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Book

Cocoa barometer 2020

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cocoa barometer

2020

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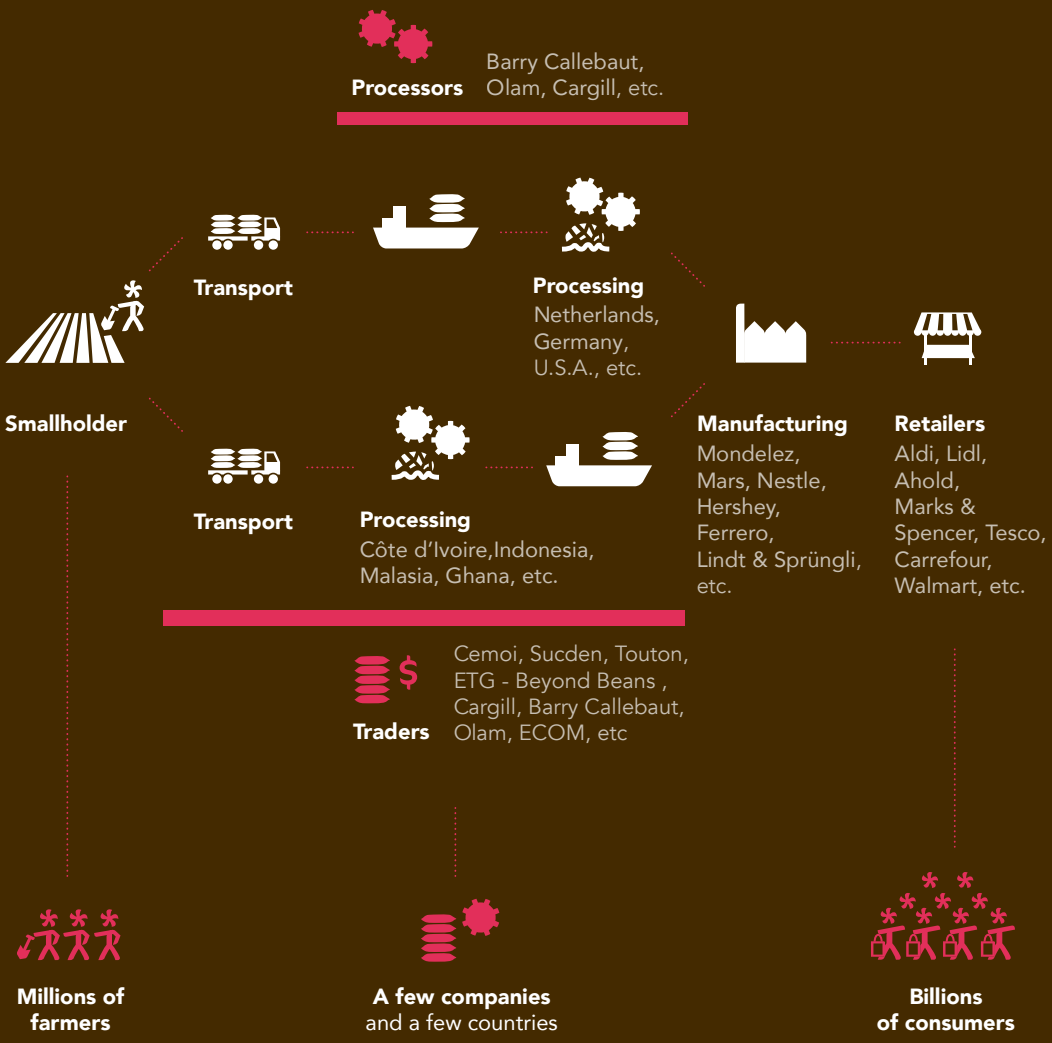


Supply chain

Scope and intentions of the Cocoa Barometer 2020

The Cocoa Barometer 2020 provides an overview of the current sustainability developments in the cocoa sector and highlights critical issues that are not receiving sufficient attention at present. It is an endeavour to stimulate and enable stakeholders to communicate and discuss these critical issues. The authors have chosen to focus on West Africa, because of its dominance in cocoa production and the significant challenges it faces.

While previous Cocoa Barometers mainly focussed on social and economic issues such as living income, a stronger emphasis on environmental issues has been added to this edition. It will furthermore explore the necessary enabling environment to achieve sustainability, including the highlighting of the urgent need for policy regulations based on Human Rights and Environmental Due Diligence. Cross-cutting throughout this document are the observations that we are sorely lacking both quality data and global collaboration to solve the challenges the sector faces.

The content of the 2020 Cocoa Barometer is the result of a lengthy consultation within the Cocoa Barometer Consortium, written and oral consultations with our partners from civil society and farmer based organisations in the global South, and with much data being collected from cocoa and chocolate companies through an in-depth questionnaire.

The Impact of Covid-19

It is impossible to describe the current state of cocoa without acknowledging the tremendous impact that the Coronavirus pandemic has had on the sector. Although it is impossible to tell what the future will bring, this Barometer attempts to look beyond the current situation, towards a sector where things will have returned to 'normal'. Our problem analysis and recommendations are largely unaffected by Covid-19. However, the pandemic has had some major impacts in the short term, and a few longer term effects will also be felt.

Covid-19 has exposed existing weaknesses around health and wellbeing. Cocoa farming communities were vulnerable to health risks already, with high rates of pre-existing health conditions as a result of extreme poverty, lack of adequate nutrition, as well as insufficient access to the most basic healthcare. Having said that, current data does not suggest that the pandemic has had a significant direct health impact - or at least, not a reported one - the reasons for which fall outside the scope or expertise of this Barometer.

Nevertheless, there have been several effects for cocoa farming communities globally, including an increase in the costs of daily living, for farming inputs, and for health care services (FCCI 2020). The closing of schools - although it was an understandable measure - put children at risk of exposure to child labour, even if temporarily. There has also been a marked decrease of the world market price, partly driven by a reduced demand for chocolate due to the pandemic. In that light, the timing of the introduction of the Living Income Differential in Ghana and Côte d'Ivoire has been very fortuitous. Though data is scarce, it is suggested that many farming communities saw a loss of current and future sales, payment delays, and experienced many other financial consequences.

For the longer term, the global recession caused by all the lockdowns and restrictions is expected to keep chocolate demand lower than originally expected, in a market that already was dealing with a structural oversupply of cocoa. This will cause downward pressure on global prices, with all the ensuing effects for farming households already in dire poverty.

The cocoa and chocolate industry has responded to the crisis on several levels. Some companies made use of their supply chain communications to inform farming communities on important public health announcements, using farmer communication systems, radio broadcasting, texting, even calling farmer cooperatives. Additionally, the sector put forward emergency relief, both in kind - distributing soap, buckets, water, and food) and in cash to cross-commodity relief funds such as the Red Cross, Care and the World Economic Forum's relief fund. Whether the funds and goods have been spent as promised is not clear at the time of writing. Transparent reporting on the spending and impact of the emergency relief is much needed in the coming months, also so that lessons can be learned for future waves of this and other potential pandemics.

At the outset of the pandemic, the cocoa sector restricted travel. Expat employees were pulled back to the global North, sometimes leaving value chains under-served in producing nations. All major cocoa conferences and meetings were cancelled or postponed. Online conferencing tools have become ubiquitous in the sector, almost to a point of overkill. However, online meetings - whether in plenary or bilaterally - are no substitute for the relational character of much of the interaction that was taking place prior to the pandemic. Over the past years, that relational dynamic has enabled a dialogue between actors that has made cocoa a unique sector, willing to engage issues and starting to move towards essential solutions. If cocoa is to continue in this constructive atmosphere, solutions are going to need to be found on how to strengthen the relational aspects in a digital era.

1. Introduction

After two decades of failed interventions across the cocoa sector, cocoa farming communities are still battling the effects of poverty, child labour and deforestation. The 2020 Cocoa Barometer report is a rallying call to action for all stakeholders to push forward and deliver on their promises to end deforestation and human rights abuses in cocoa supply chains. Twenty years into rhetoric, the challenges on the ground remain as large as ever. Poverty is still the daily reality for virtually all West African cocoa farmer families, child labour remains rife, and old growth forests continue to be cleared to make way for cocoa production.

Now is an important window of opportunity to move towards justice, as momentum for change is gathering across different stakeholders. Thanks to campaigning NGOs, the last two years have seen an increasing number of chocolate companies asking for regulation; significant global actors like the European Union are committed to putting legislation in place; and the world's two largest producers of cocoa, Côte d'Ivoire and Ghana, have formed a partnership to drive up the price for cocoa farmers.

But to seize this moment, it is vital that the sector learns from its mistakes, else it risks repeating them. This report finds that the last two decades of interventions have failed for three main reasons.

Firstly, efforts have only been voluntary, not mandatory, meaning that across the sector, actors are failing to do what they need to. Within the multitude of government-driven covenants, national multi-stakeholder platforms and sector-wide collaborations, there are no penalties for non-compliance, neither is there enforcement to meet targets. Ironically, however, those at the bottom – cocoa farmers often living below the poverty line – do lose their sustainable cocoa certification if they do not comply. Whilst we've seen a significant increase in regulatory processes and commitments to due diligence, they are limited without accountability, transparency and equitable enforcement.

Secondly, whilst bad farming practice has been addressed, the underlying problems that exacerbate extreme poverty – including low cocoa prices, lack of infrastructure, and no transparency and accountability as you move higher in the supply chain – remain unchallenged and unsolved. There

needs to be recognition that in its current form, the business model for high yields of cocoa means poverty for farmers and excessive profit for chocolate manufacturers. It's time this changed.

Thirdly, efforts to solve complex issues of injustice and unsustainability in the cocoa sector have not been inclusive or holistic enough. Instead of inviting farmers and civil society to take a respected seat at the decision-making table, problems have been assessed using a top-down industry-based approach. This serves the interests of industry and government, rather than the producer farmers and their communities.

Acknowledging how previous interventions have failed points us to alternative pathways that can put an end to deforestation, poverty and human rights abuses in cocoa supply chains. The report makes three key recommendations:

Regulation that changes the system, rather than penalising the farmers
Recognising that bad farming is not the problem but rather a symptom of a deeply unfair system, the report advocates for systems change and regulation that creates an enabling environment. Current forms of certification and farm-based standards increase pressure on farmers: instead, we need laws that hold the powerful accountable, rather than laws which demand that farmers change. Compliance criteria are imbalanced and need restructuring so that companies are held accountable to due diligence systems.

Effective partnerships between producer and consumer countries
If the answer is creating an enabling environment, we need partnership agreements between producer and consumer countries that facilitate and finance this. Processes that set partnerships in motion should be inclusive and deliberative, ensuring that civil society and farmer groups have a respected voice at decision-making tables. Data collected in the sector must be shared with farmers and their organisations to ensure informed decision making is possible.

Deliver on a fair price for farmers
The single biggest positive impact for farmers and incentive for farming sustainably is delivering a fair price for the cocoa they produce. Cocoa and chocolate companies must find ways to redistribute value along the supply chain so that farmers are guaranteed a living income.


Human Rights
Poverty & Malnutrition
Child Labour & Human Trafficking
Labour Rights & Safe Working Conditions
Lack of Education & Healthcare
Living Income
Low Farm Gate Prices
Low Yields
High Risks
Environmental Protection
Deforestation & Degradation
Loss of biodiversity
High use of agrochemicals
Climate Change

2. General Developments

Many efforts, little impact

The cocoa sector has been through a dynamic few years. Producer countries have started to flex their muscles in order to drive up the price of cocoa. Companies increased the roll out of their sustainability programmes, either jointly or individually. And there is a distinct shift towards regulation across the consuming world, demanded by civil society and supported in some countries at least partly by both governments and companies. Companies from the cocoa sector were front-runners when they published statements in 2019 and 2020, challenging governments to regulate them.

A travelling circus of global cocoa conferences and dialogues creates recurring opportunities for decision makers and thought leaders in the sector to exchange ideas and align on issues. Not only has the conversation started to include more of the relevant actors, it has also become more constructive, looking for solutions and acknowledging challenges, where problems were previously denied or downplayed. Nonetheless, many companies still act without aligning their efforts with competitors. Furthermore, the sector still focuses on productivity increases, without presenting data that higher yield would lead to higher net income, while increasing farm gate prices is still absent from the sector's toolkit.

Despite two decades of sector-wide efforts, interventions, an increasing dialogue and inclusion, the challenges remain as large as they have ever been. Poverty is still a daily reality for most smallholder cocoa farmers. Child labour is still rife throughout West Africa. Old-growth forests are still being cut down for cocoa production. Gender inequality remains the rule rather than the exception in many cocoa growing regions. Farmer empowerment often does not go further than being able to decide what the small premium is spent on.

Among this all, truly holistic approaches are missing. Most programmes and initiatives deal with single problems, and approaches that acknowledge and tackle the interconnectedness of the various challenges are largely absent. Poverty interventions are often insufficiently integrated

into deforestation measures, child labour approaches look at either the supply chain or the communities, programmes to increase productivity do not reflect the increasing price pressure coming from producing more cocoa, the list goes on. The root causes as well as many of the solutions to these issues are deeply intertwined.

Concentration in West Africa; cocoa follows poverty

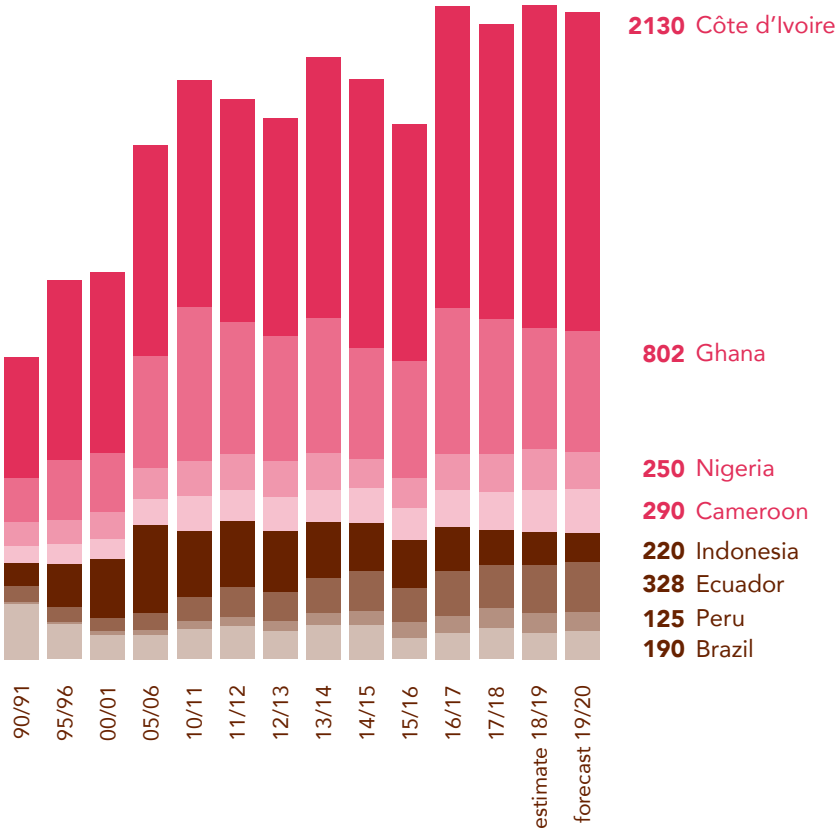
In the last thirty years, global production of cocoa has doubled, almost all of this coming from four West African countries (Côte d'Ivoire, Ghana, Cameroon, and Nigeria). During these three decades, production in West Africa rose from 1.37 million tonnes to 3.47 million tonnes. While production in this region almost tripled, the production in the rest of the world remained largely stable. As a result, the market share of the big four West African cocoa producers increased from 55% to 74% in these years.

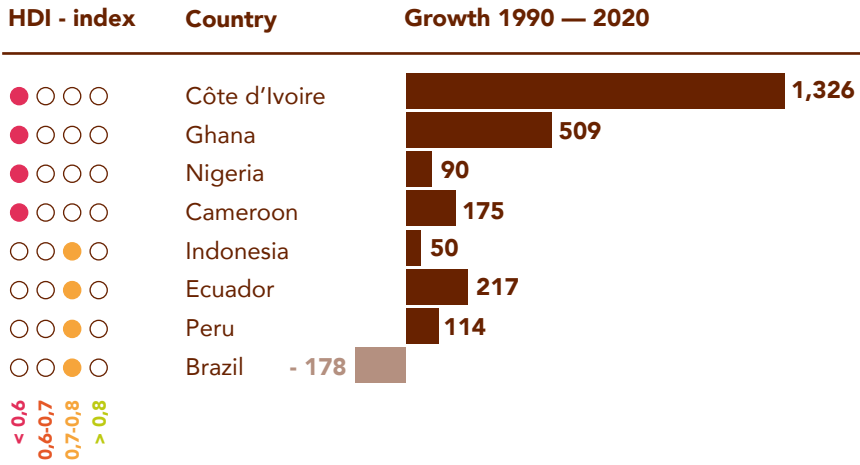
The dependency for bulk cocoa on West Africa is even higher than these figures suggest. Some Latin American countries produce mainly fine or flavour cocoa – roughly 10% of global cocoa production – which is traded differently than bulk cocoa. It also has a significantly different price. And – unlike in West Africa – local consumption in Latin America is significant; Brazil even imports cocoa beans to satisfy the appetite of its population. According to statistics of the International Cocoa Organisation (ICCO), domestic consumption of Central and South American countries adds up to nearly 450,000 tonnes, only part of this fine or flavour cocoa. Some producing countries in Asia, specifically Indonesia, also have a significant domestic consumption (ICCO 2020a).

As such, the dependency of the global cocoa industry on West Africa for bulk cocoa is well above 80%. It is in these 'bulk cocoa' producing countries that we see the major challenges come into clear focus; extensive deforestation, child labour and other human and labour rights transgressions, fuelled by the poverty of the majority of farmers, and driven by weak rural infrastructure, a lack of transparency and accountability, and sometimes corrupt and inefficient government interventions.

Bulk cocoa is concentrating increasingly in West African Countries with a low Human Development Index score. Other countries with the potential to produce significant amounts of cocoa either leave the market (as Malaysia has already done and Indonesia is doing presently), never enter the market despite programmes to increase cocoa production (as

Growth of Cocoa Production in the top 8 Producing Countries





Countries ordered by Human Development Index.

happened in Vietnam), or concentrate on high yielding varieties and fine or flavour cocoa (as Ecuador and Peru are doing).

The business model of bulk cocoa is poverty; because bulk cocoa farming pays so badly, it is only attractive to the poorest. Sourcing bulk cocoa as cheaply as possible leads to price pressure on smallholders - who have no influence on prices and are mostly not organised. In the meantime, at the top of the pyramid, multinational chocolate manufacturers, cocoa processors, traders, and retailers earn billions of dollars a year to feed consumer's need for a product of pleasure.

Regulatory approaches on the rise

Child labour, forced labour and discrimination are illegal in all cocoa producing countries in West Africa. The same is true for destroying protected forests. Despite this, cocoa grown under illegal circumstances still finds its market. A major reason for this is because it is not prohibited to profit from human rights abuses and illegal deforestation in cocoa consuming countries.

So far, all of the current developments are unfolding along lines of voluntary approaches, from government-driven covenants and national multi-stakeholder platforms, certification and company-owned sustainability programmes trying to look like certification, through to sector-wide collaborations on deforestation and child labour; there are no penalties in the case of non-compliance, and targets and deadlines can be missed with impunity. Certified farmers, on the other hand, lose their certification - and the market access and premiums coupled to the certification - if they do not comply, once again underscoring the unbalanced distribution of risk and responsibility in the supply chain.

In short; many of the problems have not been solved because they didn't have to be.

The past two years, however, have seen an increasing willingness to consider regulations, from both the government side as well as from the cocoa and chocolate companies themselves.

National regulations

In 2017, the French government was the first country to adopt a Due Diligence regulation – the so-called Devoir de Vigilance law. The Dutch followed in April 2019 with the *Wet Zorgplicht Kinderarbeid*, a duty of care law on child labour, expected to be in force by 2022. In the meantime, a

broader Due Diligence law has been introduced into Dutch parliament, although it has not passed yet. The call for national regulations in other nations is growing as well.

Although the Swiss *Konzernverantwortungsinitiative* ('Responsible Business Initiative') which sought to introduce a broad mandatory human rights and environmental due diligence achieved a popular vote majority in a November 2020 referendum, it failed to pass the constitutional requirements to be implemented. This means that a counterproposal will go into effect, which includes mandatory human rights due diligence on child labour and conflict diamonds, as well as a reporting obligation, however it misses liability for multinationals. A similar call in Germany for a "Supply Chain law" by the Initiative *Lieferkettengesetz* has been launched in 2019 and is gaining momentum. Existing national regulations on transparency – such as the UK Modern Slavery Act, the California Supply Chain Transparency Act, and the Australian Modern Slavery Act – have made requirements for transnational corporations to report on forced labour and human trafficking in their supply chain. Though not going as far as due diligence regulations, transparency is an important step in starting to solve a range of issues in the supply chain.

Transnational regulations

The European Union is looking at options to add regulatory approaches to its current largely voluntary approach to sustainability in global supply chains. A process assessing a regulation on deforestation is in advanced stages, and a broader due diligence regulation is being considered around human rights and environmental concerns. The Commission is also launching an initiative on sustainable corporate governance. Simultaneously, Commission officials are starting to look at ways to strengthen bilateral agreements with cocoa producing countries, adding a mix of possible interventions to a demand side regulation.

At an even more global level, debates around the UN Binding Treaty on Business and Human Rights are continuing. However, progress is slow, as many Western nations – including member states of the European Union and forces within the European Commission – continue to block significant measures, with the EU not even participating in the negotiations.

Corporate support

One of the major developments regarding regulatory approaches for the cocoa sector is the shifted attitude of the industry itself. Several of the largest cocoa and chocolate companies have called for an EU due diligence regulation, and also the European umbrella associations for

cocoa (ECA) and chocolate (Caobisco) have issued statements supporting a due diligence regulation.

Industry support for regulation is due to several reasons. Firstly, the principles of due diligence, outlined by the OECD (see page 90-91) provide a level of clarity and certainty. Secondly, a mandatory regulation would level the playing field, requiring all competitors to operate according to the same principles; corporations could no longer compete through facilitating, committing or ignoring human rights abuses or environmental degradation. Thirdly, it would allow for more impact through higher ambitions and more joined efforts.

Unresolved issues around regulatory approaches

Though it is too early to be able to qualify the impact of due diligence regulations, they are an important step forward. Existing transparency laws have already led to changes, both in corporate reporting and on the ground. Enforced due diligence regulations – if drafted and implemented properly – can lead to even more positive changes in the cocoa sector. There can be a strong complementarity between national and transnational regulations, and the interplay between these two should not be an excuse to not get started on either.

Considering the above, it will be essential that when these regulations do get developed, they are based on the UN Guiding Principles on Business and Human Rights and the OECD Guidance for Responsible Business Conduct, and that they are enforced according to best practices. Regulations should be developed on a cross-commodity basis, and should pertain to all human rights and environmental protection. At the same time, it will be essential to ensure that cocoa-specific guidance is provided.

Additionally, incentives need to be found to ensure producing governments accept demand-side regulatory interventions. These incentives will likely be found through a combination of developmental support and bilateral agreements aimed at strengthening national agricultural policies, transparency, law enforcements, land and forest management, and child labour interventions, among others.

Lastly, any due diligence regulation should not be an extra burden for farmer cooperatives and farmers, but should put the burden where the power lies at government and corporate level.

Farmer organisation and local Civil Society Organizations

Over the past two years, local civil society organizations in producing nations have increasingly taken part in the political dialogue in the cocoa sector. In order to strengthen their voices in the political dialogue, in Ghana the Ghana Civil Society Cocoa Platform was founded in 2019. This platform - an alliance of 18 farmers' organizations, non-governmental organizations, trade unions and the media - is mutually coordinated by SEND-Ghana and EcoCare Ghana. In Côte d'Ivoire, too, a civil society working group with 22 member organizations from NGOs and farmers' organizations coordinated by the Ivorian NGO INADES-Formation has been formed. Both networks bring together expertise on social, ecological and economic challenges in the cocoa sector. The networks are particularly powerful not only because of the strategic alliance between NGOs and farmers' organizations, but also because of their good networking with other global actors such as non-governmental organizations and in the consumer countries.

Availability of data

Previous Cocoa Barometers have often stressed the need for publicly available, recent, and reliable data on topics such as farmer income, production costs, and child labour. In that light, there is a positive trend of research being published on topics such as farmer income and impact of certification. However, it is striking that much of the available information has been collected and shared by NGOs and development organisations, while many major companies collect comprehensive sets of data without publishing them. Some of these data sets have started to circulate in the sector, however this data is leaked and not published, and therefore often cannot be used in the public discourse.

Despite decades of debate about productivity, field size and production costs, the industry still does not publish reliable data, and some companies do not even collect precise figures. The cocoa sector will not be able to know whether efforts are sufficient to tackle the challenges it faces until the size of the problems is clear.

Summary

Despite two decades of sector-wide interventions and increasing dialogue, the challenges facing the cocoa sector remain as large as they have ever been; extensive deforestation, child labour and other human and labour rights transgressions are the order of the day, fuelled by the poverty of the majority of cocoa farmers, and driven by weak rural infrastructure, a lack of transparency and accountability, and sometimes corrupt and inefficient government interventions. Cocoa grown under illegal circumstances still finds a market because it is not prohibited to profit from human rights abuses and illegal deforestation in cocoa consuming countries. The past two years, however, have seen increasing support for mandatory human rights and environmental due diligence regulations, from both the government and corporate sides. Furthermore, local civil society organizations in producing nations have increasingly started to take part in the political dialogue in the cocoa sector. Despite this progress, the industry still does not share data essential for assessing sustainability approaches.

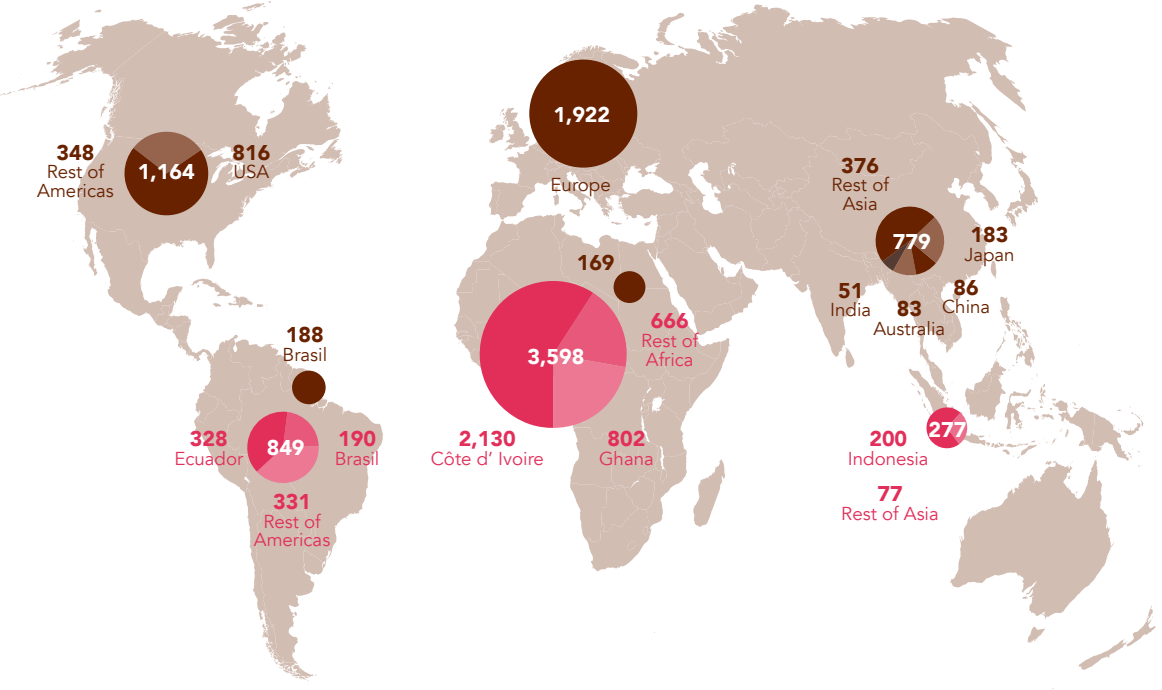
3. National and Global Developments

The past years have seen a wide range of efforts and developments in the cocoa sectors, at joint and individual levels, from governments, corporations and civil society including farmer's organisations. A partnership of cocoa producing nations to increase prices at the world market has been formed, multistakeholder collaborations are underway or being started on deforestation and child labour, and a series of global cocoa conferences and meetings allows for unprecedented dialogue and shared learnings.

However, what is missing in these efforts is an alignment and acknowledgement of the interrelated nature of the challenges we are facing. At the same time, none of the efforts come close to the scale of the problems they are facing so far, and most don't stray far from "business as usual". A whole lot more needs to be done, in a far more holistic way.

Production / **Consumption**

Cocoa production in 1,000 tonnes 2019/20 (forecast)
Domestic consumption of cocoa in 1,000 tonnes 2018/19
Source: ICCO 2020, Table 2, 40



Developments in producing nations

Ghanaian-Ivorian partnership

Côte d'Ivoire and Ghana remain by far the most important cocoa producing countries. After a steep increase of production in Côte d'Ivoire a couple of years ago, harvests have stabilised at roughly 2.1 million tonnes, while Ghana adds another 800,000 tonnes. Together, they produce more than 60% of the global cocoa harvest.*

One of the most significant developments in cocoa production in the past years has been the Ghanaian-Ivorian partnership on cocoa. From Presidential level downwards, the two largest cocoa producing nations have started to align their internal and external cocoa policies.

In the third quarter of 2019 the Ivorian Conseil du Cafe-Cacao (CCC) and the Ghana Cocoa Board (Cocobod) started charging the so-called Living Income Differential (LID), an extra fee of $400 per ton of cocoa on top of forward sales for the 2020/21 main crop. Subsequently, in October 2020, Ghana increased the guaranteed cocoa farm gate price for the 2020/2021 season by 28% to $1,837 per tonne, and Côte d'Ivoire by 21% to $1,840.

This historic initiative is an important and necessary step in order to improve the income situation for farmers: higher prices for farmers are an essential – and often overlooked or even denied – aspect of every sustainability strategy. Apart from the obvious role that companies have, governments must set the stage for a sustainable cocoa sector by creating price stability at a level that allows farmers to achieve a living income.**

Moreover, price interventions should be part of a coherent strategy to respect the human rights of farmers and to protect forests. Intervening on price without looking at supply measures and enabling policies to develop a healthy cocoa sector may not have the desired positive impact in the long term. This requires careful policy management, which CCC and Cocobod must undertake, beginning with setting up the long-awaited "joint monitoring mechanisms" on deforestation, as promised in 2017 at the launch of the Cocoa and Forests Initiative.

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* All production figures are based on ICCO statistics. All latest figures come from ICCO 2020b

** The current guaranteed prices are much lower than even the most modest calculations available on the farm gate price needed to make a living income, see the chapter on Living Income.

So far, the Ivorian and Ghanaian governments and marketing boards have taken a very proprietary stance to the development of policies around their partnership. Discussions have not been very open to other actors, including other producing nations, farmer-based organisations, local and global civil society, cocoa and chocolate companies, or international organisations such as the ICCO.

The strategy to not negotiate the Living Income Differential in a long multi-stakeholder-discussion, was a powerful step forward to increase the farm-gate-price. However, for this ambitious plan to succeed, collaboration and inclusive dialogue are going to be necessary. Keeping other stakeholders out of the conversation would be a dangerous and counterproductive development.

Cameroon and Nigeria

Production in Cameroon rose significantly in the past five years, from 220,000 to 290,000 tonnes in 2019/20. Increased production can lead to concerns, as the country has a lot of untouched primary forest in the Congo Basin, some of which is at risk of being transferred into cocoa plantations. Some conversion of land is already happening, partly in the form of agroforestry systems.

In the meantime, Nigerian cocoa production has remained stable for a decade at roughly 240,000 tonnes per year. Despite regular announcements by the Nigerian government on major investments in the cocoa sector, farmers complain about the lack of support to increase their income.

Latin America

While cocoa production in Brazil, the Dominican Republic and Mexico has remained stable, significant expansion of cocoa production is happening elsewhere in Latin America. Ecuador's harvest grew - in just a decade - from less than 200,000 tonnes to 325,000 tonnes in 2019/20. Support measures coordinated by the government help farmers to invest in higher productivity and high-quality cocoa. A similar development has taken place in Peru, where cocoa production doubled to 130,000 tonnes. Beside government efforts, significant investments of development cooperation - specifically from the cocoa for coca programme run by USAID as part of the 'war on drugs' - help farmers to expand cocoa production. Expansion of cocoa production in Ecuador, Peru and Colombia is cause for concern, as it might lead to deforestation and forest degradation of some of the last remaining major rainforests in Latin America. Despite these production increases, Latin American cocoa production is very modest compared to West Africa.

South East Asia

Ten years ago, Indonesia published plans to become the biggest cocoa producer in the world. However, despite government programmes to invest in the sector, production halved in 10 years to 200,000 tonnes in 2019/20. Many Indonesian cocoa farmers have left the sector due to low earnings. Some have found other income sources in the agricultural sector e.g. by planting palm oil, others have left agriculture and the countryside entirely for the booming cities. Meanwhile, cocoa production in Papua New Guinea and India remains stable at relatively low levels.

Global Platforms

International Cocoa Organisation (ICCO)

The International Cocoa Organization is the global organisation that brings representatives of cocoa producing and cocoa consuming countries together. Government representatives form the Council of the ICCO, with civil society and industry representatives forming a Consultative Board that can provide input to the Council.

Over the past years, the ICCO has gone through major changes. A move of its headquarters to Abidjan from London, a new Executive Director, and a significantly changed staff are providing this organisation the opportunity to refresh its vision and mandate. It has recently adopted a strategy with living income at its center.

Despite repeated attempts, the ICCO-led Global Cocoa Agenda - a roadmap for a sustainable cocoa sector including roles and responsibilities per stakeholder group - has failed to materialise due to a lack of political will by its members.

The ICCO is well placed to provide an important platform for the cocoa sector - including farmer based organisations, civil society and industry players - to engage in policy dialogue with producing and consuming governments. The challenge is now to ensure that it remains a place where meaningful sector-wide engagement can take place.

World Cocoa Foundation (WCF)

The World Cocoa Foundation, the global umbrella organisation for chocolate and cocoa companies, has had a lot of responsibility riding on its shoulders. As the convenors of CocoaAction (a voluntary strategy aligning the world's leading cocoa and chocolate companies around productivity increase and community development) and co-convenors

of the Cocoa and Forests Initiative (CFI, see below), the WCF is the place where much of the industry's collaborative efforts comes together. However, with the inability of CocoaAction to significantly drive impact at scale, and with modest impact to show for so far at CFI, the pressure is on the WCF to engage in sector-wide efforts that will lead to holistic and ambitious changes.

Other actors, especially civil society and farmers, have had very little input into the operation and future design of CocoaAction especially, but also of CFI. This has resulted in a considerable bias of solutions towards industry-favoured approaches. Moving forward, a more inclusive and multi-stakeholder approach is essential.

It would be advisable for the WCF to move from being the advocate of the industry's interest to serve as a catalyst towards its members, urging them to higher ambitions and quicker action, rather than attempting to temper other actors' expectations towards the cocoa and chocolate industry. The long-held industry position that agronomic solutions aimed at increasing productivity and diversifying income will improve farmers' livelihoods is gradually being complemented with support for systemic change, albeit at a slow pace. Such support should be aimed at increasing transparency and accountability, supporting regulatory measures to protect human rights and the environment, and increasing farm gate prices so that they are sufficient to earn a living income.

Cocoa and Forests Initiative (CFI)

In 2017, the global cocoa sector announced a new platform against deforestation, the Cocoa and Forests Initiative - co-coordinated by the WCF and IDH Sustainable Trade Initiative. This platform of industry, major donors, and producing governments (currently only Ghana, Côte d'Ivôire, Cameroon and Colombia) aims to provide a common framework to tackle deforestation.

It is good to see individual companies rolling out plans. With CFI now several years in, deforestation is starting to slow down, although the remaining forests in West Africa continue to be threatened. National traceability platforms that were promised are behind on schedule. It is striking that the biggest step in transparency on deforestation - a crowdsourced traceability map, linking deforestation with cocoa production - has been published by Mighty Earth, an NGO.

The implementation at national level is also running into snags, with inefficiencies and conflicts between ministries in producing nations

causing major delays in roll out. Additionally, though deforestation in cocoa is global, CFI confines itself to national signatories. Cocoa has been found to be a driver of substantial deforestation in Indonesia, Cameroon, Ecuador, Peru, and beyond. Whereas there is not a lot of rainforest left to be cut in Côte d'Ivoire or Ghana, the Congo and Amazon basins are very much at risk, as are the rainforests of South-East Asia. A global moratorium to deforestation, coupled with a global ambition of CFI should be their first next steps.

National cocoa platforms in consuming nations

In Europe, national cocoa platforms have started to develop in a variety of shapes; the *Forum Nachhaltiger Kakao*, or German Initiative on Sustainable Cocoa (GISCO) in Germany, the Swiss *Kakao Plattform* (often called Swissco), the Belgian Beyond Chocolate, and the Dutch Initiative on Sustainable Cocoa (DISCO, which has superseded the earlier Dutch *Declaration of Intent on Sustainable Cocoa*), with initial conversations starting to take place in France and Japan as well.

Notably absent in this list are the United Kingdom - a major cocoa consuming and processing country - and the United States, where there is little to no collective movement on sustainability in cocoa. Unlike their European counterparts, the American and English cocoa sectors have not succeeded in finding multi-stakeholder dialogue platforms bringing companies, civil society, and government agencies together at national level.

While for a long time the sustainability aims of these platforms were only addressed by sourcing certified cocoa, in some countries the platforms are now starting to develop more holistic ambitions around living income, deforestation and child labour. These ambitions are not yet translating into concrete actions, however.

Several weaknesses remain, including the voluntary nature of all these platforms; sanctions are not envisaged, creating a real risk of free riders using the platform. Additionally, the various platforms might lead to a race to the lowest common denominator, with every nation being played out against each other by some industry actors trying to ensure targets are not more demanding than the other nations. Though first steps are being taken to align the goals and activities between the platforms, there is a clear need for closer alignment and leveraging of joint influence at a European level, leading to ambitious goals with clear timeframes. Though living income is part of the objective in most of these platforms, a sector-wide commitment to living income is sorely missing.

Living Income Community of Practice (LICOP) and Alliance for Living Income in Cocoa (ALICO)

The Living Income Community of Practice is a multi-stakeholder and cross-commodity initiative, organising information exchange on how to define, measure, and implement a living income. Jointly hosted by the Sustainable Food Lab, GIZ and the ISEAL Alliance, it brings together NGOs, companies, researchers, and standard setting organisations.

By now there is broad acceptance of the Anker Methodology as a baseline to calculate a living income, the discussion is now largely about how to achieve living income. One of the main problems is the lack of reliable data on many relevant variables, including farm size, productivity, yields, diversification levels and living conditions of cocoa farming families. So far, the Community has not succeeded in becoming a platform to exchange data which could lead to a better-informed discussion about potential ways to increase farmers' income. Even companies who are actively engaged in the discussions do not share most of their data.

The Alliance for Living Income in Cocoa (ALICO) is a multistakeholder forum bringing together the national initiatives and various other platforms. Initial ambitions to come to a sector-wide commitment to achieving a living income have disappointingly been toned down to align strategies and identify gaps in approaches towards living income. The Alliance should start speaking out more ambition, bringing together frontrunners to lead the way. A sector-wide commitment to living income should be the objective of such a collaboration.

Summary

Collaborations to drive sustainability in the cocoa sector are being developed at a variety of levels. Côte d'Ivoire and Ghana - together producing more than 60% of the global cocoa harvest - have implemented a $400 per metric tonne fee - the Living Income Differential (LID) - thereby raising farm gate prices by 28% (Ghana) and 21% (Côte d'Ivoire). This is an important step, though concerns remain at the lack of inclusion of other stakeholders in the development of these plans, including other cocoa producing governments, farmer organisations and civil society.

Pre-competitive industry collaborations are becoming more commonplace. Initiatives on productivity increase and community development and deforestation are in various stages of implementation, although they have shown little impact so far. National multi-stakeholder platforms have been developed in several major cocoa consuming

countries, outlining national ambitions for sustainable development of the cocoa sector. A weakness of all these collaborations are their voluntary natures, and the lack of consequences if ambitions are not met. Though living income is becoming more part of the debate in cocoa, a sector-wide commitment to living income is sorely missing.

4. Industry Developments*

* In previous Barometers, company developments and standards and certification were dealt with in separate chapters. As they are so intertwined, and together form the cocoa and chocolate industry, they have been merged into one chapter. Furthermore, unlike earlier editions of the Cocoa Barometer, the questionnaire sent to traders and grinders this time did not focus on the percentage of certified or verified cocoa, as we do not believe this should be the key performance indicator for progress on sustainability. Instead, companies were asked how much of the cocoa they use is traceable to the cooperatives/farmer organisations and even to farm level.

Traders and processors: high market concentration

The trading and grinding companies in the cocoa sector have retained their massive scale, and in some cases even increased their cocoa tonnages. Though cocoa traders often work with smaller profit margins per tonne, they compensate this by trading in very high volumes. A small group of companies dominates the market; each sourcing from hundreds of thousands of farmers. The exact extent of the market concentration in this part of the value chain is difficult to calculate, as there is a lot of intertrading. However, it is obvious that the top six companies trade and process the vast majority of all cocoa handled on the world market. This gives them an immense market power - over cocoa farmers - but also a high responsibility.

Most of the companies could report significant progress in the traceability of their cocoa sourcing. Cemoi is a front-runner and claims to be able to trace - to cooperative level - 100% of the cocoa bought, ETG – formerly Cocoannect – traces 59% even to farm level. Of the large companies, Olam and ECOM seem to have made the biggest progress concerning traceability.

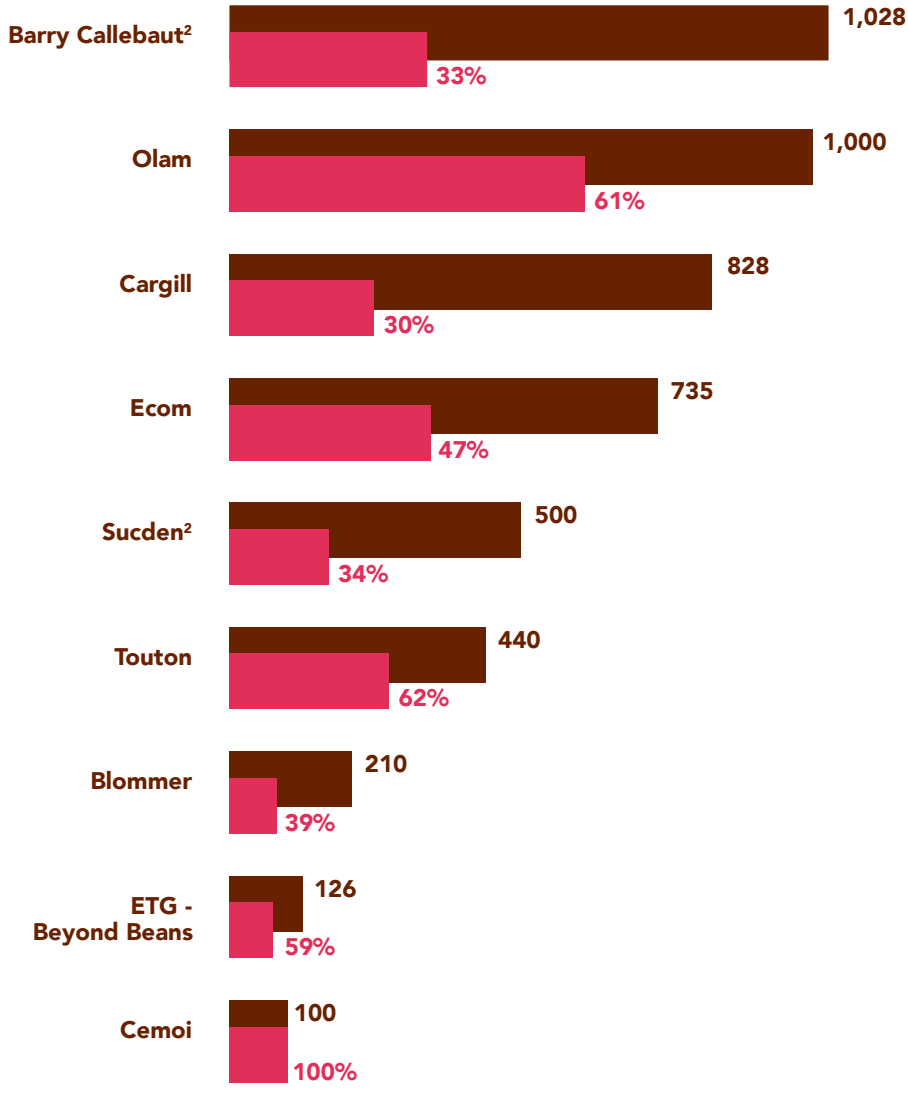
However, these figures include three major difficulties.

First of all, approximately half of the cocoa is still bought via indirect supply chains and the involved companies do not know its origin. Therefore, they do not know if the cocoa comes from illegal plantations in protected areas or is connected to human rights abuses.

Secondly, the definition of traceability differs from company to company. While some companies rely on verification by standard-setting organisations, others are setting up their own projects based on their own traceability checks, often combined with polygon-mapping of the cocoa farms. This mapping gives a much deeper insight than the self-reporting of cooperatives and farmer groups or the information collected by standard-setting organisations.

The third problem, explicitly mentioned by some of the companies in the questionnaire, is that traders and grinders depend on the willingness of chocolate producers to pay for extra efforts, including the setting up of a traceable value chain.

Traders and Processors: Used Cocoa 2019[1]/ Traceable to cooperative



used cocoa 2019 (1)

traceable to coop

(1) using ICCO conversion rates: cocoa butter 1.33, cocoa paste/liquor 1.25, cocoa powder and cocoa cake 1.18
(2) using the reporting year 01/09/2018-31/08/2019

The authors also requested data on traceability to farm level, but the variance in answers coupled with a lack of reliability in data means that we cannot provide that information.

Chocolate brands: diverse paths to sustainability

Different recipes and production lines lead to different approaches for the large chocolate companies. Chocolate brands are increasingly looking towards traceability, being able to trace their cocoa to farm level between 44% and 100%. Some are trying to close the transparency gaps in their supply chains through company projects.

While traders and grinders claim that they depend on the willingness of the chocolate producers to set up traceable value chains, some chocolate producers complain that they are not able to get transparency in the butter supply and partly also for cocoa powder because the grinders refuse to become transparent. Though this argument would be plausible for smaller chocolate companies, the large multinationals named in this chapter should have enough market power to impose transparency on their upstream supply chain, although this would come at a price.

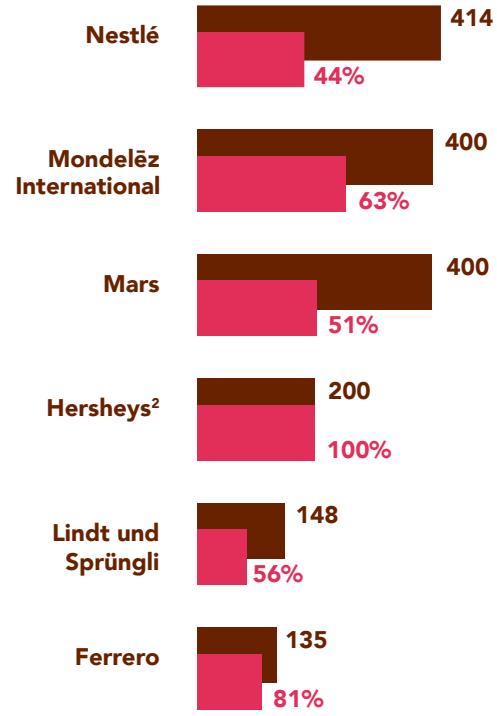
As with traders and grinders, company data is not comparable with each other, as different interpretations exist on what traceability means. For example, one of the companies reported low figures on traceability. Unlike some other competitors they had reported only the percentages of cocoa from their own projects, where all farmers are known by name, farms are localised by GPS and polygon mapped. Being told that other companies reported all certified cocoa as traceable, this company did the same and the figure increased considerably. Without comparable data, it is impossible to evaluate the potential impact of company programmes. Therefore, much more transparency is needed.

Retailers

Including retailers in the global discussions about cocoa is a challenge, as many are large players on a national or regional level, but not globally. However, retailers play a crucial role for the efforts to increase the sustainability of the cocoa sector, for three reasons.

Firstly, they put a lot of pressure on chocolate producers, trying to get the lowest prices possible. This conflicts with the necessity to pay more for cocoa at farm level, and with the necessity to invest more in sustainability. Secondly, more and more cocoa is sold as an own brand of the big retailers. As such, they have become chocolate companies themselves. In Germany, the biggest market in Europe, nearly a third of the chocolate sales comes from retailers' own brands. Thirdly, retailers - together with the chocolate producers - get the highest part of the turnover of the whole supply chain (Feige-Muller 2020).

Chocolate Brands: Used Cocoa 2019[1]/ Traceable to cooperative



used cocoa 2019 (1)

traceable to coop

(1) using ICCO conversion rates: cocoa butter 1.33, cocoa paste/liquor 1.25, cocoa powder and cocoa cake 1.18

(2) cocoa demand estimated, tracebility data for 2020

The authors also requested data on traceability to farm level, but the variance in answers coupled with a lack of reliability in data means that we cannot provide that information.

As such, it is encouraging that in some countries retailers are increasingly becoming part of the discussion and live up to their responsibility, especially on national levels through the national cocoa platforms mentioned above. Several individual retailers have started sustainability projects, often in collaboration with actors from further upstream in the supply chain. Lidl's "Way To Go" project with the Kuapa Kokoo cooperative in Ghana and Ahold's collaboration with Tony's Chocolonely for the Ahold Delicate home-brand chocolate are examples of how retailers can start moving towards more sustainable cocoa sourcing. Another notable example is the German retailer initiative for living income. The fledgling Retailer Cocoa Coalition, bringing together several

European retailers with a specific focus on combating deforestation, is an example of a broader collaboration, although more transparency and ambition is necessary about their aims and activities.

It is important to stress that the responsibility of retailers goes beyond their private label products, and also should include their role as key outlets for - and profit-makers of - all the major chocolate brands. Supermarkets have the power to enforce sustainability for all of the brands that are on their shelves.

Standards

The race for certified volumes has not led to the bar being raised. Despite the fact that at least a third, perhaps even more than half*, of all the global cocoa production is grown under a certification label or an own company sustainability label, major problems persist; chocolate companies and retailers tend to look for the cheapest label, neglecting the potential negative effects of this price pressure.

If anything, the relevance of certification standards has been declining. For a long time it seemed the only tool available to achieve sustainability was certification. With an increase in sector efforts, in data and research, and in experience with implementation, the sector now has a wider range of interventions at its disposal.

The Rainforest Alliance and UTZ merged in 2018, with the new joint Rainforest Alliance standard – launched in 2020 – covering the production of both previous systems. These two VSS's were already the two largest cocoa certifiers, after the merger they have even more market power.

Though claiming sustainability off the back of a certification system is misleading, the terms "certified cocoa" and "sustainable cocoa" are still often – wrongly – used interchangeably. Certified cocoa cannot be claimed to be sustainable merely on the basis of certification, whether this certification is Fairtrade, Rainforest, ISO/ARSO, organic, or any other standard.

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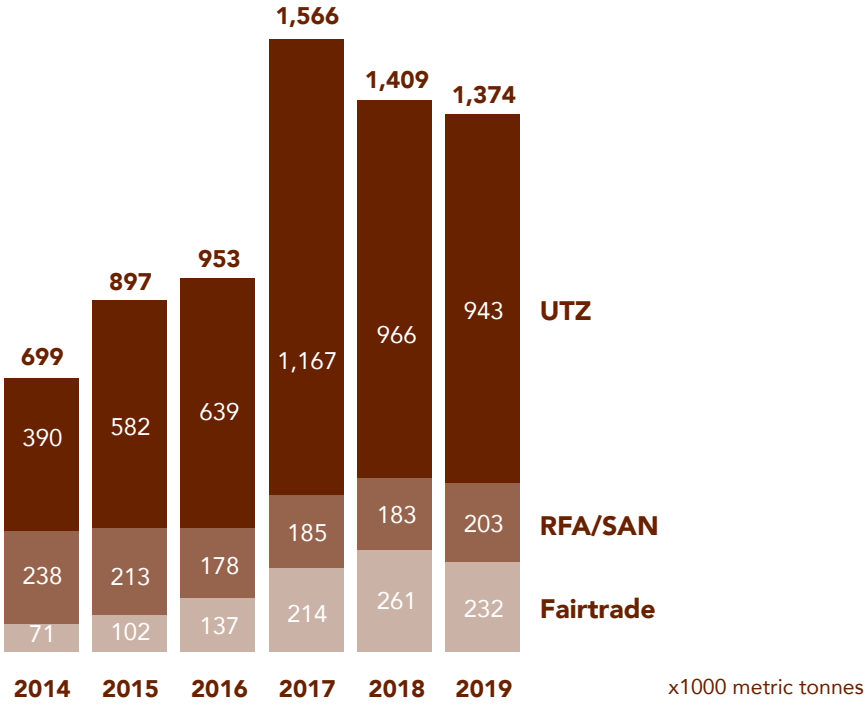
* It is almost impossible to determine the full extent of certified cocoa production, as many cocoa farms are double or even triple certified. Additionally, not all cocoa produced under a certification system eventually is sold as certified due to low quality or low demand. The fact that farmers often cannot sell all their cocoa as certified - and therefore do not receive the premium they would otherwise do - shows the vulnerability of cocoa farmers, and is another way in which farmers' efforts are not properly remunerated.

Certified Cocoa Sales



A significant part of this cocoa is double and sometimes even triple certified.

One weakness of VSS's is the reliability of audits. Sporadic sample audits have not proven to be an effective means of finding and eradicating problems as diverse as child labour or deforestation. In early 2019, the Rainforest Alliance/UTZ suspended all expansion through new groups in Côte d'Ivoire and Ghana due to questions around the reliability of the audits and quality of compliance.

Thinking that farming standards are the answer implies that bad farming is the problem. Whereas Rainforest Alliance and Fairtrade both have a trader code of conduct, the focus has historically been on the farming standard. It would be advisable for more care and ambition in the development of these standards that put in place requirements for actors further down the supply chain. If a farmer is required to change most of his/her business practices to be able to sell their product, why shouldn't the same be asked from large multinational corporations?

There are several ways in which certification plays an important role to make value chains more transparent; it is, at the moment, one of the few ways by which higher prices and premiums can potentially be delivered to the farm gate, it offers support to farmer organisations through financing and enabling cooperatives, and this backbone provides a framework by which many other necessary interventions – such as Child Labour Monitoring and Remediation Systems (CLMRSs) and village savings and loans associations (VSLAs) – can be rolled out. However, it remains an open question whether certification is the most efficient tool on these issues for it to be part of the solution.

Increasingly, both Fairtrade and Rainforest Alliance are engaging the cocoa sector in advocacy efforts that go beyond the direct interest of promoting their own standards. This is a necessary and welcome acknowledgement that VSS's are only part of the solution and that farm standards operate in a broader social context. In that light, it is good that both standards are strongly advocating the need for regulation and broader landscape approaches. At the same time, standards engaging in advocacy also creates complexities around the business interests of the VSS's, as a large part of their earnings still is based on tonnages sold.

Competition with sustainability programmes of chocolate companies

Both standard organizations are in direct competition with the sustainability programmes of some cocoa and chocolate companies. Some of the companies have introduced their own seals, such as Mondelez the Cocoa Life seal or Nestlé the Nestle Cocoa Plan. Both Fairtrade and the Rainforest Alliance fear that large licensees will opt for their own certification programmes and abandon the original standards. The Race to the Bottom is therefore also being driven by the companies themselves. The companies' own programmes are much less transparent than Fairtrade and Rainforest Alliance. Impact studies are only partially published and many companies have not even published their standard.

ISO/CEN and ARS/SRS standards

In addition to the two current major standards several new standards have been or are being developed by regional or global multi-stakeholder platforms.

The ISO/CEN 34101 standard on sustainable and traceable cocoa was published in early 2019 after a development of almost ten years. Though the standard was drafted through an inclusive process bringing all relevant stakeholders together on an equal footing, the process suffered from rigid

bureaucracy inherent to ISO management system standards. This standard suffers from several weaknesses including constraints that do not allow for essential elements such as requirement for fair payment, and very weak forest protection measures. It also sets an almost impossibly high bar regarding internal management systems at farm and cooperative level.

Several African nations, led by Côte d'Ivoire, are in the final stages of developing a regional standard, largely based on the ISO 34101 standard. This ARSO/SRS 1001 standard seems to have some of the same weaknesses as the ISO standard, although some of the more burdensome internal management issues have been removed. It is, like the ISO standard, extremely weak on environmental protection, and also has weakened terminology and requirements around child labour and labour rights.

For both the ISO and ARSO standards it is very unclear who will operationalise the standards as scheme owners. For the ARSO standard, there is a real chance that the producing governments will want to run the schemes themselves. This additional power over sustainability schemes in the cocoa sector would have to come with a strong increase of accountability by the governments.

Summary

A small group of cocoa and chocolate companies dominate the market; each sourcing from hundreds of thousands of farmers, giving these companies immense market power. Most report significant progress in traceability of cocoa sourcing, though definitions of traceability differ. Retailers - large players on a national but not global level, driving prices down while making higher margins than most of the supply chain - are increasingly becoming part of the discussion, especially on national levels through the national cocoa platforms.

The race for certified volumes has not led to the bar being raised, while the relevance of certification standards has been declining. With a wider range of interventions at the sector's disposal certification is no longer the only tool, and cocoa cannot claim to be sustainable merely on the basis of certification, although its infrastructure provides a framework by which many other necessary interventions can be rolled out.

5. Living Income

Living Income

Living Income is the net annual income required for a household in a particular place to afford a decent standard of living for all members of that household. Elements of a decent standard of living include: food, water, housing, education, health care, transport, clothing, and other essential needs including provision for unexpected events (Living Income 2020)*.

Root cause of most challenges in cocoa

Poverty lies at the root of almost all the challenges facing the cocoa sector. As such, the prime goal for the cocoa sector should be the elimination of poverty. Without a living income for cocoa farmers, cocoa will never be sustainable, in the first place because being able to earn a living income is a basic human right (Fountain and Huetz-Adams 2018, p. 44). Solving poverty is also necessary because the wide range of challenges facing the sector – from deforestation and child labour through to gender inequality and infant malnutrition – will be impossible to tackle if farming households still live in poverty. When farmers must choose between feeding their family, and not cutting down old growth trees, it is not a choice. When they must choose between feeding their family or sending them to school, it is not a choice. Currently almost no cocoa farmers in the main cocoa production countries in West Africa earn a living income. In Côte d'Ivoire, even of the certified farmers only 12 % earned a living income in 2018 (Fairtrade 2018).

A starting point, not the finish line

It should be abundantly clear that a living income is the starting point of a conversation on farmer livelihood, not a finish line. Most people reading this paper would agree that every farmer should be able to earn at least a living income, and preferably a lot more.

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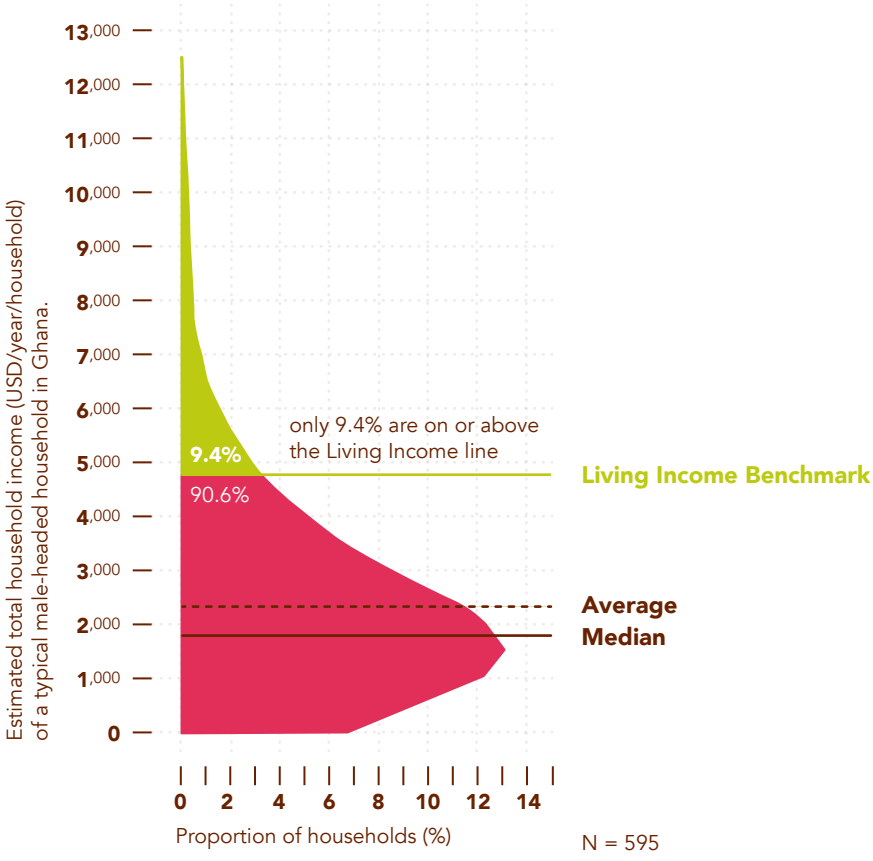
* The Community of Practice on Living Income, bringing together several hundred practitioners from public and private sector, provides definitions, and outlines best-practices in methodology for setting Living Income benchmarks.

Income Distribution of Cocoa Farmers



Technical solutions to a political problem

Almost all the current efforts to increase farmer income are based on technical solutions, aimed at increasing farm production or diversifying farmers' income. However, the challenges facing the cocoa sector – and almost all other commodities as well – are often not technical, but deal with power and political economy, such as price formation, the asymmetrical bargaining power of farmers and value distribution, unbridled market concentration of multinationals, and a lack of transparency and accountability in the sector. The distribution of risk, reward and responsibility form the basis of the political challenges that must be tackled by the cocoa sector – and all tropical commodities.

What could a chocolate company do with €642 million

One of the arguments that companies must follow the world market price, is that the chocolate sector is a competitive one, and that companies cannot afford to unilaterally pay higher prices. However, in the past decade, Nestlé has bought back around $46 billion USD (Nestlé Global 2020) in stockholder shares. In early 2020, the Ferrero family paid itself an annual dividend of €642 million (Neate 2020).

A rough calculation shows that a chocolate company like Ferrero, sourcing 135,000 metric tonnes of cocoa per year could give every single cocoa farming household it sources from (circa 90,000 farmers producing 1.5 tonnes per household) a living income for the year ($5,500 per household for Côte d'Ivoire), leading to a cost of at most $450 million. This would still leave the company around €192 million it could pay out to its owning family - the richest family in Italy.

If chocolate companies are able to spend that kind of money on their stockholders and owners, there is simply no excuse for companies not to pay prices that ensure a living income.

Unequal distribution of rewards

Until the Ivorian and Ghanaian governments combined forces to introduce the Living Income Differential, farmers were almost entirely dependent on the world market for the setting of the farm gate price. Though markets can work well to set proper price levels when all actors have countervailing power, this is not the case in the cocoa sector. One of the key determinants for a farmers income is therefore imposed on him. This asymmetrical power balance doesn't just lead to low farm gate prices, it also leads to a very skewed distribution of value in the supply chain; farmers live in extreme poverty in a multi-billion dollar industry.

Unequal distribution of risk

While farmers see very little of the reward, they are confronted daily with the risks of being a smallholder cocoa farmer. Climate change, adverse weather conditions, pests and diseases, volatile markets and even family illness provide daily hazards for their income. Where farmers have virtually no means to protect themselves against these risks, companies and governments can hedge and insure themselves against almost all uncertainties.

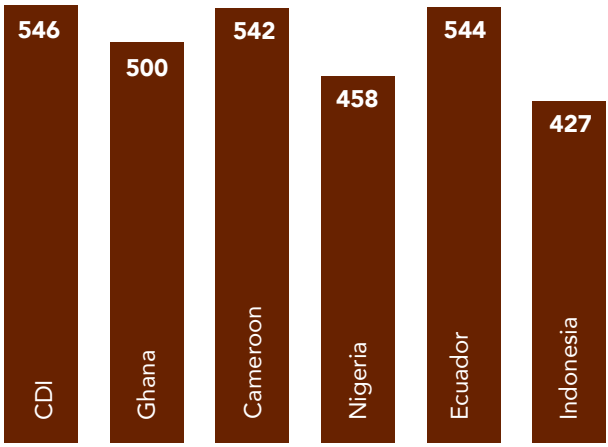
Unequal distribution of responsibility

Though farmers take almost all of the risk, and corporations further down the supply chain take almost all the rewards, it seems as if nobody is taking responsibility. Solutions are voluntary, transparency - and therefore accountability - are missing, and to a large extent most actors point at others for solutions. Corporations point to the market when challenged for the low prices they pay. Governments look to companies to pay for education and infrastructure. Most are silent when asked who will go first. And so, the sector collectively looks to the farmer and identifies what can be improved at farm level, so that potentially painful changes at corporate and government levels can be avoided.

Productivity increase

Despite growing criticism, the main approach that both cocoa companies and producing governments have adopted to increase income so far, has been to try to increase farm productivity. Common approaches to this are training in good agricultural practices, the distribution of cocoa and shade tree seedlings, and making available agrochemical inputs such as fertilisers and pesticides. These are important elements of any solution, however the industry's single-minded focus on this part of the solution has not led to significant progress in tackling farmer poverty.

Average Yield per Hectare



Productivity increase; data from Cocoa Barometer questionnaire

Until recently, most studies on average productivity in West Africa were based on the farmer estimates of farm size and yields. These studies generally reported that average productivity in West Africa, but also in other cocoa producing regions, is at 400 kg per hectare or even below. However, over the past years, many companies have started measuring farm sizes, which provides a better base to calculate accurate figures on productivity.

In the questionnaire for the Cocoa Barometer, companies were asked about the average yields of their cocoa farmers. In total, twelve companies provided figures on average productivity per hectare in Côte d'Ivoire, eleven companies did the same for Ghana. According to these figures, the average productivity in Côte d'Ivoire is around 550 kg, in Ghana 500 kg. These are unweighted figures, as we do not have access to information on the number of farmers in the dataset or the region where the data were collected. But it is still a clear indicator that average yields might be significantly higher than reported in older studies, at least in Côte d'Ivoire and Ghana.

These higher yields might be due to the success of productivity projects of the different companies. However, another reason might be that older figures are based on the estimates of farm size. As there seems to be a tendency to overestimate the farm size, specifically in Ghana, figures have to be revisited (see page 51). Another problem is that many farmers may sell part of the cocoa officially through the cooperative or farmer group, while another part of the harvest is sold via relatives or neighbours and never appears in the books. Other farmers might sell cocoa harvested by neighbours or relatives as their own cocoa to get access to premiums as only the seller is a member of a cooperative or farmer group which produces certified cocoa and receives a premium.

In short; much more research is necessary to find reliable figures, and data that is already available to individual companies should be shared publicly.

Availability and affordability of inputs

Firstly, increasing productivity requires significant investments in time and resources. In order to achieve a productivity increase, fertilisers, seedlings, and pesticides* need to be available and affordable. This is not the case in most of the West African cocoa growing regions. In any case, even if these materials were available, farmers would have to invest money and labour to obtain and apply these inputs. This requires access to affordable credit, which is simply not available to most farmers presently. In addition, credits are risky for farmers, as low harvests - due to diseases, unfavourable weather conditions, a decrease of farmgate price, or a combination of these factors - might leave the farmer with debts he cannot pay off.

Availability and affordability of labour

Increasing productivity per hectare requires an increase in labour hours. Unfortunately, there are presently no publicly available reliable data on the relation between labour days and productivity per hectare. However, published and unpublished data of companies and research institutions available to the authors of this publication show that an increase to about 800 kilograms per hectare would require an increased amount of labour of at least 50%.** Even with current production levels, many cocoa farmers in major producing countries find it difficult to find labour to work on their farms.

Labour: data from the Cocoa Barometer questionnaire

Although availability and costs of labour is a crucial parameter in the debate about income of farmers, there is almost no data available, let alone reliable data. Very few companies provided figures in reply to our questionnaire; most said that they have no available figures.

The few data points given estimate between 32 and 65 labour days are used per hectare per year in low productivity farming systems. When Good Agricultural Practices (GAP) are applied, the estimates vary from 40 to 211 days per hectare per year - a striking range, leading to questions about the reliability of the outlier data.

* Pest and disease management is an essential part of sustainable cocoa farming. However, the use of agrochemicals should be kept to a minimum, and agroecology and agroforestry can play an important part in growing cocoa without chemical inputs. See chapter 7.

** We invite companies or other institutions with better data on this to make available their data so that these assumptions can be verified.

Without further data and transparency on the quality of the databases, the discussion about productivity, potential farm size and living income runs into serious problems. This has been obvious now for several years, but there is still no reliable data.

The increase of labour when implementing GAP has serious implications for sustainability programmes, and could account for the low adoption after farmers have received GAP training. Applying GAP comes with costs, specifically for labour. Due to the lack of reliable data, nobody knows if these costs are higher than the additional net income. From the farmer's perspective, confronted with price risk and yield risk due to pests and diseases, investing in GAP and specifically investing more labour (either the farmer's own labour, or by hired labour) is a very risky approach, with very uncertain outcomes.

Availability of data

Data on costs of production – including labour costs and costs for input – are elusive in the cocoa sector. Any claims that poverty is being tackled through increased productivity should be accompanied by robust calculations on the impact of these productivity increases – including transparency on increased production costs, both for labour and resources.

Absence of success at scale

Another critique is the absence of significant success at scale. Despite significant investments and efforts within sustainability programmes – and sky-high ambitions to see a tripling of yields, with some programmes claiming that 1,500 kg a hectare should be possible – average yields have remained at around 500 kg a hectare, although some company programmes do show increases in pilots. After two decades, these are meagre results indeed for the main solution the cocoa industry is putting forward in an attempt to solve its biggest challenge.

Productivity increase leading to price collapse

If these yield increases were to be achieved, a next problem would arise; increased productivity can lead to a situation of oversupply, leading to lower prices. In 2016, a severe and sudden structural oversupply led to a drastic price decline. Increased productivity without strong and holistic supply management solutions will lead to price collapses, leaving farmers with diminished income whilst having invested heavily in labour and other resources. If only 10% of all farmers would double productivity and by this fulfil the requirements of many companies, prices would fall drastically.

Insufficient returns on investment

For investments in productivity increase to be remunerative, farm gate prices need to be high enough. During the price crash of 2016, some cocoa companies advised their farmers to no longer use fertilisers, as there was no return on investments. Increasing farm productivity will only work as a poverty alleviation tool if the price is high and stable enough.

Productivity increase and overproduction: the role of governments

In response to the 2016 price collapse the government of Côte d'Ivoire has banned several interventions that could lead to increased production, including the distribution of seedlings. Though supply management solutions are needed, this should not be at the expense of keeping already poor farmers from being able to rejuvenate and professionalise their farmers. More sensible supply management solutions could include policies that stimulate income and crop diversification, forest restoration, development of a services sector in rural areas etc.

At the same time, most other cocoa producing countries are pursuing policies to increase their cocoa production. Some - such as Ecuador, Peru, and Cameroon - more successfully than others. If these targets were to be met, this would have disastrous consequences for the world market price. It is high time that producing countries start engaging in much more serious conversations to manage the global supply, and to avoid overproduction and price crashes such as in 2016. Supply management could additionally be a tool in the struggle against deforestation and forest degradation.

Income diversification

The cocoa sector's second major strategy to increase farmers' income – besides productivity increase – is a stronger diversification of farm income. Increasing income diversity is an important element of strengthening the resilience of farmer income in the case of price collapses, crop diseases and adverse weather. However, diversification is insufficient as a solution to actually increase income, for a variety of reasons.

The impact of diversification approaches is currently not clear as there is no publicly available data. With government agencies such as CCC and COCOBOD currently not showing commitment to or interest in promoting diversification among cocoa farmers, the necessary structural support is missing as well.

Furthermore, cocoa and chocolate companies should not outsource the problem of non-remunerative cocoa to other sectors; cocoa should be a remunerative crop in and of itself. Furthermore, cocoa producers in both Côte d'Ivoire and Ghana already have a strongly diversified income structure (Bymolt/Laven/Tyszler 2018).

It is unclear whether there is a sufficient market for diversified products, especially at the scale needed to provide for all cocoa farmers in the major cocoa producing nations. Some companies are starting to tackle this problem by setting up regional approaches on diversification, checking first if there is a market for products other than cocoa and additional grown crops before supporting farmers to further diversify. Companies could also look at their own role as purchasers of a wider range of products coming from such a region.

These other sectors with poor farmers in the value chain also promote diversification, and some of these crops, such as coffee, banana, pineapple, rubber or palm oil grow in the same regions as cocoa. The fact that these farmers are also poor signifies a feedback loop of poverty, with many different sectors not able to provide a living income, all looking to other crops to solve their problem. This vicious circle needs to be broken, and it can only be done through increasing farmer income.

Village savings and loans associations (VSLAs)

Increasingly, companies are setting up programmes that look at supporting cooperatives and setting up village savings and loans associations (VSLA). These are important developments, and more of such initiatives should be undertaken, together with a broader approach around rural development.

Farm gate prices

Once items such as productivity, diversification, and the enabling environment are on the table, there remains one major factor to account for; the actual price farmers receive for their product. Though price is not a silver bullet to solve all problems in cocoa (Kiewisch and Waarts 2020), it will not be possible for most cocoa farmers to achieve a living income without significantly higher farm gate prices. Higher farm gate prices are a *conditio sine qua non* for cocoa to become a sustainable commodity.

Farm gate prices, for a long time a taboo subject, are finally starting to become part of the cocoa sector's conversation. There is widespread acknowledgement by now that prices should go up. However, there is a lot of disagreement on what the best ways would be to raise these prices.

None of the major cocoa and chocolate companies have pricing elements in their value chain that go beyond premiums and the obligatory LID payments in Côte d'Ivoire and Ghana. All major companies buy part or even most of the cocoa through certified or self-controlled value chains and pay premiums, but these premiums are not connected to a comprehensive living income strategy.

Living Income Reference Prices

For a long time, being able to determine a fair farmgate price for cocoa was a challenge, as there are many variables that influence the answer. Some of these variables were unanswerable until recently due to a lack of any data at all, let alone qualitative data. However, with the increasing availability of data, in the past year, several initiatives have started to take steps to define desired cocoa price levels for farmers in Côte d'Ivoire and Ghana. These include the Fairtrade/Tony Chocolonely 'Living Income Reference Price', the Oxfam Fair Trade* flexible premium, and the joint Ghanaian/Ivorian Living Income Differential.

All of these calculations assume farmers will be able to significantly increase their productivity. Only then will a family be able to earn a living income. There are several key problems to that approach. Firstly, earning a living income is a fundamental human right for everyone, and should not be available only to the highest achiever. Average cocoa farming households should be able to achieve a living income, not just the outliers. Secondly, it is highly questionable whether cocoa farms will be able to achieve the kind of productivity increase demanded by these calculations. Thirdly, there is a real risk that farm sizes are currently overestimated. This significantly impacts several variables of the living income reference price calculation. It means that productivity is already often higher than is assumed, as the declared total yield per farm is generally correct. This will also have implications for many sustainability projects; if productivity levels are already significantly higher than estimated, it is not reasonable to expect as much return on investment of productivity-enhancing activities.

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* The trading branch of Oxfam Belgium makes and sells chocolate. Their sister organisation, the Belgian NGO Oxfam Wereldwinkels is a member of the VOICE Network and the Cocoa Barometer Consortium.

Disappointingly, none of the large chocolate and cocoa multinationals have a living income reference price.

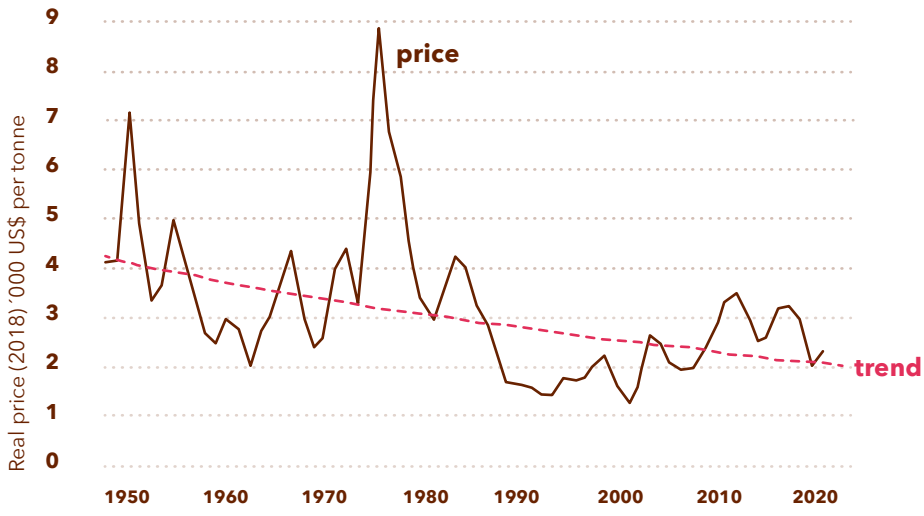
Farm size – GPS vs self-reporting: data from Cocoa Barometer questionnaire

The use of mapping shows that farmers' actual cocoa plots are often smaller than originally declared by farmers themselves, especially in Ghana. Over the past years, the major cocoa companies collected hundreds of thousands of data-points on field size, based on GPS localisation and polygon mapping. For Côte d'Ivoire and Ghana, most of the large companies shared this data with the authors of the Cocoa Barometer. This data shows that average farm sizes roughly are 3.4 ha for Côte d'Ivoire. In Ghana, the difference between average farm sizes mentioned in previous studies and the results of the measurement is even more striking, as average farm size is only 2.1 ha.

Only a small number of companies reported on farm sizes measured in other countries. These indicate that cocoa farm size in Cameroon and Nigeria seems to be similar to Côte d'Ivoire; farms in Indonesia tend to be much smaller, while they are larger in Ecuador. Even the figures on mapped farms are not without problems, as they show averages, which can be misleading for a variety of reasons. Therefore, the median farm size would be a better tool to describe the typical farm than the average. Despite these problems, it is obvious that farm sizes are much smaller than the figure used for the current calculations of living income.

This might have serious economic and ecological consequences for farmers. A farmer in Ghana might for example estimate the farm size at 3 ha. Based on this, he or she buys and uses pesticides and fertilisers. If the real farm size is only 2 ha, the input use is overdosed. Besides this being a waste of money, overdosing agrochemicals can seriously damage farm ecosystems and farmers' health. Therefore, companies have to share the correct data on farm size with their farmers, in order to reduce input costs and protect the environment and farmers.

Long-term Cocoa Price Trends



Variable premiums

One of the main arguments of the cocoa and chocolate companies is that they have to follow the world market price. Although this is true for their activities on the terminal markets, there is no reason why the companies would not be able to pay a higher farm gate price. One of the mechanisms that could be used to do this, would be the implementation of a flexible premium, such as the one Oxfam Fair Trade has incorporated since 2019. Such a premium would be set once or twice a year, to bridge the gap between the current household income and the living income benchmark.

Standards and pricing; danger of a race to the bottom on price

Fairtrade increased their minimum price (FMP) by for cocoa for the first time in almost a decade. This increase of 20% (from USD 2,000 to USD 2,400 per metric ton) is significant if viewed over the year 2019 when it was introduced, although a large part of that is offset by inflation since 2011 when the minimum price was last determined.

Though the Rainforest Alliance has recently introduced a mandatory fixed cash premium - safeguarding farmers from ever-decreasing premiums - the refusal to implement a minimum price transfers all of the risk of volatile prices from multinational corporations to vulnerable farmers. This decision counteracts their other efforts to achieve a living income for farmers. It also fuels a race to the bottom between the different standards.

The volume of Fairtrade cocoa declined significantly by 11% in 2019, much of this decline in the last quarter of the year when the new higher

price was applied, which would have cost companies $235 per tonne, plus the mandatory Fairtrade premium of $240 per tonne. They would probably have lost more market share if they had raised the market price even further.

This notwithstanding, the Fairtrade Minimum Price is not the same as what Fairtrade knows is the farm gate prices necessary to achieve a Living Income. The calculations that Fairtrade has published on the living income reference price have been a welcome contribution to the debate on sustainable cocoa, however knowing how much you should pay, while not paying it, cannot be considered sustainable. Though calculations vary, and become more complicated as the FMP is based on world market prices and not farm gate prices, the price should be at least USD 1,000 higher, if not even more.

Data and definitions

It is striking, but despite knowing about this problem for at least a decade, the industry has not overcome the problems about availability and quality of data. Ten years ago, the World Cocoa Foundation initiated the Cocoa MAP platform, which should have become a common database of the industry. The software was developed, but the project never started. Cocoa Action was founded to overcome some of the coordination problems in the sector, including the implementation of a common system to collect data. However, the problems still remain.

Principles for production data

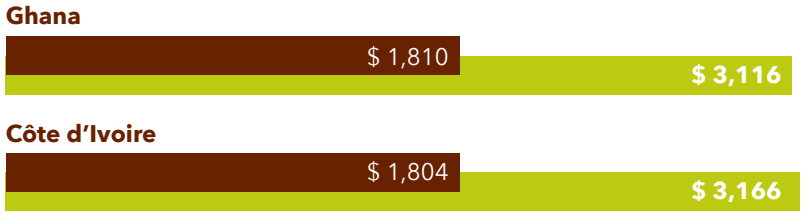
- *farm sizes should be polygon mapped and include all plots of the farmer*
- *statistics on field sizes should work with median values and not averages, as statistic on field sizes should show the spread of farm size*
- *the database should allow to identify regional differences*
- *yields should be measured more correctly*
- *field tests should identify the workload for different agricultural practices*

Minimum farm gate price levels

Farm gate prices should be higher than the current reference prices set forward by the front-runners. They should also be significantly higher than the minimum prices set forward by the Ivorian and Ghanaian governments through the LID. The minimum farm gate price necessary to earn a living

income from cocoa should be at least $3,166 per metric ton for Côte d'Ivoire, and $3,116 per metric ton for Ghana (Fountain and Huetz-Adams 2020).

Current farm gate prices / desired farm gate prices



Short term interventions needed

Many of the holistic interventions that this Barometer calls for are long-term processes that will lead to change over time. However, (extreme) poverty is a daily reality for the vast majority of cocoa farmers. They cannot afford to wait until all the long-term processes - such as diversified income, higher productivity or a better rural infrastructure - have come to pass. If cocoa and chocolate companies truly care about cocoa farmers, and truly want to eradicate poverty in cocoa farming communities, there is a short term solution that every company can engage in almost immediately, and that is to pay farmers a higher price for their cocoa; if you care about the poor, give them more money.

Summary

A living income is a human right. Solving poverty is necessary because the wide range of challenges facing the sector will be impossible to tackle if farming households still live in poverty. This will require dealing with issues of power and political economy, such as price formation, skewed value distribution, the asymmetrical bargaining power of farmers, unbridled market concentration, and a lack of transparency and accountability in the sector.

Technical solutions will not suffice. Increasing farm productivity requires available and affordable inputs and labour, and could lead to overproduction and price collapse if not managed well. Diversification will also not be sufficient. Farm gate prices are a key missing ingredient, and are a short term solution that every company can engage in almost immediately.

6. Human Rights

Although the debate on human rights violations in the cocoa sector often focuses on child labour, there is a wide range of problems facing families in the cocoa sector. Gender inequality, (infant) malnutrition, lack of access to education, insufficient health care facilities and sanitation, insecurity of land and tree tenure and rule of law, labour rights violations for smallholders, workers and tenants; the list is long and by no means comprehensive.

Though every issue requires specific approaches, at the root of all these human rights issues is the structural poverty of rural communities. As a living income is a human right, any human rights approach to the challenges in the cocoa sector should include strategies to address poverty and to close the living income gap.

The UN Guiding Principles on Business and Human Rights (UNGP)

The UN Guiding Principles on Business and Human Rights (UN Guiding Principles), also known as the Ruggie Framework, are a set of guidelines for governments and companies to prevent, address and remedy human rights abuses committed in business operations. They were proposed by UN Special Representative on business & human rights John Ruggie, and endorsed by the UN Human Rights Council in June 2011. The UNGP outline key three principles that should guide all considerations around human rights in supply chains. These three principles are

1. The state duty to protect human rights
2. The corporate responsibility to respect human rights
3. Access to remedy for victims of business-related abuses (UN 2011).

Child Labour

Not a single promise kept

The credibility of the cocoa sector to make good on promises to tackle child labour has reached discouragingly low levels. Over the past two decades, many promises were made. None were met. The first such promise was to eliminate child labour by 2005. The last such promise, made in 2010, was to come to a reduction of 70% of the worst forms of child labour by 2020.

According to a new report by the National Opinion Research Center at the University of Chicago (NORC 2020), 1.5 million children are working in cocoa production in Côte d'Ivoire and Ghana. 95% of the child labourers are exposed to the worst forms of child labour, such as working with dangerous tools or harmful pesticides.

Industry, producing governments, and international organisations have been trying to come to new joint ambitions to combat child labour for the last two years. However, this process has been slow and complex, with much internal division between various actors. At the time of publication of this Barometer the partnership still had not been publicly launched, raising questions about its viability or ability to deliver impact at scale.

Investments and ambitions must be increased by several magnitudes* if targets on child labour are ever going to be more than greenwashing and empty words. These increased ambitions must be coupled with mandatory regulations; promises must be enforced with real consequences in the case of a failure to meet them.

Industry investments in cocoa sustainability programmes

It is estimated that cocoa and chocolate companies have invested at least $215 million since 2001 in sustainability programmes to fight child labour. These investments cover interventions ranging from boosting farmer income through increased productivity, rolling out CLMRS systems, building schools, and more. (World Cocoa Foundation

* In September 2020, the International Cocoa Initiative's director called for a 'massive expansion' of collaboration and investments to tackle child labour. (Confectionery Production 2020).

2020) Though these investments themselves are significant, it is estimated that cocoa farmers would have earned roughly $3 billion more per year if prices hadn't collapsed in the 2016/2017 harvesting season.

Prevention and remediation

Thinking around child labour in the cocoa supply chain has been changing over the past years. Random audits and adopting a zero-tolerance policy for any forms of child labour seem to have a counter-productive effect, making child labour even more hidden, but no less prevalent. It is now a shared belief of the sector that root causes – such as farmer poverty, absence of or access to good schools, inadequate local infrastructure, inadequate labour services in cocoa growing communities, and lack of awareness – must be addressed.

This increased focus on prevention and community development is an important step. However, it should not be seen as an alternative to individual and collective responsibility of companies to respect human rights in their supply chain and to remedy found cases. Both prevention and remediation are needed.

Even the most effective child labour interventions will not be able to solve the challenges if the root causes of child labour – in particular the structural poverty of cocoa growing communities and access to quality education – are not addressed (UNICEF 2018).

Definitions of child labour based on global ILO-Standards and national laws

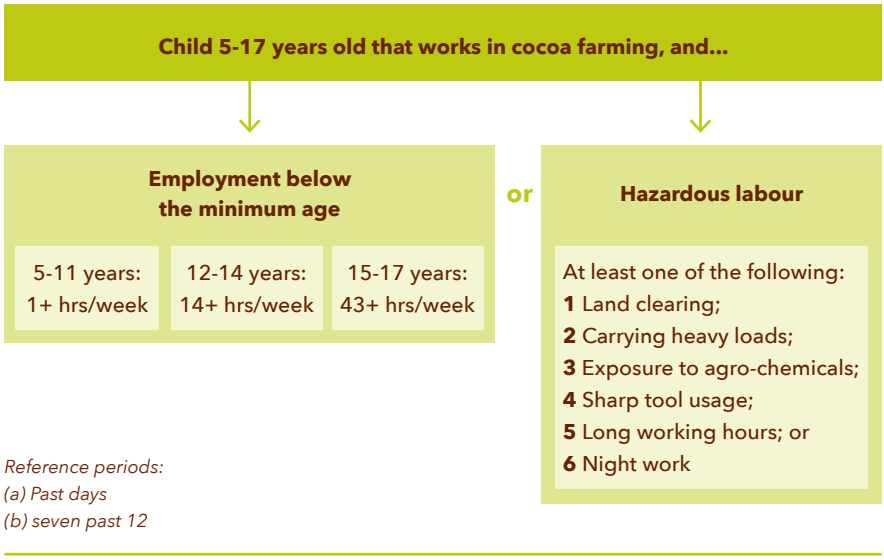
Not every child on a cocoa farm is immediately involved in child labour, and not every task on a cocoa farm is immediately a cause for concern. There are, in short, three gradations of children working on farms.

- **Child/light work** can be summarised as a child that sometimes helps out on a farm doing work that is not hazardous to children, and that does not interfere with their schooling or their possibility to be a child. Also light work should always be done under adult supervision.

- **Child labour** is work that interferes with the child's schooling or their possibility to be a child, or that endangers the health and wellbeing of the child. It also refers to labour for children under the specific age of 15 years old. These are defined in ILO's Core Convention 138, which is ratified by all major cocoa producing and consuming countries, with the exception of the United States of America.

- **The Worst Forms of Child Labour** (WFCL) can be split into condition and unconditional Worst Forms. Unconditional WFCL, such as trafficking, slavery, and forced labour (as well as several other categories not applicable to cocoa) are defined at a global level. Hazardous child labour is also called 'conditional' WFCL. They are called conditional, as hazardous activities are defined at a national level through consultative tripartite processes. This means that a child performing hazardous tasks is both exposed to child labour and conditional worst forms of child labour. The Worst Forms of Child Labour are defined under ILO's Core Convention 182, the first ILO Convention to achieve universal ratification, in the summer of 2020

Global definitions of child labour



Reference periods:
(a) Past days
(b) seven past 12

National definitions of hazardous child labour

In West Africa, the work of children on cocoa farms is part of daily life. Similar observations can be made in agricultural production across the globe. Careful definitions are crucial to differentiate between permissible light/child work and forbidden child labour, and to ensure that helping out at the farm as well as youth apprenticeships are not confused with child labour. In that light, the governments of both Ghana and Côte d'Ivoire have set up national definitions of hazardous labour.

The Ghanaian definition of hazardous child labour consists of ten sub-categories:

- Land clearing, including removing tree stumps, bush burning, clearing of forest and felling trees
- Carrying heavy loads,
- Exposure to agrochemicals, including direct use and presence in sprayed farms within less than 12h of spraying.
- Use of sharp tools, including breaking cocoa pods with sharp breaking knives and harvesting overhead cocoa pods with sharp tools
- Climbing trees,
- Night work,
- Working in isolation, and
- Working without protective clothing
- Working with motorised farm machinery
- Working long hours

The Ivorian definition of hazardous child labour consists of seven sub-categories:

- Land clearing, including clearing of forest and felling of trees, removing tree stumps, digging holes, and bush burning
- Charcoal production,
- Carrying heavy loads,
- Use of agrochemicals,
- Use of sharp tools, including using machetes/long cutlass for weeding or pruning, harvesting overhead cocoa pods with sharp tools, breaking cocoa pods with sharp breaking knives
- Night work (between 7 p.m. to 7 a.m.) or work during school/ business hours.
- Working with motorized farm machinery
- Game hunting with a weapon
- Working long hours

(NORC P. 34/35, Delaveux 2018)

Child labour in cocoa

For the West African cocoa sector, the vast majority of child labourers are involved in the conditional worst forms of child labour, undertaking hazardous tasks such as carrying heavy loads, using dangerous tools, being exposed to pesticides, or working with fire to clear the undergrowth. Three quarters of children working in cocoa in Côte d'Ivoire were exposed to more than one form of hazardous work, in Ghana this number is almost two thirds (NORC p 75).

The report further outlines an increase of children being exposed to pesticides* from 15% to 50% (NORC p 78)*, an especially grave cause for concern. More than forty percent of children reported feeling very tired or even exhausted because of child labour. A third of children were in very bad pain, a quarter felt very sick, and one in ten children had to receive treatment at a medical centre (NORC p 83).

Other recent research reported around 16,000 cases of forced child labour and another 14,000 of forced adult labour in the cocoa sector in Ghana and Côte d'Ivoire over a period of five years (Global Slavery Index 2018). Though these numbers are only a fraction of the full number of child labourers, the forced nature of this labour makes it a particularly grave concern.

Company efforts

All companies are investing in projects to reduce child labour, but coverage differs considerably. The number of working children found on farms differs significantly per company. One company surprisingly reported that no cases were found in the past years and attributed this to their long-term relations to the cooperatives they buy the cocoa from. Other companies reported that thousands of children were found in their value chain. One even reported that 31% of surveyed children were

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* A child is exposed to agro-chemicals if the child is engaged in spraying, carrying water for spraying, or working with agro-chemicals during the reference period.

A child is considered to be engaged in spraying if the child:
- Was involved in spraying of pesticides or insecticides
- Was present or worked in the vicinity of a farm during pesticide spraying, or
- Reentered a sprayed farm within less than 12 hours of spraying.

Working with agro-chemicals includes a child having been involved in handling agro-chemical products such as purchase, transport, storage, mixing, loading, washing of containers and spraying-machine, and/or disposal. (NORC 33/34)

involved in child labour. The company figures also show that identifying children involved in child labour does not mean that they are automatically removed from child labour. Very few companies report the numbers, but the few available figures prove that even within successful projects many or even most children continue working.

Child Labour Monitoring and Remediation Systems

A Child Labour Monitoring and Remediation System, or CLMRS, is a means of identifying addressing and preventing child labour, embedded in a supply-chain or community structure. Designated local liaison people conduct regular visits to every family and speak to both parents and children. Information from all monitoring visits is sent to a central database. When children are found to be in or at risk of child labour, suitable remediation is provided. Various forms of support are possible at child, family, cooperative, or community level; from the provision of birth certificates or school materials to the establishment of an income-generating project for the women of the village. Once a child is entered into this system, their exposure to child labour will continue to be monitored, as well as their school attendance.

The first cocoa-specific CLMRS system was developed several years ago by the International Cocoa Initiative (ICI), in partnership with Nestlé, building on models developed by the International Labour Organisation (ILO). By now, Nestlé have committed to rolling out CLMRSs over their entire African supply chain by 2025, as have Mars for all at-risk households.

ICI has stated its ambition for 100% of cocoa-growing households in Côte d'Ivoire and Ghana to be covered by effective child protection systems, such as CLMRS, by 2025. This would indicate a significant scale-up from the 10-20% of households estimated to be covered in 2020. ICI's intention is that 25% of cocoa-growing households would be directly covered by ICI-implemented or ICI-supported systems, with the rest of the scale-up to be implemented independently of ICI but catalysed and facilitated through ICI's innovation, learning, advocacy and systems-strengthening work (ICI Cocoa Initiative 2020).

ICI estimates that its CLMRS identify at least 60% of the children in a community involved in child labour. Impact analysis shows that CLMRS can reduce child labour by 50% among those children identified as in child labour. Though these numbers are encouraging and show a higher success rate than any other child labour intervention, even this best practice can only stop around 30% of child labourers from engaging in hazardous activities.

Today, most CLMRSs are only available in farming communities or cooperatives that are part of company programmes. These tend to operate in the better-organised segments of the cocoa sector. However, most cocoa is still not traceable, and the non-traceable cocoa potentially comes from areas where producers are not organised into farmer groups and risks of child labour are likely higher.

Many companies are now rolling out similar CLMRS systems, some through the ICI, others through their own projects. To reduce the significant costs* associated with implementing a comprehensive CLMRS, ICI and some of its partners are piloting new innovations and adaptations to render the system more easily scalable, for instance using risk-based targeting. Producing countries have also implemented their own child labour monitoring systems, such as the Ghana Child Labour Monitoring System (GCLMS) and the Système d'Obervation et de Suivi du Travail des Enfants (SOSTECI) in Côte d'Ivoire.

Whilst some of these alternatives might show potential, there is a growing risk that different monitoring systems using different methodologies could have radically different results, even though they are all using the same name, and that inefficiencies emerge in the roll-out of different approaches. To prevent a devaluation of the terminology and a dilution of impact, there is an urgent need to establish common definitions, to define standards and benchmarks, and - as the upscaling advances - to improve coordination, harmonization and coherence.

Role of producing country governments

There is an important role for national governments and development agencies in combatting child labour, especially around access to education, awareness raising, and rule of law.

Access to education

Where schools are absent, children tend to work on the farms. Many cocoa producing countries nowadays provide schooling systems that are accessible for all children, and that guarantee good quality/ education. Primary school attendance has increased in both Côte d'Ivoire and Ghana,

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* It is worth noting that a CLMRS system costs around US$85 per cocoa growing household per year, which is only about 2.5%-3.5% of the costs of purchasing the cocoa at farm gate price. The farm gate price is only about 5%-6% of the cost of a bar of chocolate at final sale. It is an interesting message by the cocoa sector that even a fraction of the final retail price is already considered too much in tackling an issue as egregious as child labour.

although it is not quite universal yet, and the quality of education still needs to be massively improved.

For both the major West African cocoa producing countries, secondary education is a larger challenge, further exacerbating the issue of child labour, as children under the age of fifteen cannot work full-time but must attend school. In Ghana, secondary education on paper is free and universal, however the education system cannot cope with the numbers, and coverage throughout the country is far from universal. In Côte d'Ivoire, coverage is even much less universal. There is also a strong gender imbalance in school attendance, which becomes more marked at higher ages. Often, older girls are kept at home to help with various household tasks.

Awareness raising

An important role for national governments is to ensure clear communication and public awareness around key issues. There is still a lot of progress to be made on this point. Whereas for several years progress was being made in acknowledging the challenges, the past years government agencies have started to downplay the issue of child labour again, often confusing child work with the worst forms of child labour. Assertions that most children would be merely helping out on the farm after school do not correspond with the reality of recent research.

Rule of law

Both Ghana and Côte d'Ivoire have developed and implemented an extensive legal framework, as well as a range of relevant legal implementation initiatives. Care must be taken when enforcing child labour legislation. In the case of child labour and conditional worst forms of child labour, the best recourse is often aiding cocoa farming households in taking away the reasons why children are working in the first place. Awareness raising and community development are also a part of the necessary interventions there. In the case of unconditional worst forms, however, relevant authorities should consider stronger interventions; forced child labour and trafficking are criminal offences.

Gender inequality

Women run many cocoa farms in West Africa. The available data are unreliable, but for Ghana roughly a quarter of the cocoa farms are run by women (Marston 2016), and women work as labourer on cocoa plantations, often at lower pay than men. Their role is often not recognised or remunerated accordingly. In many cases, women are excluded from land ownership, and partly due to a high percentage of female illiteracy and innumeracy, often do not share in the rewards of the family's farms. Additionally, women are often confronted with sociocultural systems which do not enable them to run their cocoa farm as a successful business. They also have a harder time accessing extension services, credits and certification than their male counterparts, and are often underrepresented in farmers' organisations, public meetings and leadership roles in communities.

Although there are differences between the tasks of men and women, women are engaged in most of the steps of cocoa production, from preparing seedlings to selling beans. In addition to supporting cocoa production, women are involved in household activities, child-rearing and food production, which adds up to a heavy workload.

Unless specifically designed to do so, cocoa sustainability programmes will often fail to reach the women in cocoa growing communities. This has negative consequences for the women themselves, and as such is reason enough to ensure that company and government programmes are set up in such a way as to ensure women participation and inclusion. It is important that women are not (purposefully or inadvertently) blocked from taking part.

Gender-inclusive design is also essential because women are change agents in and of themselves. Projects as diverse as poverty alleviation, infant nutrition, forest preservation and child labour sensitisation, all become so much more effective when women in the communities are involved. If women often do the labour on the fields, it is imperative they also receive training in Good Agricultural Practices. If women are able to earn more income, they tend to spend more on essential household items and services than if their male counterparts earn this money. Ensuring that women are involved in the child labour awareness projects results in broader community acceptance. Giving women land and tree tenure rights makes for better protection of forests and preservation of existing ecosystems. The list goes on.

Increasingly, projects do involve women's perspectives, but gender equality and female centred projects are still anything but universal. A sustainable improvement of the situation of women also includes a change of mind of the men in the communities. The transformation from traditional, often restrictive customs to more equality between men and women needs greater efforts than are underway presently. There is a major responsibility for governments in producing nations in this regard, as well. Gender equality is a truly cross-cutting issue and should be a central component in all programmes of the cocoa sector.

Infant malnutrition

Cocoa is a crop that only sees a few payments to farmers per year and this income does not cover a living income. As a result, in the months before the next harvest – the so-called 'lean season' – many farmers are unable to afford proper nutrition for their children. It is estimated that 20%-30% of children in cocoa communities suffer from stunted growth (IDH 2019). Stunting and infant malnutrition can lead to a range of health disadvantages later in life, including reduced physical and mental capacity.

Health care and sanitation

One of the major challenges in rural cocoa growing communities is the lack of sufficient health care and clean drinking water, combined with an environment in which tropical diseases often flourish. The lack of clean drinking water, the prevalence of diseases endemic in cocoa growing regions and complaints such as back and joint pain and poor eyesight lead to significant consequences. When health facilities are available, they are often not affordable to most rural families, causing them to wait with getting help until illnesses have become much more serious, and are harder – and more expensive - to treat. Poor health, furthermore, leads to loss of productivity and income for cocoa farms, and increases reliance on family labourers, including children.

Labour rights

Though cocoa is a crop grown by smallholders, seasonal hired workers are common in the cocoa sector across the world. In Ghana, hired labour is often used to cope with peak workloads, although in Côte d'Ivoire this seems to be less common (Hainmueller/Hiscox/Tampe 2011: 30; Selten 2015: 25-27; Bymolt/Laven/Tyszler 2018: 165-166).

There are reports of bonded labour, i.e. people having to work off debts on the plantations and therefore not allowed to leave their jobs until they have repaid their debt (Republic of Côte d'Ivoire 2008: 54ff; Republic of Ghana 2008: 151-157). A large proportion of these workers do so without contracts and only temporarily. Additionally, in many regions outside of West Africa, cocoa is grown on larger plantations, with workers rights becoming an increasingly relevant and important topic to be addressed.

Low wages for workers

The situation of most workers on the plantations remains precarious. A large proportion of the employees work without employment contracts and only temporarily. A comparison with the living wage for the banana sector in Ghana shows that most workers in Ghana on cocoa plantations earn much less than a living income (Smith 2017). As early as ten years ago, studies pointed to the sometimes extremely low incomes of workers on the cocoa plantations, with workers in Côte d'Ivoire and Ghana earning between €150 and € 300 euros a year, many of them even less. (Republic of Côte d'Ivoire 2008; Republic of Ghana 2008).

As a result, there is a shortage of hired farm labour despite considerable unemployment in Ghana and Côte d'Ivoire; people are neither willing nor able to work at below-subsistence levels. Most of the farmers cannot meet higher wage demands, as they earn very little themselves. Furthermore, the income of female day labourers in cocoa farming is significantly lower than that of men.

Worker organisation

Strong worker and farmer organisations could help both farmers and their employees to claim their own rights. So far, however, only a small proportion of workers and farmers are organised, and existing organisations are too weak to enforce higher prices. Of the main cocoa producing countries, only Ecuador has ratified ILO Convention 141 on Rural Workers' Organisation, launched in 1975, which promotes the formation of associations for employees, tenants, small farmers and smallholders. None of the major cocoa producing countries presently has a policy in place to support farmers and workers to get organised.

Tenants and sharecroppers

Most of the sustainability efforts in the cocoa sector are aimed at the cocoa farmers, generally considered to be the landowner. However, many of the people working on the farms are neither hired labourers nor farm owners but are tenants in some way. Though these systems vary, few sustainability

approaches so far have taken their situation into account, and this will be something the cocoa sector needs to look at in far more detail in the coming years.

Tenant systems in Ghana

Abunu
In the Abunu lease system, farmers are given permission by landowners who do not use their land themselves, or use it only partially, to convert it into a cocoa plantation. In return for their work, which takes them an average of four to ten years, they are allowed to continue farming half of the land. The other half of the plantation goes back to the landowners.

Abusa
In the Abusa lease system, farmers lease land from owners who cannot or do not want to manage the work on the plantation themselves. In return, they usually have to give up half, sometimes even two thirds of their yield, which fluctuates depending on the course of the harvest, to the owners.

There is currently no reliable data on what percentage of households work in Abunu or Abusa systems. While the government quotes relatively low figures, studies show that in some regions around a quarter, and according to other surveys even a third of the plantations are managed by tenants. Currently, the systems in Ghana do not consider whether the rent offers enough money to enable a decent livelihood. The whole problem is under-researched, but as many farmers who own land do not have a living income, the situation of many tenants is likely to be much worse.

Summary

Human rights violations in the cocoa sector are frequent, and include gender inequality, (the worst forms of) child labour, lack of education, (infant) malnutrition, insufficient health care facilities and sanitation, insecurity of land and tree tenure and rule of law, and labour rights violations for smallholders, workers and tenants.

1.5 million children work in cocoa production in Côte d'Ivoire and Ghana. 95% of child labourers are exposed to the worst forms of child labour, such as working with dangerous tools or harmful pesticides. Most are exposed to more than one form of hazardous work. Investments and ambitions must be increased by several magnitudes, focussing on both remediation and prevention. Though current best-practice interventions might be able take some children out of child labour, root causes – such as farmer poverty, absence of or access to good schools and inadequate local infrastructure – must be addressed to solve the problem of child labour.

Women do much of the work in cocoa, but are not recognised or remunerated accordingly, and are often excluded from ownership and participation in many aspects of life. Health care is often unavailable or unaffordable, and poverty leads to infant malnutrition and stunting, which can lead to a range of health disadvantages. Seasonal and hired workers are often overlooked in most human rights discussions.

7. Environment

The past years have seen the debate around sustainable cocoa expand to new areas. Where at first child labour was the focal point, poverty was added to the conversation as a second key concern. More recently, deforestation has been acknowledged as a third major challenge the global sector must find solutions for. This is indicative of how top-down the discussions on sustainable cocoa have been. Though deforestation and poverty have been problems for decades, there was very little attention paid to these important issues. Other environmental concerns that are starting to come to play include climate change, the loss of biodiversity, the use of agrochemicals, and the need for agroforestry.

Deforestation

Cocoa production has been a driver for deforestation across the globe. Natural forest cover in Ghana and Côte d'Ivoire has declined by more than 70% in the past three decades, and the last remaining national forests there are endangered or already damaged. The rate of deforestation in Côte d'Ivoire and Ghana seems to be slowing down, in part due to the Cocoa and Forests Initiative, what little remains of the forests there continues to be threatened (Global Biodiversity Outlook p. 55). Furthermore, rainforests in Indonesia, the Amazon Basin, Colombia, and the Congo Basin are all under pressure from encroaching cocoa farms. Whereas child labour and to a lesser degree farmer poverty are seen as largely West African challenges, the environmental concerns in cocoa production are truly global in scope.

Impacts of deforestation

Deforestation has a range of impacts, the most obvious of which are the loss of biodiversity and habitat. Extinction of many forms of flora and fauna is a direct result. But through widespread deforestation, humanity also comes into more frequent contact with potentially lethal pathogens, a topic that has become significantly more urgent in the public perception in the past year. Forests also have tremendous climatological contribution, both as massive carbon storage systems, as well as in their function as 'rain machines' - their disappearance contributes to accelerating climate change.

Traceability

National monitoring and traceability systems that have been promised are still not in place, three years after the launch of the Cocoa and Forests Initiative. Interestingly, several of the largest cocoa and chocolate companies have now started publishing their cocoa sources – at least to cooperative level – on an individual basis. These individual company initiatives are essential to move the conversation further, and other companies are strongly urged to follow these examples. At the same time, it would be wise for industry players to collaborate more closely to ensure that the format in which the data is shared is compatible with each other, and with other important data sources such as satellite imagery, to ensure that they are useful tools in monitoring and following forest protection.

Furthermore, the interests of farmers need to be taken into account when designing these traceability systems; a situation must be avoided that farmers are forced to comply with a range of different systems, all with their own additional demands. Farmers should also be able to access - and own - the data about their farms.

Traceability to source should include mapping of remaining forests, in order to monitor and report on deforestation free cocoa, as well as providing the necessary data to be able to remunerate farmers for keeping forests.

Reforestation and restoration

Putting an end to deforestation is not enough; so much old-growth forest has already been lost, it is essential for parts of the newly deforested areas to be restored in their environmental functions , and for new-growth rainforests to be allowed to form over time. In those parts that will continue to be used as (cocoa) farmland, agroforestry systems should become the norm.

Forest protection and human rights

Forest protection must be done in a way that upholds and respects human rights. Violent evictions of farmers from recently deforested areas, as has been witnessed several times in the past years, should not be part of the response. Forest protection does not simply mean expelling local people from their farmland. Farmers should not be criminalised. It is necessary to involve farming households in the process of deciding how to protect and restore forests in their area and ensure that it produces economic gains, where this is not possible, help them find alternative sustainable livelihoods. Farmers that have encroached on national parks and protected areas have often done so because of a lack of alternatives, and have been able to do so because local officials have often turned a blind eye.

Communities that are currently in protected areas must be relocated by providing realistic alternatives.

Agroforestry*

Cocoa agroforestry systems can bring a wide range of ecological benefits; biodiversity conservation of flora and fauna, carbon sequestration, preserving and strengthening soil moisture and fertility, contributing to pest control, and microclimatic control such as stimulating rainfall, and many other benefits.

Challenges in current agroforestry approaches

Low impact of current efforts

A large gap separates the current reality of agroforestry in the cocoa sector from its potential. Alignment on an adequate definition is missing, causing almost every company to be using a different definition, and allowing for a lot of confusion. Additionally, sector commitments and certification have low impacts, not being monitored or fully implemented on the ground (Higonnet et. al.). This has much to do with the low – and changeable – criteria to achieve agroforestry, and lack of enforcement, not only in CFI but also for both large-scale certification labels with an agroforestry component as well as the government agroforestry and deforestation standards in Ghana and Côte d'Ivoire. Most efforts also remain uncoordinated, with little synergy between companies and the landscapes they operate, resulting in minimal landscape transformation and agroforestry improvements.

Agroforestry should not replace forest areas

Despite good intentions, low shade standards (as exist in the current voluntary sustainability standards) encourage and enable degradation of existing, more complex agroforestry systems to stimulate productivity. Agroforestry should not replace forest areas**, nor can simplified agroforestry be a substitute for more diverse agroforestry systems. Instead, agroforestry systems should be used to strengthen resilience of cocoa production regions and to restore degraded land. All monoculture cocoa should be replaced over time with agroforestry cocoa, with progressively more robust agroforestry systems put in place.

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* This chapter is an abridged version of the Cocoa Barometer Consultation Paper on Agroforestry, which was released in June 2020, and can be found at **www.cocoabarometer.org**.

** As defined under national regulations and using HCS and HCV methodologies for cocoa production.

Low tree survival and farmer adoption

The impact of agroforestry reforestation campaigns for existing cocoa plots is unfortunately minimal. In Côte d'Ivoire, despite a great number of tree distribution campaigns, distributed tree survival was less than 2% (Sanial 2019). Even when trees do survive distribution, most young tree seedlings are cut down during weeding, due to a lack of training on agroforestry practices provided to the person who is doing the actual work at farm level, such as sharecroppers (Uribe-Leitz and Ruf 2019). This clearly shows the need for intensive training, education, and collaborative work with cocoa farmers and farm workers to ensure success in any transition away from monoculture towards agroforestry. Though CFI signatory companies have distributed millions of multi-purpose trees for agroforestry (and trained hundreds of thousands of farmers in climate smart cocoa), how many of these will survive and grow out to serve their purpose?

Adoption of agroforestry by farmers currently in cocoa monoculture systems is minimal, for several reasons. Costs and benefits of agroforestry are often unclear to farmers, and many farmers have been led to believe that full-sun monoculture is the way to go. Few farmers can afford the initial investments to transition to agroforestry. Land and tree tenure insecurity provide additional barriers. When agroforestry programmes are not rolled out taking gender into account, adoption rates by women farmers will also be low. Finally, when farmers have access to new cocoa planting material, these are often varieties that have been adapted to full-sun conditions, and therefore are not very suitable to agroforestry.

Zero-deforestation is not the same as cocoa agroforestry

There is no direct relationship between promotion of agroforestry and halting deforestation. Agroforestry cannot replace natural forest. However, agroforestry cocoa can play a minor part in compensation and restoration measures for previous historic deforestation. In this sense, it is important for companies in the cocoa industry, who have benefitted from past deforestation in their supply chains.

Agroforestry is also important for major cocoa producing countries, as they urgently need to re-green their nations, some of which are on a collision course to desertification because of tree cover loss. For such countries, rolling out agroforestry wherever possible can help anchor rainfall and restore some tree cover.

Collaborative development of landscape approaches

Many agroforestry initiatives are currently limited to cocoa-plot scale. However, a landscape level perspective is needed, both to protect remnants of natural forests and to remediate past deforestation and forest degradation. A landscape-level approach places agroforestry in the wider context of environmental sustainability, resilience, climate mitigation and adaptation strategies. It also integrates the interests for a variety of commodities, apart from cocoa, food, non-timber forest products, timber. This diversity of land uses can bring environmental benefits such as stable water provisioning, habitats for pollinators, improved soil quality, corridors for fauna, and the control of pests and diseases.

Structural changes in the governance of agroforestry approaches are needed; a shift from cocoa-plot to landscape, collective and inclusive development of landscape approaches that are locally defined through bottom-up collaborative approaches.*

The core/minimum requirements for an agroforestry standard should be seen as a (smart) mix of measures that together add-up to an overall landscape level standard. Elements to be considered when designing cocoa agroforestry at both plot and landscape scales include

- maintaining on-farm ecosystem services (such as CO2 sequestration, biodiversity, nutrient cycling, pest control, pollinator habitats, soil quality, etc.), over time enriching production from monoculture and simplified agroforestry to more diversified systems, either on plot/farm level or on community/landscape level.

- aiding the restoration of degraded forests, thereby restoring environmental services (including protecting biodiversity, connecting primary forests, providing habitat for native species, avoiding soil degradation and associated water pollution, and preserving natural streams, local humidity, and rainfall)

- increasing long-term productivity and resilience of cocoa-growing areas

- improving farmer livelihoods by providing diversified income and food security to farmers through other cash crops and staple foods.

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* A more in-depth discussion on locally defined collaborative approaches and farmer inclusion can be found in the next chapter 8 Enabling Environment.

Land degradation

Artisanal and small-scale gold mining (ASM), called Galamsey (Ghana) and Orpaillage (Côte d'Ivoire), is a major problem in West African cocoa. In recent years, the number of miners – and the damage they cause – has risen steeply. Record high gold prices and the struggle to earn a living from agriculture have led to explosive growth in the artisanal and small-scale mining sector globally. The use of mercury to extract the gold is causing severe environmental damage; the poisoned wastewater is not suitable to drink or to use for irrigation, and contaminated mud run-off from the mines causes additional destruction to rivers and lakes. In many cocoa-growing regions where there is gold, farmers short of money allow small-scale miners to use their land for mining, in exchange for cash compensation, leading to soil erosion and often to the loss of land for cocoa farming.

Tree tenure and logging

The logging industry also adds to deforestation and land degradation, with the rights to cut timber trees often not being controlled by the cocoa farmers on whose land these trees stand. A careful first step has just been taken in Ghana, where some cocoa farmers recently obtained the rights to non-cocoa trees on their land. However, this process was very long and time-consuming, and registering these trees is a complex and bureaucratic process. Côte d'Ivoire's new forestry code also allows producers to be the owners of the trees on their plots. However, in both countries, land and tree tenure remain major hurdles in protecting old growth trees. A lot more support needs to be given to farmers, and the bureaucracy around it must be greatly simplified.

Climate change

The loss of forests and shadow trees amplifies the impact of climate change. Cutting down forests means destroying the local water cycles, with severe regional climate breakdown as a result, including less cloud, lower humidity and modified patterns of rainfall. Weakening monsoons have also been correlated to deforestation. Typically tropical forest cover losses of about 50% cause local temperature increases of around 1°C. Large scale deforestation is likely to disrupt atmospheric moisture transport (Sheil, D. 2019).

Adverse weather patterns from time to time are not unusual, but the accumulation of these events during the past years is striking, with a strong correlation between deforestation and rainfall loss. Global climate

change as well as regional microclimate change already have a massive impact on cocoa production and will do so even more in the coming years. Large parts of the global cocoa growing regions will become much less appropriate for cocoa production in the coming decades, in other areas the production of cocoa will become entirely impossible (Schroth et al. 2016).

Work is being done to modify cocoa tree varieties to be more resistant to droughts and extreme temperatures, and climate smart agricultural practices might support the adaptation of cocoa trees to the challenges caused by climate change. Soil water management and fertilization practices could improve the situation, and agroforestry systems are expected to be one of the most effective adaptation systems available. Landscape-wide agroforestry, combined with reforestation efforts, is also the best option to positively influence rainfall patterns in regional microclimates.

For these efforts to become mainstream, infrastructure and investment capital are needed to grow billions of climate resilient trees and to distribute them to cocoa farmers all around the world, and millions of farmers will need to be trained on adopting climate smart agricultural practices.

Agrochemicals

One of the key strategies to increase cocoa productivity for the past years has been to increase the use of agrochemicals. In addition to stimulating good agricultural practices (GAPs) and making available new planting materials, fertilisers and pesticides are key components of what cocoa and chocolate companies like to call the 'professionalisation' of the farmer. The use of agrochemicals, however, is not a neutral intervention in the economies of farming households, nor in the ecosystems of cocoa growing landscapes.

Fertiliser

Cocoa plantations deplete soils, specifically in regions where the soil contains low amounts of nutrients. This is the case in many cocoa growing areas. Historically, farmers reacted to the depletion of soils by moving their farms, cutting down old-growth forests and planting cocoa trees on the fresh soils. This slash and burn system is not viable any longer. Therefore, the degradation of soils must be prevented or, where already advanced, reversed. The main approach to doing so, from a cocoa industry perspective, is by using synthetic fertilisers.

Tailored fertiliser necessary

One-size-fits-all fertilisers will not work in cocoa. Any fertiliser use – whether synthetic or organic – requires the nutritional composition to be tailored to a series of variables, including soil quality, the age of the tree, and whether the cocoa is grown in agroforestry, shade or full sun systems (Ureña 2016). Testing the soil quality is costly and laboratories have to be available. At the same time, detailed information on the soil quality and the fertiliser requirements in West Africa are scarce. For Côte d'Ivoire, research from 1975 calculated that 26 different formulae of fertiliser are necessary to meet the needs of the different soil qualities. A similar study in Ghana concluded that at least 30 different formulae are needed. Farmers require training about the correct application and optimum agricultural practices (Snoeck et al. 2016, p. 30). Soil quality testing, adequate farmer training, and tailored fertilisers are all necessary.

Improper use of fertiliser

Reality, however, is quite different. Extension services in Côte d'Ivoire recommend one composition of fertiliser for the whole country, and one dose per hectare for all farms, regardless of soil type, tree age, or farming system. Although 77% of cocoa farms in the Côte d'Ivoire do not need nitrogen, it is the main component of the presently nationwide used fertiliser. This fertilizer – so called "Engrais Cacao" – is "suitable for only 16.5% of the cocoa growing areas in Côte d'Ivoire" (N'Guessan et al. 2017, p. 513). In Ghana, a regional study in the Sefwi Wiawso District revealed that only 25.5% of the farmers use fertilisers, while none applied the fertiliser as recommended (Nunoo et al. 2013, p. 27). Using wrong dosages can lead to a further destabilisation of natural ecosystems through pollution. Applying fertilisers to old, diseased, or low yielding trees has no benefits and costs money. Therefore, for fertiliser use to be effective, farmers need to rejuvenate their farms with high yielding seedlings - which are often neither available nor affordable.

Organic fertiliser and agroforestry

Though they are often a quick fix for multinationals aiming to increase yields in the short term, using synthetic fertilisers often comes with many risks for farmers and the environment. However, synthetic fertilisers are not the only way to prevent or even reverse soil degradation. Agroforestry systems and organic fertiliser use are also viable options (see box below). However, most of these projects are pilots as different methodologies have to be tested, and their application at large scale needs to be proven. All of this - including the implementation of good (organic) agricultural practices combined with agroforestry - needs significant investments.

Additionally, increasing soil organic matter is an important aspect of sustainable soil management; it improves the soil structure, leading to better plant growth, and provides extra slowly releasing plant growth nutrients. Soil organic matter also increases the water retention capacity of the soil, which can make a difference between viable and nonviable cocoa systems in the future, when climate change will inevitably threaten cocoa production in some areas. It can be achieved through the addition of manure, (pruned) plant material of agroforestry trees; cover crop cultivation, household compost, etc.

Alternatives to synthetic fertiliser use

- *A project in Nigeria showed using organic agricultural practices not only had positive environmental impacts, but also led to health improvements for farmers, increased revenues due to significant cost reductions and increased yields compared to practices used before (Faturoti 2012, p. 444).*
- *In Côte d'Ivoire, the use of chicken manure as organic fertiliser led to impressive results. Yields could be more than doubled and net farmers income increased significantly due to the relatively low costs (Ruf 2017, p. 18).*
- *Testing plots in Bolivia proved that organic agroforestry systems can lead to improved yields combined with higher income of farmers (Armengot et al. 2016).*
- *Ongoing projects run by companies like Chocolats Halba, Lindt & Sprüngli and Ritter Sport show that improved cultivation systems combined with training of farmers and good planting material can restore depleted areas and lead to good yields of cocoa in Latin America, Ghana and Côte d'Ivoire.*

Pesticides

A wide variety of pesticides are used to control pests and diseases in cocoa. Highly disputed Neonicotinoid and Pyrethroid insecticides are used to reduce crop loss (Pesticide Action Network (PAN) UK, 2018; Bateman 2015, p. 8 and p. 39). The use of these pesticides warrants close attention, for the protection of both farmers and chocolate consumers, as well as for its environmental effects.

Pests and diseases

In many areas in West Africa, viral diseases such as the cocoa swollen shoot virus (CSSV) and fungal diseases such as black pod lead to a loss of 30% and more of the annual harvest. The Witches Broom virus devastated the Brazilian cocoa sector in the 1990s and continues to damage part of the cocoa production in Latin America. Pest infestations, ranging from insects, such as the Cocoa Pod Borer in South-East Asia, through to rats, mice, squirrels, slugs and snails damage the cocoa tree and its fruits, leading to harvest losses (Afrane and Ntiamoah 2011, p. 56; Bateman 2015, p. 28).

Consumer protection

Many concerned stakeholders are advocating for consumer protection from pesticide residues. Pressure from the European Union (EU) and Japan to protect customers from cocoa contaminated with unhealthy pesticide residues led to an EU regulation in 2008, controlling the residues of chemical substances in cocoa entering the EU. This has already improved the situation, as most hazardous pesticides are banned now (Bateman 2015 p. 2). However, a 2016 test of chocolate on the Austrian market revealed that chocolate bars often still contained traces of up to four different kinds of pesticides. None of the tested bars contained quantities with a known direct health risk, but some of the chemicals might be harmful even in very low doses. The residues in the beans indicate a very high use of pesticides in the origin countries (Supply Change 2016).

Farmer health and safety

Because of a lack of farmer knowledge, overuse and misuse of pesticides is widespread. Often, farmers are sold unlicensed, fake or adulterated products by unscrupulous resellers (PAN UK 2018, p. 1). Many farmers suffer from health problems related to agrochemical use without sufficient protective equipment. Spraying, even with approved pesticides, can cause eye and lung damage. Many farmers and sprayers are not aware of the correct use of pesticides and protective measures (PAN UK 2018, p. 2). The lack of protective equipment, farmers eating and drinking during the application of pesticides, and the storage of agrochemicals in close proximity to food and underage children are all common occurrences (Ogunjimi and Farinde 2012, pp. 188–190). It is hardly surprising that residues of insecticides are sometimes found in the blood of cocoa farmers and in samples of groundwater (Sosan et al. 2008, p. 783). Education on the right dosage application of pesticides and use of protective equipment needs to be intensified to prevent adverse impacts on human health.

As stated elsewhere, the increase of children using pesticides is a cause for grave concern. The harm to children of exposure to agrochemicals is significant, and can lead to lifelong adverse effects, including respiratory diseases, learning problems and cancer. In addition, prenatal exposure to pesticides can lead to a wide range of birth defects and miscarriages (HealthyChildren.org 2020). Due to these risks, pregnant women and children should never handle pesticides.

Government approaches to pesticides insufficient

Though government approaches differ, it is safe to say that producer government approaches to the use of pesticides still require significant improvements, and must be guided by the objective to protect farming families and the environment. In Ghana, for example, the Cocoa Research Institute of Ghana (CRIG) tests all pesticides that are allowed for cocoa production. However, of the sixteen approved insecticides, twelve are on the PAN International Highly Hazardous Pesticides list (HHP). One of the eight allowed fungicides and the only allowed herbicide is also on the HHP list. Most of the approved agrochemicals are dangerous for bees. "Other hazards relate to chronic human health effects, acute toxicity to humans by inhalation, high toxicity to aquatic organisms and very high resistance in water soil or sediment" (PAN UK 2018, p. 1). The use of non-approved pesticides seems to be widespread as well. Though farmers in Ghana report that they usually buy pesticides from certified sellers, some also buy on markets and from roadside sellers (Boadu 2014, p. 35). According to the farmers, these are often more effective, but the use of uncontrolled pesticides could be very dangerous for farmers, the environment and for consumers (Denkyirah et al. 2016, p. 8). Additionally, the mass spraying activities organised by the government are conducted according to a calendar and not to the necessity of spraying (PAN UK 2018, p. 2). Best practice would be to avoid spraying as far as possible and to use Integrated Pest Management systems.

Environmental harm

Pesticides can cause a wide range of harm to natural ecosystems and can severely threaten local biodiversity. Unintended effects of pesticide use can be the reduction of highly necessary pollinators. Populations of birds and fish can be strongly affected. Pesticides, and especially

Neonicotinoids, are harmful to a variety of pollinators, including bees. Though the impact of pesticides on midge flies are much less researched there are serious indications that insecticides reduce their populations as well, which might lead to a reduction in cocoa yields, as midges play an important role in the pollination process in West Africa (PAN UK 2018, pp. 3–4). The adverse impact of pesticides on the health of the environment calls for an alternative.

Integrated Pest Management (IPM)

In conventional agricultural systems, Integrated Pest Management could reduce the need for pesticides significantly, although implementing a functioning IPM system will struggle with some of the same challenges mentioned in this chapter. IPM systems are complex and farmers need training institutes to implement them (Bateman 2015, p. 20; PAN UK 2018, pp. 5–7). Much as with fertilisers, the pressure to use pesticides could be reduced by using good agricultural practices, especially in well-managed agroforestry systems

Business model of agrochemicals

The widespread promotion and adoption of agrochemicals is one of many examples of the cocoa sector's attempts to find quick-fix solutions to larger and systemic challenges. And though there are short-term benefits in the use of agrochemicals, there are many environmental and health risks, as described in this chapter. There is another concern cross-cutting all agrochemical approaches, and that is the question of the business model.

Though the use of fertilisers can lead to significantly higher yields, the business case for farmers is not clear cut at all. With increased use of agrochemicals, farmers' input costs increase, while risks are high, and remuneration is very uncertain. Farmers have to buy agrochemicals upfront and also need to invest in additional labour to apply these agrochemicals. They do not, however, have the assurance of receiving a decent price for the cocoa come harvest time. Where multinationals and producer governments have the ability to hedge future sales on the future markets, farmers are price takers. The high price volatility might lead to a situation where farmers who invested in fertilisers lose money. During the price collapse of 2016/2017, several large cocoa companies advised their farmers to not invest in fertilisers, as it simply was not remunerative. Even when prices do get stabilised, as the governments of Côte d'Ivoire and Ghana have now been doing for some time, there are other risks to the cocoa farmer, such as adverse weather conditions, which might reduce

yields – and therefore income - significantly (Ruf/Kiendré2012, p. 7; Snoeck et al. 2016, pp. 29–30; Ruf 2016, p. 15).

Many stakeholders express fears about alleged tensions between agroforestry and productivity. However, yields can be just as high in high-biodiversity agroforestry systems as in full-sun production (Clough et al. 2011), and there are indications that cocoa agroforestry systems can have similar or even better economic performance compared to conventional, full sun systems (Jezeer et al. 2017).

When communicating with farmers, the focus needs to shift from measuring just cocoa yields to comprehensive cost-benefit analyses that consider food security, long term effects of intensified agriculture, and diversified income as well as costs (especially minimizing costs of agrochemicals and labour), and ultimately and most importantly achieving a living income.

Best practices in agroforestry cocoa and in cocoa productivity enhancement can be combined to ensure that agroforestry does not need to be paired with increased use of agrochemicals. programmes adopting the paradigm of "sustainable intensification" or "climate smart agriculture" need clear insights into these trade-offs. Furthermore, cocoa varieties should be developed that thrive under diversified shade conditions, varieties that do not need high levels of external inputs such as fertilizers and pesticides.

Summary

Deforestation, climate change, the loss of biodiversity, the use of pesticides and the need for agroforestry are all environmental concerns that are coming to play in the cocoa sector.

Cocoa production threatens rainforests globally, from West Africa, through Indonesia, the Amazon Basin, Colombia, and the Congo Basin. Deforestation leads to loss of biodiversity and habitat, and has tremendous climatological consequences, as rainforests are massive carbon storage systems and also function as 'rain machines' - their disappearance contributes to accelerating climate change. Monitoring systems are essential first steps that must be taken, as is forest restoration and protection of remaining forests.

Agroforestry systems can bring a wide range of ecological benefits; biodiversity conservation of flora and fauna, carbon sequestration, preserving and strengthening soil moisture and fertility, contributing to pest control, and microclimatic control such as stimulating rainfall, and many other benefits. However, agroforestry should not replace forest areas, and zero deforestation is not the same as agroforestry.

Global climate change as well as regional microclimate change due to deforestation already have a massive impact on cocoa production and will do so even more in the coming years, as will land degradation through mining and logging.

Indiscriminate and untrained use of agrochemicals is largely inefficient and endangers the health of cocoa farmers, and can lead to further destabilisation of natural ecosystems, whilst not providing efficient benefits to yields.

Infrastructure and investment capital are needed to grow billions of climate resilient trees and to distribute them to cocoa farmers all around the world, and millions of farmers will need to be trained on adopting climate smart agricultural practices.

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8. Enabling Environment

Most – if not all – of the attempts to solve cocoa's major challenges have focused on what happens on the cocoa farms. From child labour, through deforestation to poverty alleviation, sector and government initiatives have sought the solution at farm level.

Seeking for solutions at farm level implies that the core of the problems lies with bad farming. This is an assumption that is as harmful as it is wrong.

Most – if not all – challenges in the cocoa sector are systemic and require structural interventions at landscape, national, and global level. The core of the solution lies in the enabling environment; from a legislative framework making it mandatory for multinational corporations to source their ingredients sustainably, through a solid and empowered position for smallholder farmers in global supply chains, to empowering farmers and local civil society to keep their governments accountable, supported by transparency, due diligence and accountability systems, and open monitoring and traceability of the sector.

Mandatory approaches through due diligence regulations*

Though voluntary farm standards might not be the beginning of a solution, placing an obligation on all cocoa and chocolate companies to conduct human rights and environmental due diligence would make a real difference. Such an obligation would ensure companies identify, prevent, mitigate and account for actual or potential adverse human rights impactsthey may be involved in through their own activities or business relationships, rather than force farmers to once again bear most of the responsibility.

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* This subchapter is a condensed and edited version of the joint position paper presented to the European Commission in December of 2019, which was drafted by a coalition of cocoa sector actors, including the VOICE Network and Fern, major cocoa and chocolate companies Mars, Mondelēz, Barry Callebaut, Nestlé, Unilever and Tony Chocolonely, and the two large voluntary standards in cocoa Rainforest Alliance and Fairtrade. More information can be found at **www.voicenetwork.eu/due-diligence/**

Though there are existing legal routes for holding multinationals accountable for transgressions, these are usually based on the ability of tracing specific violations through a supply chain to the multinational. This burden of proof creates an obstacle to the effectiveness of these legal routes. A Due Diligence regulation is based on risk, thereby turning around the burden of proof. This reversal is a much more realistic approach to responsibility of global supply chains.

Level playing field

An ambitious regulation would create a level playing field and consistency for companies operating in the sector. It would identify the actions necessary to remove unsustainable practices and would hold all companies accountable for failure to apply due diligence in their supply chain by identifying and addressing adverse impacts on human rights and the environment.

Complementarity of national, EU and global regulations

Discussion around such a regulation is being seriously conducted at the level of the European Union. Though predictability and consistency with a single EU jurisdictional approach would significantly increase legal certainty for companies and enhance the possibility to act at scale and in a consistent manner among different actors of the supply chain, a start should already be made at national level as long as such trans-regional regulations are absent. Furthermore, EU and EU member states should take a more active and positive role in the negotiation of a UN Binding Treaty on Business and Human Rights, which is currently being discussed at the global level.

UN Guiding Principles and OECD Due Diligence Guidance

Any due diligence regulation should be rooted in the UN Guiding Principles on Business and Human Rights and the OECD's Due Diligence Guidance for Responsible Business Conduct and should aim to ensure protection of both human rights and high standards for environmental sustainability.

Six steps in implementing due diligence

The OECD's Due Diligence Guidance for Responsible Business Conduct (OECD 2018) has described the steps involved in implementing a due diligence obligation. Companies are required to:

- Embed responsible business conduct into their policies and management systems.
- Identify and assess the risks of actual and potential adverse impacts associated with the enterprise's operations, products, or services.
- Cease, prevent and mitigate adverse impacts.
- Track implementation and results.
- Communicate how impacts are addressed.
- Provide for or cooperate in remediation when appropriate.

Remediation

A regulation should include remediation mechanisms, providing routes through which impacted stakeholders, rights-holders and their representatives can bring complaints to the attention of companies and seek to have them addressed through a variety of non-judicial and judicial mechanisms.

Liability

The absence or lack of a legally compliant company due diligence system should carry legal consequences, which should be proportionate and dissuasive.

Improve rather than abandon

An essential element of due diligence is that companies should adequately address the issues and risks in their supply chains, rather than encouraging them simply to abandon or avoid high-risk sources of cocoa. It should require companies to subject their due diligence systems to independent third-party audit, and for annual public reporting on procedures for risk analysis, risk mitigation and remediation, and information on implementation and outcomes in relation to the people and the environment.

Holistic approaches through landscape roadmaps

Regulations will only be effective if they are coupled with wider strategies that create the enabling environment required to make progress. Recent years have shown that supply and demand must be better balanced in order to control the price of cocoa, and a corresponding reform of agricultural policy should be tackled at least in the medium term. An holistic approach that goes beyond the cocoa sector is missing. This approach needs to be embedded at a national level through the development of roadmaps at landscape level, with time bound deliverables.

These roadmaps should identify steps that the government and other stakeholders must take to address deforestation, poverty, and human rights issues, with topics to be decided by the stakeholders themselves, looking at a range of issues including

- Land and forest governance, land planning and agricultural policy, coupled with measures to stem deforestation and roll out agroforestry, undergirded by supply management systems, capping production in order to prevent overproduction

- Strengthening the rule of law, including tree and land tenure reform, the improvement of enforcement agencies and judicial systems,

- Strengthening infrastructure in rural communities, including building and maintaining roads, construction and staffing of quality education at both primary and secondary school level, roll out of healthcare and sanitation facilities;

- Traceability and monitoring systems, introducing mandatory national traceability systems for cocoa beans from all origins, and systems for tracking the impacts of the steps taken on those most vulnerable, especially the smallholder farmers who supply most of the world's cocoa. It should also include systems to regularly monitor and punish individuals who adjust weighing scales in order to cheat farmers.

Once the roadmaps have been developed and are being implemented, the implementation must be regularly reviewed in a plan-do-check-act cycle. Lack of progress should have consequences; implementation of the roadmap should be enforced.

Bottom up approaches through inclusive and deliberative processes*

Deliberative Approach (involve.org.uk 2018)

- Deliberation is an approach to decision-making that allows participants to consider relevant information from multiple points of view. Deliberation enables participants to discuss the issues and options and to develop their thinking together before coming to a view, taking into account the values that inform people's opinions.
- Deliberative dialogue builds on dialogue and consensus-building techniques, enabling participants to work together (often with expert input) to develop an agreed view or set of recommendations.
- Deliberative decision-making builds on partnership methodologies to enable participants and decision-makers to decide jointly on priorities and programmes. Examples include partnership bodies and participatory budgeting exercises where power is genuinely devolved to participants.

So far, strategies in the cocoa sector have been developed top-down, often based on analysis and needs of the chocolate industry, or aimed at production targets set by governments. Local stakeholders and the affected people themselves have at best been marginally involved. Strategies for an enabling environment must be developed and defined collaboratively at a national or sometimes even local level, with local ownership helping to ensure actions are fully integrated into socio-political and economic contexts.

* This subchapter is a condensed and edited version of the joint position paper presented to the European Commission in September of 2020, which was drafted by a coalition of CSOs in the cocoa sector actors, including the VOICE Network, VOICE members Fern, INKOTA-Netzwerk, Mighty Earth, Rikolto, and Solidaridad, Cocoa Barometer Consortium member Tropenbos, as well as EcoCare Ghana, Fairtrade Advocacy Office, Inades Formation, Send West Africa and WCFO. Fern, Voice, et al. These edits do not necessarily reflect the position of all the signatories to the joint position paper.

Although based on a set of minimum threshold criteria that should apply globally*, these strategies should be developed through an inclusive and deliberative approach. Such an approach goes beyond mere "consultation", to be a genuine discussion where stakeholders can respect, argue, build trust, decide, and collaborate. This would give local civil society organisations and farmers' representatives a real seat at the table, addressing their disenfranchisement, and countering the lack of accountability and transparency that allows politicians, companies, and others to act with impunity. Changing such deep structural issues takes time, and the process should proceed with a long-term view in mind. Speed should not be pursued at the expense of getting things right.

It is especially important that women are not (inadvertently) blocked from taking part – barriers to participation need to be accounted for. For example, land ownership or entitlement should not be a requirement for women to participate. Other factors such as literacy, education levels and gender-based violence should be identified and accounted for.

The importance of cooperatives

In the light of holistic and inclusive approaches, it is important to note that almost all of the sector-wide efforts in cocoa reach only those farmers that are already (loosely) organised in cooperatives. The majority of cocoa farmers, however, are not organised, and are not being reached. Concerted sector-wide strategies must be developed to reach these 'higher hanging' fruits, and to help them get organised. Strong autonomous farmer organizations should become the bedrock of the sector.

The role, functioning, quality, and structure of cooperatives all need to be clarified and strengthened. There are a plethora of different cooperatives, from large to small, and from cooperatives created by the government to ones that have developed organically, and this can lead

* Including but not limited to the International Bill of Human Rights (consisting of the International Declaration of Human Rights; the International Covenant on Economic, Social and Cultural Rights and the International Covenant on Civil and Political Rights), the ILO Core Conventions, the UN Guiding Principles on Business and Human Rights and the OECD Guidance for Responsible Agriculture Supply Chains.

to confusion, unhelpful power dynamics and conflicts. Some suggest that the creation of a common governance structure would be helpful, though others disagree.

For some cooperatives, internal governance is weak; many are not able to act as advocates for their members in policy-making processes. In some cases, cooperative structures may be mis-used as fronts by local traders – or, in Côte d'Ivoire, by big landowners – to gain access to money or training. International traders have also had an influence on the running of cooperatives, sometimes for the good, but sometimes less so. Cooperatives must be farmer-led, professionally run, and accountable to their members.

Cooperatives also often do not represent women farmers, as their members are usually predominantly male. The low levels of female members in turn allows the cooperatives to gear their actions (representation, service provision, advocacy) more to male farmers' needs. Barriers that prevent female farmers from becoming members include high membership fees and strict requirements of land or tree ownership.

A sustainable cocoa sector requires cooperatives firstly to improve their own internal governance, to ensure that they become democratic bodies which genuinely represent their male and female farmer members, and secondly to be supported in such a way that they can participate effectively in multi-stakeholder policy processes. This is a process that will take time, resources, and potentially a review of the laws governing cooperatives.

Effective approaches through transparency and accountability

The history of twenty years of sustainability initiatives in the cocoa sector is filled with good intentions combined with a lack of accountability.

A recent example is the Cocoa and Forests Initiative; a valuable and timely initiative, bringing governments and companies together to create a framework for action on deforestation. However, it was not this initiative, but the efforts of NGO Mighty Earth, working with local CSO organisations in West Africa, that created a leap forward in the transparency of the sector by pushing the different cocoa and chocolate companies to share data on their suppliers and thereby publishing a Cocoa Accountability Map.

Creating transparency means empowering local actors to demand accountability. This is also a self-strengthening process; local civil society, farmers, and individual citizens would be able to play a more involved role if governments and companies would operate in a transparent and accountable manner.

Transparency and Accountability are essential instruments towards implementing sustainability, and allow for a variety of improvements: better managing and accelerating progress; identifying gaps in current approaches – both in terms of additional investments as well as additional impacts needed; preventing transgressions from taking place; facilitating mitigation of effects of transgressions for farmers and cocoa growing communities; and will bring to light available synergies and opportunities among different stakeholders.

Corporate reporting

Corporate reporting - including reporting by CSOs - on cocoa sustainability and human rights is often based on a principle of only communicating successes. Lessons learned are seldom made public, resulting in many companies trying the same unsuccessful approaches. Additionally, most communication is based solely on outcomes and numbers in absolute terms and not on the impact that these expenditures might have had, nor on how they relate to the size of the challenge. Data from projects is kept proprietary, even when they are co-funded with publicly financed development support from consuming governments, such as through financial support from the IDH Sustainable Trade Initiative or other similar initiatives. Indicators need to be measurable, and results need to be publicly available for measuring progress. Care should be taken to ensure data is comparable, e.g. through collaborating on indicators and coordination of reporting periods. For all shared data projects, baseline studies should be carried out, and living income benchmarks should be an integral part of the design. Lastly, data should be based on impact, not only on effort; for example, it is not only the building of a school that is the relevant data, but whether school attendance rates went up and illiteracy went down.

Public services and resources

The provision of social, educational and health services, the development of local communities, and the protection of the environment, are mainly the responsibility of national governments and local authorities. Cocoa growing communities suffer from a lack of schools and teaching material, have insufficient access to health care and clean drinking water, bad roads, no electricity, and other insufficient public infrastructure.

For national and local governments to improve these public services, extensive financial investments are required. Despite the fact that the cocoa producing regions generally provide significant cash revenues to governments, not much of this money reaches the regions where the cocoa is produced. While recognising that governments have sovereignty on expenditure, investments in the regions where cocoa is grown must be increased. There is a real need for financial transparency on revenues, as well as on expenditures on public services and the financing and levels of national cocoa sustainability funds or buffer stock systems, if present. Additionally, work must be undertaken to improve internal structures and fight corruption.

Monitoring and traceability

The introduction of national traceability systems for cocoa beans in producer countries will be essential in order for companies to fulfil their due diligence obligation, and for governments to implement the roadmaps for the national cocoa frameworks. Traceability requires a full mapping of the landscape, including conditions and location of production throughout the supply chain, down to the cocoa farm level. The results of this mapping should be available through free, public, and usable platforms that include not only supply-chain information but also land-use and deforestation data, and data concerning farmers' income and child labour. Regular monitoring of progress should be done in a collaborative and inclusive way, ensuring that local civil society and farmer-based stakeholders are empowered members of the monitoring bodies alongside government actors and industry.

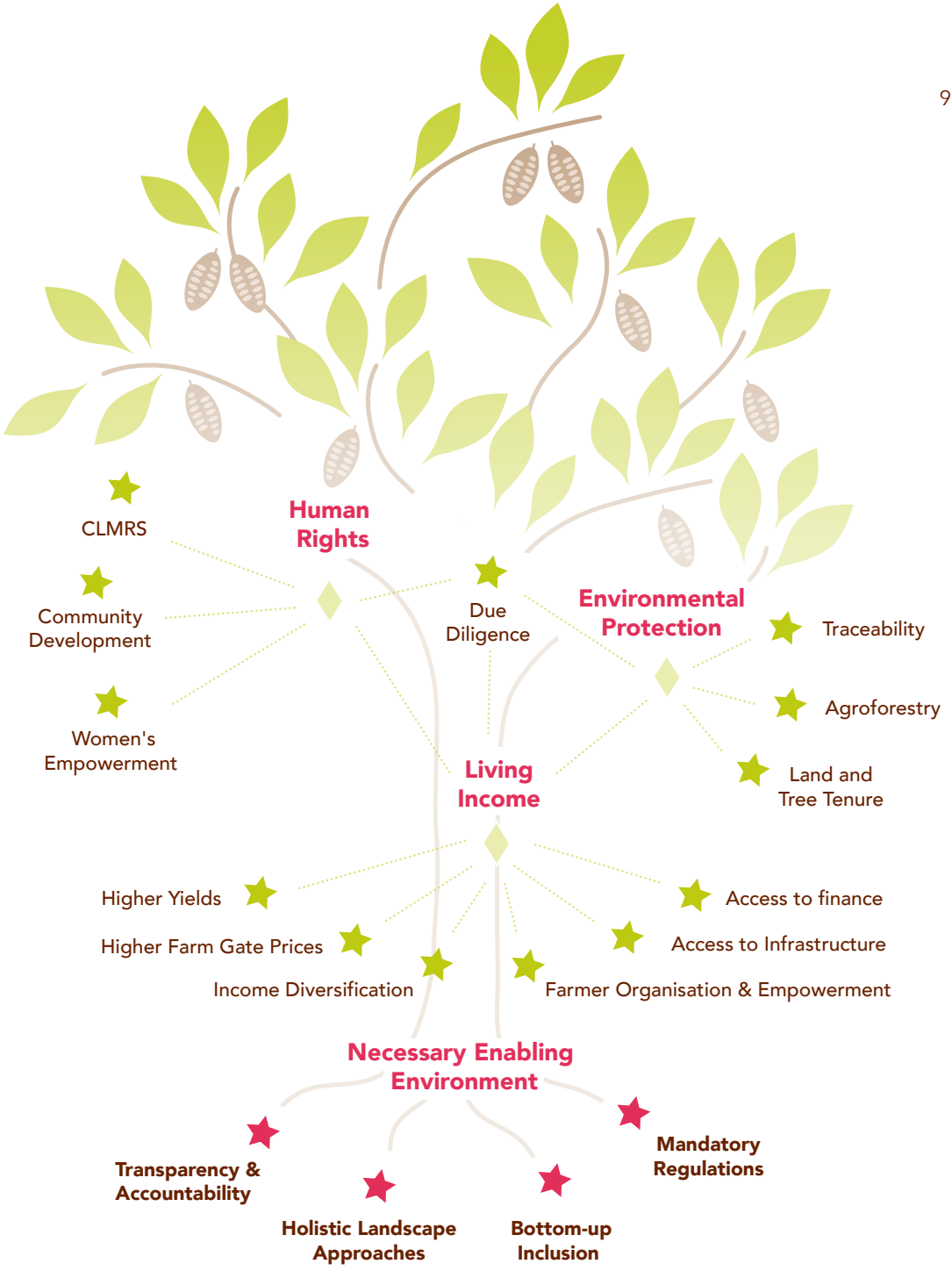
It is encouraging that the Cocoa and Forest Initiative signatories agreed in November 2017 to put in place robust joint monitoring mechanisms, and that official or semi-official mapping of land use and deforestation has proceeded in both Ghana and Côte d'Ivoire. However, these monitoring mechanisms have not yet been implemented. Most cocoa traders and chocolate manufacturers have at least begun to disclose their direct cocoa supply chains, making monitoring more feasible, even if their indirect chains remain opaque, and probably conceal both legal and illegal deforestation as well as child labour and other human rights abuses.

Summary

Most challenges in the cocoa sector are systemic and require structural interventions at landscape, national, and global level. The core of the solution lies in the enabling environment. Mandatory approaches that lead

to environmental and human rights due diligence regulation are needed. A solid and empowered position for smallholder farmers in global supply chains provide a bottom-up approach. Transparency would allow farmers and local civil society to keep their governments accountable, supported by due diligence and accountability systems, as well as open monitoring and traceability of the sector.

Key Recommendations


Human Rights
CLMRS
Community Development
Women's Empowerment
Due Diligence
Environmental Protection
Traceability
Agroforestry
Land and Tree Tenure
Living Income
Higher Yields
Higher Farm Gate Prices
Income Diversification
Access to finance
Access to Infrastructure
Farmer Organisation & Empowerment
Necessary Enabling Environment
Transparency & Accountability
Holistic Landscape Approaches
Bottom-up Inclusion
Mandatory Regulations

Key Recommendations

For all stakeholders

- Engage with a renewed and increased urgency to scale up efforts so they are commensurate to the size of the problem, including a significant increase in financing by companies, governments and donors, with a specific focus on the hard to reach farmers.
- Implement changes not only at a technical level, but address issues around power and political economy
- Implement a sector wide commitment to living income, and make net farmer income a key performance indicator of any sustainability programme
- Implement a global moratorium on deforestation and use of highly hazardous pesticides.
- Ensure that all sustainability approaches are tailored to include women
- Involve farmers and civil society as co-decision makers in all sustainability collaborations through inclusive and deliberative processes
- Develop a common language on traceability, and make data publicly available
- Develop effective transparency and accountability mechanisms, including greater transparency on value distribution
- Develop affordable and accessible financing and insurance products for farmers
- Coordinate the cocoa sector to address duplication of efforts and multiple targeting of farmers in sustainability initiatives.

For companies

- Develop and publish a living income policy, including a commitment to paying a farm gate price sufficient to cover a living income of at least $3.100 in the cocoa season 2021/2022
- Design and implement CLMRS to cover the entire supply chain
- Develop and implement full supply chain traceability to farm level, including remaining forest areas
- Set up and implement an holistic environmental and human rights Due Diligence policy based on the OECD Due Diligence Guidance

For voluntary standards

- Make Living Income – and the payment of a living income reference price of at least $3.100 in the cocoa season 2021/2022 – a key requirement
- Put more focus on the Trader Codes of Conduct, to ensure multinationals change their practices as much as cocoa farmers need to
- Ensure that sustainability standards are subject to fair, transparent and independent third party audits and verification

For governments of cocoa consuming nations

- Introduce environmental and human rights due diligence through mandatory regulatory frameworks.
- Make publication of data mandatory for projects that are publicly (co) funded.
- Facilitate debate and concrete action about the massive market concentration and resulting power imbalances, especially regarding the position of smallholders.
- Review and remediate where existing competition laws hinder sustainability, especially regarding fair pricing policies.
- Support and engage with industry and producing governments in defining and requiring living farmer income.
- Pursue partnership agreements with cocoa-producing countries to ensure good governance in the cocoa sector and a transition towards sustainable production

For governments of cocoa producing countries

- Collaborate to drive up farm gate prices for cocoa farmers, while developing supply management policies on a regional and global level to avoid further oversupply.
- Develop and implement holistic national agricultural policies, supporting farmers to diversify from cocoa and implement good agricultural practices.
- Increase transparency and accountability of spending and efforts.
- Urgently develop national monitoring and traceability systems
- Improve rural infrastructure, including roads, schools and health care.
- Implement and enforce protection of remaining forests, combined with the reforestation of illegally deforested areas, whilst ensuring protection of human rights, including those of farmers who operate in protected areas.
- Ensure the elimination of the use of highly hazardous pesticides in cocoa production and promote other alternatives including integrated pest management and agroforestry systems
- The Ivorian government should immediately cease their ban on rejuvenation and on distribution of seedlings and put in place supply management solutions that do not forbid farmers to improve their production practices.
- Put measures in place to ensure that accurate weighing scales are used to weigh cocoa beans at the farmer levels in order to eliminate or minimise cheating of purchasing clerks at that level.
- Identify and strengthen producer associations

Justification of Figures and Tables

Page 13 Growth of Cocoa Production in the Top 8 Producing Countries
Source: ICCO

Page 21 Production / Consumption
Source: ICCO 2020b, Table 2, 40

Page 31 Tonnages of Traders and Processors
Source: Cocoa Barometer 2020 questionnaire to all participating companies

Page 33 Tonnages of Chocolate Brands
Source: Cocoa Barometer 2020 questionnaire to all participating companies

Page 35 Certified Cocoa Sales
Source: Fairtrade: Cocoa Barometer 2020 Questionnaire
Rainforest Alliance: Cocoa Barometer 2020 Questionnaire, Cocoa Certification Data Report 2019

Page 42 Income Distribution of Cocoa Farmers
Source: Tyszler/ Bymolt/Laven 2018

Page 44 Average Yield Per Hectare
Source: data provided by companies

Page 50 Long Term Cocoa Price
Source: LMC 2020

Page 53 Current Farm Gate Prices / Desired Farm Gate Prices
Source: Fountain/Huetz-Adams January 2020

Page 58 Definitions of Child Labour
Source: NORC page 34

Colophon

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The final responsibility for the content and the views expressed in this publication lies solely with the authors.

The 2020 Cocoa Barometer is based on publicly available data as well as the off-record information provided to the authors. The authors welcome any corrections to data provided and challenge all actors of the cocoa sector to be much more forthcoming with public data on the core challenges the sector faces.

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Bibliography

Afrane, George; Ntiamoah, Augustine (2011): Use of Pesticides in the Cocoa Industry and Their Impact on the Environment and the Food Chain. Pesticides in the Modern World - Risks and Benefits. In Stoytcheva (Ed.): Pesticides in the Modern World. Risks and Benefits: INTECH Open Access Publisher, 51-68. URL: **https://www.intechopen.com/books/pesticides-in-the-modern-world-risks-and-benefits/use-of-pesticides-in-the-cocoa-industry-and-their-impact-on-the-environment-and-the-food-chain**, checked on 11/16/2020.

Armengot, Laura; Barbieri, Pietro; Andres, Christian; Milz, Joachim; Schneider, Monika (2016): Cacao agroforestry systems have higher return on labor compared to full-sun monocultures. In Agron. Sustain. Dev. 36 (4), p. 1. DOI: 10.1007/s13593-016-0406-6. URL: **https://link.springer.com/article/10.1007/s13593-016-0406-6**, checked on 11/16/2020.

Bateman, Roy (2015): Pesticide Use in Cocoa. A Guide for Training Administrative and Research Staff. Third Edition. Edited by International Cocoa Organization (ICCO). London.

Boadu, Maxwell Osei (2014): Assessment of Pesticides Residue Levels in Cocoa Beans From The Sefwi Wiawso District of The Western Region of Ghana. Master Thesis. Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. College of Agriculture and Natural Resources. URL: **http://ir.knust.edu.gh/xmlui/handle/123456789/7714?show=full**, checked on 11/16/2020.

Bymolt, Roger; Laven, Anna; Tyszler, Marcelo (2018): Demystifying the cocoa sector in Ghana and Côte d'Ivoire. URL **https://www.kit.nl/wp-content/uploads/2020/05/Demystifying-complete-file.pdf**, checked on 11/16/2020.

Clough, Yann; Barkmann, Jan; Juhrbandt, Jana; Kessler, Michael; Wanger, Thomas Cherico; Anshary, Alam et al. (2011): Combining high biodiversity with high yields in tropical agroforests. In Proceedings of the National Academy of Sciences of the United States of America 108 (20), pp. 8311-8316. DOI: 10.1073/pnas.1016799108. URL: **https://www.pnas.org/content/108/20/8311**, checked on 11/16/2020.

Confectionery Production (2020): The International Cocoa Initiative calls for greater industry-wide action on child and forced labour | Confectionery Production. Available online at **https://www.confectioneryproduction.com/news/31133/the-international-cocoa-initiative-calls-for-greater-industry-wide-action-on-child-and-forced-labour/**, updated on 9/5/2020, checked on 10/6/2020.

Delaveux, Jean-Yves: Comparative-analysis-of-child-labour-decrees-GHA-CIV. URL: **https://cocoainitiative.org/wp-content/uploads/2018/06/Comparative-analysis-of-child-labour-decrees-GHA-CIV.pdf**, checked on 11/16/2020.

Denkyirah, Elisha Kwaku; Okoffo, Elvis Dartey; Adu, Derick Taylor; Aziz, Ahmed Abdul; Ofori, Amoako; Denkyirah, Elijah Kofi (2016): Modeling Ghanaian cocoa farmers' decision to use pesticide and frequency of application. The case of Brong Ahafo Region. In SpringerPlus 5 (1), p. 1113. DOI: 10.1186/s40064-016-2779-z. URL: **https://www.researchgate.net/profile/Elvis_Okoffo/publication/305418295_Modeling_Ghanaian_cocoa_farmers'_decision_to_use_pesticide_and_frequency_of_application_the_case_of_Brong_Ahafo_Region/links/57c05b8708aeda1ec38a4b97/Modeling-Ghanaian-cocoa-farmers-decision-to-use-pesticide-and-frequency-of-application-the-case-of-Brong-Ahafo-Region.pdf**, checked on 11/16/2020.

Faturoti, B. O. (2012): Socioeconomic impact of SARO agro allied organic cocoa programme on beneficiary cocoa farmers in Nigeria. In J. Agric. Ext. Rural Dev. 4 (16). DOI: 10.5897/JAERD12.017. URL: **https://www.worldcocoafoundation.org/wp-content/uploads/files_mf/faturoti2012.pdf**, checked on 11/16/2020

FCCI Fine Cacao and Chocolate Institute (2020). URL: **https://chocolateinstitute.org/covid-19/**, updated on 11/16/2020, checked on 11/16/2020.

Feige-Muller, Marion: BASIC-DEVCO-FAO_Cocoa-Value-Chain-Research-report_Advance-Copy_June-2020. Available online at **https://lebasic.com/wp-content/uploads/2020/07/BASIC-DEVCO-FAO_Cocoa-Value-Chain-Research-report_Advance-Copy_June-2020.pdf**, checked on 11/17/2020.

Fountain, Antonie C.; Huetz-Adams, Friedel (2018): 2018 Cocoa Barometer. Edited by Antonie C. Fountain. URL: **https://www.voicenetwork.eu/cocoa-barometer/**, checked on 11/16/2020

Fountain, Antonie C.; Huetz-Adams, Friedel: Necessary Farm Gate Prices for a Living Income. Existing Living Income Reference Prices Are Too Low. URL: **https://www.voicenetwork.eu/cocoa-barometer/**, checked on 11/16/2020

Global Slavery Index (2020). URL: **https://www.globalslaveryindex.org/2018/findings/importing-risk/cocoa/**, updated on 11/16/2020, checked on 11/16/2020.

Global Biodiversity Outlook (2020). URL: **https://www.cbd.int/gbo/gbo5/publication/gbo-5-en.pdf**, checked on 11/16/2020.

Hainmueller, Jens / Hiscox, Michael J. / Tampe, Maja (2011): Sustainable Development for Cocoa Farmers in Ghana, Baseline Survey: Preliminary Report; MIT and Harvard University, January 2011. URL: **https://www.theigc.org/wp-content/uploads/2015/02/Hainmueller-Et-Al-2011-Working-Paper.pdf**, checked on 11/17/2020.

HealthyChildren.org (2020): Protecting Children from Pesticides: Information for Parents. URL: **https://www.healthychildren.org/English/safety-prevention/all-around/Pages/Protecting-Children-from-Pesticides-Information-for-Parents.aspx**, updated on 10/7/2020, checked on 10/7/2020.

Higonnet et. al.: Problems-and-solutions-concerning-the-CFI-in-Ghana-and-Côte.-final. URL: **http://www.mightyearth.org/wp-content/uploads/Problems-and-solutions-concerning-the-CFI-in-Ghana-and-Co%CC%82te.-final.pdf**, checked on 3/6/2020.

ICI Cocoa Initiative (2020): ICI calls for massive expansion of effort in fight against child labour to reach all those in need - ICI Cocoa Initiative. URL: **https://cocoainitiative.org/news-media-post/ici-calls-for-massive-expansion-of-effort-in-fight-against-child-labour-to-reach-all-those-in-need/**, updated on 10/19/2020, checked on 11/16/2020.

ICCO (International Cocoa Organization)(2020a): Quarterly Bulletin of Cocoa Statistics, Volume XLVI No. 1, Cocoa Year 2019/20.

ICCO (2020b): Quarterly Bulletin of Cocoa Statistics, Volume XLVI No. 3, Cocoa Year 2019/20.

Republic of Côte d'Ivoire 2008

IDH (2019), Cocoa Nutrition Initiative. URL: **https://www.idhsustainabletrade.com/initiative/cocoa-and-nutrition-initiative/**, checked on 11/16/2020.

Jezeer, Rosalien E.; Verweij, Pita A.; Santos, Maria J.; Boot, René G.A. (2017): Shaded Coffee and Cocoa - Double Dividend for Biodiversity and Small-scale Farmers. In Ecological Economics 140, pp. 136-145. DOI: 10.1016/j.ecolecon.2017.04.019. URL: **https://www.sciencedirect.com/science/article/abs/pii/S0921800915302512**, checked on 11/16/2020.

Kiewisch, Manuel and Waarts, Yuca (2020): No Silver Bullets. Closing the $10 billion income gap in cocoa calls for cross-sector action. Available online at **https://www.cocoalife.org/~/media/CocoaLife/en/download//article/no-silver-bullets-executive-summary-paper-by-mdlz-cocoa-life-and-wageningen-university-november-2020.pdf**, checked on 11/17/2020.

Living Income (2020): Living Income Community of Practice. URL: **https://www.living-income.com/**, checked on 11/16/2020.

N'Guessan, Kouamé Jean Claude; Traore, Migninna Joachim; Snoeck, Didier; Kassin, Emmanuel.; Jassogne, Laurence; Koko, Louis et al. (2017): Mapping Cacao Fertiliser Requirements in Côte d'Ivoire. In Imperial Journal of Interdisciplinary Research (IJIR) 3 (6), pp. 504-515. **https://agritrop.cirad.fr/584657/1/Nguessan%2C%20Cacao%20soil%20map%20in%20CIV.pdf**, checked on 11/16/2020.

Neate, Rupert (1/24/2020): Ferrero CEO's £542m dividend under fire over firm's tax liability. In The Guardian, 1/24/2020. URL: **https://www.theguardian.com/money/2020/jan/24/ferrero-scions-542m-dividend-under-fire-over-firms-tax-liability**, checked on 11/16/2020

Nestlé Global (2020): Dividends. URL: **https://www.nestle.com/investors/individual-shareholders/dividends**, updated on 11/16/2020, checked on 11/16/2020.

NORC: Assessing Progress in Reducing Child Labor in Cocoa Production in Cocoa Growing Areas of Côte d'Ivoire and Ghana. URL: **https://www.norc.org/PDFs/Cocoa%20Report/NORC%202020%20Cocoa%20**

Report_English.pdf, checked on 11/16/2020.

Nunoo, Isaac; Frimpong, Benedicta Nsiah; Frimpong, Frederick Kwabena (2013): Fertilizer use among cocoa farmers in Ghana. The Case of Sefwi Wiawso District. In Global Advanced Research Journal of Agricultural Science 2 (10), pp. 22-31. DOI: 10.3126/ije.v3i1.9939. URL: **https://www.researchgate.net/publication/269491923_Fertilizer_use_among_cocoa_farmers_in_Ghana_the_case_of_Sefwi_Wiawso_District**, checked on 11/16/2020.

OECD (2018), OECD Due Diligence Guidance for Responsible Business Conduct. URL: **http://mneguidelines.oecd.org/OECD-Due-Diligence-Guidance-for-Responsible-Business-Conduct.pdf**, checked on 11/16/2020.

Ogunjimi, S. I.; Farinde, A. J. (2012): Farmers' Knowledge Level of Precautionary Measures in Agro-Chemicals Usage on Cocoa Production in Osun and Edo States, Nigeria. In IJAF 2 (4), pp. 186-194. DOI: 10.5923/j.ijaf.20120204.10. URL: **https://www.researchgate.net/publication/227944561_FARMERS'_KNOWLEDGE_LEVEL_OF_PRECAUTIONARY_MEASURES_AND_ASSOCIATED_HEALTH_PROBLEMS_IN_THE_USE_OF_AGRO-CHEMICALS_ON_COCOA_PRODUCTION_IN_OSUN_AND_EDO_STATES_NIGERIA**, checked on 11/16/2020.

Pesticide Action Network (PAN) UK (2018): Pesticide Use in Ghana's Cocoa Sector. Key finding. Consultancy report for UTZ Sector Partnerships program GHANA. UTZ; Rainforest Alliance. URL: **https://utz.org/wp-content/uploads/2018/06/18-05-Key-Findings-Report-on-Pesticide-Use-in-Ghana.pdf**, checked on 11/16/2020.

Republic of Côte d'Ivoire (2008): Steering Committee for the Child Labour Monitoring System within the Framework of Certification of the Cocoa Production Process – National Initial Diagnostic Survey – Final Report, June 2008.

Republic of Ghana (2008): Cocoa Labour Survey in Ghana – 2007/2008, Juni 2008.

Ruf, François, Kiendré, Josué (2012): Adoption and impact of fertilizer in cocoa farms in Côte d'Ivoire. 17th International Cocoa Research Conference COPAL, Yaoundé. cirad - la recherche agronomique pour

le développement; UMR Innovation; SADRCI. URL: **https://www.researchgate.net/publication/276289498_Adoption_and_impact_of_fertilizer_in_cocoa_farms_in_Cote_d'Ivoire**, checked on 11/16/2020.

Ruf, François (2016): Mineral and Organic fertilization stories in Côte d'Ivoire. Re-internalisation of deforestation-led externalized costs. cirad - la recherche agronomique pour le développement; UMR Innovation. Punta Cana, May 2016. URL: **https://www.researchgate.net/publication/305259461_Mineral_and_Organic_fertilization_stories_in_Cote_d'Ivoire_Re-internalization_of_deforestation-led_externalized_costs**, checked on 11/16/2020.

Ruf, François (2017): Crises politico-militaires et climatiques en Côte d'Ivoire. Du cacao à l'anacarde, de la rente forêt à la fumure animale. Colloque international: conflits, dynamique des paysages & sécurité alimentaire en Afrique subsaharienne. cirad - la recherche agronomique pour le développement. Daloa, May 2017. URL: **https://www.researchgate.net/publication/328729275_Crises_politico-militaires_et_climatiques_en_Cote_d'Ivoire_Du_cacao_a_l'anacarde_de_la_rente_foret_a_la_fumure_animale_Politico-military_and_climate_crises_in_Cote_d'Ivoire_From_cocoa_to_cashew_nuts_f**, checked on 11/16/2020.

Sanial, Elsa (2019): A la recherche de l'ombre, géographie des systèmes agroforestiers émergents en cacaoculture ivoirienne post-forestière. URL: **https://www.researchgate.net/publication/338549035_A_la_recherche_de_l'ombre_geographie_des_systemes_agroforestiers_emergents_en_cacaoculture_ivoirienne_post-forestiere**, checked on 11/16/2020.

Schroth, Götz; Läderach, Peter; Martinez-Valle, Armando Isaac; Bunn, Christian; Jassogne, Laurence (2016): Vulnerability to climate change of cocoa in West Africa. Patterns, opportunities and limits to adaptation. In The Science of the total environment 556, pp. 231-241. DOI: 10.1016/j.scitotenv.2016.03.024. URL: **https://www.researchgate.net/publication/296782611_Vulnerability_to_climate_change_of_cocoa_in_West_Africa_Patterns_opportunities_and_limits_to_adaptation**, checked on 11/16/2020.

Selten, Marjolein (2015): Certification and wage labour in the cocoa sector in Ghana. URL: **http://www.cocoaconnect.org/sites/default/files/publication/selten%20thesis%20wage%20workers%20ghana%2008122015.pdf**, checked on 11/17/2020

Sheil, D. 2019. Importance of Central Africa's forests for regional climate and rainfall. Briefing Paper. Wageningen, the Netherlands: Tropenbos International.

Snoeck, Didier; Koko, Louis; Joffre, Joël; Bastide, Philippe; Jagoret, Patrick (2016): Cacao Nutrition and Fertilization. Chapter 4. In Eric Lichtfouse (Ed.): Sustainable Agriculture Reviews, vol. 19. Cham: Springer International Publishing (19). URL: **https://link.springer.com/chapter/10.1007/978-3-319-26777-7_4**, checked on 11/17/2020

Smith, Sally (2017): Living Wage Report Ghana. Lower Volta Region. Context provided in the Banana Sector. February 2017. URL **https://www.globallivingwage.org/wp-content/uploads/2018/04/Ghana_Living_Wage_Benchmark_Report.pdf**, checked on 11/17/2020

Sosan, Mosudi B.; Akingbohungbe, Amos E.; Ojo, Isaac A.O.; Durosinmi, Muheez A. (2008): Insecticide residues in the blood serum and domestic water source of cacao farmers in Southwestern Nigeria. In Chemosphere 2008. URL: **https://www.worldcocoafoundation.org/wp-content/uploads/files_mf/sosan2008.pdf**, checked on 2/6/2020.

Supply Change; Global 2000; Südwind Verein für Entwicklungspolitik und globale Gerechtigkeit (2016): Schokoladen-Check 2016. URL: **https://www.global2000.at/sites/global/files/Schokolade-Check%202016.pdf**, checked on 11/17/2020.

Tyszler, Roger; Marcelo, Bymolt; Laven, Anna (2018): Analysis of the income gap of cocoa producing households in Ghana. Comparison of actual incomes with the Living Income Benchmark. URL: **https://www.kit.nl/wp-content/uploads/2019/01/Analysis-of-the-income.pdf**, checked on 11/16/2020.

UN Guiding Principles (2011). URL: **https://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf**, checked on 11/16/2020.

Unicef (2018), Children's Rights in the Cocoa-Growing Communities of Côte d'Ivoire. URL: **https://www.unicef.org/csr/css/synthesis-report-**

children-rights-cocoa-communities-en.pdf, checked on 11/16/2020.

Ureña, Rolando (2016): Assessing soil fertility and improving fertilization. YARA. Punta Cana, 2016.

Uribe-Leitz, Enrique; Ruf, François (2019): Cocoa Certification in West Africa: The Need for Change. In Michael Schmidt, Daniele Giovannucci, Dmitry Palekhov, Berthold Hansmann (Eds.): Sustainable global value chains. Cham: Springer (Natural resource management in transition, 2198-9702, 2), pp. 435-461. URL: **https://link.springer.com/chapter/10.1007/978-3-319-14877-9_24**, checked on 11/16/2020.

World Cocoa Foundation (2020): New Research Insights for Brighter Future for Children in Cocoa | World Cocoa Foundation. URL: **https://www.worldcocoafoundation.org/blog/new-research-insights-for-brighter-future-for-children-in-cocoa/**, updated on 10/20/2020, checked on 11/16/2020.

www.cocoabarometer.org