GENEVA CENTER FOR **BUSINESS & HUMAN RIGHTS**

FarmStrong FOUNDATION

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Are we making progress towards eliminating child labor?

A root cause analysis in the cocoa sector in Côte d'Ivoire

WHITE PAPER

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About this white paper

This white paper is a collaboration between the Geneva Center for Business and Human Rights and FarmStrong Foundation. FarmStrong Foundation commissioned this white paper with the motivation to develop strategies that effectively advance the goal of eliminating child labor.

The **Geneva Center for Business and Human Rights** (**GCBHR**) at the University of Geneva's Geneva School of Economics and Management conducts research on human rights challenges in business and supports companies in the development of business models that align profits and principles. Previous research projects of the GCBHR in the agriculture industry focused on vulnerable workers and due diligence implications for brands and global traders.[1] The GCBHR also conducted research on the impact of business on children's rights.[2] Both projects showed that child labor remains a critical concern for companies, governments, and civil society organizations and more work is needed to understand and address its root causes effectively.

FarmStrong Foundation promotes and implements resilient, structured, rural socio-economic development programs, through integrated agricultural production systems, while contributing to securing basic human needs, fundamental human rights and protecting the environment. As a result, the traditional components focusing on the improvement of agricultural production's profitability (food and cash crops) are enhanced with systematic tailored social, gender, health, water and food security, nutrition, energy, and broader environmental management modules, including biodiversity and adequate interventions to mitigate climate change risk.

Context of this study

Child labor is a key concern for companies with complex global supply chains. Particularly in the agriculture sector, child labor remains common.[3] Remedying child labor effectively requires understanding complex root causes, as well as economic, political and socio-cultural drivers.

Root causes of child labor are context specific and require targeted interventions.[4] In some geographies, expert organizations have collected detailed data and developed insights on the drivers of child labor. Meanwhile, the public and the private sector seem to be making ever greater efforts to address child labor.[5] Nevertheless, in some contexts the estimated numbers of children in child labor are stagnating or even growing and companies are unable to show systematic improvement.[6]

This white paper focuses on the emblematic case of child labor in the cocoa supply chain in Côte d'Ivoire. In 2001, cocoa and chocolate industry representatives signed the Harkin-Engel Protocol, an international agreement aiming at ending the worst forms of child labor and forced labor in the production of cocoa.[7] The initial target dates of the protocol – albeit very ambitious from the start – were not met and in 2010, a framework of action to support the implementation of the protocol declared the goal to reduce child labor in Côte d'Ivoire and Ghana by 70% by 2020. However, this target was also not achieved.[8]

In this white paper, we identify challenges to addressing child labor in the cocoa sector that persist despite commitments and investments from public and private actors. We illustrate the shortcomings of current approaches to mitigate child labor risks and propose a way forward.

We first map the root causes of child labor and the approaches that companies, civil society organizations and governments have engaged in to address these root causes. Based on expert interviews, we then analyze these approaches and lay out what experts consider critical to effectively make progress towards eliminating child labor.

Within this white paper, we are unable to fully address the structural factors of the cocoa sector at large, including (1) the pricing mechanisms, (2) the purchasing practices of the private sector (for example, the terms of payment and contracts with producers), and (3) the value creation across the supply chain (for example, the margins for cocoa producers and chocolate manufacturers and the limited value creation within cocoa growing countries). These industry structures also affect mitigation strategies for child labor, but assessing their impacts comprehensively exceeds the scope of this study.

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I.
An emblematic case
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Child labor in the cocoa sector in Côte d'Ivoire

Child labor is a global phenomenon. The International Labour Organization (ILO) estimates that "168 million children are still in child labour and more than half of them, 85 million, are in hazardous work".[9] While work can be a formative and beneficial part of youth, there is global agreement to eliminate exploitative working conditions that harm children's physical and mental well-being or interfere with their education.[10]

Child labor is a complex social issue with implications for the affected children and for societies.[11] An often-mentioned driver of child labor is poverty. Families depend on their children's contribution to the household income to afford basic necessities and to provide for their children, including, for example, nutrition and schooling. Children who grow up in child labor face higher risks of health issues and of working in low-skilled, low-wage jobs in the future.[12] The immediate and longer-term implications of child labor make child labor costly for societies. Evidence shows that poverty can also be a consequence of child labor and create a child labor trap that persists over generations.[13] Nonetheless, according to the experts interviewed for this white paper, poverty alone does not fully explain why child labor remains common.

The elimination of child labor in global supply chains has been high on the agenda of companies and policymakers for several decades. Despite significant investments and some progress, child labor estimates are stagnating, global target dates to eliminate child labor are unlikely to be met or have already been missed and the current estimated number of child labor cases show insufficient systematic improvement.[14]

The UN Convention on the Rights of the Child (UNCRC) is the most widely ratified UN treaty and was also written into national law in both Côte d'Ivoire and Ghana only months after its adoption by the UN in 1989.[15] The Sustainable Development Goals (SDGs) adopted in 2015 set a target date for eliminating the worst forms of child labor by 2025 – five years ahead of the other SDG goals of the Agenda 2030.[16] This objective and timeline is re-iterated in national policies and reflected in company commitments to eliminate child labor from supply chains.[17] Emerging mandatory human rights due diligence (mHRDD) legislation, primarily in Europe, also legally requires companies to assess working conditions in their supply chains, including at production sites of raw materials. These legal and non-legal commitments create a sense of urgency for companies and policymakers to demonstrate progress.

Child labor is a salient concern particularly in the agriculture industry, which accounts for 70% of child labor worldwide.[18] The cocoa sector is known for high risks of child labor, including in Côte d'Ivoire where 40 to 45% of the world's cocoa is grown.[19] Nearly 70% of the population in the country work in agriculture[20] and cocoa growing secures the livelihoods of approximately 6 million people (i.e., 20% of the population) who earn between 70 and 80% of their income through cocoa.[21]

The most reliable reports estimate that one in three children in cocoa growing areas of Côte d'Ivoire (around 800,000 children) work in child labor on family farms in the cocoa sector.[22] This number has stabilized over the past decade, but it did not show a significant improvement. On the contrary, recent estimates even indicate that case numbers have been increasing again, in part attributed to the Covid-19 pandemic.[23] Most children in child labor (recent estimates reach 95 to 99%) work with their families on smallholder farms, and if children are in child labor, they are likely engaging in at least one hazardous activity, such as carrying heavy loads or using dangerous tools.[24]

Remedying child labor effectively remains a human rights challenge that requires a more thorough investigation into the root causes, meaning the reasons that explain why child labor in the cocoa sector persists. Understanding the root causes helps to direct efforts to the source of the problem and to go beyond treating symptoms. The white paper also refers to specific drivers of child labor, in other words, the concrete factors triggering child labor risks. We refer to overarching themes as root causes (for example health) and to specific instances as drivers (for example malaria).

The phenomenon of child labor has been studied intensively.[25] Many of the root causes have been known for a long time, yet child labor prevails. This white paper focuses on the overlooked and underexplored root causes of child labor, including a discussion of the socio-cultural factors that affect child labor, the changing supply chain dynamics in the Ivorian cocoa production and the macroeconomic developments in the cocoa sector.

In this white paper, we first map root causes and child labor intervention strategies at the community, country, and industry levels. Then, we consolidate expert insights on these approaches to outline a future research agenda and a way forward for effectively addressing child labor in the cocoa industry in Côte d'Ivoire.

Facts about the cocoa sector in Côte d'Ivoire

Côte d'Ivoire contributes about 40 to 45% to global cocoa production. Together with neighboring Ghana, their production accounts for approximately 60 to 70% of the world's cocoa.[26] Annual cocoa production in Côte d'Ivoire reached approximately 2.3 million tons of dried and fermented cocoa in recent years,[27] representing 10% of the country's GDP and 35 to 40% of its exports.[28] About two thirds of the cocoa beans from Côte d'Ivoire are exported and processed abroad.[29]

Cocoa sustains the lives of approximately one million cocoa farmers and their families in Côte d'Ivoire, even though experts suggest that the numbers could be twice as high.[30] The majority of cocoa in Côte d'Ivoire is grown on smallholder farms that produce on average 1 ton of cocoa per year on 3 to 3.5 hectares of land.[31] Cocoa is harvested twice a year, with approximately 75% of the annual yield coming from the main harvest between October and March and 25% from the mid-crop harvest between May and August.[32]

Most of the cocoa production in Côte d'Ivoire now comes from growing regions in the center of the country, but production keeps moving further west, into regions with less accessibility and infrastructure.[33] Cocoa beans come together in the regional capitals, including Soubré, Daloa and Duekoué, and in the ports of Abidjan and San Pedro. Traceability beyond this point to the warehouses and farm level is estimated to be less than 50%, yet the proportion of directly sourced, traceable cocoa varies between buyers and can range between 25 and 75%.[34] Based on earth observation and trading volumes, studies estimate that between 17 and 25% of cocoa comes from farms in the so-called *forêts classées*, nationally protected forests where agriculture beyond subsistence farming is illegal.[35] Cocoa production from these farms can neither be certified nor claimed as traceable.

Cocoa production in Côte d'Ivoire has often been correlated with deforestation. When looking for land, cocoa farmers move into areas such as *forêts classées* and national parks.[36] While cocoa farmers do not usually cause the deforestation, they can benefit from (legal and illegal) logging and they can contribute to further degradation of the land through agriculture activities in these areas that impede natural regeneration.[37]

II.
Our research approach
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Literature review and interviews

This white paper analyses different root causes of child labor in the cocoa sector with a specific country focus on Côte d'Ivoire.

The data is based on a systematic literature review on the root causes of child labor, evidence from publicly available data on interventions and pilot projects, and insights from interviews with industry and topic experts representing different stakeholder groups. We conducted 22 interviews with 26 experts from the cocoa industry, from civil society, and from academia, including experts from Côte d'Ivoire and experts on the cocoa sector.

The secondary data we report should be considered as an approximation for the scope of child labor. Child labor is a sensitive topic and obtaining accurate data is a challenge.[38] Studies that collect household-level and farm-level data often focus on areas with better infrastructure that have some prior connection to support programs from the government, the private sector, or non-governmental organizations (NGOs). Moreover, child labor often happens in the informal supply chain that is inaccessible to most industry-led studies, so that case numbers for Côte d'Ivoire are extrapolated. Finally, the data collection method (including the type of questions, interview settings, and applied definitions) may introduce potential biases.[39] As a result, while known data on child labor is already a reason to act, the true numbers are likely higher.

When summarizing the root causes and drivers of child labor in this white paper, for each root cause we provide examples of interventions that address the respective aspect of child labor, including private sector programs, government activities and initiatives from civil society and expert organizations. These interventions illustrate a variety of approaches aimed at eliminating child labor. We asked experts to assess these existing approaches to analyze what works and what requires improvement.

Definition of child labor

Child labor has significant consequences for children and their development. Efforts to eliminate child labor aim to protect children and their well-being in the present and future. This white paper follows the International Labour Organization's (ILO) definition of child labor:

> "[...] work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development. Child labor refers to work that:
>
> - is mentally, physically, socially or morally dangerous and harmful to children; and/or
>
> - interferes with their schooling by: depriving them of the opportunity to attend school; obliging them to leave school prematurely; or requiring them to attempt to combine school attendance with excessively long and heavy work." [40]

Children are defined as persons under the age of 18. Regulations on child labor determine appropriate tasks and working hours for different age groups. The ILO Conventions No. 138 on Minimum Age and No. 182 on the Worst Forms of Child Labour set global guidelines that are further specified in national laws.[41]

Within child labor, reducing cases of hazardous work and other worst forms of child labor (WFCL) is a priority.[42] In the cocoa sector, hazardous tasks include, for example, land clearing, the carrying of heavy loads, exposure to agrochemicals, the use of sharp tools, long working hours and night work.[43] Studies suggest that children who are in child labor likely also engage in at least one task that is considered hazardous work.[44]

The definition of child labor is distinct from working children. According to the ILO, it is accepted for children to perform light work and tasks that support "the welfare of their families" and help children develop "skills and experience [...] to prepare them to be productive members of society during their adult life", for example as interns, apprentices, or in supporting their families.[45] The ILO specifies further that whether such work is considered child labor depends on criteria such as "the child's age, the type and hours of work performed, the conditions under which it is performed, and the objectives pursued by individual countries".

III.
Mapping root causes
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Interventions to address child labor

Mapping the cocoa supply chain and its stakeholders

The producer level of the cocoa supply chain in Côte d'Ivoire is mainly composed of smallholders. The people on the farm include farm owners, sharecroppers who work on land that they do not own and give a proportion of the yield to the farm owner in return, and hired workers.

The farming areas are in close proximity to the communities where farmers and their families live. Typical farming villages have between 40 and 60 members. Most cocoa farmers in Cote d'Ivoire are smallholders that work independently. In cocoa growing areas of Côte d'Ivoire, the Conseil Café Cacao, a government body that oversees the regulation and development of the country's coffee and cocoa sectors, estimates that "30 to 40% of farmers are organized in 2,500-3,000 cooperatives".[46]

At the next tier of the supply chain, cocoa exporters and national exporters source from three different types of suppliers:[47]

Smallholders
Farmers who are not affiliated with any cooperative often rely on independent intermediaries, so-called pisteurs or trackers, who buy directly from farms and resell cocoa to exporters.

Cooperatives
These collective forms of organization include up to several hundred farmers from different farming communities. Buyers purchase cocoa from the cooperatives but have limited transparency to the farm level and little influence over how cooperatives distribute and invest payments.

Purchase centers
There are certified and non-certified purchase centers. Although they have the same legal status as cooperatives, they are subject to less strict governance requirements and have fewer direct relations to farmers.

This is a simplified overview of the main procurement channels. The flow of cocoa is more complex, for instance, if considering inter-category sales. Also, there is a high number of intermediaries in the cocoa supply chain in Côte d'Ivoire who resell cocoa to small buyers.

The first processing steps usually take place at the farm level, including extracting the beans from the cocoa pod, fermenting and drying the beans. The most part of the value creation (up to 70%) takes place in buying countries.[48] It is only recently that individual entrepreneurs and the government have been introducing initiatives to encourage further processing and manufacturing steps in Côte d'Ivoire. The processing itself has limited potential to add jobs and monetary value – the greatest value addition lies in the final product and in chocolate production.[49]

The following sections organize the factors that drive child labor around the *community level*, the *country level*, and the *industry level*. With this structure, we emphasize that child labor cannot be resolved by siloed approaches that focus on one or two drivers of child labor only. Moreover, we highlight the connectedness of the micro-level needs on the community level and the macro-level dynamics at the country level or industry level.

Community level

The community level addresses the living conditions and economic circumstances of farmers, focusing on activities at the farm level and on the people living in farming communities. Factors relating to social security systems are discussed in the country level section.

Poverty of cocoa farming families. Inability to earn a living income drives child labor in several ways and is the most frequently mentioned pertinent root cause. For farmers it is often impossible to subsist on cocoa farming alone.[50] Recent studies estimate that 55% of cocoa farmers in Côte d'Ivoire live below the poverty line and earn less than 2 USD per day.[51] A low income is directly associated with more child labor. If farming families' income is below a living income, children are more likely to work to increase the families' overall labor capacity and yields at no or limited additional cost (as children are often not paid or paid lower wages than hired adult workers).[52] Moreover, farmers may be unable to afford the education-related expenses, leading to children dropping out of school early or to only some of the children in a family receiving an education.

Experts highlight the multi-dimensional nature of poverty that creates a vicious circle of child labor. Families are unable to access finance or acquire land, are less likely to afford good nutrition and healthcare, and are more dependent on selling the harvest immediately, often at unfavorable market conditions. These factors can indirectly drive child labor, if children compensate for their parents when they are sick, or if families cannot make necessary investments in the land which eventually reduces the quantity and/or quality of the cocoa they grow and consequently, their income.

Examples of interventions – Existing initiatives often focus on specific expressions of poverty, for example enabling access to education or improving the sanitary and health situation for children in cocoa farming areas. Other approaches intend to address farmers' financial situation more directly, including the government-set Living Income Differential (LID),[53] private-sector initiated agricultural training programs that emphasize productivity and yields, or community-managed models such as Village Savings and Loan Associations (VSLA) that allow members to accumulate savings. Yet, there is little evidence on their effectiveness in reducing child labor.[54] Other examples of interventions such as direct payments in the form of cash transfers to farmers are believed to hold greater potential for reducing child labor but still need to be tested systematically.[55]

For greater impact, structural approaches are needed, such as connecting VSLA to the formal banking system.[56] Another promising avenue are the attempts of a small number of local entrepreneurs, together with the government, to increase the value of cocoa processing in Côte d'Ivoire by moving into chocolate production.[57] The implementation faces challenges, for example because local manufacturing is dependent on stable electricity, and farmers' income remains subject to the developments in global markets.

In recent years, the private sector launched new holistic programs, including supply-chain based and landscape-based models. Supply-chain based models work through the traceable procurement channels of a company while landscape approaches focus on one specific sourcing region at large to address the drivers of child labor. Both are designed to address structural issues in the cocoa sector.

Economic viability of cocoa cultivation. Cocoa has long been a cash crop that generates a regular income for farmers.[58] However, when comparing the farm-level expenses related to growing cocoa to the income from selling the harvest, cocoa farming is rarely financially sustainable.[59] Expenses include labor costs and investment costs (such as for tools and equipment, fertilizers, and pesticides) and possibly the cost of loans. Evaluating economic viability also needs to factor in costs that occur on a medium-term time horizon, such as soil degradation over time or the years it takes for new cocoa plants to grow into cocoa pods that can be harvested.

In sum, farmers face a disproportionately large part of the risks. The expenses for farmers are relatively fixed while their income depends on a number of variable factors, such as the market price, the quality of the harvest, and demand. Increases in the cost of living, for example, through inflation of food and energy prices as well as the impact of climate change, put further pressure on farming households.[60] At the same time, farmers have limited influence on the factors that determine their income.

Examples of interventions – Approaches that target the production cost and aim to establish more efficient agricultural practices, for example, through training offered by global buyers or civil society actors, alleviate some pressure, but are not enough to lift cocoa farmers out of poverty at scale.[61]

Some initiatives aim to increase the farmgate price (i.e., the price paid directly to producers, but often through the structures of a cooperative), for example, by paying price premiums, and the Ivorian and Ghanaian governments introduced the Living Income Differential (LID) as a mandatory markup on the market price for cocoa. The effectiveness of these measures hinges on the amount that reaches farmers and on governance structures that act in the best interest of farmers, for instance, when price premiums are paid to cooperatives where the board controls the use of the money, or when such premiums are re-invested in cocoa growing areas by the state.

Other measures encourage the cultivation of additional crops to diversify farmers' income and increase economic resilience. However, engaging in additional income-generating activities (IGA) can also lead to a competition for labor resources within farming households and thus be associated with a higher probability of child labor.[62]

Health challenges for cocoa farming households. Poor health is a driver of child labor that affects both the work component and the education component. If farmers are unable or less able to work due to illness, children step in and compensate for farmers' work, often resulting in child labor. Health concerns of all household members have an impact on families' budget, because of health expenses or lower income resulting from reduced productivity at work.[63]

In Côte d'Ivoire, malaria and a lack of access to clean drinking water are common causes of sickness for cocoa farming households. In addition, there are potential health risks related to the storage and use of chemicals and fertilizers for cocoa growing.[64] Despite the national universal health coverage, recent studies estimate that less than 10% of the country's population has health insurance and that access to healthcare remains challenging.[65] If farmers get seriously ill, healthcare expenses are usually quite substantial and unexpected. Such income shocks can push farming families further into poverty and necessitate accumulating debt, which might lead to child labor as a coping strategy or also to children dropping out of school.[66]

Examples of interventions – Concrete remediation strategies include, for example, preventive care or the provision of mosquito nets.[67] Addressing health challenges is a question of healthcare accessibility followed by its affordability (and eligibility, considering farmers' insurance status), and its quality (including personnel, medical devices, and medication).[68] Support for accessing the national health insurance scheme or private complementary health insurance schemes are common interventions from the private sector.

Awareness and behavioral aspects. The argument of cultural acceptance as a driver of child labor is contested among sector experts. Nonetheless, it is prevalent both in explaining child labor and in programs aiming to stop child labor.[69] Experts confirm that farmers are intrinsically motivated to keep their children out of child labor, yet also observe a post-hoc justification of child labor among farmers who need to adjust to the circumstances. At the same time, experts observe that child labor is not always perceived as having a harmful impact on children and is, to some extent, culturally accepted.

There are diverging views about which tasks are deemed acceptable work for children. According to local experts, there is a limited understanding of what kind of activities children may perform and that regular school attendance does not automatically exclude harmful child labor.

Examples of interventions – Awareness raising campaigns are often an integral element of any community support program, although data indicates that these campaigns alone have a limited impact on child labor.[70] Experts note that, to have a lasting impact on habits, behavioral components and peer involvement are necessary, yet they also caution that there is a fine line between awareness raising and patronizing.[71] Sensitivity to context is crucial to have. For example, workshops on financial planning can be perceived as cynical if farmers lack the savings to invest in the first place. Also, experts state that awareness raising to eliminate child labor ought to be coupled with economic interventions that offer alternatives.

Awareness raising involves diverse groups of actors, including child protection committees, school management committees, women's groups, supply chain agents and staff from cooperatives and from Child Labor Monitoring and Remediation Systems (CLMRS). Experts note that identifying the right persons that have the expertise and leverage to oversee these programs is key. Collective action that involves all stakeholders (such as communities, parents, caretakers and teachers) proves most successful.[72]

CLMRS support the identification, monitoring, and documentation of child labor and this creates the foundation for implementing prevention and remediation measures. Companies, governments, and civil society actors use CLMRS to raise awareness for the scope of child labor and they collaborate on addressing existing violations and prevent future ones. However, CLMRS are not designed to address the complex drivers of child labor and thus require complementary measures that, for example, deal with socio-economic root causes.[73]

Gender inequality. Lacking gender equality has indirect implications for child labor. Integrating women into sustainability programs and financial support programs can increase the available household budget. Training women in cocoa growing regions has proven to be efficient, for example, for better managing household finances and incentivizing the education of their children.[74] Targeted programs that support women-led farms address livelihoods and the support generally extends to the children in the household. Experts confirm that equal opportunities for men and women matter from an intergenerational aspect too, as girls whose mothers have dropped out of school are also less likely to complete their education.

A gender lens is also needed to fully assess the scope of child labor on cocoa farms. While girls are less likely than boys to support cocoa farming, according to experts, they are usually involved in household chores and sometimes fully in charge of large households. For example, the daily transport of drinking water is often a girl's task. Carrying heavy loads (in this case, liters of water) is harmful and a violation of children's rights.

Examples of interventions – According to experts, pilot projects indicate that targeting women in farmer support programs can increase their effectiveness.[75] For example, based on the findings from existing support programs targeting Ivorian cocoa farmers, higher levels of education among women, women's literacy, and the presence of women in leading positions are associated with lower levels of child labor.[76] Some private sector initiatives integrate women empowerment as an explicit objective and for example, pay part of the premiums to female household leaders.[77] Overall, there are positive developments regarding opportunities created for women in the cocoa sector in Côte d'Ivoire through such support programs, including with regard to literacy rates and land ownership.[78] More data is needed to study their impact on child labor.

Country level

Drivers of child labor on the country level include the geographic context of cocoa production within Côte d'Ivoire, regulations that concern cocoa farming and child labor, as well as contextual parameters such as social infrastructure, governance, and demographics.

Shift in production areas and deforestation. Cocoa production in Côte d'Ivoire is shifting from the central and eastern regions towards regions west of the center where farmers find fertile land in deforested areas of protected forests *(forêts classées)*.[79] Cocoa farming in protected forests is illegal, yet through middlemen, cocoa from these areas ends up in global supply chains.[80] It is estimated that today, 90% of Côte d'Ivoire is already deforested.[81]

This production shift away from the center increases the risks of child labor because informal production is more likely to occur on illegally deforested land and is more prone to heightened human rights risks. The relative remoteness of these lands and the considerable distance to social infrastructure (including schools and healthcare) and social support programs constitute practical obstacles to preventing child labor.[82]

Examples of interventions – Initiatives to improve livelihoods in the cocoa sector focus on areas with better infrastructure and on the direct supply chain, and thus arguably do not reach the more vulnerable cocoa growing families. Regulations on deforestation-free supply chains further disincentivize private sector engagement in areas at risk of being associated with deforestation.

Mapping cocoa growing activities is a first step to identify high-risk regions. Initiatives from the private sector, civil society organizations and certification bodies track the changes in plant coverage using earth observation technologies.[83] Polygons that delineate the outlines of cocoa growing areas seek to verify traceability although there have been cases of fraud through double mapping. Despite commitments from the private sector to preserve forests, some in collaboration with the government,[84] satellite data shows that deforestation continues.[85]

Landscape approaches are another example of how multiple stakeholders try to collaboratively ensure greater coverage of interventions in an entire geographical area and beyond the direct supply chain of a single brand. These approaches focus on complex issues such as deforestation that cannot be addressed by one actor alone. While environmental issues are often at the center of landscape approaches, their objectives also explicitly include improving livelihoods and strengthening governance.[86]

Social infrastructure and infrastructure. The availability of social services, and most importantly schools, is critical for reducing the likelihood of child labor. In the rural communities in Côte d'Ivoire, access to education is more difficult compared to urban areas because schools are located at greater distances and accessible only via rough, unpaved roads. Similarly, the availability of teachers and good teaching materials is not always guaranteed.[87]

Barriers to accessible administrative services can also prompt child labor. For instance, obtaining a birth certificate, which is necessary for children to attend school, is cumbersome, costly, and requires documentation that parents do not always possess.

Examples of interventions – Reaching rural communities is a major obstacle. Studies estimate that less than 50% of cocoa growing communities in Côte d'Ivoire are beneficiaries of dedicated support programs that address child labor.[88]

Private sector investment and the engagement of civil society organizations complement public infrastructure. However, building infrastructure and increasing accessibility only resolves part of the problem. For instance, schools only become an alternative to child labor, if they meet quality standards (i.e., teach children to read and write), and satisfy safety concerns (in particular for girls).[89] This requires funding a weather-appropriate building, furniture, and teaching material, finding and financing a qualified teacher (and possibly housing), and

arranging transportation from and to the school.[90] The considerable scope of this task raises questions about balancing the relevant responsibilities between the private sector and the government. Also, non-public schools do not always follow the national curriculum, which complicates controlling the quality and content of education. Similar considerations apply to healthcare infrastructure and other social services too.

Public governance and regulations. Some regulations intended to prevent child labor can have the opposite effect unless they are accompanied by measures to offer alternatives for children. For instance, the regulatory framework in Côte d'Ivoire excludes very young workers from working in the formal cocoa sector, although teenagers may work if they do not perform hazardous tasks and work up to a certain number of hours stipulated under the law for their age group. According to the interviewed experts, in the absence of alternatives such as accessible schools or apprenticeships, some children end up in informal work that is unregulated and provides limited protection.

The centralized administrative system in Côte d'Ivoire makes scaling approaches to overcome child labor and effectively adapting them to the community context more complicated. For NGOs and private organizations who work with different stakeholders across communities, Côte d'Ivoire is a sensitive environment due to historical legacies and remaining cultural, ethnical, and religious tensions. Also, according to experts, weak governance remains a challenge.

Examples of interventions – Identifying a strong partner at the local governance level (for example, at the sous-préfecture level in Côte d'Ivoire) makes a difference for the success and long-term effectiveness of initiatives to address child labor.[91]

The regulations in buying countries, for example, on deforestation-free and child labor free supply chains, influence purchasing practices and the allocation of resources in producing countries. According to industry experts, such regulations in buying countries are important but need to be part of a combination of interventions to address child labor.

Birth certificates and official ID. Having an official ID or a birth certificate is a requirement for accessing certain public services. In Côte d'Ivoire, children used to be able to attend primary school without a birth certificate yet could not graduate or pursue secondary education. As part of the digitalization of administrative processes, primary school attendance will require a birth certificate, leaving more children "invisible" and preventing their access to education.

Experienced field experts estimate that half of the children in cocoa regions do not have birth certificates, a rate that is higher than the national average for Côte d'Ivoire.[92] Several reasons explain this low number: (1) the costs; (2) the administrative process which requires the involvement of three officials: a civil servant, a doctor, and a legal representative; (3) intergenerational challenges (i.e., parents that do not have an official ID themselves, as is often the case for second-generation migrants); and (4) regional circumstances such as families in remote farming communities not being able to provide a registered address and a surname for their registration.

Examples of interventions – The lack of official IDs among children in cocoa growing regions is being addressed, for example, through efforts such as identifying the children in question and providing logistical support, including by convening the necessary administrative representatives in communities to register children. More solutions are needed to facilitate the issuance of birth certificates in the future, including practical support such as technical hardware for schools to implement the state's digital register and procedural solutions for families who lack required identification.

Land ownership and size. Land ownership and land quality affect poverty levels and child labor.[93] Cocoa farmers who do not own the farmland invest less into the land, which results in lower productivity and ultimately a lower income. Soil depletion – resulting from over-exploitation of the land, climate change, and limited investment in the land – makes cocoa growing more input-dependent and costly while reducing the potential yield. Moreover, smallholder farms can be too small to reach the productivity levels needed to sustain the average household size.[94]

In search of more land or more fertile land, farmers move to new areas, including deforested land in protected areas.[95] The more remote the cocoa growing activities take place, the higher are the human rights and child labor risks.

According to experts, cocoa farmers without an official ID or foreign nationals are at a disadvantage when it comes to accessing land tenure. Their children are thus more vulnerable too.

Examples of interventions – Interventions to address this driver of child labor include training to promote good agricultural practices (GAP) that target farming methods, resource efficiency, and crop variety. However, these interventions do not address barriers to accessing land. Also, inheritance customs for dividing family-owned land among all children in a family can eventually lead to patches of land that are too small to be productive. Other countries established regulations that set a minimum size for inherited farming land, whereby, as of a certain size, the land cannot be further divided but siblings must be compensated for the value of their share.

Demographics. Looking at the demographic profile of Côte d'Ivoire reveals additional explanations for the prevalence of child labor. Approximately 50% of the Ivorian population is younger than eighteen years old, whereas the average age of cocoa farmers is 47 years.[96] Many young adults leave the agriculture sector in search of better work, giving rise to labor shortages on the farms that increase the likelihood of child labor.[97] In some regions, early child marriage is a problem, however, there is no clear evidence whether this has an impact on child labor. The household size may also impact the prevalence of child labor. According to some experts, larger households are more likely to involve their children in child labor.

Examples of interventions – Some initiatives to make cocoa farming more sustainable and more attractive to youth focus on integrating women and young workers into the cocoa supply chain. Yet, demographic factors also set boundaries to what interventions can achieve. Even well-funded support programs aiming to increase production levels cannot meet the needs of large households, if the size of their land undercuts necessary productivity levels.

Law enforcement and cross-border traffic. Some cocoa workers migrate to Côte d'Ivoire from neighboring countries, such as Burkina Faso or Mali, to work during school holidays or during the harvest time. Trafficking cases which lead to forced child labor have been documented in Côte d'Ivoire.[98] Trafficking is difficult to control due to the free movement policies between countries that are members of the West African Economic and Monetary Union (WAEMU).[99] Experts indicate that while trafficking is a serious offense, forced labor takes place at a much smaller scale than child labor, and the major concern in relation to child labor remains for children within farming families in Côte d'Ivoire.[100]

Examples of interventions – The Ivorian government addresses child labor in laws that regulate, for instance, minimum working age, and via dedicated government agencies, such as the National Oversight Committee of Actions against Child Trafficking, Exploitation and Child Labor (CNS).[101] Orchestrated police interventions had some success in detecting cases of child labor related to trafficking and holding the farm owners accountable yet do not amount to systematic enforcement efforts.[102] Experts also note that police interventions can result in punitive approaches for families and undermine programs that take a supportive approach to identifying and remediating child labor.

Other interventions focus on the role of buying countries in ending child labor in global supply chains, for example, by introducing actionable mandatory human rights due diligence (mHRDD) legislations or, in some cases, enforcing regulations to ban the import of goods that have been produced with child labor.[103]

Landscape approaches as a holistic way to address the root causes of child labor

Over the last years, landscape approaches have emerged as holistic approaches to develop resilient ecosystems in a specific geographical area.[104] Such approaches cover all households in a region, whether they grow cocoa or not, without requiring a link to a particular supply chain. To date, these are mostly pilot projects that test the effectiveness of addressing a combination of root causes in a predefined area.[105]

As defined by the Swiss State Secretariat for Economic Affairs (SECO), the goal of landscape approaches is to "[address] complex sustainability challenges, such as poverty or natural resource degradation [...] focusing on issues like climate change, biodiversity or deforestation".[106] Landscape approaches integrate social, economic, and environmental objectives that can sustain food systems and livelihoods.

Complex challenges are often "influenced by distinct ecological, historical, political, economic and cultural processes and activities".[107] In order to adapt activities to such specific contexts and leverage local knowledge, landscape approaches are community-centered. They involve coordination between all stakeholders in the region to maximize impact and rely on close collaboration with regional authorities to ensure institutionalization and continuity in the long-term.[108] Unlike some supply chain approaches, landscape approaches target all households in one geographical area, independent of whether or not they are connected to a particular supply chain or sector.

Several pilot landscape approaches are implemented in Côte d'Ivoire that aim to address child labor.[109] To establish proof of concept, they focus on a combination of a selected group of root causes. These pilots monitor interaction effects and test if the landscape approach succeeds at eliminating child labor in the area over time. Their cross-sector focus seeks to prevent a mere shift in child labor from cocoa to a different industry. To date, there is no conclusive evidence about the effectiveness of the current version of landscape approaches.

Industry level

This section analyzes the structure of the industry in Côte d'Ivoire, including the informal sector, the gap between living income and farmgate prices, as well as non-industry specific factors, such as labor market dynamics and the impact of climate change on farming.

Informal sector for cocoa production. A significant proportion of cocoa from Côte d'Ivoire comes from the indirect supply chain. On average, studies estimate that over 55% of cocoa are not traceable to the farm or cooperative,[110] although some companies report higher numbers and others do not publish traceability data. The informal sector is associated with greater risks for child labor, and cocoa farmers in the informal sector are generally more vulnerable economically.

Company engagement often depends on supply chain traceability, which means that cocoa growing families in the indirect supply chains tend to be excluded from corporate Child Labor Monitoring and Remediation Systems (CLMRS) and traceability programs, even though the mixing points are at times known. Also, the quantities that companies purchase on the open market are more volatile as they depend on the demand. Cocoa from the indirect supply chain often comes from remote rural areas that are less well-integrated into the different community development programs and face structural challenges as discussed under the "country level".

Examples of interventions – The scope of support programs by the private sector is often limited to the direct supply chain, as this scope facilitates satisfying monitoring, remediation and reporting requirements. As a consequence, farmers in indirect supply chains that lack traceability are excluded from the support. The government of Côte d'Ivoire introduced a new traceability system that aims to reach full traceability within the next years.[111] Members of the private sector confirm that traceability is becoming less of a challenge, although industry experts caution that achieving full traceability is not yet realistic either.

Besides supply chain-based programs, landscape approaches emerged. If well designed, coordinated and monitored, they are most promising for addressing the root causes of child labor holistically, including in the informal sector.

Living income, farmgate prices and price premiums. Farmers can hardly subsist on growing cocoa alone. They are forced to cut costs, for example on investments in the land, labor expenses, health and well-being, or education. An inability to earn a living income pushes farmers into deforested areas or into informality. Eventually, such dynamics lead to a vicious circle where child labor becomes more likely. If farmers struggle to earn enough, children are vulnerable to the risk of exploitation as workers and to the risk of dropping out of school.

The farmgate price of cocoa is a key determinant of farmers' livelihoods. Cocoa is seasonal and experts note that in many cases, farmers' income from selling their harvest does not last until the next harvest, even when taking into account price premiums for sustainable cocoa.[112] Considering that most farmers have little to no savings, farmers depend on selling their crop when the harvest comes to an end, independent of the market price. Unlike buyers, farmers cannot stockpile cocoa.

Examples of interventions – Living income is a primary target of interventions that address the drivers of child labor, including in government initiatives to lift farmgate prices through the Living Income Differential (LID), private sector

incentive systems for farmers (including price premiums for sustainability programs and certifications), and civil society efforts to improve farming practices (to increase yield and reduce production costs) and farmer empowerment.[113]

A few programs stand out for allocating significant resources over a longer timeline to improve cocoa farmers' living income, such as Nestlé's Living Income Accelerator[114], which includes conditional and unconditional cash transfers, Mondelez' Cocoa Life Program[115], and Tony Chocolonely's Living Income Model[116]. Other industry actors are following suite.[117] Digitalized, cashless payment solutions often facilitate access to finance.[118] Initial evidence from third-party monitoring shows some progress but not yet a breakthrough increase in overall income levels.[119]

Experts raise several aspects when reflecting on the longer-term impact of such living income programs. One concern over private or public sector interventions focusing primarily on yield is a potential oversupply of cocoa, which could lower the market price. To increase the resilience of the Ivorian cocoa sector, investments should strengthen local economic development, for example, by investing in the local processing of cocoa to create jobs and to capture a greater part of the value chain.[120] Also, support programs should aim at empowering farming families, for example, by providing cash incentives without conditions or by focusing on access to finance.[121] [122]

Labor market. Another driver of child labor relates to the availability of workers. If farmers are unable to find – or to afford – hired labor, children are more likely to do the work instead. Finding hired labor for cocoa farms is challenging. Younger generations of workers tend to move away from farming communities. At the same time, farmers compete for workers with other industries such as mining. The relative wage levels that farmers can afford are often not competitive on the labor market.

Examples of interventions – Hired labor is a factor that is often overlooked in interventions that focus on productivity. Higher yields require more labor, yet productivity gains may not be enough to offset the additional expense of hiring labor.[123]

Labor shortages are addressed by interventions to make work on cocoa farms more attractive and support farmers in affording adult workers, including through cash transfers and labor vouchers, community service groups, pruning gangs, and the formalization of labor contracts.[124]

Climate change. Climate change affects the entire industry, yet farmers bear most of the burden. Less predictable weather conditions, excessive heat and rain (or the absence thereof), and a higher risk of pests and diseases influence the cocoa cultivation process.[125] These factors can negatively affect the yield and the quality of cocoa beans, thereby reducing the income that a farmer receives from selling the season's harvest. Climate change thus adds to the vulnerability of farmers and their families, in particular given the weak social security net they often already face. Poverty, again, is a marker for child labor.

Examples of interventions – Interventions aim at increasing the resilience of cocoa farming by emphasizing agroforestry or introducing technological solutions to adapt cocoa farming to climate change.[126] Such adaptations can range from establishing efficient irrigation systems to providing more robust cocoa varieties. Some initiatives explore the potential of innovative technological solutions to also improve human rights due diligence.

Pricing and value creation in the cocoa industry

Annual cocoa production volume reached approximately 5 million tons, and the global market for cocoa beans is valued at around 13 billion USD, although the market price at which cocoa is traded is volatile.[127]

The market price is composed of several elements that reflect current supply and demand levels for cocoa, cost of transportation, quality of cocoa (through the origin differential), and subsidies or tariffs introduced by producing countries' governments to stabilize prices for farmers (such as the Living Income Differential in Côte d'Ivoire and Ghana).[128]

Cocoa that is certified under voluntary sustainability standards (VSS) is sold at a premium. In Côte d'Ivoire, the share of cocoa growing areas that are compliant with voluntary sustainability certification standards was estimated to be at 23 to 42% in 2019 whereas over 50% of cocoa are conventionally sourced.[129]

The traceability requirements for cocoa that is compliant with sustainability standards differ. Whereas some sustainably produced cocoa is segregated from the production origin through transport and processing to the buyer, sourcing through mass balance is more common. This means that buyers document the amount of cocoa that complies with sustainability standards at the point of origin and can sell an equivalent amount of cocoa as compliant on the market, even though in the supply chain, conventional and compliant cocoa beans are mixed to facilitate transportation or processing.[130]

Despite supplying 40% of global cocoa, Côte d'Ivoire effectively receives 5 to 7% of its global market value.[131] Farmers thus receive the smallest share of all stakeholders in the cocoa value chain, which includes exporters, traders, and processors, and farmers' share has decreased over time.

Even though cocoa serves as farmers' main source of income, farmers' income from the harvest is barely sufficient for a decent standard of living.[132] Cocoa trees have on average exceeded the age of their highest productivity, and there are limited investments in improved agricultural practices.[133] In some cases, a lack of ownership over the cocoa cultivation disincentives investments, in other cases, the farm size is too small to be profitable enough to sustain the number of people on the farm.

Production costs in Côte d'Ivoire are high compared to other cocoa suppliers.[134] Experts emphasize the need for investing in efficiency gains, including through technological solutions and infrastructure, to ensure that Côte d'Ivoire remains competitive whilst upholding human rights in the supply chain. At the same time, experts see the need to discuss the pricing mechanisms for the cocoa industry at large and the value distribution between different sections of the cocoa supply chain.

Root causes of child labor explored to date

ROOT CAUSES OF CHILD LABOR	DRIVERS OF THE ROOT CAUSES OF CHILD LABOR
COMMUNITY LEVEL	
Poverty of cocoa farming families	Increasing the number of workers, low labor expenses
Economic viability of cocoa cultivation	High production costs, productivity degradation over time, farm size in relation to the number of people in farming households
Health challenges for cocoa farming households	Parental health and absence from work (for example, because of malaria, or lack of access to clean drinking water), lack of health insurance and risk of debt
Awareness and behavioral aspects	Limited awareness of the definitions of child labor and of acceptable tasks for children
Gender inequality	Levels of education replicated between generations, gender perspective affecting the efficiency of support programs
COUNTRY LEVEL	
Shift in production areas and deforestation	Cocoa farming in remote and rural areas, including in protected forests
Social infrastructure and infrastructure	Limited quality and availability of social services and social protection (for example schools, healthcare, and public services), long distance to social services
Public governance and regulations	Absence of alternatives (for example, apprenticeships)
Birth certificates and official ID	Requirement for registration for schooling, for graduation and further education
Land ownership and size	Lack of ownership disincentivizing investments in the land, increased household vulnerability due to reliance on cocoa farming as the only income source
Demographics	Young workers leaving the cocoa sector, large families that need to live off a farm
Law enforcement and cross-border traffic	Limited protection of temporary child workers from neighboring countries, insufficient capacity to detect and remedy child labor
INDUSTRY LEVEL	
Informal sector for cocoa production	Less integrated in support programs, higher economic vulnerability
Living income, farmgate prices, and price premiums	Income too low for subsistence levels, low margins, high volatility of cocoa prices, power imbalance in the supply chain
Labor market	Limited availability of adult workers, wage levels not competitive with other sectors
Climate change	Unpredictability of yield and quality of the harvest and thus of farmers' income

IV.
Expert assessments
–
Reasons for lacking progress on eliminating child labor

Some projects report incremental progress but fail to get closer to the goal of eliminating the structural problem of child labor in the cocoa sector. In our research, we came across promising NGO-led and private sector pilot projects, yet many collect insufficient data on the impact and long-term effects on child labor and fail to reach scalability.

The main challenge appears to be less about an understanding of the root causes but rather about the effectiveness of interventions to eliminate child labor at scale. All interventions are well-intentioned and focus on important aspects. However, they suffer from key reasons that hamper progress for eliminating child labor:[135]

Data currently tends to measure "input" level activity and not impact. Ensuring the validity of data is crucial as it impacts efforts towards reducing child labor in several ways, including through decisions about resource allocation:

Activities need to be measured against the desired key performance indicators (KPIs) that monitor the input, output, and outcome for child labor. For instance, providing mosquito nets can be one response to improve farmers' health. Assessing the effectiveness must be based on the reduction of lost working days (output) and a reduction in child labor (outcome), rather than the mere count of, for example mosquito nets (input).

Relevant metrics for child labor need to be considered in combination. For instance, measuring school attendance rates does not provide insights into child labor unless considered in combination with data on children's working hours in the field and, ideally, also qualitative metrics such as whether children pass their exams.

Indicators must provide evidence on whether they reach the people with the greatest need. To date, data on interventions to address child labor rarely differentiates between groups of farm workers. For example, more detail is needed to assess the impact on farm owners, sharecroppers, hired workers or family workers. As one expert notes, the same is true for "women-led or single-parent households, or migrant workers who are most vulnerable".

Data must allow attributing changes in child labor to specific interventions. Doing so requires collecting independent baseline data and measuring the impact of interventions over time. To date, some studies monitor child labor over time but do not differentiate between interventions. Other studies track the impact of specific interventions, yet typically in a regional controlled environment and not at scale.

Research should ascertain that the reduction in child labor is real and lasting and not the result of shifting child labor to other areas. Some interventions that reduced child labor in agriculture were accompanied by an increase in child labor in artisanal gold mining.

Coordination between initiatives from private sector, civil society, and governments is insufficient. This slows down – and in some cases undermines – progress on eliminating child labor:

Competing initiatives can lead to inefficiencies and create redundancies, for example, in administrative efforts, sometimes to the disadvantage of the farming communities they seek to support. Initiatives tend to be designed, financed, and managed in isolation from one another, leading to an oversupply of support programs in some "popular" regions whereas other "unattractive" regions lack support.

The absence of alignment between actors creates gaps in support for communities, geographically and thematically. Each stakeholder typically provides unique expertise, a specific set of resources, and a particular mandate. Siloed approaches that promote individual interventions can lead to situations in which critical root causes remain unaddressed. To eliminate rather than partially alleviate the root causes of child labor, collaboration is key.

Coordination is needed to raise the capacity of different stakeholders to act and prevent inertia. Unclear responsibilities between stakeholders (and between the public and the private sector in particular) can lead to partial solutions where each party expects more from the other. For instance, facilitating "access to education" includes a set of activities – it is not only an infrastructural problem but also linked to eligibility and administrative registration requirements.

Scaling of pilot projects that address child labor is often inadequate. Over the last decades, interventions have improved the situation for many children and cocoa farming communities yet failed to achieve a breakthrough across the sector at large:

Evaluating the impact of interventions requires a sufficiently long time horizon. When pilot projects are discontinued after their initial try-out, evidence about their impact remains premature. Experts comment that "one to three years are insufficient to assess impact, whether an intervention can reduce child labor in the long-term and whether positive results can be replicated in different contexts". Moreover, experts suggest that the timeframe is often too short to establish the effective structures that are needed for an intervention to become independent from any one actor in the future.

Scaling promising interventions should emphasize geographic reach and the number of farms that are covered. Interventions are typically limited to specific communities or cooperatives in the cocoa sector but are not expanded to cover the broader population.[136] Such decisions are often taken based on practical considerations. Experts admit that this practice "excludes high-risk, remote, isolated, unconnected, and invisible communities".

Maintaining the integrity of a promising intervention when scaling it matters. Experts observed critically that companies, when internalizing best practices, tend to modify project parameters without a strong data basis. For instance, Child Labor Monitoring and Remediation Systems (CLMRS) are considered an effective way to identify, monitor, and ideally remediate known cases (even though not necessarily root causes) of child labor. Expert organizations developed minimal requirements and key performance indicators for effective CLMRS.[137] However, experts also indicated that "the private sector does not always implement best practice CLMRS but makes modifications that weaken some of the aspects of CLMRS that are important for reducing child labor".[138]

Initiatives to address child labor in cocoa supply chains lack traceability and reach. Current initiatives focus on companies' traceable direct supply chain, yet an increasing volume is procured through the indirect supply chain with higher child labor risks:

Geographical shifts in the cocoa growing regions require a dynamic reassessment of child labor risks and adjustment of support programs. For example, although cocoa production in Côte d'Ivoire has shifted from the central and eastern regions towards regions west of the center, foreign investment programs still focus largely on the former center of production. Experts explain that "the more remote the production, the tougher are the living conditions, and the higher the risks for child labor," especially in protected areas where commercial agricultural activities are not allowed. In the absence of support programs, traders in the indirect supply chain do not have the resources, means or capabilities to address complex issues such as child labor.

Effective interventions need to acknowledge that child labor is a systemic risk. Both the direct and the indirect supply chain must be addressed in order to reduce child labor sustainably. Improving traceability alone is therefore not the solution. To date, companies consider traceability as a condition for their investments in the supply chain. However, in the absence of better data, experts suggest that resources should be pooled around interventions in high-risk areas, irrespective of whether direct relationships with buyers exist or not.

Interventions need to control for and manage unintended consequences. Addressing one driver of child labor can have unintended consequences for other drivers. Interventions need to be designed accordingly and stay aware of the context:

On the community level, interventions need to take a comprehensive view on the realities on the farm to achieve the desired impact. Experts for example describe programs that focus exclusively on increasing yield yet fail to account for the resulting changes in labor costs, or training offers that do not reach the intended target group because farm workers cannot leave the farm for a full-day training so that the owner or manager will attend instead.

On a country level, premium payments of certification schemes in combination with limited traceability can set incentives for fraud. Certifications are meant to allow farmers to sell their cocoa at a price premium if they adhere to certain sustainability standards, yet audits are not sufficiently reliable to detect violations of these standards, including child labor.[139]

On an industry level, relying on supplier codes of conduct and zero tolerance policies risks pushing child labor into the deeper layers of the supply chain that are off-the radar for labor inspectors and company auditors. A possible consequence is that children engage in even more precarious activities. Also, some private sector or civil society initiatives create positive impact for farmers, but their set-up increases farmers' dependency on the suppliers.

V.
The way forward
—
A research agenda for exploring effective child labor remediation

Based on the emblematic case of cocoa farming in Côte d'Ivoire, our research shows that child labor is a complex and systemic issue. Addressing child labor requires joint efforts. We suggest a strategy of shared responsibility, involving global cocoa buying brands and traders, the government at a national and a regional level in Côte d'Ivoire, as well as governments from buying countries, civil society and international organizations such as UNICEF, international financial institutions and private philanthropy, and cocoa growing communities. Shared responsibility implies that these stakeholders coordinate their actions to create leverage and pool resources to effectively address the underlying challenges of child labor in Côte d'Ivoire.[140]

Experts note that *at the community level*, the investments in interventions to reduce child labor have shown some positive effects, however, they cannot eliminate child labor if the contextual parameters in Côte d'Ivoire and in the industry do not change. Experts emphasize the need for systemic change, and more concretely, they call on companies and policymakers for scaling interventions from regional projects to structural programs that reach all cocoa growing areas. They also emphasize strengthening the accountability of all stakeholders for delivering measurable impacts.

To end child labor, prevention and remediation equally matter. An enabling environment *at the country level* that is conducive to addressing the root causes of child labor requires overcoming weak governance structures. To address complex root causes that no actor alone can address, such as schooling, requires collaboration and close coordination among government institutions, companies, and civil society. Experts also suggest working with new partners that could create leverage and incentives for addressing child labor, such as institutional investors or youth mobilizers in communities.

Effective strategies to prevent child labor also need to address the macroeconomic drivers *at the industry level*. For example, poverty will not be mitigated if interventions to individual drivers (such as access to healthcare or education) are decoupled from macro-level drivers (such as incomes that are too low to cover health or education expenses). The private sector needs to also discuss how to stabilize household incomes and the local economy by increasing value-creating activities in-country. Instead of merely exporting cocoa beans, companies could support Côte d'Ivoire with investments to build processing capacities for cocoa to increase the value creation in-country.

Any direct financial intervention by public and private actors into the industry requires a more intricate understanding of the market mechanisms in the cocoa sector in Côte d'Ivoire. Over the last decades, most of the external funding, often from donors from the Global North, has been directed towards the supply side of the cocoa value chain. Some experts suggest that despite best intentions, the inflow of funding distorted the market to the disadvantage of producers, and the financial interventions alone have proven to be insufficient for addressing poverty. Similarly, higher cocoa prices (and higher yields) have not always led to a reduction in child labor, contrary to expectations.[141]

Our analysis suggests that ending child labor in the cocoa sector requires a shift in perspective *from individual root causes towards interconnected root causes*.[142] Root causes need to be assessed in the specific context of a geographical area and community. Such "ecosystem" or landscape approaches consider the socio-cultural characteristics of one geographical unit to align strategies which address the interconnection between root causes. These holistic strategies make sure that communities' needs within a specific geographical unit are met, and child labor is addressed sustainably.

By bringing together the competences of different stakeholders, landscape approaches ideally *ensure that all measures that are needed to fully address a root cause are taken*. For instance, guaranteeing access to education requires a set of complementary actions from companies, the government, and civil society, ranging from providing physical infrastructure of school buildings and teaching material, to training teachers and facilitating school registration, for example, by making it easier for parents to obtain a birth certificate and an official ID for their children. The landscape approaches that are implemented to date are pilots and do not yet meet the criteria of a truly holistic and integrative approach.

This novel focus on assessing ecosystems should not rule out the fact that interventions that address individual root causes can also have incremental positive effects for children. For some root causes of child labor in a specific geographical area, there might be simple solutions that make a difference, such as providing mosquito nets to malaria-plagued farmers. Also, improving the socio-cultural and economic conditions within the geographical area – independent of the area's relation to the cocoa sector – can eventually reduce child labor in this area. For example, prioritizing new infrastructure projects should be based on where they are needed most and not limited to traceable cocoa communities.

From our analysis, it is clear that holistic approaches are needed to reinforce dynamics that keep children out of child labor sustainably. Landscape approaches promise to resolve complex issues such as child labor by fostering collaborations between private and public actors, by addressing interconnected root causes, and by using technology to assess high risk areas. However, landscape approaches are not easy to implement because they require multiple actors to agree on a holistic strategy and to work together over a longer period of time. The success of landscape approaches will hinge upon all actors' willingness to coordinate and contribute to a spirit of shared responsibility.

Endnotes

[1] See Geneva Center for Business and Human Rights, Focus Areas, Agriculture, https://gcbhr.org/focus/agriculture/.

[2] See Geneva Center for Business and Human Rights, Insights, Publications, https://gcbhr.org/insights/2022/08/addressing-childrens-rights-in-business-an-assessment-from-switzerland-and-liechtenstein-publication.

[3] Alliance 8.7, 'Child Labour', https://www.alliance87.org/challenge/child-labour;
United Nations, 'UN Experts Urge Action to Address Alarming Increase of Child Labour in Agriculture Sector', *OHCHR* (30 May 2022), https://www.ohchr.org/en/press-releases/2022/05/un-experts-urge-action-address-alarming-increase-child-labour-agriculture.

[4] Tulane University, *Survey Research on Child Labor in West African Cocoa Growing Areas 2013/14* (Tulane University, School of Public Health and Tropical Medicine, July 2015).

[5] Richard Scobey, 'Statement: Assessing Progress in Reducing Child Labor in Cocoa Production in Cocoa Growing Areas of Côte d'Ivoire and Ghana', *World Cocoa Foundation* (19 October 2020), https://www.worldcocoafoundation.org/press-release/statement-assessing-progress-in-reducing-child-labor-in-cocoa-production-in-cocoa-growing-areas-of-cote-divoire-and-ghana/.

[6] International Labour Organization and UNICEF, 'Child Labour – Global Estimates 2020, Trends and the Road Forward', *International Programme on the Elimination of Child Labour* (10 June 2021).

[7] Harkin-Engel Protocol (adopted 19 September 2001), https://www.cocoainitiative.org/sites/default/files/resources/Harkin_Engel_Protocol.pdf.

[8] Framework of Action to Support Implementation of the Harkin-Engel Protocol (adopted 13 September 2010), https://www.cocoainitiative.org/sites/default/files/resources/Cocoa_Framework_of_Action_9-12-10_Final-1-1.pdf;
'Global Civil Society Statement on Child Labour in Cocoa', *Public Eye* (12 June 2021), https://www.publiceye.ch/en/news/detail/global-civil-society-statement-on-child-labour-in-cocoa;
Bertrand William and Elke de Buhr, 'Trade, Development and Child Labor: Regulation and Law in the Case of Child Labor in the Cocoa Industry' (2015) 8:2 *The Law and Development Review*.

[9] International Labour Organization (n.d.). Child Labor. *Decent work for sustainable development (DW4SD) resource platform*. https://www.ilo.org/global/topics/dw4sd/themes/child-labour/lang--en/index.htm.

[10] Laurent Foubert, 'What Makes Child Labour Harmful and What it Means for the Cocoa Sector', *International Cocoa Initiative* (March 2023).

[11] Christopher Udry, 'Child labor' in Abhijit Vinayak Banerjee, Roland Benabou and Dilip Mookherjee (eds.), *Understanding Poverty* (Oxford University Press, 2006);
Patrick Emerson and Shawn D Knabb, 'Opportunity, Inequality and the Intergenerational Transmission of Child Labour' (2006) 73:291 *Economica*.

[12] Delphine Boutin and Marine Jouvin, 'Child Labour Consequences on Education and Health: A Review of Evidence and Knowledge Gaps' *Bordeaux Economics Working Papers* 2022.

[13] See for example, Kamalika Chakraborty and Bidisha Chakraborty, 'Low Level Equilibrium Trap, Unemployment, Efficiency of Education System, Child Labour and Human Capital Formation' (2018) 125 *Journal of Economics*;
Jayanta Sarkar and Dipanwita Sarkar, 'Why Does Child Labor Persist with Declining Poverty' (2016) 54:1 *Economic Inquiry*;
International Labour Organization and UNICEF, *The Role of Social Protection in the Elimination of Child Labour – Evidence Review and Policy Implications* (International Labour Organization, 2022).

[14] See for example, Government of Côte d'Ivoire, Government of Ghana. U.S. Department of Labor, International Chocolate and Cocoa Industry, *CLCCG Report: 2010-2020 Efforts to Reduce Child Labor in Cocoa* (US Department of Labor), https://www.dol.gov/sites/dolgov/files/ILAB/reports/CLCCG-Ten-Year-Report.pdf;
European Union, 'Ending Child Labour by 2025', *EEAS* (May 2021), https://www.eeas.europa.eu/eeas/ending-child-labour-2025_en;
Richard Scobey, 'Statement: Assessing Progress in Reducing Child Labor in Cocoa Production in Cocoa Growing Areas of Côte d'Ivoire and Ghana', *World Cocoa Foundation* (19 October 2020), https://www.worldcocoafoundation.org/press-release/statement-assessing-progress-in-reducing-child-labor-in-cocoa-production-in-cocoa-growing-areas-of-cote-divoire-and-ghana/;
Peter Whoriskey and Rachel Siegel, 'Cocoa's Child Laborers', *The Washington Post* (5 June 2019), https://www.washingtonpost.com/graphics/2019/business/hershey-nestle-mars-chocolate-child-labor-west-africa/.

[15] UN Commission on Human Rights, Convention on the Rights of the Child, 7 March 1990, E/CN.4/RES/1990/74;
OHCHR (n.d.), Status of Ratification, https://indicators.ohchr.org/.

[16] United Nations, 'Goal 8 – Decent Work and Economic Goals', Sustainable Development Goals, https://www.un.org/sustainabledevelopment/economic-growth/.

[17] See for example, European Parliament, 'Child labour – A Priority for EU Human Rights Action', *European Parliamentary Research Service* (15 January 2019);
Swiss National Action Plan, 'UN Guiding Principles on Business and Human Rights: Swiss National Action Plan 2020–2023' (15 January 2020); James Tapper, '"Brands to Avoid": Mars and Cadbury Among Chocolate Firms Criticised in Ethics Report', *Guardian* (2 December 2023), https://www.theguardian.com/food/2023/dec/02/brands-to-avoid-mars-cadbury-chocolate-firms-criticised-ethics-report.

[18] UN Global Compact (2021), 'Business Actions to Eliminate Child Labour', *UNGC,* https://unglobalcompact.org/take-action/business-actions-to-eliminate-child-labour.

[19] Swiss Platform for Sustainable Cocoa, 'Produced in the south – Consumed in the north', *Kakaoplattform*, https://www.kakaoplattform.ch/about-cocoa/cocoa-facts-and-figures;
Jessica Davis Plüss, 'Chocolate Makers Face Reckoning Over Persistent Child Labour Challenge', *Swissinfo* (5 November 2020), https://www.swissinfo.ch/eng/business/chocolate-makers-face-reckoning-over-persistent-child-labour-challenge/46140504.

[20] Land Links, 'Côte d'Ivoire', *US Agency for International Development*, https://www.land-links.org/country-profile/cote-divoire/.

[21] Benoît Gohoun, 'Sustainable Cocoa Farming in Côte d'Ivoire: UN Deputy Chief Notes Significant Progress and Calls for Greater International Support' *UN Sustainable Development Group* (17 May 2022), https://unsdg.un.org/latest/stories/sustainable-cocoa-farming-cote-divoire-un-deputy-chief-notes-significant-progress;
World Bank, *Côte d'Ivoire Economic Outlook: Why the Time Has Come to Produce Cocoa in a Fully Inclusive and Responsible Manner* (World Bank, 11 July 2019).

[22] See National Opinion Research Center (NORC), *Assessing Progress in Reducing Child Labor in Cocoa Production in Cocoa Growing Areas of Côte d'Ivoire and Ghana* (University of Chicago, October 2020). Experts suggest that the number and proportion of children in child labor could be much higher. Obtaining adequate data that reflects both the direct and the indirect supply chain is difficult. Moreover, to get robust data, studies should take a gendered approach and consider other forms of child labor that – directly or indirectly – support cocoa production, such as girls in farming households carrying water

[23] The latest reports find that cocoa-related child labor in Côte d'Ivoire has been increasing but indicate that the increase in child labor has been slowing down. Compared to the growth in cocoa production, child labor increased at a slower rate. This data is based on the 2008/09 to 2018/19 period; see National Opinion Research Center (NORC), *Assessing Progress in Reducing Child Labor in Cocoa Production in Cocoa Growing Areas of Côte d'Ivoire and Ghana* (University of Chicago, October 2020).
Other studies show an increase in child labor during the Covid-19 pandemic; see ICI, *Hazardous Child Labour in Côte d'Ivoire's Cocoa Communities During COVID-19* (International Cocoa Initiative, 2020).
See also Conference Proceedings of the ISCO WG Child Labour Conference (Geneva, September 2023).

[24] National Opinion Research Center (NORC), *Assessing Progress in Reducing Child Labor in Cocoa Production in Cocoa Growing Areas of Côte d'Ivoire and Ghana* (University of Chicago, October 2020).

[25] See for example, James Sumberg and Rachel Sabates-Wheeler (eds.), *Children's Work in African Agriculture: The Harmful and the Harmless* (Bristol University Press, 2023);
Mahmudul Hoque, 'Reviewing Child Labour and its Worst Forms: Contemporary Theoretical and Policy Agenda' (2021) 6:4 *Journal of Modern Slavery*.

[26] Swiss Platform for Sustainable Cocoa, 'Produced in the south – Consumed in the north', *Kakaoplattform*, https://www.kakaoplattform.ch/about-cocoa/cocoa-facts-and-figures.

[27] Mahsa Shahbandeh, 'Global Cocoa Bean Production from 2020/21 to 2022/23, by Country', *Statista* (19 September 2023), https://www.statista.com/statistics/263855/cocoa-bean-production-worldwide-by-region/.

[28] SCALA and Jean Douglas Anaman, 'Building a Resilient Cocoa Culture in Côte d'Ivoire', *United Nations Development Programme* (25 July 2022), https://www.adaptation-undp.org/scala-building-a-resilient-cocoa-culture-in-cote-d-ivoire;
African Development Fund, 'Republic of Côte d'Ivoire: Cocoa Sector Governance Support Project', AFDB (November 2018); Republic of Côte d'Ivoire, 'Agriculture Sector Update', *World Bank* (2019).

[29] Steffany Bermudez, Vivek Voora, Cristina Larrea, and Erika Luna, 'Global Market Report – Cocoa Prices and Sustainability', *IISD and SSI Sustainable Commodities Marketplace Series* (November 2022).

[30] World Bank, *Côte d'Ivoire Economic Outlook: Why the Time Has Come to Produce Cocoa in a Fully Inclusive and Responsible Manner* (World Bank, 11 July 2019);
Jessica Davis Plüss and Nassrin Farzaneh, 'Children's Rights in the Cocoa-Growing Communities of Côte d'Ivoire', *UNICEF* (November 2018).

[31] Roger Bymolt, Anna Laven, and Marcelo Tyzler, *Demystifying the Cocoa Sector in Ghana and Côte d'Ivoire* (Royal Tropical Institute, 2018);
Christian Bunn, Pablo Fernandez-Kolb and Mark Lundy, 'Climate Smart Cocoa in Côte d'Ivoire', *CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS)* (September 2019);
National Opinion Research Center (NORC), *Assessing Progress in Reducing Child Labor in Cocoa Production in Cocoa Growing Areas of Côte d'Ivoire and Ghana* (University of Chicago, October 2020).

[32] Jessica Davis Plüss and Nassrin Farzaneh, 'Children's Rights in the Cocoa-Growing Communities of Côte d'Ivoire', *UNICEF* (November 2018).

[33] Barima Yao Sadaiou Sabas, Konan Gislain Danmo, Kouakou Akoua Tamia Madeleine, and Bogaert Jan, 'Cocoa Production and Forest Dynamics in Côte d'Ivoire from 1985 to 2019' (2020) 9:12 *Land*.

[34] Cécile Renier, Mathil Vandromme, Patrick Meyfroidt, Vivian Ribeiro, Nikolai Kalischek and Erasmus zu Ermgassen, 'Transparency, Traceability and Deforestation in the Ivorian Cocoa Supply Chain' (2023) 18 *Environmental Research Letters*;
Antonie C Fountain and Friedel Huetz-Adams, 'Cocoa Barometer 2022', *Voice Network* (December 2022).

[35] Décret n° 2021-437 (adopted 8 September 2021), *Journal Officiel de la République de Côte d'Ivoire* (30 September 2021);
Cécile Renier, Mathil Vandromme, Patrick Meyfroidt, Vivian Ribeiro, Nikolai Kalischek and Erasmus zu Ermgassen, 'Transparency, Traceability and Deforestation in the Ivorian Cocoa Supply Chain' (2023) 18 *Environmental Research Letters*.

[36] Barima Yao Sadaiou Sabas, Konan Gislain Danmo, Kouakou Akoua Tamia Madeleine, and Bogaert Jan, 'Cocoa Production and Forest Dynamics in Côte d'Ivoire from 1985 to 2019' (2020) 9:12 *Land*.

[37] François Ruf, Götz Schroth and Kone Doffangui, 'Climate Change, Cocoa Migrations and Deforestation in West Africa: What Does the Past Tell Us About the Future' (2015) 10:1 *Sustainability Science*;
Itohan-Osa Abu, Zoltan Szantoi, Andreas Brink, Marine Robuchon and Michael Thiela, 'Detecting Cocoa Plantations in Côte d'Ivoire and Ghana and Their Implications on Protected Areas' (2021) 129 *Ecological Indicators*.

[38] See for example, Guilherme Lichand and Sharon Wolf, 'Measuring Child Labor: the Who's, the Where's, the When's, and the Why's', *Social Science Research Network (SSRN)* (15 February 2023).

[39] Marine Jouvin, 'Addressing Social Desirability Bias in Child Labor Measurement: An Application to Cocoa Farms in Côte d'Ivoire' *Bordeaux Economics Working Papers* 2021-08.

[40] International Labour Organization, 'What is Child Labour', *International Programme on the Elimination of Child Labour (IPEC)*, https://www.ilo.org/ipec/facts/lang--en/index.htm.

[41] International Labour Organization, 'ILO Conventions on Child Labour', *International Programme on the Elimination of Child Labour (IPEC)*, https://www.ilo.org/ipec/facts/ILOconventionsonchildlabour/lang--en/index.htm;
Abou Pokou Edouard, 'Impact of School Quality on Schooling and Child Labour in Selected Zones of Ivory Coast', African Economic Research Consortium, Research Paper 451 (August 2021);
US Department of Labor, *Findings on the Worst Forms of Child Labor - Côte d'Ivoire: Significant Advancement* (2021);
Ministère de l'Emploi de la Protection Sociale, 'Liste des Travaux Dangereux Interdits aux Enfants' (2 June 2017).

[42] Benjamin Smith, 'Child Slavery, Child Labour, Hazardous Work—What's the Difference?, *World Cocoa Foundation* (8 October 2020), https://www.worldcocoafoundation.org/blog/child-slavery-child-labor-hazardous-work-whats-the-difference/.

[43] For the latest regulations for Côte d'Ivoire, see Ministère de l'Emploi de la Protection Sociale, 'Liste des Travaux Dangereux Interdits aux Enfants' (2 June 2017). See also ICI, 'Comparative Analysis of Child Labour Decrees in Cameroon, Côte d'Ivoire and Ghana', *International Cocoa Initiative*, https://www.cocoainitiative.org/sites/default/files/resources/Comparative-analysis-of-child-labour-decrees-GHA-CIV-CMR_26_05_21.pdf.

[44] National Opinion Research Center (NORC), *Assessing Progress in Reducing Child Labor in Cocoa Production in Cocoa Growing Areas of Côte d'Ivoire and Ghana* (University of Chicago, October 2020).

[45] International Labour Organization, 'What is Child Labour', *International Programme on the Elimination of Child Labour (IPEC)*, https://www.ilo.org/ipec/facts/lang--en/index.htm.

[46] Jessica Davis Plüss and Nassrin Farzaneh, 'Children's Rights in the Cocoa-Growing Communities of Côte d'Ivoire', *UNICEF* (November 2018).

[47] See for example, P Stoop, N Ramanan, H Geens, A Lambrecht and S Dekeister, 'Technical Brief on Cocoa Traceability in West and Central Africa', *IDH, GISCO, C.Lever* (2021);
Cécile Renier, Mathil Vandromme, Patrick Meyfroidt, Vivian Ribeiro, Nikolai Kalischek and Erasmus zu Ermgassen, 'Transparency, Traceability and Deforestation in the Ivorian Cocoa Supply Chain' (2023) 18 *Environmental Research Letters*.

[48] Laurent Pipitone, 'Cocoa Boom & Bust: A Review of Cocoa Market Developments', *UN Conference on Trade and Development* (2018);
Anand Chandrasekhar, 'West Africa Wants More of Europe's Chocolate Pie' *Swissinfo* (28 February 2023), https://www.swissinfo.ch/eng/business/west-africa-wants-more-of-europe-s-chocolate-pie/48307014.

[49] World Bank, *Côte d'Ivoire Economic Outlook: Why the Time Has Come to Produce Cocoa in a Fully Inclusive and Responsible Manner* (World Bank, 11 July 2019);
Steffany Bermudez, Vivek Voora, Cristina Larrea, and Erika Luna, 'Global Market Report – Cocoa Prices and Sustainability', *IISD and SSI Sustainable Commodities Marketplace Series* (November 2022).

[50] Michiel Kuit, Nathalie Tijdink and Daan van der Meer, 'New Insights on Reaching Living Income – Baseline Analysis from Farmer Field Books of Cocoa Farmers in Côte d'Ivoire', *IHD* (August 2019).

[51] Damien Gale, 'Cocoa Planting is Destroying Protected Forests in West Africa, Study Finds', *The Guardian* (22 May 2023), https://www.theguardian.com/environment/2023/may/22/cocoa-planting-is-destroying-protected-forests-in-west-africa-study-finds;
World Bank, *Côte d'Ivoire Economic Outlook: Why the Time Has Come to Produce Cocoa in a Fully Inclusive and Responsible Manner* (World Bank, 11 July 2019).

[52] Notably, incremental increases in farmers' earnings do not reduce child labor but can even increase the use of child labor. Studies find that case numbers of children in child labor only decrease if families' earnings reach or surpass a living income. See Rik Habraken, Oumou Diallo, Lisa de Graaf and Rob Kuijpers, 'Living Income and Child Labour in the Cocoa Sector of Côte d'Ivoire', KIT Royal Tropical Institute Working Paper Series (November 2023).

[53] Africa News, 'Ivory Coast, Ghana Step up Efforts to Reform Cocoa Industry, Set $400 Premium', *Africa News* (12 September 2019), https://www.business-humanrights.org/en/latest-news/c%C3%B4te-divoire-ghana-set-a-fixed-living-income-differential-of-400-per-tonne-of-cocoa-to-relieve-farmer-poverty/.

[54] Although some studies find that cocoa farming households benefit from support programs that focus on good agricultural practices (GAP) and additional income-generating practices (IGA), the relation to child labor remains "ambiguous".
See Rik Habraken, Oumou Diallo, Lisa de Graaf and Rob Kuijpers, 'Living Income and Child Labour in the Cocoa Sector of Côte d'Ivoire', KIT Royal Tropical Institute Working Paper Series (November 2023);
see also Jennifer Golden, 'VSLAs in Cocoa – The Business/Income Case', *World Cocoa Foundation* (November/December 2019).

[55] Chiara Ravetti, 'The Effects of Income Changes on Child Labour – A Review of Evidence from Smallholder Agriculture', *International Cocoa Initiative* (April 2020).

[56] ICI, 'Savings and Loans: The Importance of Linking VSLAs to the Formal Banking System in Cocoa-growing Areas', *International Cocoa Initiative* (21 September 2023), https://www.cocoainitiative.org/news/savings-and-loans-importance-linking-vslas-formal-banking-system-cocoa-growing-areas.

[57] Anand Chandrasekhar, 'West Africa Wants More of Europe's Chocolate Pie' *Swissinfo* (28 February 2023), https://www.swissinfo.ch/eng/business/west-africa-wants-more-of-europe-s-chocolate-pie/48307014.

[58] Itohan-Osa Abu, Zoltan Szantoi, Andreas Brink, Marine Robuchon and Michael Thiel, 'Detecting Cocoa Plantations in Côte d'Ivoire and Ghana and Their Implications on Protected Areas' (2021) 129 *Ecological indicators*. See also Marius Wessel and PM Foluke Quist-Wessel, 'Cocoa Production in West Africa – A Review and Analysis of Recent Developments' (2015) 74:1 *NJAS: Wageningen Journal of Life Sciences*..

[59] Adeline Lambert, 'The Fairness Gap: Farmer Incomes and Root Cause Solutions to Ending Child Labor in the Cocoa Industry', *International Labor Rights Forum* (December 2014);
Rik Habraken, Oumou Diallo, Lisa de Graaf and Rob Kuijpers, 'Living Income and Child Labour in the Cocoa Sector of Côte d'Ivoire', KIT Royal Tropical Institute Working Paper Series (November 2023);
Ken Giller, 'Cocoa beans could be processed much more in Ivory Coast and Ghana', *Wageningen University and Research*, https://www.wur.nl/en/article/cocoa-beans-could-be-processed-much-more-in-ivory-coast-and-ghana-1.htm.

[60] Antonie C Fountain and Friedel Huetz-Adams, 'Cocoa Barometer 2022', *Voice Network* (December 2022).

[61] V Ingram, F van Rijn, Y Waarts, M Dekkers, B de Vos, T Koster, R Tanoh and A Galo, 'Towards Sustainable Cocoa in Côte d'Ivoire. The Impacts and Contribution of UTZ Certification Combined with Services Provided by Companies', *Wageningen Economic Research* (2017);
Roger Bymolt, Anna Laven, and Marcelo Tyzler, *Demystifying the Cocoa Sector in Ghana and Côte d'Ivoire* (Royal Tropical Institute, 2018);
World Bank, *Côte d'Ivoire Economic Outlook: Why the Time Has Come to Produce Cocoa in a Fully Inclusive and Responsible Manner* (World Bank, 11 July 2019).

[62] Roger Bymolt, Anna Laven, and Marcelo Tyzler, *Demystifying the Cocoa Sector in Ghana and Côte d'Ivoire* (Royal Tropical Institute, 2018);
Rik Habraken, Oumou Diallo, Lisa de Graaf and Rob Kuijpers, 'Living Income and Child Labour in the Cocoa Sector of Côte d'Ivoire', KIT Royal Tropical Institute Working Paper Series (November 2023).

[63] International Labour Organization, 'ILO Promotes the Extension of Universal Health Coverage to Rural Households in Cocoa-Producing Areas', *International Labour Organization* (22 September 2021), https://www.ilo.org/africa/technical-cooperation/accel-africa/cote-d-ivoire/WCMS_818265/lang--en/index.htm;
Elucid, 'The Effect of Health Insurance on Farmer Livelihoods and Coping Behaviors', *Elucid*, presentation on the socio-economic benefits of health insurance 2023.

[64] National Opinion Research Center (NORC), *Assessing Progress in Reducing Child Labor in Cocoa Production in Cocoa Growing Areas of Côte d'Ivoire and Ghana* (University of Chicago, October 2020);
Jessica Davis Plüss and Nassrin Farzaneh, 'Children's Rights in the Cocoa-Growing Communities of Côte d'Ivoire', *UNICEF* (November 2018).

[65] International Labour Organization, 'ILO Promotes the Extension of Universal Health Coverage to Rural Households in Cocoa-Producing Areas', *International Labour Organization* (22 September 2021), https://www.ilo.org/africa/technical-cooperation/accel-africa/cote-d-ivoire/WCMS_818265/lang--en/index.htm;
Mario J Azevedo, 'The State of Health System(s) in Africa: Challenges and Opportunities' in Mario J Azevedo (ed.), *Historical perspectives on the state of health and health Systems in Africa, Volume II* (Cham, Palgrave Macmillan: 2017).

[66] Chiara Ravetti, 'The Effects of Income Changes on Child Labour – A Review of Evidence from Smallholder Agriculture', *International Cocoa Initiative* (April 2020).

[67] Jessica Davis Plüss and Nassrin Farzaneh, 'Children's Rights in the Cocoa-Growing Communities of Côte d'Ivoire', *UNICEF* (November 2018).

[68] Mario J Azevedo, 'The State of Health System(s) in Africa: Challenges and Opportunities' in Mario J Azevedo (ed.), *Historical perspectives on the state of health and health Systems in Africa, Volume II* (Cham, Palgrave Macmillan: 2017).

[69] See for example, UNICEF Côte d'Ivoire, 'Promoting the Rights of Children in the Cocoa Producing Areas in Cote d'Ivoire', *UNICEF* (March 2019).

[70] Roger Bymolt, Anna Laven, and Marcelo Tyzler, *Demystifying the Cocoa Sector in Ghana and Côte d'Ivoire* (Royal Tropical Institute, 2018);
FAO, *FAO Framework on Ending Child Labour in Agriculture* (UN Food and Agriculture Organization, 2020).

[71] See also, for example, Kwame Asamoah Kwarteng, 'The Unintended Consequences of Western Policies on Cocoa Child Labour', *Cocoa Diaries Newsletter* (4 December 2023), https://cocoadiaries.substack.com/p/the-unintended-consequences-of-western.

[72] See for example, Guilherme Lichand and Sharon Wolf, 'Measuring Child Labor: the Who's, the Where's, the When's, and the Why's', *Social Science Research Network (SSRN)* (15 February 2023).

[73] See for example, ICI, *Benchmarking Study: Overview and Definition of Child Labor Monitoring and Remediation Systems* (International Cocoa Initiative, 2021). The data that CLMRS produce is often fragmented as it is tied to the members of a specific supply chain or a cooperative but not consolidated at the community level or across supply chains.

[74] IFAO, *Gender Dimensions of Child Labour in Agriculture* (UN Food and Agriculture Organization, 2021);
AFDB, *Economic Empowerment of African Women through Equitable Participation in Agricultural Value Chains* (African Development Bank, 2015).

[75] See also DHB Bisseleua, L Idrissou, A Ogunniyi and K Atta-Krah, 'Diversification and livelihood strategies in the cocoa belt of West Africa: The need for fundamental change' (2018) 10 *World Development Perspectives*.

[76] Lorenzo Guarcello and Furio Rosat, 'Using Community-level Data to Understand Child Labour Risk in Cocoa-growing Areas in Côte d'Ivoire', *International Cocoa Initiative* (May 2019).

[77] See for example, Nestlé, 'The Income Accelerator Program: How It Works', *Nestlé* (January 2022), https://www.nestle.com/sites/default/files/2023-07/nestle-income-accelerator-program.pdf;
World Cocoa Foundation, *Empowering Women Cocoa Farmers in West Africa: An Industry Experience in Women's Empowerment through Public Private Partnerships* (WCF, 2019).

[78] Roger Bymolt, Anna Laven, and Marcelo Tyzler, *Demystifying the Cocoa Sector in Ghana and Côte d'Ivoire* (Royal Tropical Institute, 2018).

[79] Barima Yao Sadaiou Sabas, Konan Gislain Danmo, Kouakou Akoua Tamia Madeleine, and Bogaert Jan, 'Cocoa Production and Forest Dynamics in Côte d'Ivoire from 1985 to 2019' (2020) 9:12 *Land*.

[80] Nikolai Kalischek, Nico Lang, Cécile Renier, Rodrigo Caye Daudt, Thomas Addoah, William Thompson, Wilma J Blaser-Hart, Rachael Garrett, Konrad Schindler & Jan D Wegner, 'Cocoa Plantations are Associated with Deforestation in Côte d'Ivoire and Ghana' (2023) *Nature Food*;
Etelle Higonnet, Glenn Hurowitz, Abdul Tejan Cole, Alex Armstrong and Liviya James, 'Behind the Wrapper: Greenwashing in the Chocolate Industry', *Mighty Earth* (2018).

[81] FAO, 'Forest Area (% of Land Area) – Cote d'Ivoire, *World Bank* (2021), https://data.worldbank.org/indicator/AG.LND.FRST.ZS?locations=CI;
Damien Gale, 'Cocoa Planting is Destroying Protected Forests in West Africa, Study Finds', *The Guardian* (22 May 2023), https://www.theguardian.com/environment/2023/may/22/cocoa-planting-is-destroying-protected-forests-in-west-africa-study-finds.

[82] Marine Jouvin, 'Addressing Social Desirability Bias in Child Labor Measurement: An Application to Cocoa Farms in Côte d'Ivoire' *Bordeaux Economics Working Papers* 2021-08.

[83] See for example, FarmStrong Foundation, 'Use and Create Synergies with Innovative Technologies', *FarmStrong Foundation*, https://farmstrong-foundation.org/technology/;
Yao SS Barima, Akoua TM Kouakou, Issouf Bamba, Yao C Sangne, Michel Godron, Julien Andrieu and Jan Bogaert, 'Cocoa Crops are Destroying the Forest Reserves of the Classified Forest of Haut-Sassandra (Côte d'Ivoire)' (2016) 8 *Global Ecology and Conservation*.

[84] See for example, CFI, 'Cocoa & Forests Initiative (CFI) Reports Progress Towards Ending Deforestation Through Cooperation Between Cocoa Sector and Governments of Côte d'Ivoire And Ghana', *Cocoa & Forests Initiative* (21 September 2023), https://www.worldcocoafoundation.org/initiative/cocoa-forests-initiative/.

[85] Anand Chandrasekhar, 'Deforestation Flagged in West Africa Despite Chocolate Industry's Promises', *Swissinfo* (25 February 2022), https://www.swissinfo.ch/eng/business/deforestation-flagged-in-west-africa-despite-chocolate-industry-s-promises/47365238;
Erasmus zu Ermgassen et al., 'Addressing Indirect Sourcing in Zero Deforestation Commodity Supply Chains' (2021) *agriRxiv*.

[86] See for example, WCF, 'Cocoa & Forests Initiative Partners Showcase Groundbreaking Progress in Forest Conservation at COP28', *World Cocoa Foundation* (December 2023), https://www.worldcocoafoundation.org/press-release/the-world-cocoa-foundation-and-cocoa-forests-initiative-partners-showcase-strides-in-ivorian-deforestation-prevention-at-cop28/;
'ENACTE' landscape initiative in Cote d'Ivoire led by UNICEF/ILO/IOM, *ISCO WG Child Labour Conference* (2023);
SWISSCO, 'The Cavally Landscape Project', *Swiss Sustainable Cocoa Platform* (2023), https://www.kakaoplattform.ch/what-we-do/projects/detail?tx_news_pi1%5Baction%5D=detail&tx_news_pi1%5Bcontroller%5D=Project&tx_t8references_referencelisting%5Bproject%5D=39&cHash=aefedc02b78a5037cc567c78b77b88ec.

[87] Jasodhara Bhattacharya, Brooke Wortsman, Fabrice Tanoh, Shamina Shaheen, and Kaja K Jasińska, 'Accelerating Progress Towards Eradicating Child Labor (SDG8.7) with Quality Education (SDG4): School Quality is Linked to Reduced Child Cocoa Labor in Côte D'Ivoire', *Open Science Framework* (11 April 2023).

[88] See for example, National Opinion Research Center (NORC), *Assessing Progress in Reducing Child Labor in Cocoa Production in Cocoa Growing Areas of Côte d'Ivoire and Ghana* (University of Chicago, October 2020).

[89] Interventions to improve education include teacher training, innovative learning methods such as multi-grade classes and child-paced learning, and supportive measures such as school meals and bursaries. Some interventions also provide accelerated education for (former) child laborers to catch up on learning objectives. See for example, US Department of Labor, *Findings on the Worst Forms of Child Labor - Côte d'Ivoire: Significant Advancement* (2021);
Abou Pokou Edouard, 'Impact of School Quality on Schooling and Child Labour in Selected Zones of Ivory Coast', African Economic Research Consortium, Research Paper 451 (August 2021);
Anna Brüderle, 'Education Quality and Child Labour Evidence from Cocoa-growing Communities in Côte d'Ivoire and Ghana', *International Cocoa Initiative* (June 2019);
TRECC 'CLEF – Child Learning and Education Facility', *TRECC program* (2024), https://treccprogram.org/en/project/clef-child-learning-and-education-facility-2/.

[90] Kouadio Kouassi Hugues, 'Sustainability in the Cocoa Production Chain in Côte d'Ivoire: Schooling, Women Empowerment and Household Living Condition' (2020) 8:8 *Open Journal of Social Sciences*;
Jacobs Foundation, 'Transforming Education in Côte d'Ivoire: Reflections, Lessons Learned, Next Steps', *TRECC Transforming Education in Cocoa Communities* (December 2021).

[91] Conference Proceedings of the ISCO WG Child Labour Conference (Geneva, September 2023).

[92] Institut National de la Statistique, 'La Situation des Femmes et des Enfants en Côte d'Ivoire', *Ministère du Plan et du Développement* (2016);
Benoît Gohoun, 'Sustainable Cocoa Farming in Côte d'Ivoire: UN Deputy Chief Notes Significant Progress and Calls for Greater International Support' *UN Sustainable Development Group* (17 May 2022), https://unsdg.un.org/latest/stories/sustainable-cocoa-farming-cote-divoire-un-deputy-chief-notes-significant-progress.

[93] Milande Busquet, Niels Bosma and Harry Hummels, 'A Multidimensional Perspective on Child Labor in the Value Chain: The Case of the Cocoa Value Chain in West Africa' (2021) 146 *World Development*;
Kodzovi Abalo, 'Child Labor in Agricultural Households in Burkina Faso, Ivory Coast and Mali: Test of the Luxury Axiom by a Fuzzy Sets Theory Approach', Munich Personal RePEc Archive Working Paper 54940 (June 2012).

[94] Michiel Kuit, Nathalie Tijdink and Daan van der Meer, 'New Insights on Reaching Living Income – Baseline Analysis from Farmer Field Books of Cocoa Farmers in Côte d'Ivoire', *IHD* (August 2019).

[95] Nikolai Kalischek, Nico Lang, Cécile Renier, Rodrigo Caye Daudt, Thomas Addoah, William Thompson, Wilma J Blaser-Hart, Rachael Garrett, Konrad Schindler & Jan D Wegner, 'Cocoa Plantations are Associated with Deforestation in Côte d'Ivoire and Ghana' (2023) *Nature Food*;
François O Ruf, Götz Schroth and Kone Doffangui, 'Climate Change, Cocoa Migrations and Deforestation in West Africa: What Does the Past Tell Us About the Future' (2015) 10:1 *Sustainability Science*.

[96] Michiel Kuit, Nathalie Tijdink and Daan van der Meer, 'New Insights on Reaching Living Income – Baseline Analysis from Farmer Field Books of Cocoa Farmers in Côte d'Ivoire', *IHD* (August 2019).

[97] Roger Bymolt, Anna Laven, and Marcelo Tyzler, *Demystifying the Cocoa Sector in Ghana and Côte d'Ivoire* (Royal Tropical Institute, 2018).

[98] Sarah Johnson, 'How Côte d'Ivoire is Winning the Fight to Keep its Children out of the Cocoa Fields', *The Guardian* (27 December 2022), https://www.theguardian.com/global-development/2022/dec/27/how-ivory-coast-is-winning-the-fight-to-keep-its-children-out-of-the-cocoa-fields.

[99] Tom Collins, 'Ivory Coast's Crackdown on Child Labor Clashes With the Realities of Cocoa Farming', *New Lines Magazine* (6July2023),https://newlinesmag.com/reportage/ivory-coasts-crackdown-on-child-labor-clashes-with-the-realities-of-cocoa-farming.

[100] Elke de Buhr and Elise Gordon, 'Bitter Sweets: Prevalence of Forced Labour & Child Labour in the Cocoa Sectors of Côte d'Ivoire & Ghana', *Tulane University and Walk Free Foundation* (2018).

[101] US Department of Labor, *Findings on the Worst Forms of Child Labor - Côte d'Ivoire: Significant Advancement* (2021);
Tulane University, *Survey Research on Child Labor in West African Cocoa Growing Areas 2013/14* (Tulane University, School of Public Health and Tropical Medicine, July 2015).

[102] Tom Collins, 'Ivory Coast's Crackdown on Child Labor Clashes With the Realities of Cocoa Farming', *New Lines Magazine* (6 July 2023), https://newlinesmag.com/reportage/ivory-coasts-crackdown-on-child-labor-clashes-with-the-realities-of-cocoa-farming.

[103] Ange Aboa, Aaron Ross and Maytaal Angel, 'Exclusive: U.S. Investigates Child Labour in Ivory Coast Cocoa Supply Chains', *Reuters* (30 March 2020), https://www.reuters.com/article/us-cocoa-ivorycoast-childlabor-exclusive-idUSKBN21H0QW;
Martha Mendoza, 'Advocates Sue Federal Government for Failing to Ban Imports of Cocoa Harvested by Children', *Associated Press* (15 August 2023), https://apnews.com/article/child-labor-lawsuit-cocoa-human-rights-africa-f8d3c8c74d66b5745e1d77e1dfc178d0.

[104] See for example, Peter A Minang, Meine van Noordwijk, Olivia E Freeman, Cheikh Mbow, Jan de Leeuw and Delia Catacutan, 'Climate-Smart Landscapes: Multifunctionality In Practice', *World Agroforestry Centre* (2015);
FAO, *Landscapes for Life: Approaches to Landscape Management for Sustainable Food and Agriculture* (UN Food and Agriculture Organization, 2017).

[105] Conference Proceedings of the ISCO WG Child Labour Conference (Geneva, September 2023).

[106] SECO, *SECO's Engagement in Sustainable Landscape Approaches: Beyond a Single Crop Focus* (State Secretariat for Economic Affairs SECO, January 2023).

[107] SECO, *SECO's Engagement in Sustainable Landscape Approaches: Beyond a Single Crop Focus* (State Secretariat for Economic Affairs SECO, January 2023);
see also Kai Schütz, 'Landscape Approaches – Background Paper', *Deutsche Gesellschaft für Internationale Zusammenarbeit GIZ* (November 2019).

[108] ILO, 'Towards Child Labour Free Cocoa Growing Communities', *International Labour Oranization* (2016), https://www.ilo.org/ipec/projects/global/ccp/lang--en/index.htm.

[109] 'ENACTE' landscape initiative in Cote d'Ivoire led by UNICEF/ILO/IOM, *ISCO WG Child Labour Conference* (2023);
SWISSCO, 'The Cavally Landscape Project', *Swiss Sustainable Cocoa Platform* (2023), https://www.kakaoplattform.ch/what-we-do/projects/detail?tx_news_pi1%5Baction%5D=detail&tx_news_pi1%5Bcontroller%5D=Project&tx_t8references_referencelisting%5Bproject%5D=39&cHash=aefedc02b78a5037cc567c78b77b88ec;
KIT, 'The Potential of Landscape Approaches for Addressing Child Labour in Sustainability Programmes in the Cocoa Sector', *KIT Royal Tropical Institute*, https://www.kit.nl/project/the-potential-of-landscape-approaches-for-addressing-child-labour-in-sustainability-programmes-in-the-cocoa-sector/.

[110] Cécile Renier, Mathil Vandromme, Patrick Meyfroidt, Vivian Ribeiro, Nikolai Kalischek and Erasmus zu Ermgassen, 'Transparency, Traceability and Deforestation in the Ivorian Cocoa Supply Chain' (2023) 18 *Environmental Research Letters*.

[111] The Ivorian "Système d'Observation et de Suivi du Travail des Enfants en Côte d'Ivoire" (SOSTECI) aims to align the national CLMRS at the government-level with private CLMRS and is meant to be integrated into a national traceability system that eventually also contains environmental and economic data. See for example, Maytaal Angel, 'Ivory Coast Expects All Its Cocoa will be Traceable within a Year', *Reuters* (15 September 2022), https://www.reuters.com/article/global-cocoa-conference-idUSL8N30M5BP/;
ICI, Annual Report 2021 (International Cocoa Initiative; 2022); Comité National de Surveillance des Actions de Lutte contre la Traite, l'Exploitation et le travail des Enfants, 'SOSTECI', *Travail des enfants*, https://travaildesenfants.org/fr/dossier/sosteci.

[112] Roger Bymolt, Anna Laven, and Marcelo Tyzler, *Demystifying the Cocoa Sector in Ghana and Côte d'Ivoire* (Royal Tropical Institute, 2018).

[113] See for example, Antonie C Fountain, 'Good Purchasing Practices in Cocoa – A Barometer Consultation Paper', *Voice Network* (December 2023).

[114] Nestlé, 'The Income Accelerator Program: How It Works' (January 2022), https://www.nestle.com/sites/default/files/2023-07/nestle-income-accelerator-program.pdf (20 December 2023).

[115] Mondelez, 'Why Cocoa Life', https://www.cocoalife.org/.

[116] Tony's Chocolonely, 'Living Income Model' (2023), https://tonyschocolonely.com/int/en/our-story/serious-statements/living-income-model.

[117] Anthony Myers, 'Hershey Joins Nestlé in Establishing "Income Accelerator" Scheme for Cote d'Ivoire's Cocoa Farmers',*ConfectionaryNews* (2May2023),https://www.confectionerynews.com/Article/2023/05/02/hershey-joins-nestle-in-establishing-income-accelerator-scheme-for-cote-d-ivoire-s-cocoa-farmers.

[118] Barry Callebaut, 'How Digital Payments Contribute to Sustainable Cocoa Rarming', *Barry Callebaut* (2 February 2023), https://www.barry-callebaut.com/de-CH/group/media/news-stories/how-digital-payments-contribute-sustainable-cocoa-farming;
Ange Aboa, 'Study Finds Around 15% of Ivory Coast's Cocoa Farms are in Protected Forest', *Reuters* (6 May 2021), https://www.reuters.com/business/environment/study-finds-around-15-ivory-coasts-cocoa-farms-are-protected-forest-2021-05-06/.

[119] Walk Free Foundation & Tulane University, 'High Forced Labour Risk in Cocoa: Industry Needs to Step up', *Walk Free Foundation* (19 July 2018);
Rik Habraken, Oumou Diallo and Lisa de Graaf, 'Nestlé Income Accelerator Program: Baseline Report Test-at-Scale Phase', *KIT Royal Tropical Institute* (2023).

[120] See for example, Elian Peltier, 'Ivory Coast Supplies the World With Cocoa. Now It Wants Some for Itself.', *The New York Times* (13 August 2022), https://www.nytimes.com/2022/08/13/world/africa/ivory-coast-chocolate.html;
Anand Chandrasekhar, 'West Africa Wants More of Europe's Chocolate Pie' *Swissinfo* (28 February 2023), https://www.swissinfo.ch/eng/business/west-africa-wants-more-of-europe-s-chocolate-pie/48307014.

[121] ICI, 'Savings and Loans: The Importance of Linking VSLAs to the Formal Banking System in Cocoa-growing Areas', *International Cocoa Initiative* (21 September 2023), https://www.cocoainitiative.org/news/savings-and-loans-importance-linking-vslas-formal-banking-system-cocoa-growing-areas.

[122] Regarding access to finance, fair lending practices are important. Repayment conditions, including those of microloans, can place excessively high burdens on farming households and exploit low levels of literacy in rural areas. Volatile farmgate prices for cocoa increase farmers' vulnerability to defaulting on repayments. With regard to cash transfers, important factors that influence their effectiveness include whether they are tied to conditions or not, and the temporality, frequency, and predictability of payments.

[123] KIT Royal Tropical Institute, 'Towards More Effective Ways to Address Child Labour in the Cocoa Sector', *KIT Royal Tropical Institute*, https://www.kit.nl/project/towards-more-effective-ways-to-address-child-labour-in-the-cocoa-sector/.

[124] ICI, 'Community Service Groups in Cocoa-Growing Communities', *International Cocoa Initiative*, https://www.cocoainitiative.org/knowledge-hub/resources/community-service-groups-cocoa-growing-communities;
Rik Habraken, Anna Laven and Cedric Steijn, *Pathways for Closing the Income Gap for Cocoa Farming Households in Côte d'Ivoire – A Segmented Approach* (Royal Tropical Institute, 2022).

[125] Christian Bunn, Pablo Fernandez-Kolb and Mark Lundy, 'Climate Smart Cocoa in Côte d'Ivoire', *CGIAR Research Program on Climate Change, Agriculture and Food Security* (CCAFS) (September 2019);
Alexander Anning, Augustine Ofori-Yeboah, Frank Baffour-Ata and George Owusu, 'Climate Change Manifestations and Adaptations in Cocoa Farms: Perspectives of Smallholder Farmers in the Adansi South District, Ghana' (2022) 4 *Current Research in Environmental Sustainability*.

[126] Ken Giller, 'Cocoa beans could be processed much more in Ivory Coast and Ghana', *Wageningen University and Research*, https://www.wur.nl/en/article/cocoa-beans-could-be-processed-much-more-in-ivory-coast-and-ghana-1.htm;
Christian Bunn, Pablo Fernandez-Kolb and Mark Lundy, 'Climate Smart Cocoa in Côte d'Ivoire', CGIAR Research Program on Climate Change, *Agriculture and Food Security (CCAFS)* (September 2019);
European Commission, 'Côte d'Ivoire Country Climate and Development Report', *European Commission* (November2023),https://knowledge4policy.ec.europa.eu/publication/c%C3%B4te-d%E2%80%99ivoire-country-climate-development-report_en.

[127] Cocoa buyers typically buy cocoa at least one season in advance to plan for a steady supply. Developments in farmgate prices and in stock market prices do not necessarily mirror each other. See also Statista, 'Global Cocoa Processing Market Value 2020-2027', *Statista* (2023), https://www.statista.com/statistics/934256/global-cocoa-processing-market-value/;
S&P Global Commodity Insights, 'Cocoa Market Analysis', *SP Global*, https://www.spglobal.com/commodityinsights/en/ci/products/food-commodities-food-manufacturing-softs-cocoa.html.

[128] Africa News, 'Ivory Coast, Ghana Step up Efforts to Reform Cocoa Industry, Set $400 Premium', *Africa News* (12September2019),https://www.business-humanrights.org/en/latest-news/c%C3%B4te-divoire-ghana-set-a-fixed-living-income-differential-of-400-per-tonne-of-cocoa-to-relieve-farmer-poverty/.

[129] The wide range is due to a lack of data on whether farms only hold one or several certifications. See Steffany Bermudez, Vivek Voora, Cristina Larrea, and Erika Luna, 'Global Market Report – Cocoa Prices and Sustainability', *IISD and SSI Sustainable Commodities Marketplace Series* (November 2022);
Claudia Meier, Gregory Sampson, Cristina Larrea, Bernhard Schlatter, Steffany Bermudez, Duc Dang and Helga Willer 'The State of Sustainable Markets 2021: Statistics and Emerging Trends', *International Trade Centre* (June 2022).

[130] The mass balance system is also supported by certification bodies. See also P Stoop, N Ramanan, H Geens, A Lambrecht and S Dekeister, 'Technical Brief on Cocoa Traceability in West and Central Africa', IDH, GISCO, C.Lever (2021); Fairtrade, 'Fairtrade Standard for Cocoa: Explanatory Note', *Fairtrade* (October 2021).

[131] World Bank, *Côte d'Ivoire Economic Outlook: Why the Time Has Come to Produce Cocoa in a Fully Inclusive and Responsible Manner* (World Bank, 11 July 2019).

[132] Roger Bymolt, Anna Laven, and Marcelo Tyzler, *Demystifying the Cocoa Sector in Ghana and Côte d'Ivoire* (Royal Tropical Institute, 2018).

[133] See for example, Friedel Hütz-Adams, Claudia Huber, Irene Knoke, Pedro Morazan and Mara Murlebach, 'Strengthening the Competitiveness of Cocoa Production and Improving the Income of Cocoa Producers in West and Central Africa', *Sudwind Institut* (31 December 2016);
Michiel Kuit, Nathalie Tijdink and Daan van der Meer, 'New Insights on Reaching Living Income – Baseline Analysis from Farmer Field Books of Cocoa Farmers in Côte d'Ivoire', *IHD* (August 2019).

[134] World Bank, *Côte d'Ivoire Economic Outlook: Why the Time Has Come to Produce Cocoa in a Fully Inclusive and Responsible Manner* (World Bank, 11 July 2019).

[135] The insights in this chapter are supported by interviews with experts. The statements used here are anonymized and paraphrased.

[136] See also ICI, 'ICI Strategy 2021 – 2026', *International Cocoa Initiative*, https://www.cocoainitiative.org/sites/default/files/resources/ICI-2021-2026-Strategy_EN_0.pdf.

[137] See for example, ICI, *Benchmarking Study: Overview and Definition of Child Labor Monitoring and Remediation Systems* (International Cocoa Initiative, 2021.

[138] Experts also acknowledge that "implementing best practices is also a political question". For instance, one expert referred to a pilot project indicating that cash transfers are an effective means to reduce child labor, and initial data suggests that unconditional cash transfers work best. However, unconditionality has little success of being implemented by companies who are accountable to their stakeholders.

[139] Marine Jouvin, 'Addressing Social Desirability Bias in Child Labor Measurement: An Application to Cocoa Farms in Côte d'Ivoire' *Bordeaux Economics Working Papers* 2021-08.

[140] WEF, 'Shared Responsibility: A New Paradigm for Supply Chains', *World Economic Forum* (November 2015).

[141] For example, experts note that in the 2003/04 season, there were significant hikes in real term inflation corrected cocoa market prices. However, these high prices had no impact on child labor but a strong impact on fertilizer sales.

[142] Targeting individual root causes remains important for curbing child labor yet holistic strategies are needed to prevent child labor at scale and to address the interrelation between root causes.

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