000

COCOA FARMERS IN
OUR SUPPLIER NETWORK
ARE ACHIEVING A
LIVING INCOME

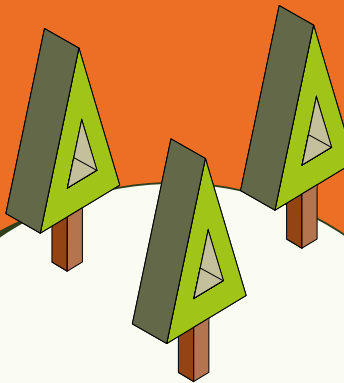


PROGRESS TRACKER

2019/2020

108,417

FARMERS HAVE
RECEIVED TRAINING TO
IMPROVE AGRICULTURAL
PRACTICES

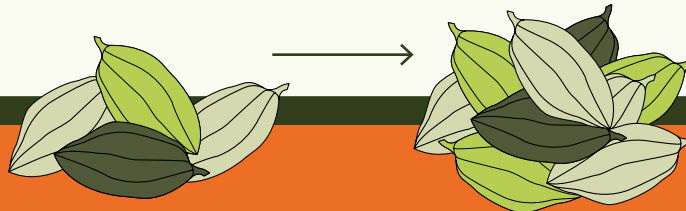


6,577

HECTARES OF
COCOA FARMLAND
REHABILITATED

55KG

PER HECTARE INCREASE
IN PRODUCTIVITY OF
TRAINED FARMERS



THE EFFECT OF COVID-19

In 2020, conditions for cocoa farmers worsened. Covid-19 led to a softening in demand for cocoa, and although many consumers continued to seek comfort in familiar chocolate and confectionery treats, lockdowns disrupted sales in the travel and retail sectors.

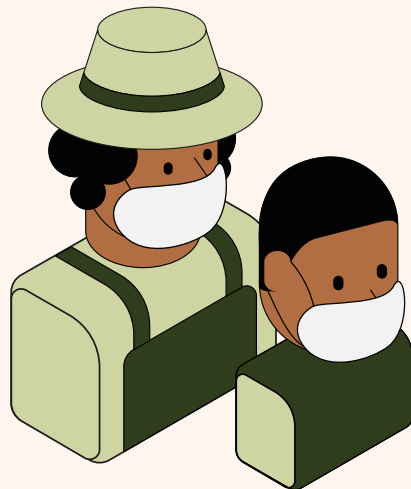
We have been helping rural farming communities across our direct supply chains in the fight against Covid-19. We have donated personal protective equipment (PPE) and essential medical supplies to farming cooperatives, hospitals and health centres across our cocoa sourcing countries.

To date, we have donated 237,640 face masks, provided 93,495 soaps and hand sanitisers, and installed hands-free washing stations in thousands of farming communities. We have also shared vital public health information through flyers, radio broadcasts, billboards and push notifications.

Many cocoa farming families have struggled with the rising price of basic food staples due to the pandemic. In response, we have donated 12,820 boxes of food in countries like Nigeria and Ecuador, with each box providing enough meals to feed a family of four for three days.

In Indonesia, we reconstructed a health centre in the village of Maranatha that was badly damaged in the 2018 earthquake and tsunami. It now includes a fully staffed labour ward and means that residents can access local medical care without travelling to the nearest city.

URGENT SUPPORT PROVIDED TO COCOA COMMUNITIES WORLDWIDE



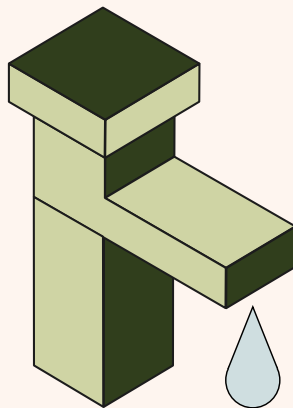
4,550

FAMILY PPE KITS



90,784

COVID-19 AWARENESS FLYERS AND POSTERS



2,514

WASHING STATIONS



191,030

GLOVES



37,372

BOTTLES OF HAND SANITISER



56,123

SOAPS



12,820

BOXES OF FOOD



237,640

FACE MASKS



THE SCIENCE THAT SUPPORTS LIVELIHOODS

Our dedicated team of plant scientists and research agronomists are developing sustainable and scalable solutions to improve cocoa quality and farm productivity. In collaboration with external institutions, we have developed around 200 trials in West Africa and Indonesia that address gaps in agronomy knowledge and help us improve our recommendations to farmers.

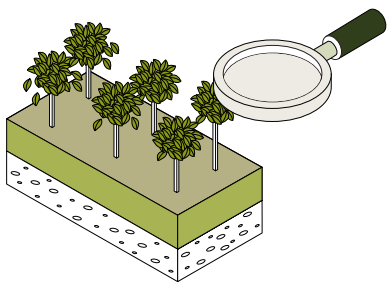
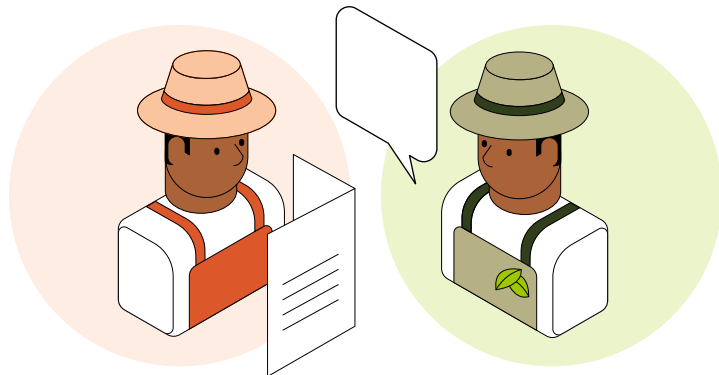
For example, in Côte d'Ivoire, Ghana, Cameroon and Nigeria, we are working with the international initiative, CocoaSoils^[1], to improve soil fertility management in cocoa farming. We are also running trials in Côte d'Ivoire to help improve tree pruning. Our first results have been promising: farmers can increase their yields by 20% or more while decreasing pests and disease instances by up to 50% by using adapted pruning practices. Besides this, we are testing new and environmentally friendly alternatives to chemical insecticides. We will expand these trials in 2021 to confirm our results and prepare for widespread application.



^[1]Partner institutions include CNRA, CRIG, IRAD, CRIN and IITA

In Indonesia, we have established a sustainable cocoa production model on one of the world's largest cocoa plantations. This year, we completed the design of a state-of-the-art irrigation system that will enable high productivity while reducing chemical fertiliser use, thereby minimising both our carbon and water footprints.

The team has also produced a comprehensive manual to help our agronomists give the best advice to farmers.



“The manual is a single source of knowledge and best practice for our agronomists. It covers all aspects of cocoa cultivation and post-harvest practices, highlighting key components that help farmers improve productivity and profitability while also being positive environmental stewards. The next steps will be the roll-out of an app for easier access to the manual in the field and in-person training sessions.”

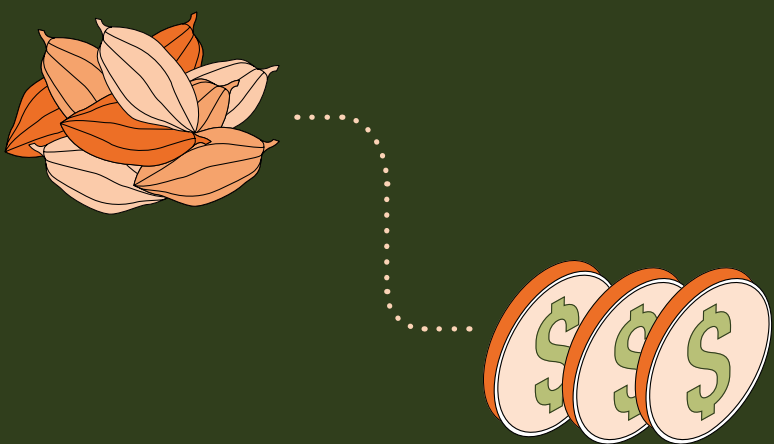
PIERRE BROUN, HEAD OF COCOA AND COFFEE PLANT SCIENCE

FROM EXTREME POVERTY TO A LIVING INCOME



Not only will we continue to support all farmers in our sustainability programmes, but we are also aiming to help 150,000 achieve a living income. This goes beyond just breaking the cycle of extreme poverty – it is an income level covering a family's basic needs, from housing and healthcare to unexpected costs.

To achieve this, we support the governments of Ghana and Côte d'Ivoire who have implemented the Living Income Differential (LID). As one of the largest cocoa buyers from the two countries, we will continue to work together to drive forward our collective ambition and share how this translates to impact on the ground.



CLOSING THE LIVING INCOME GAP

To meet our 2030 goal, we first need a detailed picture of what constitutes a living income in all nine of our sourcing countries. The cocoa supply chain's fragmented nature means that sometimes several living income estimates are needed in the same country to account for regional differences in socio-economic conditions.

In 2020, we worked with Sustainable Food Lab to bring together a coalition of our peers, the Global Living Wage Coalition [\[GLWC\]](#), the Anker Research Network and the [Living Income Community of Practice](#) to tackle this challenge. As a result, the first-ever living income reference values for Cameroon, Nigeria, and Papua New Guinea have now been published, as well as an updated Côte d'Ivoire level. We are on track to complete similarly accurate and third-party benchmarked living income estimates for several cocoa-producing regions in Brazil by mid-2021 and adjusted Côte d'Ivoire and Ghana levels in 2022.

The same industry coalition is actively working to fund living income estimates for several cocoa-producing regions in Indonesia. By the end of 2021, we expect to have published living income estimates for all our cocoa regions.

Armed with these benchmarks, the next stage is to determine the existing living income gaps in our direct cocoa supply chain. That is the gap between what a farmer or farmer household earns from all their income sources, not just cocoa, compared to the country-specific and region-specific living income level.

To help us achieve this, we are developing a comprehensive data collection model using the Olam & Farmers Information System (OFIS). Detailed surveys combined with polygon mapping allow us to gather information on individual farmers, such as reliable estimates of their yields, production costs (including labour costs and input costs), the breakdown of their net income from cocoa and other sources, and the size of their land.

Investing in this level of traceability and transparency is time-intensive and rigorous. However, it will allow us to define precisely where the barriers lie and, importantly, tailor our interventions to have the most significant positive impact. Only then, in conjunction with the LID payment and an enabling policy environment in consumption countries, can we help cocoa farmers make the leap from extreme poverty to financial security.

“IT IS CRITICAL THAT BUYING COMPANIES HAVE HIGH QUALITY AND STANDARDISED DATA ON THE COSTS OF A DECENT STANDARD OF LIVING TO ADDRESS THE HUMAN RIGHTS AND POVERTY ISSUES IN THEIR SUPPLY CHAINS. WE COMMEND THE EFFORTS OF OLAM COCOA TO CO-INVEST IN THE WORK OF THE ANKER RESEARCH NETWORK TO PRODUCE INDEPENDENT RESEARCH AND TO APPROACH THESE COMPLEX ISSUES IN A TRANSPARENT AND PRE-COMPETITIVE MANNER.”

RICHARD ANKER AND MARTHA ANKER, AUTHORS OF 'LIVING WAGES AROUND THE WORLD; MANUAL FOR MEASUREMENT'



*We have listed two values for Côte d'Ivoire. Apart from differences in how certain components were calculated, a key reason why the Fairtrade International estimate is significantly higher is that it used a larger average household size than the Anker estimate. The latter is more recent and will be updated again in 2022 (co-funded by Olam Cocoa). It follows the Anker calculation methodology more strictly, which is our chosen methodology. Therefore, it is aligned with the LI benchmarks that we will be using for our other cocoa sourcing countries.

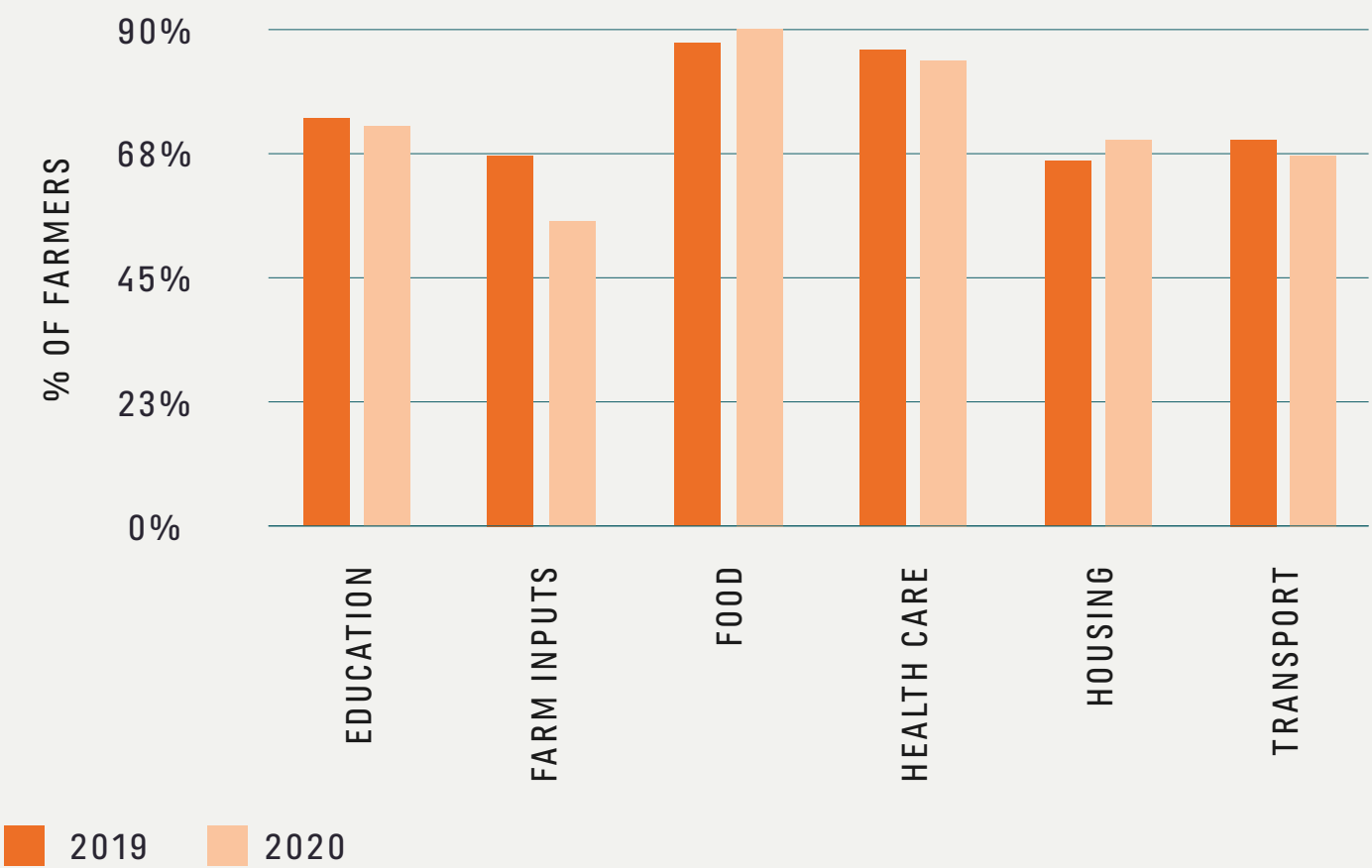
WHAT DOES OUR PRELIMINARY DATA TELL US?

These data sets are based on an initial sample from farmer surveys via our Olam & Farmers Information System (OFIS). They indicate the proportion of farmers who, according to self-reporting, can cover their basic needs with the total household income. The first is an aggregated overview, and the others give country-specific results. It is important to note the results are most likely above average as the farmers surveyed are part of the sustainability programmes we run with our customers.

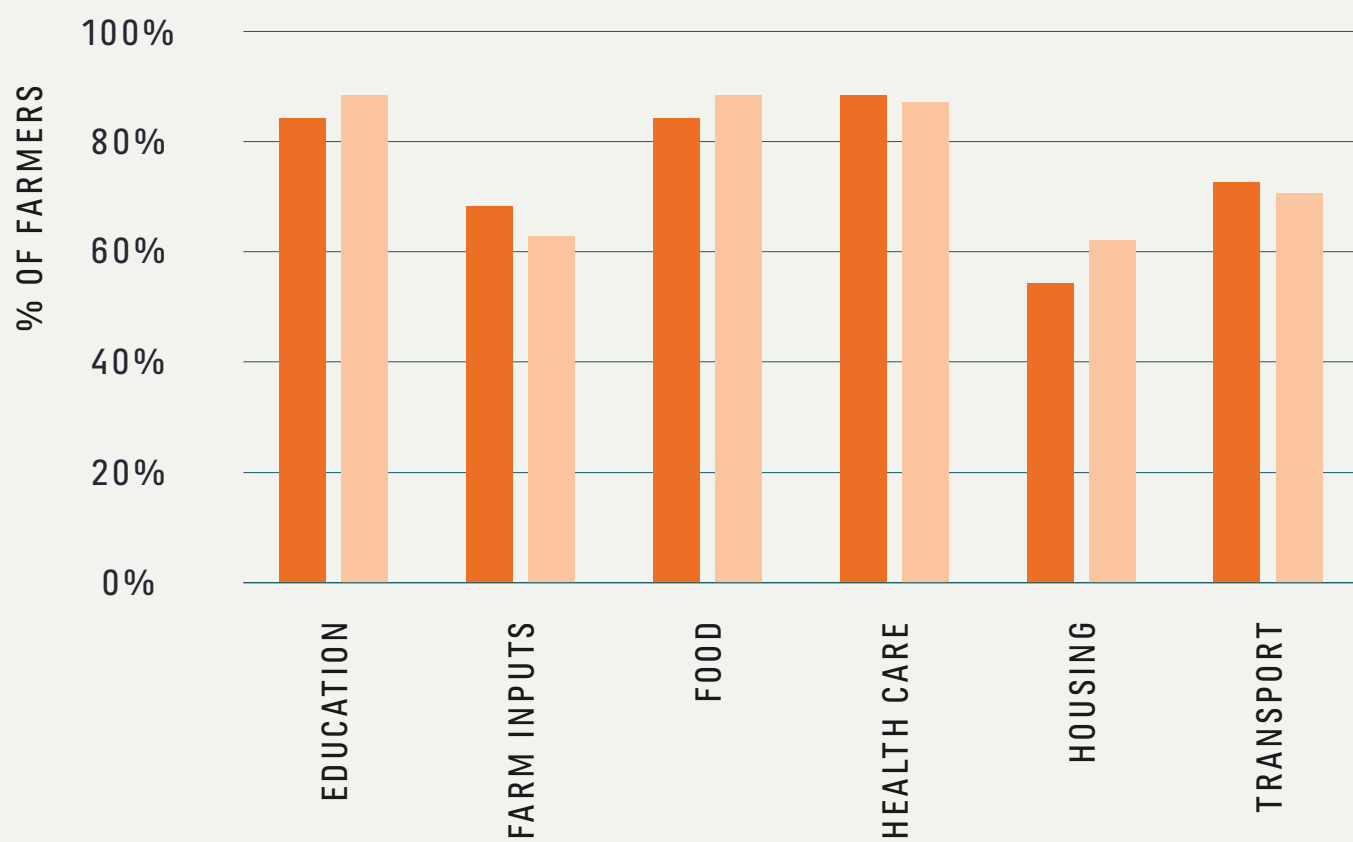
Overall, fewer farmers could cover the costs of education, farm inputs, health care and transport in 2020, compared to 2019. In 2020 there was a shift to focus more on food and housing and much less focus on farm inputs. Education and transport received the same focus as in 2019. In Ecuador and Indonesia, healthcare was also more of a priority than in 2019, with slightly less emphasis on food. We are now looking to partner with customers and relevant academic institutions to refine our approach further and produce a more detailed quantitative analysis of farmer livelihoods.

¹ Only countries with at least 200 observations were taken into account. Therefore, Uganda is not included.
² Anker, Richard; Anker, Martha (2017): [Living Wages Around the World: Manual for Measurement](#), ISBN 978-1-78643-146-2, Edward Elgar Publishing, Cheltenham, UK

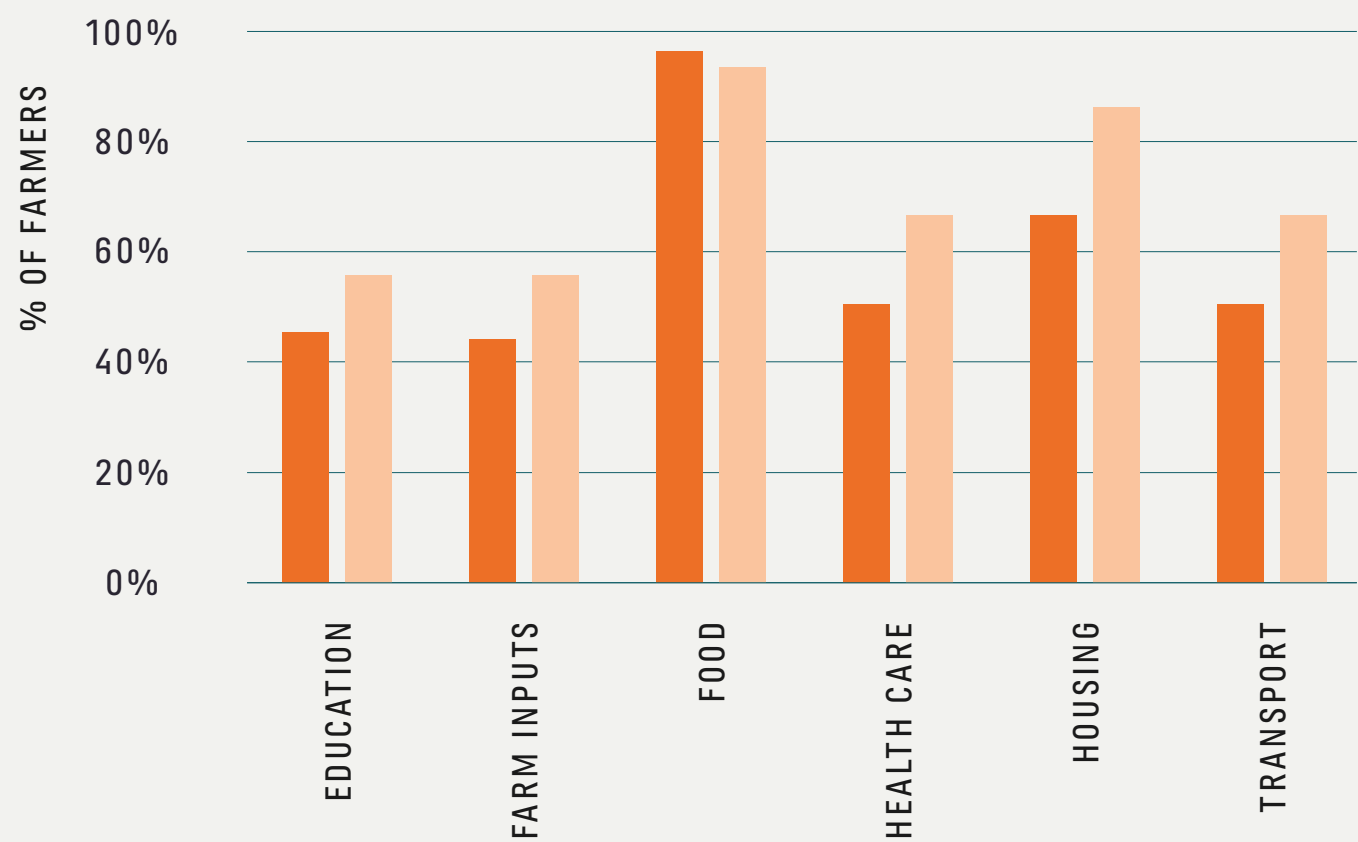
BASIC NEEDS COVERED BY FARMER'S TOTAL HOUSEHOLD INCOME (ALL COUNTRIES)



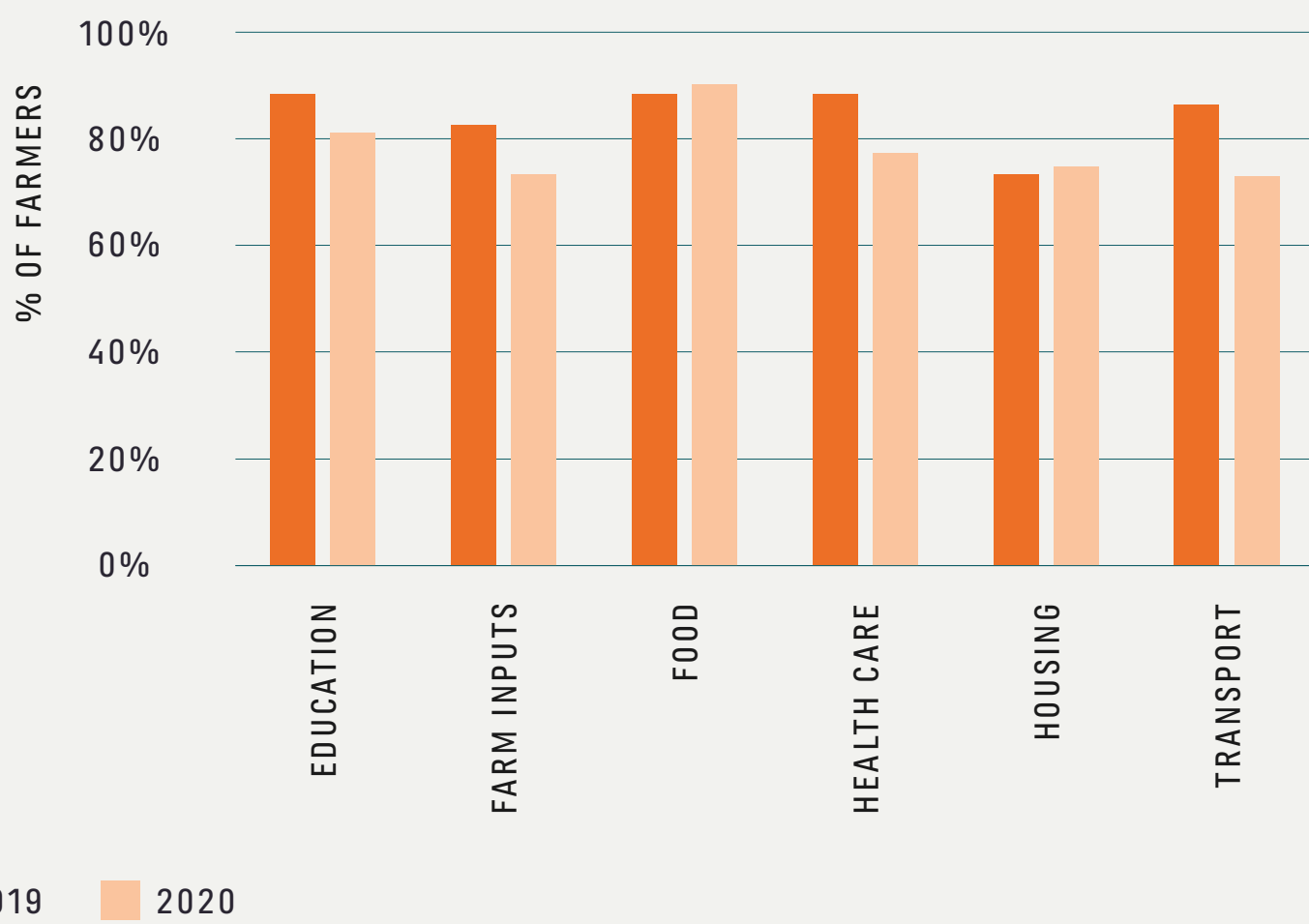
BASIC NEEDS COVERED BY FARMER'S TOTAL HOUSEHOLD INCOME (CÔTE D'IVOIRE)



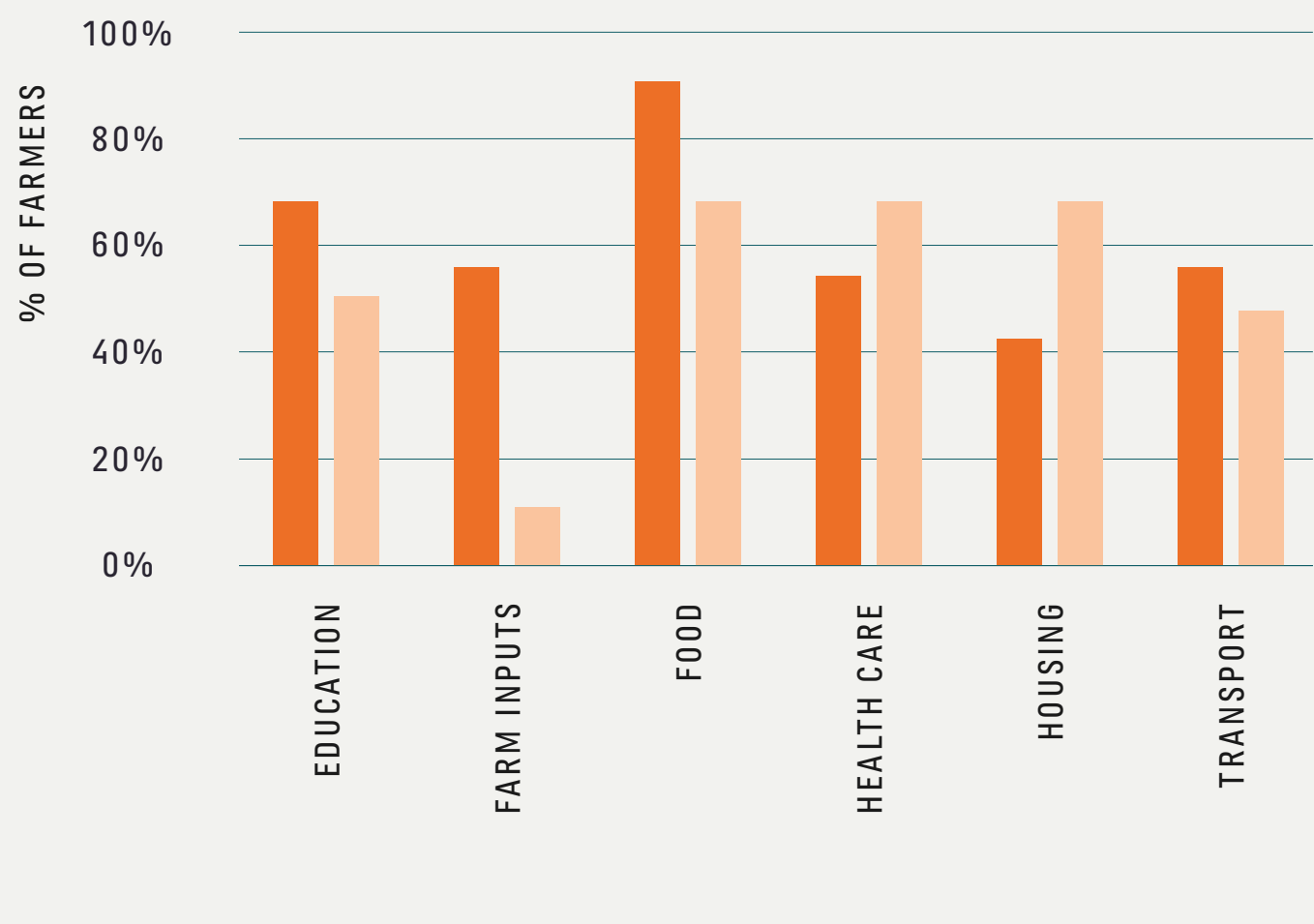
BASIC NEEDS COVERED BY FARMER'S TOTAL HOUSEHOLD INCOME (ECUADOR)



BASIC NEEDS COVERED BY FARMER'S TOTAL HOUSEHOLD INCOME (GHANA)



BASIC NEEDS COVERED BY FARMER'S TOTAL HOUSEHOLD INCOME (INDONESIA)



WHAT DO FARMERS THINK?

EMMANUEL



 TWIFO ATI-MORKWA DISTRICT OF TWIFO PRASO, GHANA

Emmanuel Danso, 46, is a cocoa farmer in the Twifo Ati-Morkwa District of Twifo Praso in Ghana. He is married with seven children and has an 11-hectare cocoa farm that he inherited from his father several decades ago.

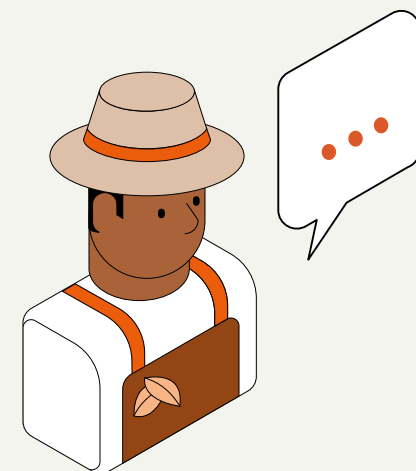
Emmanuel struggled to earn a living income from his farm. His cocoa trees were old, producing only 345kg of cocoa per hectare, and he battled against pests and diseases. He knew he needed to regenerate his farm but didn't have the training or support.

In 2014, he joined one of our sustainability programmes. With personalised coaching on pruning techniques, help setting up a shade tree nursery, and fertiliser provision, he has started to rehabilitate his land. He is also diversifying his income by planting food and tree crops alongside his cocoa, improving the farm's soil fertility and micro-climate conditions. As a result, Emmanuel has increased his yields to 710kg of cocoa per hectare and says:

"I HAVE ALREADY EARNED USD14,453, EVEN THOUGH THE CURRENT COCOA SEASON IS NOT OVER."

In total, he expects to earn 10% more at the close of the season in May.

He still faces challenges, including market access for his food crops and changing rainfall patterns due to climate change. But he can now cover basic costs such as food, clothes, healthcare and educational fees for his household.



 MOROBE PROVINCE OF PAPUA NEW GUINEA

RUTH

Ruth Paul, 44, is a cocoa farmer from Markham District in the Morobe Province of Papua New Guinea. She has a 1-hectare farm and is married with two daughters, one of whom is still at school.

Although Ruth and her husband raise chickens and grow vegetables, like cabbage, their primary income source is from cocoa. They wanted to increase their yields, but a lack of training was holding them back.

In 2018, the couple joined one of our sustainability programmes. They learned how to maintain their trees properly and worked with our team to start a small cocoa clone nursery to expand their farm. Now, their yields have risen from 250kg to 467kg a year, and they've planted Galip nut trees alongside their cocoa to sell locally and use as timber for their house. These activities mean that they can more comfortably cover the family's costs, like school fees and clothes.

Ruth also says she is grateful for the additional support her family received during the pandemic:

"WE WERE WORRIED AS WE DIDN'T KNOW HOW TO MANAGE THIS DIFFICULT TIME. OLAM COCOA RAN TRAINING ON COVID-19 AND GAVE US THINGS LIKE SOAP, A THERMOMETER, SANITISER, AND POSTERS ABOUT PROTECTING OURSELVES AGAINST THE VIRUS. THEY ALSO ARRANGED TRANSPORT FOR US TO SELL OUR COCOA. I AM TOUCHED AS IT GAVE ME THE CONFIDENCE TO CONTINUE MY DAY TO DAY WORK AND MADE SURE I HAD CONSTANT INCOME DESPITE LOCKDOWN."

Ruth still worries about some of her cocoa trees being washed away during the region's wet season. So, in the future, she's asked us for more specific training on dealing with environmental impacts, and she wants help opening a savings account, too.



INVESTING IN NATURE



REGENERATING THE LIVING WORLD

The twin challenges of climate change and the loss of biodiversity touch every aspect of our lives, and cocoa production is no exception. If we don't act, temperatures across the world will continue to rise, threatening the crop's survival and farmers' livelihoods.

We are taking a combined, proactive approach. By protecting and restoring forests and forest cover in and around our direct supply chain, we are aiming to increase tree carbon stock¹ while improving farmer incomes. We will also reduce our natural capital costs by mitigating GHG emissions and water usage from the farm level through to processing and delivering our cocoa ingredients to customers. Our ambition is to create a sustainable cocoa supply chain for both people and the planet.

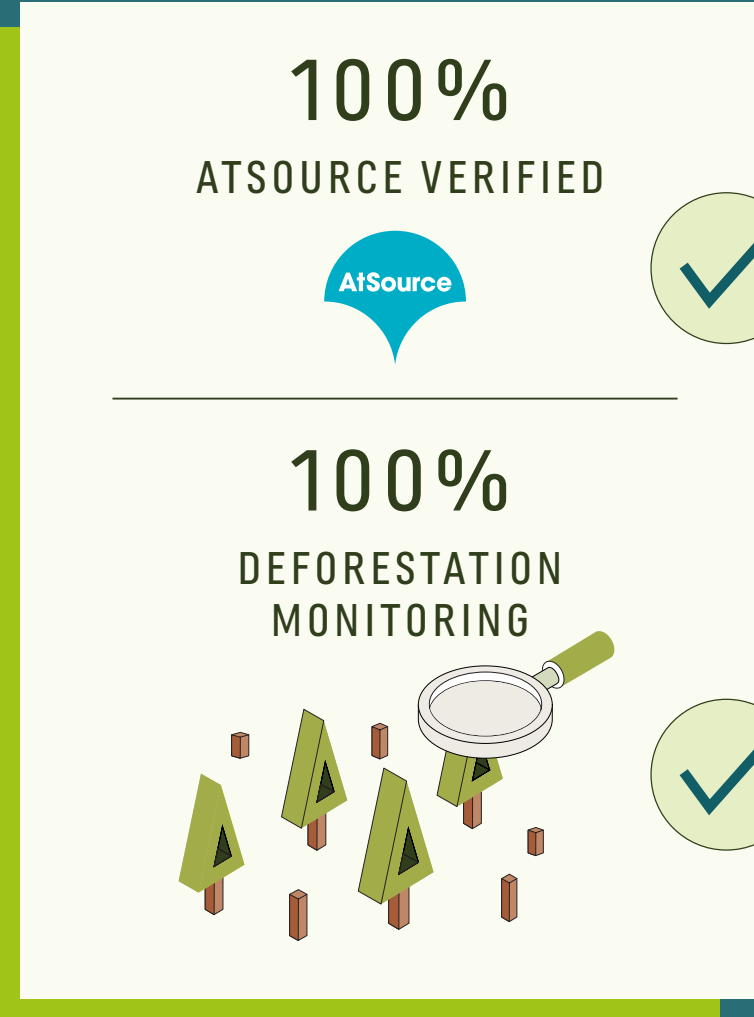
¹In measuring our carbon stock we are able to account for the amount of carbon stored in trees and soil within our supply chain, be it per tonne CO₂e per hectare, tonnes carbon per hectare, or tonne CO₂e per metric tonne of cocoa beans.

"It is increasingly clear that integrated approaches are needed to balance the need to produce food, support rural livelihoods and protect the environment across a whole landscape. These approaches are complex and take time as you need to take account of the interests and needs of many different actors, particularly the communities and farmers who live and work in these landscapes. I applaud Olam's work on *Living Landscapes* to bring these strategies to life in key landscapes they are sourcing from. Their focus on community engagement and farmer income while advancing efforts to protect and restore forests is a model all supply chain companies need to embrace."

JUSTIN ADAMS, EXECUTIVE DIRECTOR, TROPICAL FOREST ALLIANCE

OUR AMBITION
IS TO CREATE A
SUSTAINABLE COCOA
SUPPLY CHAIN
FOR BOTH PEOPLE
AND THE PLANET.

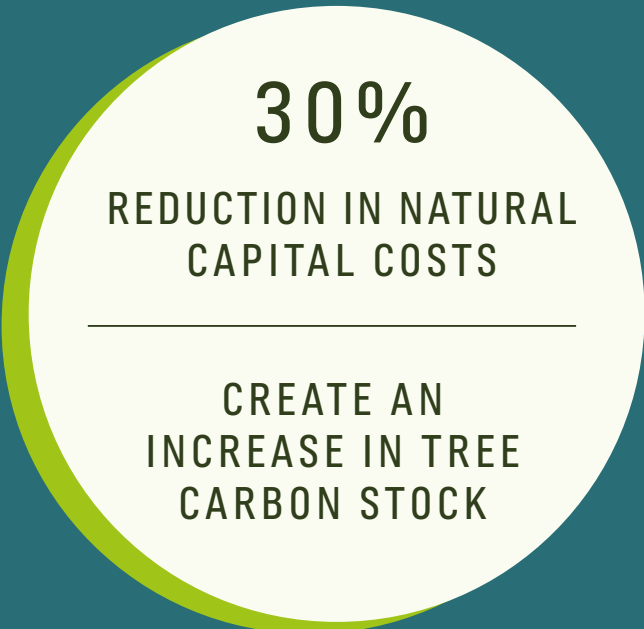
OUR GOALS BY 2020



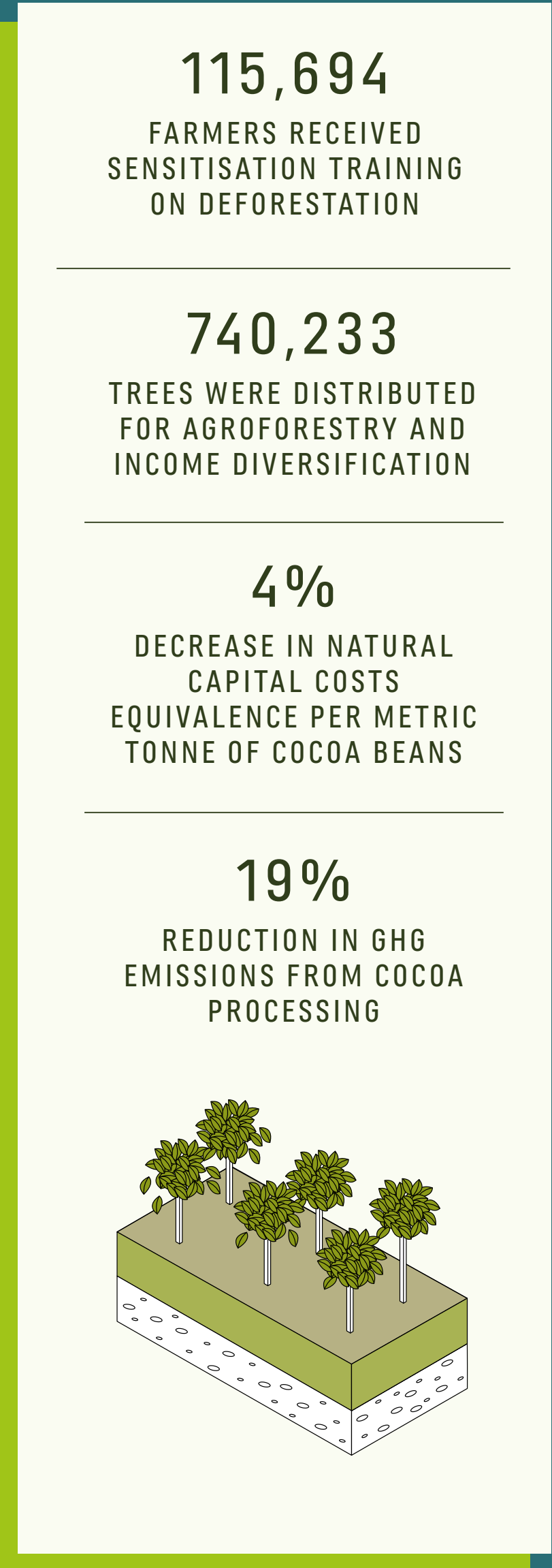
BY 2024



BY 2030



PROGRESS TRACKER 2019/2020



PROTECT AND RESTORE



Preventing forest loss and restoring existing cocoa landscapes plays a central role. Together with customers and partners, we invest in GPS technology to monitor and map deforestation risk, plant forest trees to increase carbon capture and deliver the tools and training farmers need to grow more cocoa on less land. For example, in 2019/2020, we distributed 740,233 trees for agroforestry and income diversification. We trained 115,694 farmers on the importance of preserving forests.

There is a critical role for legislation. Pending environmental laws in consumption markets like the UK and EU would not only create a level playing field across the supply chain; they would strengthen the industry’s efforts to tackle issues ranging from deforestation and carbon emissions to farmer poverty and child labour.

As part of the COP26 **FACT** (Forest, Agriculture and Commodity Trade) Dialogue, we are actively collaborating with peers and partners to share best practices from the cocoa sector on how to turn the tide on commodity-driven deforestation.

“THIS IS THE YEAR OF COLLECTIVE CLIMATE ACTION. ACCORDING TO A RECENT **REPORT BY THE UN CONVENTION ON BIOLOGICAL DIVERSITY**, THE RATE OF FOREST LOSS FROM 2018 TO 2019 IN CÔTE D’IVOIRE AND GHANA HAS HALVED. THE COCOA & FORESTS INITIATIVE (CFI), CITED AS A CONTRIBUTING FACTOR, IS A BLUEPRINT FOR HOW ENGAGING DIFFERENT STAKEHOLDERS ON AN AGREED FRAMEWORK FOR ACTION ACROSS THE SUPPLY CHAIN - FROM THE PRIVATE SECTOR TO IN COUNTRY GOVERNMENTS AND WITH THE SUPPORT OF DONOR FUNDING - CAN PROPEL US TOWARDS A SUSTAINABLE COCOA FUTURE.”

ANDREW BROOKS, HEAD OF SUSTAINABILITY, OLAM COCOA

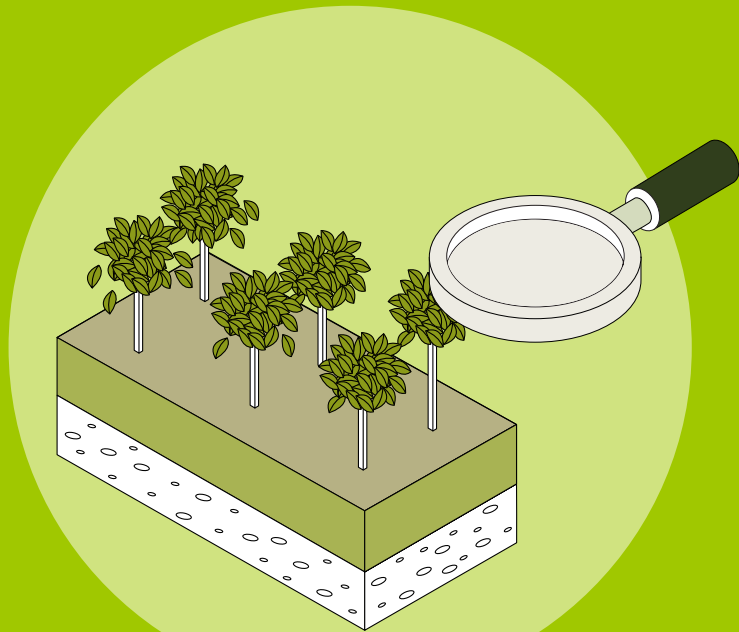
100% DEFORESTATION MONITORING

Timely and accurate information about what is happening on the ground is crucial for tailoring our interventions and preventing future forest loss. According to researchers at [Global Forest Watch](#), deforestation in Africa dropped by 18%, relative to the average 2011–2016 levels, in areas actively monitored with satellite data.

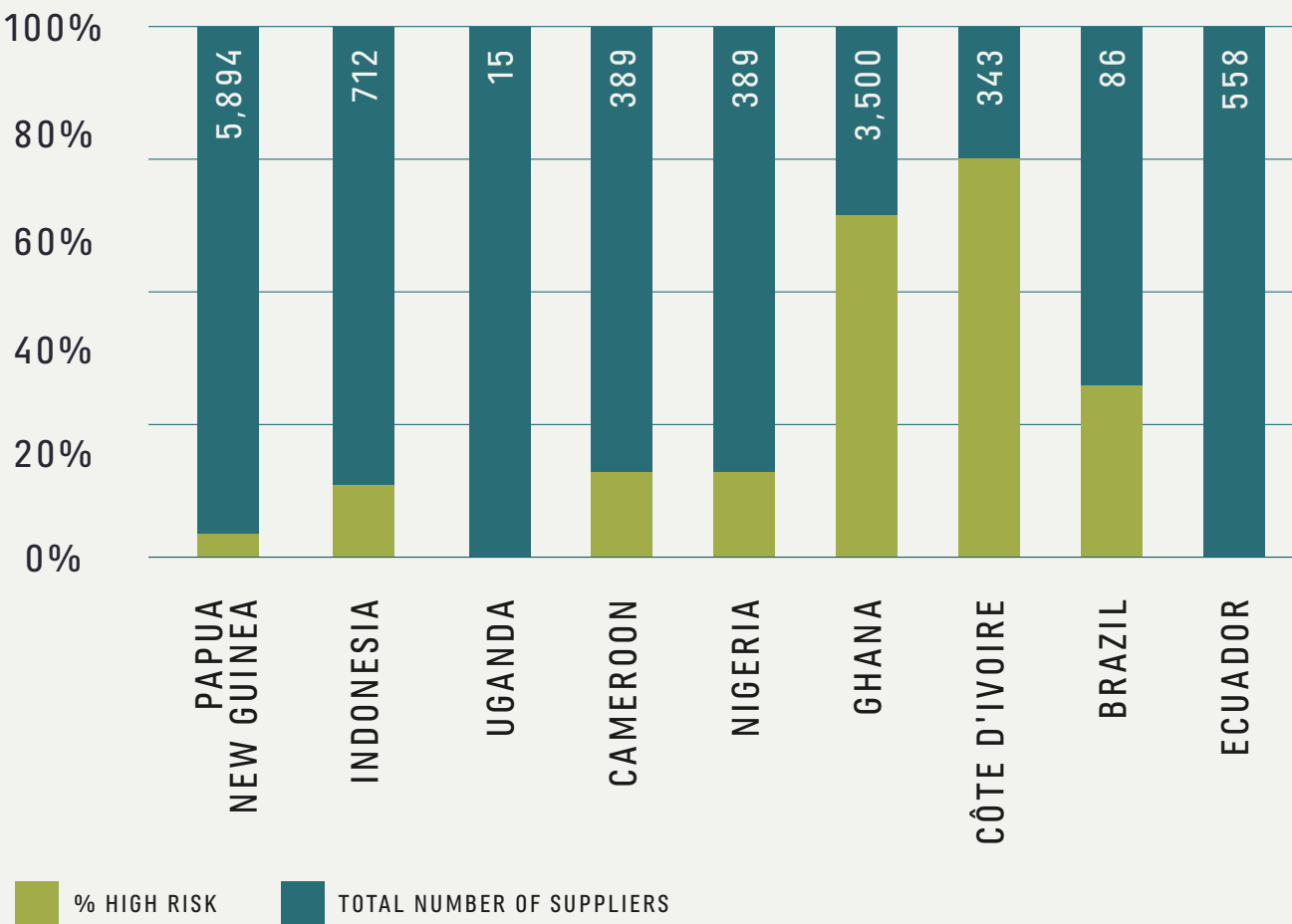
Despite the challenges of Covid-19, we achieved our goal to put in place 100% deforestation monitoring across our global, direct supply chain. Via our Forest Loss Risk Index (FLRI), we are now monitoring tree cover across nine cocoa sourcing countries and can pinpoint the highest risk of deforestation. If we find evidence of trees being cut down, we work with farmers to understand why and create a timebound action plan, including sensitisation training on deforestation and agroforestry. Any encroachment into the protected forest will result in verification and, ultimately, farmers being removed entirely from our sourcing network.

We have GPS mapped 100% of our direct cocoa supply chain across nine countries. This comprises 11,895 farmer groups or local buying agents who purchase cocoa directly from farmers and supply it to us. Our data shows that 80 % of these suppliers have a proven track record of no deforestation.

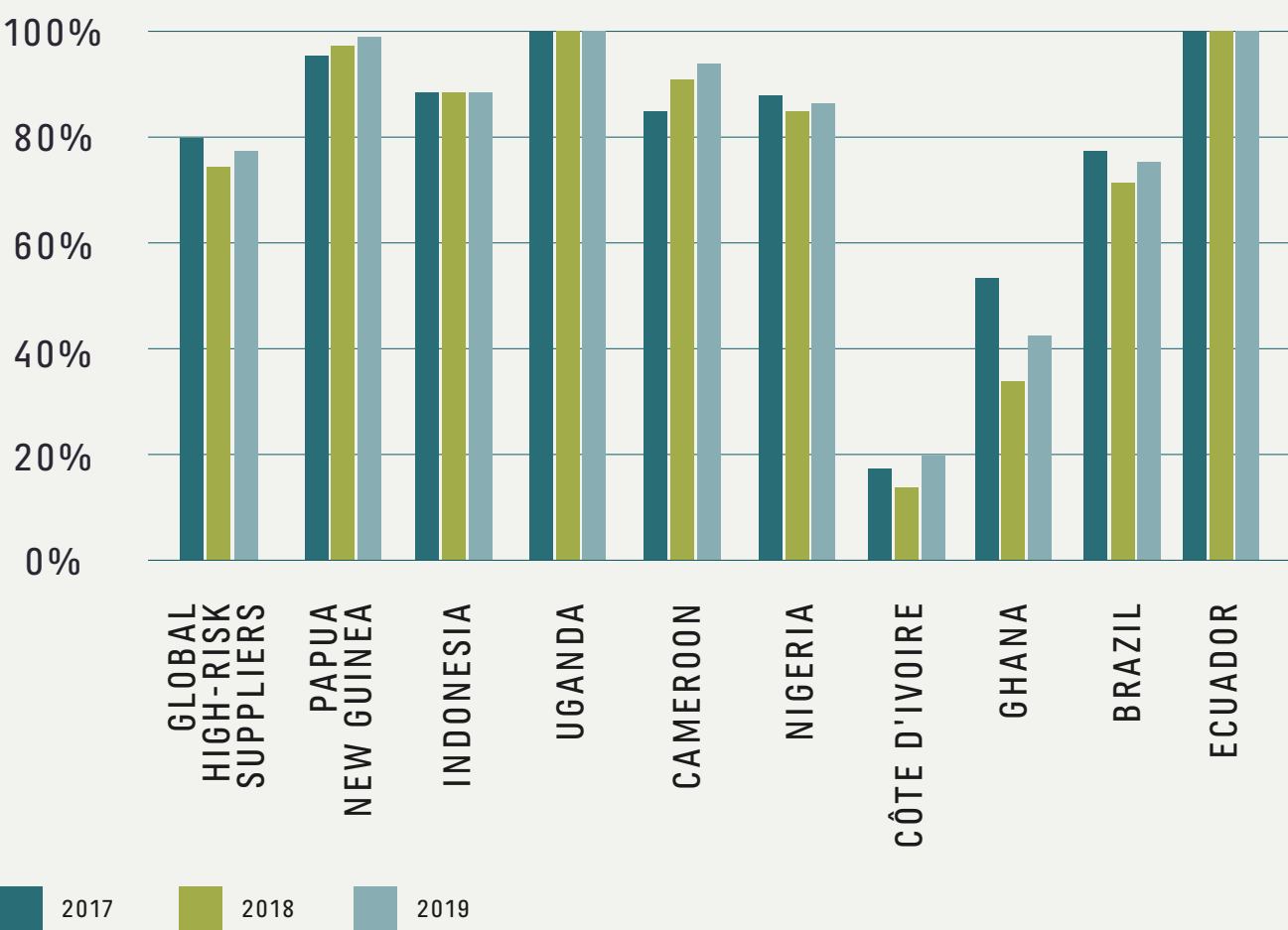
Across three years of analysis, we can see the total number of suppliers GPS mapped per country and the percentage not considered at risk of deforestation.



SUPPLIERS MAPPED BY THE FLRI



PERCENTAGE OF SUPPLIERS ASSESSED TO HAVE NO DEFORESTATION RISK



DIGGING DEEPER INTO SATELLITE DATA

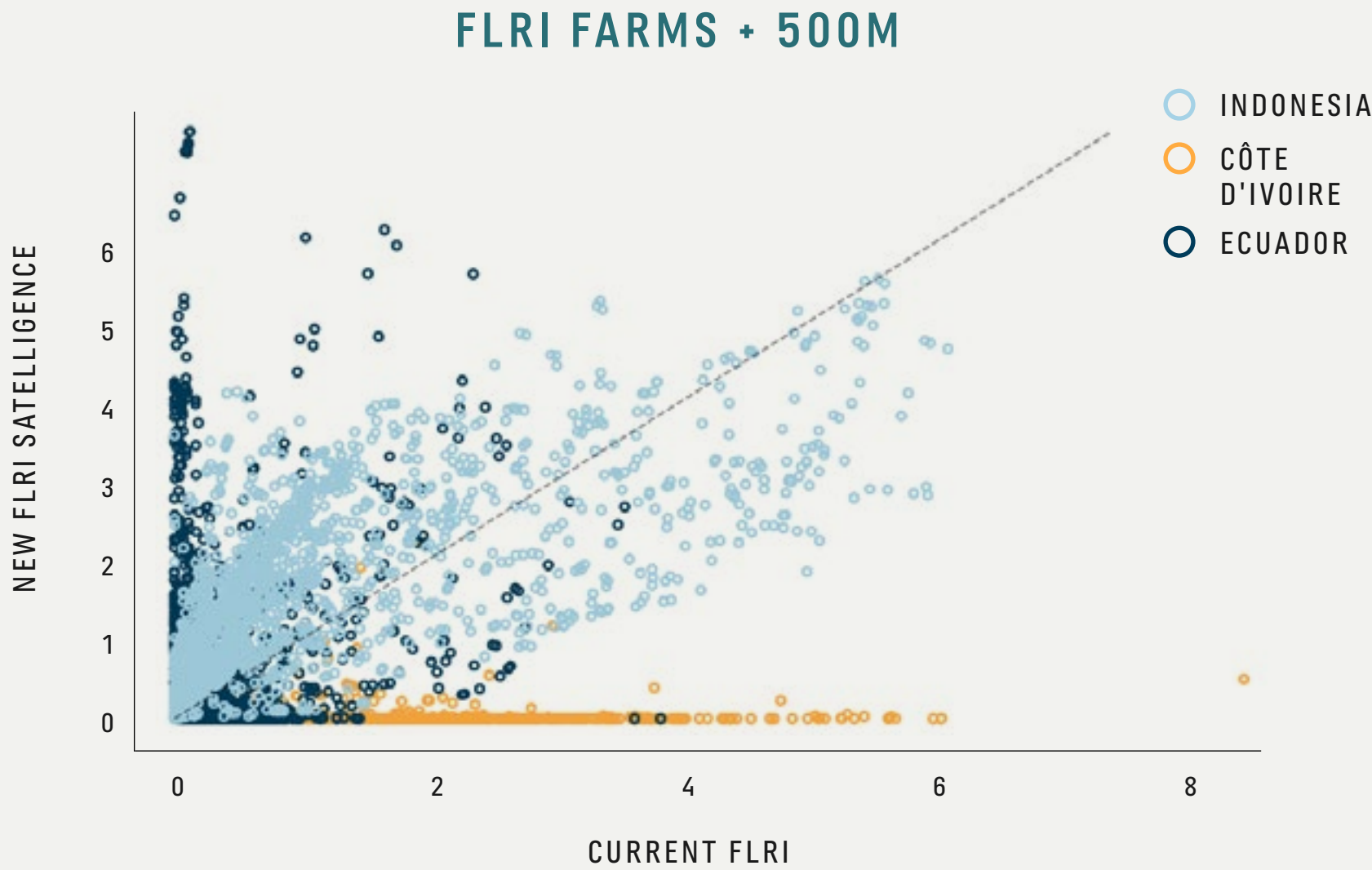
In 2020, we partnered with a data satellite provider, Satelligence, on a pilot project to monitor deforestation, land cover and carbon stock change since 2000 in our direct supply chain in Côte d’Ivoire, Ecuador and Indonesia. The objective was to explore ways to improve how we calculate our Forest Loss Risk Index and the rates of historical deforestation, land cover and carbon stock data on and around cocoa farms.

The project combined the latest satellite imagery to see through thick cloud cover with state-of-the-art processing methods, developed in close cooperation with scientists from the world-leading Wageningen University.

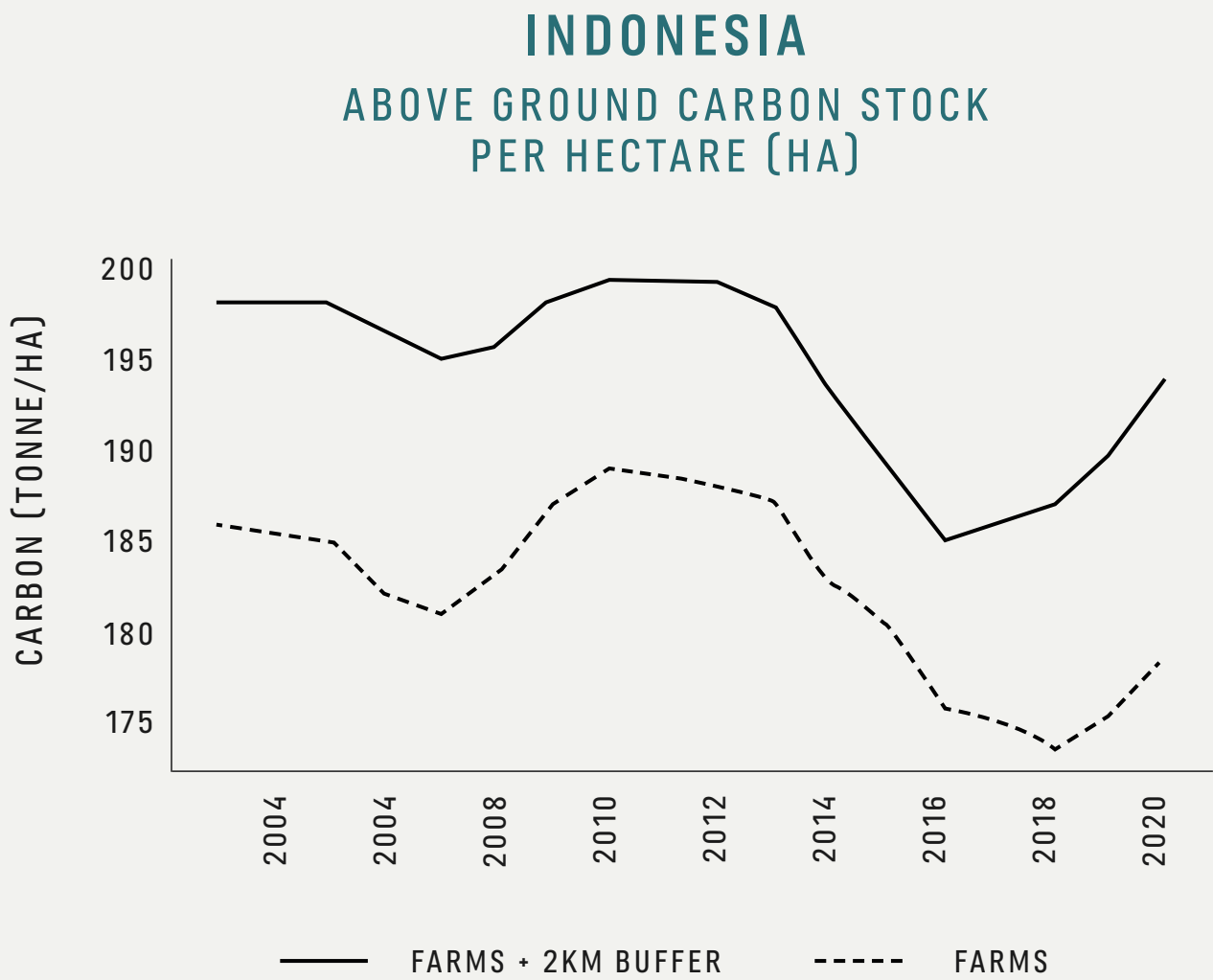
A critical insight from the study is that some of the currently available satellite data does not allow you to accurately differentiate between farms with a low risk of deforestation from those with a high risk. The available forest cover baseline maps tend to overestimate forest cover, leading to cocoa farms being classified as forest.

Another issue we found is with the algorithm to detect deforestation. Sometimes it is not powerful enough to pick up on all deforestation, which can underestimate the deforestation risk. Combining better detection of deforestation with a better baseline helps ensure that the risks assigned to the farms are more accurate.

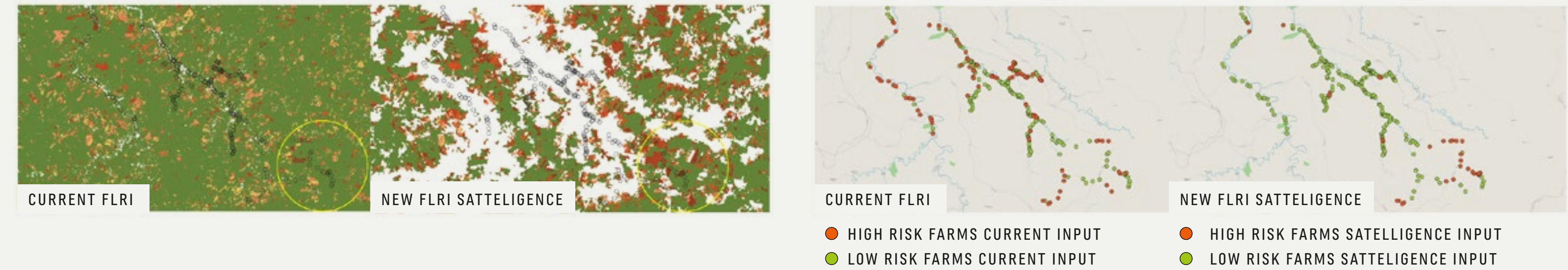
This deepening of our monitoring methods allows us to refine our on-the-ground interventions to further combat deforestation, prevent biodiversity loss, and increase carbon stock. All of which takes us a step closer to achieving our 2030 goals.



This graph shows the correlation between FLRI values using our approach (x-axis) and a full Satelligence (S11) approach (y-axis). The farms that are far below the 1:1 line are those that have much higher FLRI values in the current approach, while those that are far above the 1:1 line have higher FLRI values with the Satelligence data. Using more advanced satellite data and deforestation algorithms can substantially affect the risk categorisation of farms.

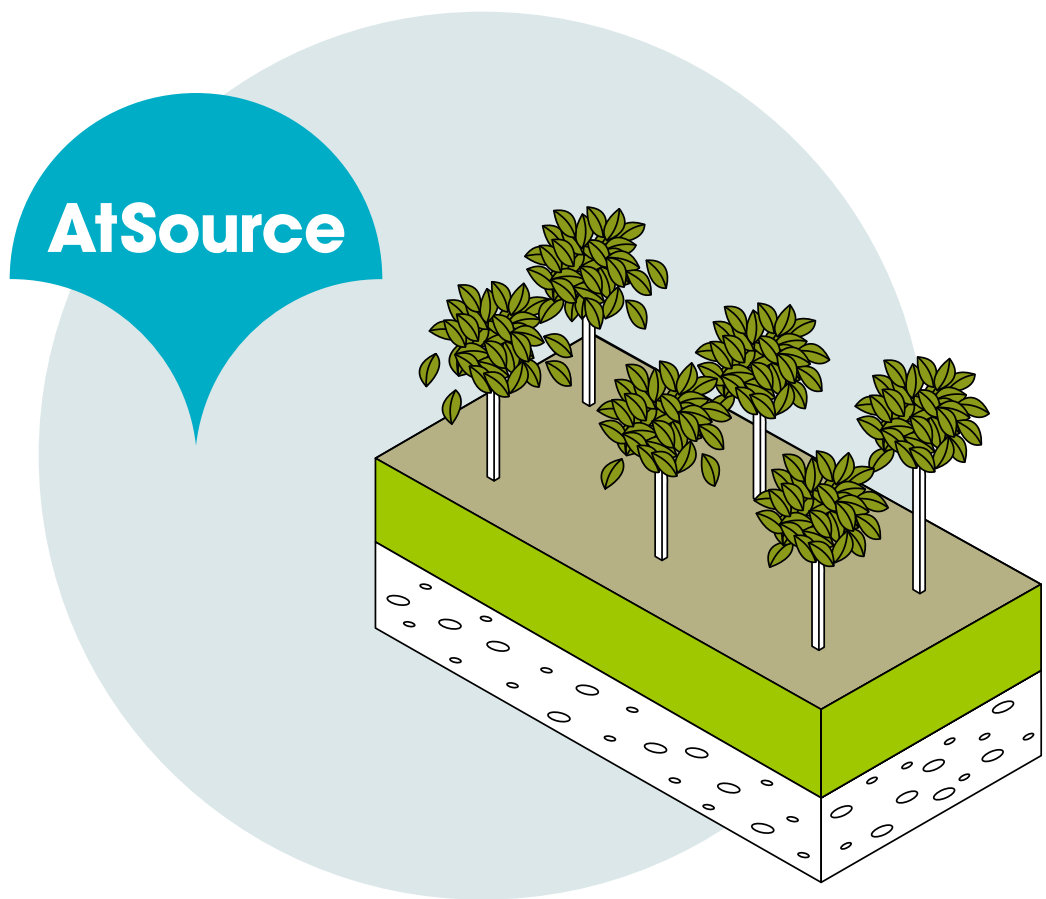


This shows the average above-ground carbon stock (tonnes of carbon per hectare) for a sample of farms in Indonesia across seventeen years of analysis. Satelligence calculated these values based on a combination of freely available satellite imagery, LIDAR sampling (Light Detection and Ranging) and machine learning techniques. It helps us to understand how carbon stock on and around cocoa farms is changing over time.



This is an example of differences in tree cover loss detection in Ecuador, based on other available satellite data versus Satelligence data. The top left shows the forest baseline from other data (green) and tree cover loss (shades of red). The top right is the Satelligence forest baseline (green) and tree cover loss (shades of red). The figures highlight the impact that different input data have on the outcome of farm deforestation risk scores.

POSITIVE ACTION FOR PEOPLE AND PLANET



AtSource provides our customers with a more in-depth view of their cocoa supply chain, measured against the Cocoa Compass environmental and social metrics. It also reassures consumers that the ingredients in their confectionery products will not only taste good but also have strong sustainability credentials. ‘AtSource Infinity’ is an opportunity to co-create programmes with customers and partners that deliver transformational impact at scale for farmers, communities and ecosystems, with the highest level of data granularity.

For example, in Ghana, we are collaborating with Rainforest Alliance and Partnerships for Forests (P4F), funded by the UK government, to conserve the Sui River Forest Reserve by supporting over 10,000 farmers to increase their yields and incomes sustainably.

The creation of Landscape Management Boards brings together community members and local farmers, as well as the Forest Commission and Olam Cocoa. Key activities include introducing climate-smart agriculture, which has been implemented on 18,300 hectares of land, setting up a nursery to raise over 500,000 forest shade tree seedlings and training 84% of community representatives on business skills like book-keeping and legal and farming cooperative governance. We are actively encouraging proof of ownership by registering the cocoa trees of 4,000 farmers, crucial for encouraging farmers to invest in their crop by planting more forest trees; extending the farm's expected duration, and helping to increase forest cover—a win for the farmer, his family and the community.

JOSHUA

Joshua Armoh, 30 years old, from Ghana, is part of the programme. He has received training on climate-smart agriculture and agroforestry techniques and has been supplied with tree seedlings to set up his own nursery. Joshua says:

“I have completed the first phase of the programme's tree registration exercise and now own over 30 economically viable cocoa trees registered in my name.”

As a result, he has increased his yields from six bags of cocoa a year to ten, supporting his household and making his farm more resilient without harming the environment.



By the end of 2021, we expect to bring 155,000 hectares of land under sustainable management. Following the Ghana project's success, we extended it to cover two more farmer groups in South West Côte d'Ivoire under the UK funded Darwin Initiative. There are now plans to scale up further in both Ghana and Côte d'Ivoire and expand into Nigeria and Cameroon.

Meanwhile, in Brazil, we are working with The Nature Conservancy, Mondelēz International, Partnerships for Forests (P4F), and Instituto Humanize on a pioneering programme to halt deforestation and restore degraded land in the state of Pará, which has the country's highest rate of deforestation. The project promotes cocoa agroforestry as a more profitable alternative to small scale cattle farming, giving farmers the tools and support they need to make the transition.

More than 250 families are already benefitting from the Technical Assistance Hub. It offers Good Agricultural Practices (GAP) training and advice on financial management for women, a seed supply chain to help farmers cultivate a range of alternative tree crops on their cocoa farms and access to rural credit (£100,000 worth of farmer credit applications have already been approved). Farmers also receive a price premium for their cocoa in exchange for zero deforestation and restoration commitments. To date, USD31,000 in premiums have been distributed to 134 farmers.

Together with our partners, we want to lead by example and create a network of cocoa-based agroforestry supply chains in Pará, expanding to 1,500 hectares by 2023.

“WITH MORE PRODUCERS EACH DAY INTERESTED IN JOINING THE SCHEME AND THE CLEAR PATHWAY TO UNLOCK FINANCING MECHANISMS ACROSS OTHER REGIONS IN THE AMAZON, WE CAN NOW SAY THAT THERE IS A STRONG SCALABILITY AND REPLICABILITY POTENTIAL IN THIS MODEL.”

FELIPE FARIA, REGIONAL MANAGER AT P4F



VALCILENE

Valcilene Dos Santos Primo, 38 years old, from Brazil, is part of the programme. She says:

“Because we live in the countryside, we sometimes feel isolated, especially during the pandemic. This programme has helped us feel valued and like we are a part of the bigger supply chain. We faced many challenges - the land was degraded for a long time, the soil was not healthy, and the seedlings' survival rate was poor. We knew that to restore a degraded area, we had to put in the extra effort.”

We have worked with farmers like Valcilene to plant 555,500 cocoa trees and native forest and fruit trees. There are now 536 hectares of cocoa agroforestry on degraded pastureland and a further 398 hectares undergoing ecological restoration. In total, the landscape under GAP management is around 14,800 hectares.



VALUING NATURE

Natural capital accounting assigns a monetary value, or natural capital cost, to natural resources like forests and healthy soil, allowing businesses to calculate the true cost of their decisions. The importance of this approach was recently underlined in the UK Treasury's [report](#) on the Economics of Biodiversity.

Olam believes that there is an urgent need to bridge the gap between sustainability and

finance and we have been working to better understand, measure and manage the impact of our operations on the natural world and direct capital towards nature-based solutions.

BY 2030, WE AIM TO CUT OUR
NATURAL CAPITAL COSTS BY 30%
ACROSS OUR GLOBAL COCOA SUPPLY
CHAIN FROM A 2018 BASELINE.

We have achieved a significant reduction in greenhouse gas (GHG) emissions at the processing level due to our investment in clean energy and reduced our impact on natural capital at the agriculture level through our continued on-the-ground efforts working with farmer groups to apply Good Agricultural Practices (GAP).

THE USE OF A BOILER FUELED
BY WASTE COCOA SHELLS
IN THE NETHERLANDS WILL
ALLOW US TO ACHIEVE:

50%
REDUCTION IN
FOSSIL GAS USAGE

50%
REDUCTION IN
CARBON EMISSIONS



“IN THE WORLD OF COCOA, ECONOMIC FORCES HAVE HISTORICALLY ENCOURAGED FARMERS TO CLEAR LAND. ALTHOUGH AVOIDING FURTHER DEGRADATION IS A TOP PRIORITY, INTRODUCING ECONOMIC INCENTIVES TO RESTORE NATURAL CAPITAL IS ALSO KEY. UNDER OUR COCOA COMPASS AMBITION, WE WORK WITH THOUSANDS OF FARMERS TO CREATE THE RIGHT CONDITIONS FOR SUSTAINABLE PRODUCTION.”

MANOJ VASHISTA, GLOBAL HEAD OF COCOA BEANS, OLAM COCOA

ACCOUNTING FOR OUR NATURAL CAPITAL COSTS

OUR PROGRESS ON REDUCING NATURAL CAPITAL COSTS FROM PROCESSING

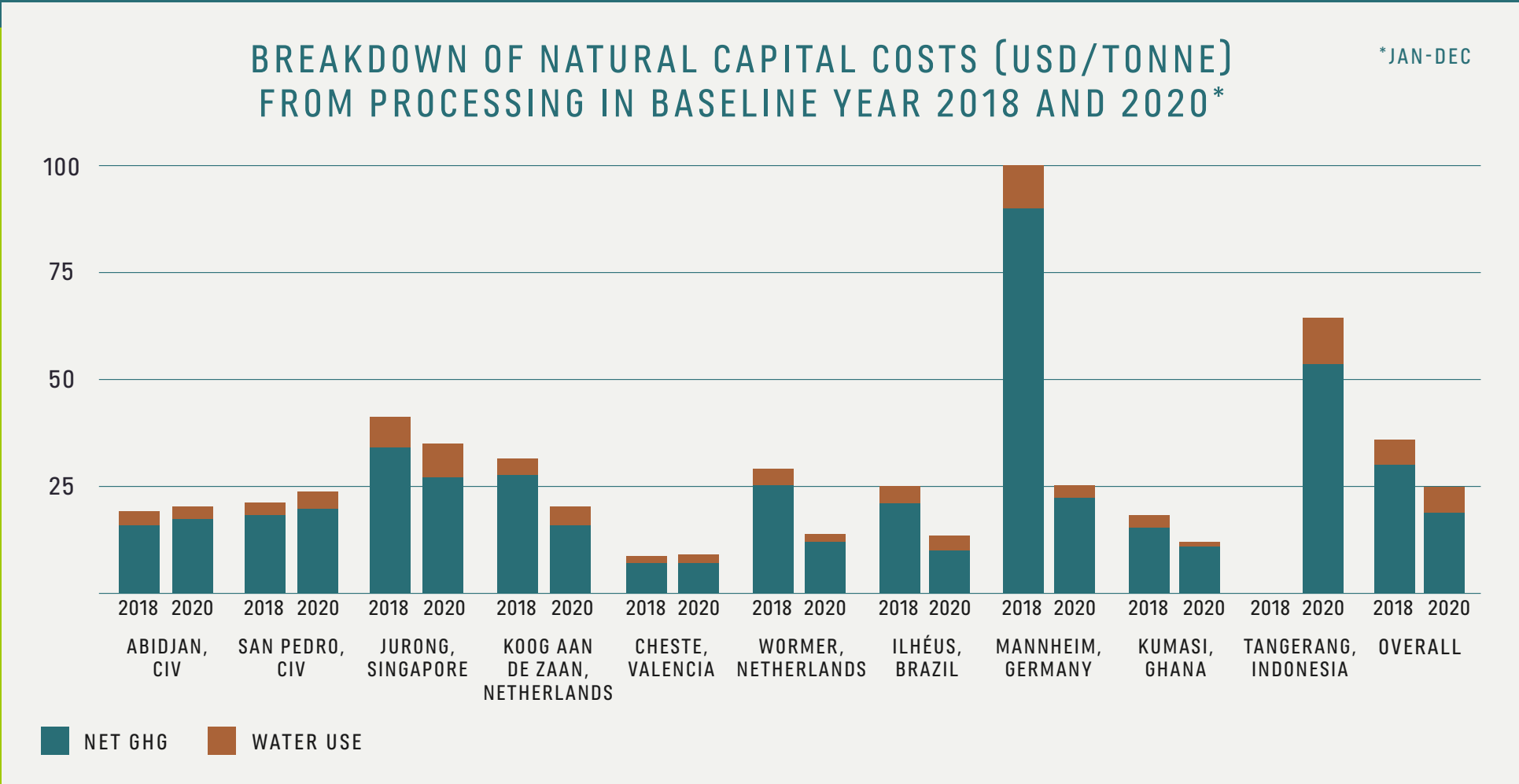
We have reviewed in detail our cocoa processing facilities to estimate natural capital costs related to GHG emissions and water use externalities. Overall, we achieved a 20% reduction in natural capital costs per metric tonne of cocoa beans from USD36 in 2018 to USD29 in 2019. And in 2020, a 13% reduction from USD29 in 2019 to USD25 in 2020.

Our GHG emissions were the main contributing factor, which we cut from USD32 in 2018 to USD24 in 2019, and to USD21 in 2020, a 25% and 14% reduction respectively year on year. This was due to considerable investment in clean energy across our processing facilities, such as switching from fossil fuel generated electricity to green electricity and boilers fuelled by cocoa shells.

Our facilities in Wormer and Koog aan de Zaan, the Netherlands, and Mannheim, Germany, began using green electricity in 2019 and 2020, respectively, for our premium cocoa ingredient brand deZaan. By using green electricity at these facilities, we reduced our CO2 emissions in 2020 by 46,810 tonnes. We also plan to use solar panels at our facilities in Kumasi, Ghana and Wormer, the Netherlands

By the end of 2020, four of our processing facilities were operating boilers powered by cocoa shells: Ilhéus in Brazil, San Pedro and Abidjan in Côte d'Ivoire and Jurong in Singapore. As a result, we prevented 11,855 tonnes of CO2 from entering the atmosphere and saved USD1.1m in natural capital costs. We plan to install more shell boilers at our facilities in Indonesia, the Netherlands¹ and Germany, leading to an additional reduction in emissions of 25,320 tonnes of CO2 annually. Where feasible going forward, we will continue investing in green electricity, non-renewable energy and cocoa shell boilers.

In processing, GHG costs form around 85% of the overall natural capital costs, and the remaining 15% is from water used in our facilities. We are continuously exploring ways to enhance our water use efficiency. We found that the impact of water use on the surrounding ecosystems varied dramatically by area because of watershed levels².



This chart shows the breakdown of natural capital costs per metric tonne of cocoa beans across our processing facilities³.

OUR PROGRESS ON REDUCING NATURAL CAPITAL COSTS FROM AGRICULTURE

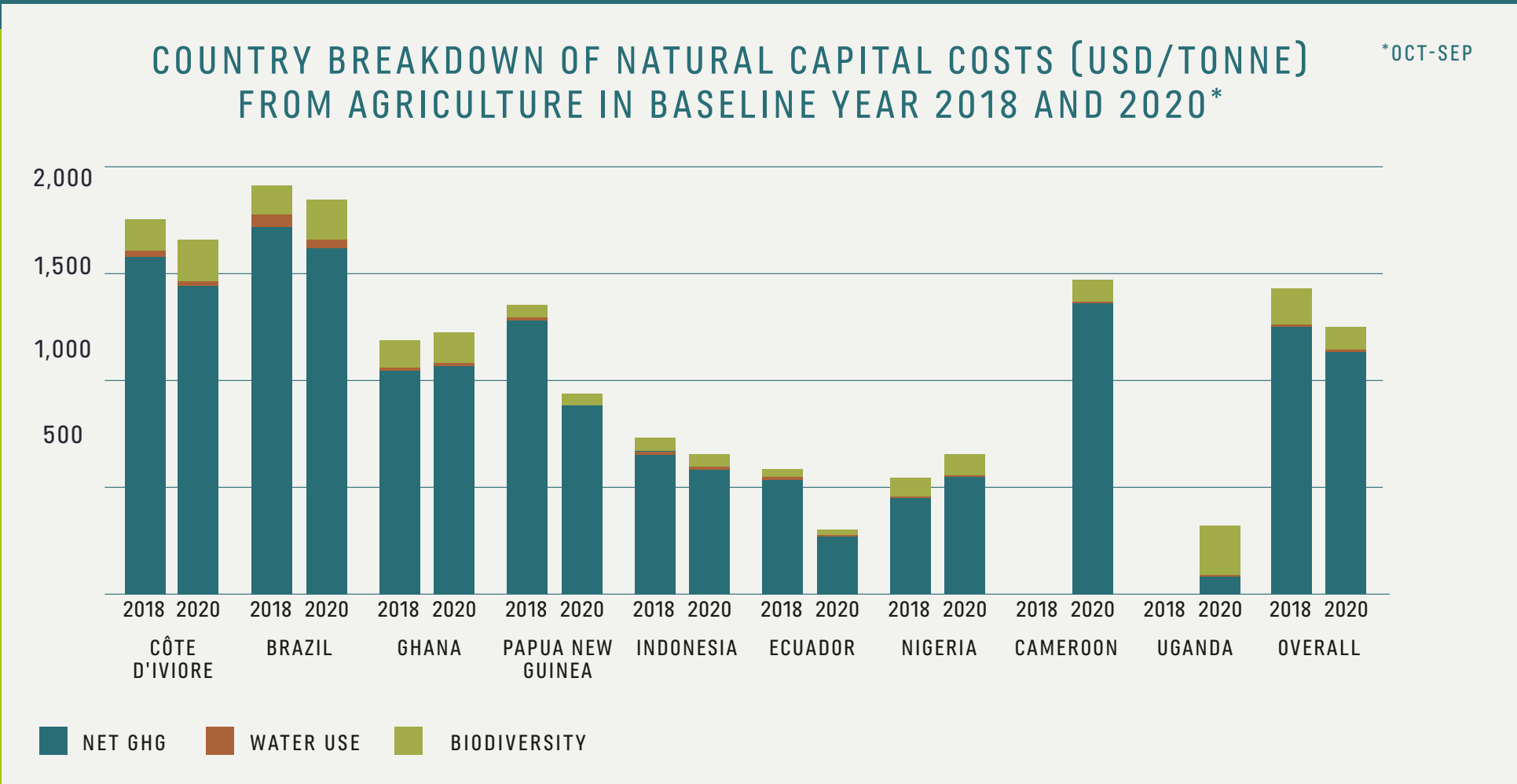
Our natural capital costs per metric tonne of cocoa beans have decreased by 5%, from USD1,402 in 2018 to USD1,334 in 2019 and decreased by 4% from USD1,334 in 2019 to USD1,283 in 2020. These costs relate to farmer groups who are part of the managed sustainability programmes we run with customers and partners.

The key contributing factor in reducing our natural capital costs over three years is by assisting farmers to apply Good Agricultural Practices (GAP) such as pruning, planting shade trees, efficient use of fertilisers, and composting of crop residues. The findings underline the importance of these programmes, designed to help farmers maximise their productivity and improve yields whilst respecting the natural world and importantly increasing their living income. We are working on expanding our efforts to assist more farmers to produce sustainable cocoa.

Our programmes also encourage agroforestry which has contributed to a significant offsetting of our natural capital costs. The GHG sequestration gains per metric tonne of cocoa beans from cocoa and shade trees increased across all our managed sustainability programmes from USD38 in 2018 to USD39 in 2019 and USD45 in 2020. We decreased our biodiversity costs per metric tonne of cocoa beans from USD125 in 2018 to USD118 in 2019 and USD107 in 2020 due to fewer trees being lost annually around cocoa farms and at the landscape level. Over time, this will lead to healthier soils and positively impact the ecosystem.

Our natural capital costs per tonne of cocoa beans increased slightly in Ghana and Nigeria primarily due to GHG Land Use Change emissions arising from forest tree loss around the cocoa farms and the surrounding landscape. Our analysis involved looking at forest tree loss around cocoa farms and the surrounding landscape over the last 20 years, with the year 2000 as our baseline. We then calculated the Forest Loss Ratio⁴ and used it to estimate annualised tree loss for 2018, 2019 and 2020 to determine annual Land Use Change (LUC) emissions⁵. It shows that although trees were lost in the landscape, it was not necessarily linked to cocoa farming. Instead, it is more likely the result of several factors, such as commercial logging, legal and illegal mining, urbanisation, forest fires and the growth of crops other than cocoa. Another contributing factor is the addition of new farmer groups into our supplier network who are now embarking on their sustainability journey and are yet to apply GAP.

As a founding member of the Cocoa & Forest Initiative, we have, along with our customers and partners, invested in distributing a mix of forest and fruit trees in Brazil, Côte d'Ivoire, Ghana, and Indonesia since 2018. After 18-24 months post-planting, to better ensure survival, our natural capital calculations will include the expected tonnes of CO2 sequestration and biodiversity gains from these trees.



This chart shows the breakdown of natural capital costs per metric tonne of cocoa beans across our managed sustainability programmes in cocoa sourcing countries⁶.

GHG EMISSIONS

ACCOUNTING FOR THE COST OF CARBON EMISSIONS FROM PROCESSING AND AGRICULTURE, ADJUSTING FOR OUR CARBON SEQUESTRATION EFFORTS

BIODIVERSITY

ACCOUNTING FOR THE COST OF BIODIVERSITY LOSS, ADJUSTING FOR OUR REFORESTATION, RESTORATION AND PLANTATION EFFORTS

WATER USE

ACCOUNTING FOR THE COST OF WATER FROM PROCESSING AND AGRICULTURE

This analysis measures our natural capital costs from both processing and agriculture operations using the key indicators of greenhouse gas (GHG) emissions, biodiversity and water use. From a 2018 baseline, we can see where our interventions are having the most impact, and crucially, where we need to invest further to reach our goal of a 30% reduction in natural capital costs by 2030.

¹In the Netherlands, we will install a new cocoa shell boiler in early 2022 to cut our fossil gas usage by 50% and reduce our carbon emissions by 50%, in line with Dutch climate goals.

²For example, in 2018 there was a 42% difference in ecosystem quality costs per m3 of water used between the Wormer and Koog aan de Zaan facilities in the Netherlands.

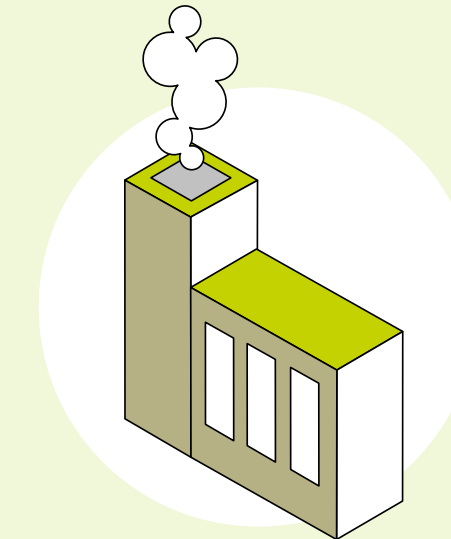
³Tangerang, Indonesia, data is only for 2019 and 2020 as we were not operational in 2018. The higher GHG emission cost in this facility is due to consumption of natural gas and dependence on grid electricity.

⁴Tree loss in the last 20 years divided by forest cover in 2000.

⁵Data is only available from 2001 onwards.

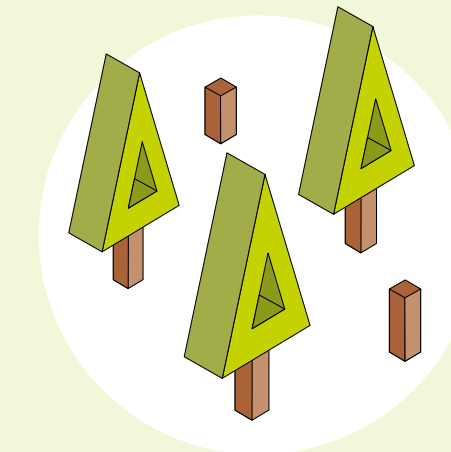
⁶Natural capital costs for water are low as cocoa is typically a rain-fed crop but climate change could lead to variations in rainfall patterns that might impact cocoa farmers.

NATURAL CAPITAL EXTERNALITIES VALUATION METHODOLOGIES:



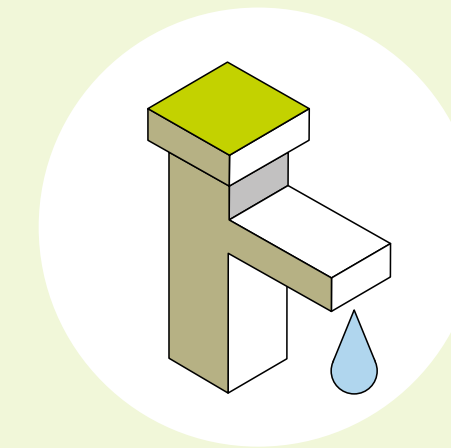
A) CARBON EMISSIONS

We have applied a Social Cost of Carbon (SCC)⁹ of USD90/tCO₂e¹⁰ to incorporate the full global externalities costs. The SCC is usually estimated as the net present value of climate change impacts over the next 100 years (or longer) of one additional tonne of carbon emitted to the atmosphere today. It is the marginal global damage costs of carbon emissions.¹¹



B) BIODIVERSITY

Monetary values of all major categories¹² of Ecosystem Services (ESS) - Provisioning, Regulating, Cultural and Supporting services are derived from the Economics of Ecosystems and Biodiversity (TEEB) database and published papers. Biodiversity cost is calculated based on annualised historical forest tree loss around the cocoa farms and the surrounding landscape, based on the past 20-year period.¹³



C) WATER USE

For water withdrawn from known watersheds, two broad impact areas are considered a) Negative ecosystem impact such as biodiversity loss; b) Negative human health impact from reduced water availability. For calculating the natural capital cost of embodied (hidden) water¹⁴, we referred to a variety of studies and tools such as the Natural Capital Declaration (NCD) tool and valuation approaches such as Replacement cost (cost of desalination), Opportunity cost and Shadow price. The value we used to estimate the cost of embodied (hidden) water used as well as local water withdrawn in the value chain (for both agriculture and processing) is USD1.90/m³.

Disclaimer: Olam Cocoa's natural capital accounting analysis is not related to financial results or financial reporting. The analysis and insights are specific to the selected cocoa operations with customers and partners. All underlying methodologies are based on well-established databases and frameworks. However, as they depend on formula and third-party expert studies, they are just an approximation and should only be used for internal information purposes. In the coming years, results from the natural capital costs analysis could be readjusted according to further methodological refinements. This remains a valuable sustainability tool that can help uncover issues and provoke questions necessary to achieve our Cocoa Compass vision to make the future of cocoa more sustainable. [Read more here](#)

⁹The SCC measures the full cost of an incremental unit of carbon (or GHG equivalent) emitted now, calculating the full cost of the damage it imposes over the whole of its time in the atmosphere. It measures the externality that needs to be incorporated into our decisions on policy and investment options (<https://www.gov.uk/government/collections/carbon-valuation-2>)

¹⁰Mid-point result from Massachusetts Institute of Technology (Pindyck, R.S. 2019, The social cost of carbon revisited)

¹¹Paul Watkiss Associates, UK (<https://www.oecd.org/env/cc/37321411.pdf>)

¹²As per Millennium Ecosystem Assessment

¹³We cannot be certain that deforestation was caused by cocoa farmers as it can be linked to other events like forest fires, etc

¹⁴For example, water used for generating electricity in processing facilities or for fertiliser production in agriculture

THANK YOU TO OUR CUSTOMERS, PARTNERS AND SUPPORTERS

We are proud to supply leading multinationals and major chocolate confectionery businesses worldwide and to support their own sustainability ambitions.

Customers: Blommer Chocolate Company, Costco, Fazer, Ferrero, General Mills, Guittard, Läderach, Lindt & Sprüngli, Mars Inc, Mondelēz International, Nestlé, Orkla, Puratos, Ritter Sport, Starbucks, The Hershey Company.

Key partners, verifiers and certifiers: Anker Research Network, Bayer, Beyond Chocolate, Cocoa Research Institute Nigeria (CRIN), Le Comité National de Surveillance des Pires Formes des Travail des Enfants, Le Conseil du Café et Cacao, L'Ecole Supérieure d'Agronomie de Côte d'Ivoire, European Cocoa Association, Fair Labor Association, Fairtrade, Fairtrade USA, Ghana COCOBOD, GISCO, GIZ, IDH-The Sustainable Trade Initiative, International Cocoa Initiative, International Finance Corporation, Intertek, Jacobs Foundation, Mitsubishi Corp, The Nature Conservancy, Organic, Partnerships for Forests, Rainforest Alliance, Save the Children, Scope Insight, Sustainable Food Lab, SWISSCO, Syngenta, World Cocoa Foundation, Wyatt Group.

ABOUT OLAM COCOA

Olam Cocoa, part of Olam Food Ingredients, is a leading supplier of cocoa beans and cocoa ingredients (cocoa powder, cocoa butter and cocoa liquor) and ranks amongst the top three processors worldwide. As part of its sustainability ambition, Cocoa Compass, it has achieved 100% traceability of its global, direct origination cocoa supply chain. Olam Cocoa sources from all major origins across Africa, Asia and South America, and has a cocoa processing, milling and refining presence in, or adjacent to, primary consumption markets in Europe, the Americas, and Asia. Supplying to over 2,000 customers globally, Olam Cocoa is a close collaborative partner in their innovation and product development programmes. Its portfolio of ingredient brands is led by deZaan, with its heritage of more than 100 years of excellence, as well as African origin brand Unicao, South American origin brand Joanes, the regional Macao and Huysman cocoa powder brands, BT Cocoa in Indonesia, and Britannia confectionery and specialty fats brand.

ABOUT OLAM FOOD INGREDIENTS

Olam Food Ingredients (OFI) is a new operating group born out of Olam International. OFI offers sustainable, natural, value-added food products and ingredients so that consumers can enjoy the healthy and indulgent products they love. It consists of Olam's industry-leading businesses of Cocoa, Coffee, Edible Nuts, Spices and Dairy.

OFI has built a unique global value chain presence including its own farms, farm-gate origination and manufacturing facilities. OFI partners with customers, leveraging its complementary and differentiated portfolio of “on-trend” food products, to co-create solutions that anticipate and meet changing consumer preferences as demand increases for healthier food that's traceable and sustainable.

Olam International is headquartered and listed in Singapore and currently ranks among the top 30 largest primary listed companies in terms of market capitalisation on SGX-ST. To subscribe to the Olam Newsroom please click [here](#) ([privacy statement here](#)). If you do not wish to receive information from Olam please contact media@olamnet.com. More information on Olam can be found at www.olamgroup.com. Olam is located at 7 Straits View, Marina One East Tower #20-01, Singapore 018936, Telephone: +65 63394100, Facsimile: +6563399755.

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