



universität
wien

MASTERARBEIT / MASTER'S THESIS

Titel der Masterarbeit / Title of the Master's Thesis

„THE GLOBAL BUSINESS WITH CASHEW KERNELS

Approaches, Successes and Limitations of Sustainability Initiatives in the Cashew Sector of Ivory Coast“

verfasst von / submitted by

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angestrebter akademischer Grad / in partial fulfilment of the requirements for the
degree of

Master of Arts (MA)

Wien, 2023 / Vienna 2023

Studienkennzahl lt. Studienblatt /
degree programme code as it appears on
the student record sheet:

UA 066 589

Studienrichtung lt. Studienblatt /
degree programme as it appears on
the student record sheet:

Masterstudium Internationale Entwicklung

Betreut von / Supervisor:

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Acknowledgments

At first, I would like to thank all interview partners for taking the time to answer my questions and for sharing their experiences and knowledge with me. I highly appreciate their contributions, which are crucial for this thesis.

Furthermore, I would like to thank my supervisor Cornelia Staritz for her continuous support and advice. With her expertise and experience, she helped me above all to find a clear structure for the thesis and its research design as well as for the theoretical foundation of the work.

Many thanks also to my friends and fellow students for the fruitful discussions, their advice on various challenges while writing the thesis, their feedback on individual chapters and their ongoing support throughout the whole writing process.

Lastly, my heartfelt thanks goes to my parents, who have always encouraged and supported me in my studies and academic career. Without them, this achievement would not have been possible.

Abstract

Ivory Coast is the world's largest cashew supplier. While raw cashew nuts (RCNs) are harvested in the country, they are processed in India and Vietnam and then exported to the final markets in Europe and North America. Along this Global Value Chain (GVC), the production process of cashew kernels causes serious socio-economic and ecological problems. But concerns about sustainability in the cashew sector of Ivory Coast and the GVC of cashew kernels are rising, bringing the work of sustainability initiatives into focus.

Based on six interviews with representatives of different sustainability initiatives in the cashew sector of Ivory Coast as well as on relevant sustainability reports, this thesis analyzes the approaches of three key initiatives and evaluates the successes and challenges as well as the overall limitations and contradictions of their work. Thereby, the key initiatives represent different types of organizations: *ComCashew* is a development aid project, the *Cashew Trail* a private sector project, and *Cashew Coast* a responsible business. This makes it interesting to compare them, carving out similarities and differences. As a theoretical framework, the thesis uses the GVC approach and the concept of sustainability. While the former helps to analyze the cashew sector, the latter is useful to identify socio-economic and ecological problems.

Apart from main socio-economic and ecological issues such as low farmer incomes, bad working conditions, Greenhouse Gas (GHG) emissions and inadequate waste management, the thesis identified two major problems. The first one is the length of the GVC, which leads to a lack of traceability, a low share of local processing and, consequently, little value-added remaining in the country. The second one are governance issues that grant powerful positions to international trading companies who can influence prices for RCNs and control the trade. The three key initiatives address some of these issues. They all follow the general understanding of economic upgrading as a universal development path and implement measures such as direct sourcing programs, premium prices, skill trainings, support of farmer communities, and investments in the local processing industry. Nevertheless, they cannot address all issues, sometimes due to inherent contradictions to their work. Examples include deforestation and intensive agriculture – both measures that are necessary for the promoted sector growth but are at odds with environmental sustainability. Moreover, governance issues are not addressed. Finally, problems related to the system of GVCs and the global trade structure such as the generation of emissions and the unequal distribution of value along the GVC persist. They can only be ameliorated, but not overcome through the work of sustainability initiatives.

Kurzfassung

Die Elfenbeinküste ist der größte Lieferant von Cashewkernen weltweit. Zwar werden die rohen Cashewnüsse vor Ort geerntet, doch verarbeitet werden sie in Indien und Vietnam, bevor sie zu den Endkonsument*innen in Europa und Nordamerika exportiert werden. Entlang dieser globalen Wertschöpfungskette verursacht die Produktion ernsthafte sozio-ökonomische und ökologische Probleme. Die Besorgnis über Nachhaltigkeit im Cashew-Sektor der Elfenbeinküste wächst jedoch und rückt die Arbeit von Nachhaltigkeitsinitiativen in den Fokus.

Mithilfe von sechs Interviews mit Vertreter*innen verschiedener Nachhaltigkeitsinitiativen im Cashew-Sektor der Elfenbeinküste sowie einschlägiger Nachhaltigkeitsberichte analysiert die vorliegende Masterarbeit die Ansätze von drei Fokusinitiativen und bewertet die Erfolge und Herausforderungen sowie die allgemeinen Grenzen und Widersprüche ihrer Arbeit. Dabei repräsentieren die Fokusinitiativen verschiedene Arten von Organisationen: *ComCashew* ist ein Projekt der staatlichen Entwicklungszusammenarbeit, der *Cashew Trail* ein Projekt des Privatsektors und *Cashew Coast* ein nachhaltiges Unternehmen. Das macht es interessant, die Initiativen zu vergleichen und Gemeinsamkeiten und Unterschiede herauszuarbeiten. Dabei baut die Arbeit auf den theoretischen Konzepten von globalen Wertschöpfungsketten sowie von Nachhaltigkeit auf. Während Ersteres zur Analyse des Cashew-Sektors beiträgt, ist Letzteres nützlich, um sozioökonomische und ökologische Probleme zu identifizieren.

Neben grundlegenden sozioökonomischen und ökologischen Problemen wie niedrigen Einkommen, schlechten Arbeitsbedingungen, Treibhausgasemissionen und unzureichender Abfallentsorgung identifiziert die Arbeit zwei weitere Hauptprobleme. Zum einen geht es dabei um die Länge der Wertschöpfungskette, die zu fehlender Nachverfolgbarkeit, einem geringen Anteil an lokaler Verarbeitung und daher auch zu geringer Wertschöpfung im Land führt. Zum anderen herrschen Machtstrukturen vor, welche internationalen Handelsunternehmen einflussreiche Positionen einräumen. Diese können dann die Preise für rohe Cashewnüsse beeinflussen und den Handel kontrollieren. Die drei Fokusinitiativen gehen einige dieser Probleme an. Dabei folgen sie dem Verständnis von wirtschaftlichem Upgrading als universellem Entwicklungspfad und setzen Maßnahmen wie Direktbeschaffungsprogramme für rohe Cashews, faire Einkaufspreise, Trainings, Unterstützung von Bauerngemeinschaften und Investitionen in die lokale Verarbeitungsindustrie um. Dennoch können Nachhaltigkeitsinitiativen nicht alle Probleme adressieren, was teilweise auch auf inhärente Widersprüche zu ihrer Arbeit zurückzuführen ist. Beispiele hierfür sind Waldabholzung und

intensive Landwirtschaft – beides Maßnahmen, die für das Wachstum des Sektors notwendig sind, aber im Widerspruch zu ökologischer Nachhaltigkeit stehen. Außerdem werden Machtfragen nicht adressiert. Zuletzt gibt es auch Probleme, die mit dem System von Wertschöpfungsketten und der globalen Handelsstruktur zusammenhängen, darunter die Entstehung von Emissionen und die ungleiche Verteilung von Wertschöpfung entlang der Kette. Diese Probleme können durch die Arbeit von Nachhaltigkeitsinitiativen zwar gemildert, aber nicht überwunden werden.

List of Abbreviations

A

ACA..... *African Cashew Alliance*
ARECA *Autorité de Régulation du Coton de de l'Anacarde; Cotton and Cashew Council*

B

BMZ .. *Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung, Federal Ministry for Economic Cooperation and Development*

C

CBI *Center for the Promotion of Imports from developing countries*
CCA..... *Conseil du Coton et de l'Anacarde; Cotton and Cashew Council*
CNFA *Cultivating New Frontiers in Agriculture*
CNSL..... *Cashew nut shell liquid*
CR..... *ComCashew Côte d'Ivoire – Country Report*
CSER *Corporate Social and Environmental Responsibility*
CSR..... *Corporate Social Responsibility*

E

EU..... *European Union*

F

FB *ComCashew Factbook*
FMS *FairMatch Support*
FSSD *Framework for Strategic Sustainable Development*

G

GAP *Good Agricultural Practices*
GCC..... *Global Commodity Chain*
GHG *Greenhouse Gas*
GIC-CI..... *Group of Industrial Cashew Processors*
GIZ ... *Deutsche Gesellschaft für Internationale Zusammenarbeit, German Agency for International Cooperation*
GPN *Global Production Networks*
GVC..... *Global Value Chain*

M

MSIs *Multi-stakeholder initiatives*

N

NGO *Non-Governmental Organization*
NPO *Non-Profit Organization, Non-Profit Organization*

O

ofi..... *olam food ingredients*

R

RCNs *Raw cashew nuts*

S

SDGs *Sustainable Development Goals*

SNI..... *Sustainable Nut Initiative*

U

UAE..... *United Arab Emirates*

UK *United Kingdom*

UN *United Nations*

USDA *United States Department of Agriculture*

W

WB..... *World Bank*

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1 Introduction

“I mean, it's crazy. The cashews [...] flowing from Ivory Coast and then going to Vietnam and then, then making its way to Europe. It's just crazy” (I02, para. 29). This statement of an interview partner refers to the Global Value Chain (GVC) of cashew kernels from Ivory Coast. It points to the length of the chain, stretched across three continents.

As part of the globalization process, consumers in the Global North have become used to the fact that all kinds of food – vegetables, fruits, nuts etc. – are available all year long and everywhere – even if they are native to countries on the other side of the globe. The GVC of these products is thereby separated into the different production steps, and the associated activities are offshored to the location most suitable for them. Therefore, products often travel long distances from their production site until they reach their final destination – sometimes having several stops along the way (cf. Fischer et al., 2021a, p. 10f; cf. Krepl et al., 2016, p. 48).

Cashew kernels are an example of such a GVC. On a global scale, they are mainly grown in three different regions of the world: Africa, Asia and South America (cf. Dendena & Corsi, 2014, p. 754; cf. United Nations, 2021, p. 8). Thereby, West African countries provide large parts – up to 57% – of the global supply of raw cashew nuts (RCNs), with Ivory Coast being by far the largest producer and exporter on a global scale (cf. CBI, 2018, p. 9; cf. Ouattara et al., 2020, p. 118). But West Africa exports the majority of its cashews in their raw form to India and Vietnam, where they are being processed into kernels before being exported to the final consumer markets in Europe and North America (cf. I05, para. 11). As processing RCNs significantly adds to their value on the global market, countries that produce them but export them in their raw form are left with a small share of the value generated in the global cashew trade (cf. United Nations, 2021, p. 9).

While cashew kernels are booming as a trend product and the demand is constantly rising (cf. Agyemang et al., 2018, p. 209), they also cause serious socio-economic and environmental issues along the GVC. Among those problems are the generation of greenhouse gas (GHG) emissions due to transportation, but also issues of waste management, the pollution of water and soil, and deforestation (cf. Agyemang et al., 2016, pp. 153, 155; cf. Monteiro et al., 2017, p. 2; cf. TechnoServe, n.d., p. 3f). On a socio-economic level, the distribution of value-added

as well as working conditions and health issues in the processing factories are critical (cf. Kanji, 2004, p. 83; cf. Krepl et al., 2016, p. 46; cf. Priya et al., 2021, p. 254). But there is a growing interest in the cashew industry of West Africa and Ivory Coast in particular (cf. 02, para. 31). Thereby, concerns about sustainability are rising thanks to the continuous and long-term work of Non-Governmental Organizations (NGOs) and civil society organizations. As a result, consumers increasingly want to know where products are coming from and how they were produced, countries are introducing new legislations to promote a traceable, sustainable production, and private sector companies are urged to follow these trends (cf. I02, para. 3; cf. I04, para. 35, 39; cf. I06, para. 21, 57). Thus, the role of sustainability initiatives working in the cashew sector of Ivory Coast becomes more and more important.

The aim of this thesis is to analyze how these initiatives work, what problems they address, what successes they have and what challenges they face. Therefore, three key initiatives were chosen and will be analyzed in detail: *ComCashew*, a multi-level, public-private partnership program, the *Cashew Trail*, a private sector sustainability project, and *Cashew Coast*, a responsible business operating in Ivory Coast. The initiatives represent three different types of organizations, which makes it possible to compare their approaches, successes, and limitations and to carve out similarities and differences. To understand the context and the environment they work in, the thesis also takes a closer look at the cashew trade on an international level. Moreover, it gives a detailed explanation of the cashew sector in Ivory Coast, the actors involved and the power dynamics among them. To assess which problems sustainability initiatives address, the thesis first highlights the negative impacts that the cultivation of cashews as a global export commodity has on people and the environment at the different stages of production.

While there are many scientific publications about the cashew sector in Ivory Coast, the work of sustainability initiatives has not been analyzed in detail yet. Some initiatives are mentioned within papers and case studies, but a systematic evaluation of their work is still missing. The thesis aims to contribute to closing this research gaps. Moreover, it wants to highlight the problems along the chain and in the cashew sector of Ivory Coast, as well as the work of sustainability initiatives. That way, it draws the attention to the need of increased consumer awareness and a more sustainable production of cashew kernels in West Africa.

To analyze the role of sustainability initiatives in the cashew sector of Ivory Coast and to evaluate their work, the thesis addresses the following research question: **What are the approaches, successes and limitations of key sustainability initiatives in the cashew sector of Ivory Coast?**

In addition, the following sub-questions will help to answer the main research question:

- *Which actors are involved in the cashew value chain globally and in Ivory Coast and how do they shape governance and power dynamics?*
- *What ecological and socio-economic problems exist along the Global Value Chain of cashew kernels from Ivory Coast?*
- *What sustainability initiatives exist in the cashew sector in Ivory Coast?*
- *What approaches, successes and limitations do they have?*
- *What are similarities and differences between them?*
- *What are overall limitations and contradictions within their work?*

The thesis uses the GVC approach as well as the concept of sustainability as a theoretical basis. Thereby, the GVC framework provides a structure to analyze the different steps in the production process of cashew kernels and helps to identify relevant actors, power dynamics as well as the institutional environment (cf. Fischer et al., 2021b, p. 33f). The concept of sustainability refers to ecological, but also socio-economic problems and can be applied to GVCs (cf. ten Have & Gordijn, 2020, p. 153; cf. United Nations, n.d.-b, cf. 1987, p. 16). That way, it is a valuable tool to assess problems within the GVC and the cashew industry in Ivory Coast – a necessary step to analyze the work of sustainability initiatives.

Regarding methods, an in-depths literature research provides information on the GVC of cashew kernels as well as on the cashew sector of Ivory Coast. To answer the main research question on the approaches, successes, and limitations of sustainability initiatives in the cashew sector of Ivory Coast, a qualitative research design in form of a content analysis according to Mayring was chosen. Basis for the content analysis are selected reports and documents as well as semi-structured interviews. Therefore, representatives of six sustainability initiatives were interviewed.

Apart from the major socio-economic and ecological issues mentioned above, the thesis identified two major problems within the cashew sector of Ivory Coast and the corresponding

GVC of cashew kernels. The first one is the length of the GVC, which leads to a lack of traceability, a low share of local processing and, consequently, little value-added remaining in the country. The second one are governance issues that grant powerful positions to international trading companies, who can influence prices for RCNs and control the cashew trade.

The three key initiatives analyzed in the scope of this thesis largely use similar measures to address issues connected to the production and trade of cashew kernels from Ivory Coast. Among these measures are direct sourcing programs, premium prices, GAP and other trainings, support of farmer communities, and investments in the local processing industry. However, the importance attached to each measure varies depending on the initiative. All key initiatives, however, indicate farmers and farmer communities as their main target group. Shared overall goals seem to be an improvement of their livelihood as well as a shift to local processing to save emissions and keep value in the country. Regarding their approaches, the initiatives all follow the general understanding of upgrading and economic growth as a desired development path. They all put great emphasis on networking with actors in the sector as well as in other countries and promote knowledge exchange to learn from each other. Nevertheless, the three initiatives also differ in their approaches, e. g. regarding their scope and reach, the depth of their efforts, the value they place on collaboration and the focus of their work.

A crucial finding is that sustainability initiatives do not address all issues connected to cashew production and trade in Ivory Coast, sometimes due to inherent contradictions to their work. Here, examples are deforestation and intensive agriculture – both measures that are needed for the promoted sector growth but contradicting environmental sustainability. Moreover, governance issues that grant traders a powerful position within the chain are not addressed. Lastly, issues connected to the system of GVCs and global trade, such as the generation of emission and the unequal distribution of value along the GVC can only be improved, but not solved in the scope of the work of sustainability initiatives.

Following this introductory part, the thesis starts by introducing the theoretical framework. A first subchapter explains the GVC approach, while a second takes a closer look on the concept of sustainability. A short synopsis then combines these two theoretical concepts and shows how they will be applied in the thesis. This is followed by a discussion of the methodological approach, including subchapters on the choice of key initiatives, the data generation and analysis, the limitations of the research and its key findings. The next section is dedicated to

the global cashew trade. It starts by looking at the background and history of global cashew trade and concludes by looking at the GVC of cashew kernels. Then, the following chapter deals with the cashew sectors of West Africa and Ivory Coast. Starting at a regional level, the thesis explains the GVC of cashew kernels from West Africa and at the local processing capacities. Then, the thesis zooms in to Ivory Coast and analyzes the input-output structure before looking at relevant actors and governance structures. It concludes with a closer look on institutions and price setting mechanisms. A final chapter looks at the main problems along the chain, starting with socio-economic problems, through environmental problems to other problems of the sector. The next chapter is about sustainability initiatives working in the cashew sector of Ivory Coast. Before analyzing each key initiative in detail, the thesis gives a short overview of existing initiatives. Then, it compares the key initiatives, carving out their similarities and differences as well as overall limitations and contradictions of their work. The final chapter presents major conclusions as well as trends and developments of the sector and gives a short outlook.

2 Theoretical Framework

The thesis is based on two theoretical pillars: The Global Value Chain (GVC) Framework and sustainability as a theoretical concept. Thereby, the GVC approach can be applied to the cashew value chain of Ivory Coast and helps to structure the analysis of the national cashew sector. The concept of sustainability will then help to analyze the work of sustainability initiatives, especially through the conceptualization of sustainability governance (cf. Ponte, 2019, p. 9). This chapter first gives a detailed explanation for each of the two theoretical pillars and ends with a subchapter combining them.

2.1 Global Value Chains

There are several chain and network approaches that deal with the production of goods in a globalized world. This chapter starts by giving an overview of them before looking at the GVC and GCC (Global Commodity Chain) frameworks in detail, including a subchapter about environmental and social upgrading. Lastly, the GVC framework will be applied to the food and agriculture sector before limitations of the approach will be pointed out.

2.1.1 Overview of Chain and Network Approaches

Research about the world economy, its structure, and the changes to it over time focuses on the analysis of chain and network approaches. These theories center around a commodity and trace down the respective production steps up to its final consumption and/or disposal. Finding out which actors create value at what point and through which activities within the chain is crucial to the analysis. Another major interest lies in finding out where value flows and who captures it. There are several research threads, theories and concepts that have been further developed and expanded over time and that can be combined in practical research (cf. Fischer et al., 2021b, p. 33). The concept of GVCs is one of four major research threads in the context of the production of goods in a globalized world. These threads build on each other, adding new aspects and perspectives over time (cf. Fischer et al., 2021b, p. 33f).

Wallerstein's and Hopkins' concept of Commodity Chains represents the first thread. Their approach is closely linked to Wallerstein's world-systems theory which assumes that the unequal distribution of value among the different actors involved in the production of a good is responsible for the inequalities within the world structure. Thereby, the world structure consists of center, semi-periphery and periphery. States in the center are characterized by having both power and resources, whereas states in the periphery – mostly from the Global South – are forced to take over activities with low value-added within the production chain (cf. Fischer et al., 2021b, p. 33f). That way, Wallerstein's theory explains that the surplus that is created in the peripheries goes in large parts to the center states. This accumulation of capital in the center is then responsible for different development opportunities of center and periphery. In that logic, the disadvantaged position of certain regions within the world economy is a direct consequence of the capitalistic world economy (cf. Wallerstein, 2016, pp. 209, 220f). Wallerstein and Hopkins build on that theory, using a macro level, historical approach. Their concept of a commodity chain encompasses a network of work and production processes that results in a final commodity and an unequal distribution of value (cf. Fischer et al., 2021b, p. 33f).

Gereffi expands Hopkins' and Wallerstein's approach, defining Global Commodity Chains (GCC) as follows:

“A GCC consists of sets of interorganizational networks clustered around one commodity or product, linking households, enterprises, and states to one another within the world-economy. These networks are situationally specific, socially constructed, and locally integrated, underscoring the social embeddedness of economic organization.” (Gereffi et al., 1994, p. 2)

Gereffi's approach continues the focus on inequalities within a chain. It analyzes them with regards to the accessibility of markets and resources for the respective actors. Thus, it sheds light on development issues and pays attention to their causes (cf. Gereffi et al., 1994, p. 2). The third research thread, the GVC framework, replaced the GCC framework around the turn of the millennium. The two approaches are closely connected and will be explained in detail together in the next subchapter, as they form the theoretical basis of this thesis.

For the sake of completeness, the fourth research thread, the Global Production Network (GPN) approach, will be shortly explained, too. With the central term "network", it points to the complex and dynamic connections and relations in a global production process instead of viewing it as a linear chain. Moreover, it includes actors besides firms into the analysis. That way, not only states but also international organizations and civil society actors like trade unions and Non-Governmental Organizations (NGOs) are part of the research paradigm (cf. Fischer et al., 2021b, p. 39). The GPN approach works with the terms value, power, and embeddedness to analyze contextual factors. As value can be created in one place but captured in another at the end of the production process, the GPN differentiates between value creation, enhancement, and capture. Power is also further defined: Besides the power of firms and corporations, the framework identifies institutional as well as collective power. Lastly, embeddedness takes institutional, social, and cultural contexts into consideration and analyzes the way they shape the strategies and decisions of firms. The GNP was further developed to GPN 2.0, which looks at dynamics in production networks instead of a static perspective on governance typologies (cf. Fischer et al., 2021b, p. 39). Thereby, three causal drivers bound to a competitive production setting are identified: Optimizing cost-capability ratios, sustaining market development, and working with financial discipline. Moreover, risk management also influences the lead firms' decision-making (cf. Wai-chung Yeung & Coe, 2015, pp. 29, 34, 40f).

2.1.2 The GCC and GVC Frameworks

Global Value Chains (GVCs)¹ have become an integral part of the capitalistic production and trade system due to the ongoing globalization process (cf. Koch, 2017, p. 10; cf. Komlosy, 2021, p. 101; cf. Ponte, 2019, p. 3; cf. Stöllinger, 2021, p. 56). They are at the center of the GVC framework, a concept developed by an international, interdisciplinary, and diverse team

¹ Different terms are used for these chains according to the corresponding theory, for example Global Commodity Chains, Global Production Chains, Global Supply Chains and Global Value Chains.

of researchers. This framework allows for an extensive analysis of global industries. It focuses on specific knots along the chain and the relationship between individual actors instead of the chain as a whole (cf. Cattaneo et al., 2010, p. 4; cf. Fischer et al., 2021b, p. 35f). In his book, Ponte defines GVCs as follows:

“The term GVC refers to the full range of activities that firms, farmers and workers carry out to bring a product or service from its conception to its end use, recycling or reuse. These activities can include design, production, processing, assembly, distribution, maintenance, disposal/recycling, marketing, finance and consumer services. In a ‘global’ value chain, these functions are distributed among many firms in different places around the world.” (Ponte, 2019, p. 3f)

In that sense, GVCs are characterized as an organizational structure of economic activities, where production steps are globally dispersed but governance is centralized through lead firms (cf. Ponte, 2019, p. 3). Thereby, Ponte defines lead firms as a group of firms who exercise power and shape the production process by deciding who carries out which tasks, by fixing prices and by setting standards etc. (cf. Ponte, 2019, p. 4). These lead firms usually carry out profitable activities such as research and design, while delegating less lucrative tasks through offshoring and/or outsourcing (cf. Fischer et al., 2021a, p. 10). Thus, a transfer of value flows from firms occupying a lower position of the value chain to firms on its upper end. That way, GVCs per se are seen as unchangeable structures of the production system, but the position of individual countries or firms within the chain can be altered through targeted measures (cf. Komlosy, 2021, pp. 99–101).

The GVC framework adopts the structure of four dimensions introduced by the GCC framework. First, the input-output-structure explains the different steps in value creation, pointing at individual inputs and activities carried out at each level as well as their interconnectedness within the production process. Then, the spatial dimension shows the geographic dispersion – or concentration – of networks regarding both production and distribution. The third dimension, the governance of supply chains, sheds light on control mechanisms and power relations and therefore looks at how and by whom decisions about financial, material, and human resources are taken. Finally, the institutional structure on a local, national, and international level and the respective regulations represents the fourth dimension (cf. Fischer et al., 2021b, p. 34).

Generally, the governance structure plays a particularly important role within the GCC and GVC approaches. Choksy et al. explain the term as follows: “GVC governance can broadly be defined as a process through which powerful actors in the chain set, measure and enforce

parameters under which others operate“ (2022, p. 250). In that context, lead firms are identified as powerful actors: Their practices and regulations, expressed in a specific division of labour, shape the GVC (cf. Choksy et al., 2022, p. 250; cf. Ponte, 2019, p. 4). The GCC approach differentiates two types of governance structures: *Producer-driven* and *buyer-driven* commodity chains. Within *producer-driven chains* lead firms control suppliers through networks. Thereby, knowledge is a crucial factor regarding power (cf. Fischer et al., 2021b, p. 35). This type of governance structure is typical for goods requiring extensive capital and technology inputs, like the automobile and aircraft sector as well as electrical machinery (cf. Gereffi et al., 1994, p. 7). Here, labour-intensive tasks are in large parts carried out by supplier firms, while central activities are done in-house (cf. Fischer et al., 2021b, p. 35). By contrast, *buyer-driven chains* are mostly controlled by global buyers such as large retailers, merchandisers, and trading companies. These buyer companies exert power over suppliers in decentralized production processes, spatially dispersed over various exporting countries – often from the periphery. Connected to labor-intensive commodities, this governance type is characteristic in the production of clothing, sport articles, toys, and houseware. Thereby, core firms carry out immaterial but high-value activities like design, marketing, branding, and distribution (cf. Fischer et al., 2021b, p. 35; cf. Gereffi et al., 1994, p. 7). A third type of governance are *trader-driven* chains, where international trading companies inherit a powerful position. Most primary commodity chains can be characterized as trader-driven chains. Therefore, this governance type will be further explained in chapter 2.1.4 on GVCs in the food and agricultural sector.

The GVC framework builds on the GCC’s conception of governance but expands it by differentiating five different governance structures: Hierarchy, captive, relational, modular, and market governance (cf. Fischer et al., 2021b, p. 35f). Hierarchy and market governance represent the opposite ends of a spectrum regarding the level of explicit coordination and power asymmetry. Thereby, vertically integrated firms, namely hierarchies, inherit the highest level while market-based governance structures are characterized through low levels of power asymmetry. Figure 1 illustrates these five types of governance.

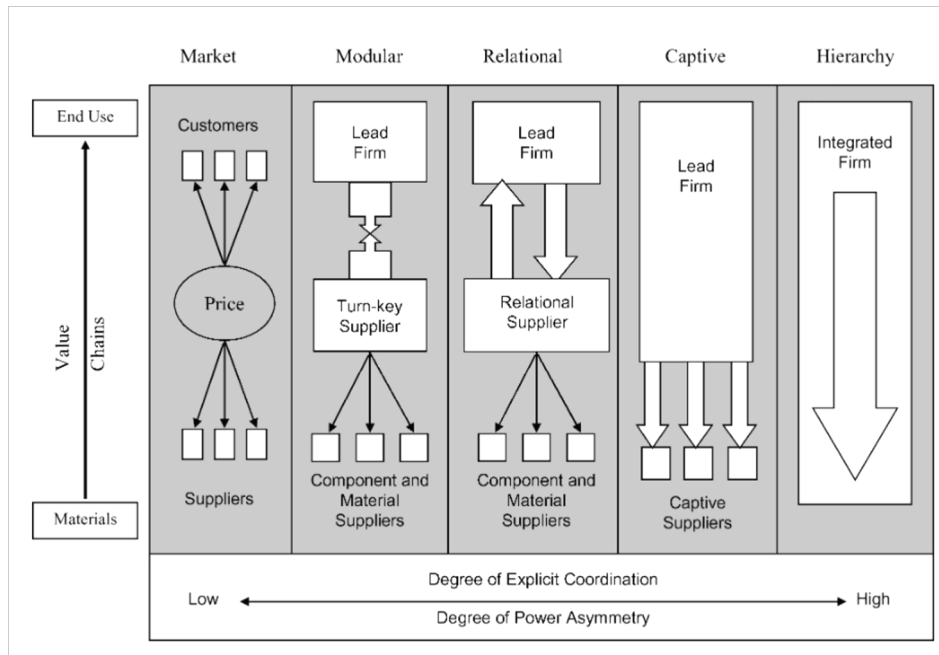


Figure 1: Five global value chain governance types (Gereffi et al., 2005, p. 89)

The level of explicit coordination and power asymmetry – and therefore the governance structure – is shaped by three variables: the complexity of transactions, the ability to codify transactions and the capabilities of the suppliers. While the first one refers to information and knowledge transfers needed to carry out a transaction, the second one refers to their codification and, consequently, the efficiency of the transaction between the parties involved. Thereby, an efficient transaction makes specific investments unnecessary. The last variable involves the skills and capabilities of suppliers that are needed for the transaction (cf. Gereffi et al., 2005, pp. 78, 83, 85). As can be drawn from table 1 and its subtext, the combination of the three variables results in the five types of value chain governance.

Governance type	Complexity of transactions	Ability to codify transactions	Capabilities in the supply-base	Degree of explicit coordination and power asymmetry
Market	Low	High	High	Low
Modular	High	High	High	↑
Relational	High	Low	High	↓
Captive	High	High	Low	↓
Hierarchy	High	Low	Low	High

There are eight possible combinations of the three variables. Five of them generate global value chain types. The combination of low complexity of transactions and low ability to codify is unlikely to occur. This excludes two combinations. Further, if the complexity of the transaction is low and the ability to codify is high, then low supplier capability would lead to exclusion from the value chain. While this is an important outcome, it does not generate a governance type *per se*.

Table 1: Key determinants of global value chain governance (cf. Gereffi et al., 2005, p. 87)

A second focus of the GCC and GVC framework is placed on upgrading. Initially, the conceptualization of upgrading was broad, focusing on economic opportunities: Economic upgrading is a process of taking on higher-value activities within the production chain. The premise behind this is an assumed hierarchy of position within the international division of labour, reaching from simple tasks up to more complex activities that generate more value. That way, economic upgrading is often associated with successful development of exporting firms and through linkages also of the economy on a local, regional, and national level (cf. Fischer et al., 2021b, p. 35).

The concept of economic upgrading was later expanded, resulting in four subcategories to it: Process upgrading, product upgrading, functional upgrading and inter-chain upgrading (cf. Humphrey & Schmitz, 2010, p. 1020). The first type of upgrading, *process upgrading*, aims at gaining efficiency within the production process, for example through technology improvements or a better organization of the production system. *Product upgrading* however means introducing new, more complex product lines that translate into higher unit prices (cf. Humphrey & Schmitz, 2010, p. 1020). The third type, namely *functional upgrading*, is about improving a firms position along the value chain by carrying out new tasks with higher value generation. Generally, activities before or after the material production such as design or marketing – mostly undertaken by firms in the Global North – have higher added value. Thus, taking over these activities or establishing own distribution and/or marketing channels would result in functional upgrading (cf. Fischer et al., 2021b, p. 37f). Lastly, *inter-chain or intersectoral upgrading* aims at a horizontal integration of firms within clusters. This means that firms apply their knowledge and skills to higher-value chains that are often related (cf. Fernandez-Stark & Gereffi, 2019, p. 61; cf. Fischer et al., 2021b, p. 37). Later on, more types of upgrading were added, among them for example end market upgrading and supply chain upgrading (cf. Fischer et al., 2021b, p. 37f). Relevant for this thesis are two further forms of upgrading which will be explained in the next subchapter: Social and environmental upgrading.

Altogether, the GVC framework takes both a bottom-up approach – by looking at upgrading possibilities for countries and firms from the so-called Global South – as well as a top-down approach – by analyzing governance structures within GVCs (cf. Cattaneo et al., 2010, p. 4; cf. Fischer et al., 2021b, p. 36). Both pillars – governance and upgrading – are also part of the GCC framework but the GVC expands them by differentiating several subcategories.

2.1.3 Social and Environmental Upgrading

Recently, another area of upgrading was established: Social upgrading (cf. Choksy et al., 2022, p. 251). Social upgrading refers to “[...] improvements in wages, employment conditions and other social standards” (Ponte, 2019, p. 138), thereby going beyond economic upgrading. The definition of social upgrading consists of two categories: Measurable standards and enabling rights. The first category contains factors that can be observed and – as the term indicates – quantified, among them wages, security aspects and working hours. The second category is more difficult to observe: It consists of rights such as freedom of association and collective bargaining, non-discrimination, and the right to freely choose employment (cf. Rossi, 2013, p. 224). In that context, Rossi states:

“Enabling rights are the full expression of the rights and entitlements of workers as social actors, and are the manifestation of more balanced power relations between workers and management in the context of sound industrial relations. Their enforcement is therefore also tightly dependent on institutions and actors beyond the factory floor” (2013, p. 224)

Ponte (cf. 2019, p. 138f) introduces six ways in which social upgrading can be achieved. A *market-driven trajectory* for example is built through the consumers: Their demand for goods that are produced with higher social standards initiates a change of the production process towards better working conditions. In a *Corporate Social Responsibility (CSR)-driven trajectory*, large buyers/retailers implement standards and regulations, while a *multi-stakeholder path* builds on the cooperation of private partners, sometimes also including public actors. By contrary, a *labour-centered trajectory* is a bottom-up approach where workers fight for their rights together with their unions. Lastly, a *public governance path* is set through public rules and regulations. These trajectories are idealized – they overlap and coexist in practice (cf. Ponte, 2019, p. 138f).

Linking economic and social upgrading, Ponte (cf. 2019, p. 139) points at four different categories. High-road growth including both economic and social upgrading, low-road growth with economic upgrading but social downgrading, high-road decline meaning economic downgrading and social upgrading and low-road decline involving both economic and social downgrading. This indicates that economic upgrading does not necessarily initiate social upgrading (cf. Fischer et al., 2021a, p. 23; cf. Ponte, 2019, p. 139). While it can have a positive impact, it can also result in social downgrading depending on the local background, the participating actors and the governance structure of the GVC (cf. Choksy et al., 2022, p. 251).

Another comparatively new type of upgrading is environmental upgrading - a category that scholars have not paid much attention to so far. Environmental upgrading aims at changing the production process in a way that leads to an improvement of environmental outcomes or a reduction of its negative impacts. This applies to all stages of the production, counting in consumption, disposal and reuse or recycling. Through a more efficient use of resources and productivity improvements, production costs can be reduced while prices can be altered because of the compliance with environmental standards. Nevertheless, environmental upgrading can also increase costs, especially in the short-term (cf. Ponte, 2019, p. 141f).

There are several distinctions on how environmental upgrading is achieved. One of them identifies the engagement of lead firms and their respective strategies as an important factor. Thereby, strategies can be either deep or shallow. The first one of these strategies, defined by *deep engagement*, is characterized by extensive support by buyers. Relations are built on trust and reputation and on a mutual dependance on knowledge and competencies. Environmental impacts and their potential solutions are evaluated for each case individually (cf. Ponte, 2019, p. 142f). In *shallow engagement strategies*, buyers require certain environmental standards. In this case, they support their suppliers both financially and technologically not at all or only to a limited extend. Lead firms decide which environmental impacts are tackled and how while suppliers have to comply. Generally, mid-way strategies consisting of a mix of deep and shallow engagement are also possible and different engagement strategies can be applied within the same GVC (cf. Ponte, 2019, p. 143). Another useful distinction differentiates between internal and external drivers. While *internal drivers* such as cost reductions through fuel savings and the like are often related to the producers' interests, *external drivers* are put upon the producers through regulations, civil-society actions, and consumer demands (cf. Ponte, 2019, p. 144).

Outcomes of environmental upgrading vary and need to be evaluated on a case-by-case basis (cf. Ponte, 2019, p. 145f). However, according to global buyers, consumers are generally reluctant to accept higher prices for environmental standards in the production. Moreover, suppliers rarely get incentives for environmental upgrading, as buyers prioritize cutting costs over their supplier's profitability (cf. Ponte, 2019, p. 147f). In that context, Ponte introduces the term "sustainability-driven supplier" (Ponte, 2019, p. 18), where lead firms use environmental sustainability as a cover for capturing more profit, while putting the burden of adhering to sustainability standards on their suppliers (cf. Ponte, 2019, pp. 18, 148).

These three types of upgrading – economic, social, and environmental – are deeply interwoven and cannot always be clearly separated (cf. Ponte, 2019, p. 139). This is also relevant in the context of cashew production in West Africa, where small-scale farmers grow the supply of raw cashew nuts (RCNs). Therefore, they are affected by economic, social, and environmental issues and the respective upgrading measures. Their example shows how closely the types of upgrading can be connected: Economic upgrading for example can lead to higher revenues for farmers, which also falls into the category of social upgrading. Moreover, environmental issues such as the use of pesticides and/or waste disposal not only harms the environment, but influences farmers' health and well-being, too. That way, it represents a social issue as well.

2.1.4 Global Value Chains in the Food and Agricultural Sector

As the Organization for Economic Co-operation and Development (OECD) explains in an article published in 2020, the “[...] agricultural trade, like that in other sectors, is increasingly organised within global value chains (GVCs), with the production of food occurring increasingly across countries and making use of inputs sourced from around the world” (2020, p. 7). Thereby, products can cross borders several times, sometimes being re-exported or re-imported (cf. OECD, 2020, p. 7). Generally, agri-food chains represent an important part of total production and consumption and influence not only the economy, but also social welfare aspects and the natural environment (cf. Azevedo et al., 2018, p. 3).

Usually, the agricultural sector provides an upstream function in delivering food, fiber, and fuel. Especially in the food sector, intermediate products are often supplied by emerging economies, mostly from Latin America or Asia (cf. OECD, 2020, p. 4). Generally, concentration rates are particularly low in the agricultural sector: 29 countries provide about 80% of the value-added generated through exports (cf. Fischer et al., 2021a, p. 22). But only a small share of the final product value, namely 16%, are attributed to the production stage within the GVC, while the remaining 84% are added and captured afterwards (cf. Cucagna & Goldsmith, 2018, p. 294). With this in mind, it is worth mentioning that for agri-food chains, there is a “[...] much higher share of trade flowing from one country's agricultural sector, into foreign processing and then to final demand in that country” (OECD, 2020, p. 9). It is therefore crucial to analyze what share of domestic value-added is captured elsewhere (cf. OECD, 2020, p. 9).

Global markets for agricultural products ensure constant supply, a range of choices and lower prices for consumers as well as lower production costs for producers (cf. OECD, 2020, p. 7).

Agri-food chains mainly consist of 3 steps: Farming, processing, and distribution (cf. Taghikhah et al., 2021, p. 853). Thereby, the value creation happens through transforming an agricultural product from its raw form into a processed product desired by customers on the marketplace (cf. Cucagna & Goldsmith, 2018, p. 295). Besides the lower standards regarding working conditions and environmental protection, production within the sector is in large parts done through offshoring because of climatic conditions (cf. Fischer et al., 2021b, p. 10). In general, developed countries are considered “significant drivers” (OECD, 2020, p. 10) of the sector (cf. OECD, 2020, p. 11).

Regarding governance, Tessmann describes the global agriculture and food sector as “a prominent example of ‘buyer-driven’ chains in which supermarkets and retailers dictate the terms under which goods are produced, processed and transported” (2018, p. 266). These companies are called big buyers. They exert their power, called buyer power, through capital. In combination with their economies of scale this gives them a bargaining power, enabling them to minimize prices for suppliers (cf. Reiner, 2021, pp. 293–295). Moreover, concentration trends of Northern retailers strengthened that powerful position: Among the biggest 250 trading companies worldwide, only around 1.5 percent are from Africa and 1.8 percent from Latin America, whereas 45 percent have their headquarters in the USA and 34 percent in Europe. Thereby, large supermarkets dominate the sector: They represent two thirds of the world’s largest trading companies (cf. Reiner, 2021, p. 291; cf. Tessmann, 2018, p. 267).

Besides buyers, traders also inherit a powerful position in the agri-food sector. As mentioned above, certain primary commodity chains, among them the one of cashew kernels, are considered to be *trader-driven*. The respective chains are often characterized by a low value-to-weight ratio and a labour-intensive production of raw materials as well as a globally dispersed and discontinuous supply for example due to the commodity’s seasonality. The power position of international trading companies consists of coordinating the production process by sourcing from various suppliers. Profitability is rather derived from volume than from margins, making it necessary to find a broad supply base. Concentration of traders is high, and entry barriers such as the high amount of capital needed to engage in trade further solidifies the position of established traders. Typically, governance is loose and indirect: Especially with upstream providers, namely suppliers, relations are changeable and characterized through low investments and limited support. Downstream relations on the other hand, mostly with processors, are rather longer-term and trust based (cf. Gibbon, n.d., pp. 345, 350–352). But

consumer demand has shifted the governance type, altering safety and quality standards. GVCs in the agri-food sector are increasingly structured in long-term relationships and cooperation, allowing for technological support and knowledge transfers from buyers to producers. At the same time, marginalized actors are often overlooked (cf. Tessmann, 2018, p. 267).

2.1.5 Limitations

While the GVC framework is a suitable theoretical basis for this thesis, it also has some deficiencies and limitations. Among them is for example the framework's narrow focus on the governance structure and the power asymmetries between lead firms and suppliers. Thereby, other actors such as national institutions and their regulations, are neglected. That way, the GVC framework disregards the state as a crucial actor, who influences the GVC as well as the distribution of value-added through its regulations (cf. Fischer et al., 2021b, p. 40f; cf. Tessmann, 2020, p. 102). This applies to the GVC of cashew kernels in Ivory Coast, where the government created a regulatory body to control the cashew sector. This body influences the cashew trade not only by licensing exporters, but also by setting a minimum price for RCNs (cf. Bassett et al., 2018, pp. 1232, 1240; cf. CBI, 2018, p. 23; cf. Ouattara et al., 2020, p. 120). It is therefore a powerful actor within the GVC that needs to be taken into account. But not only governmental institutions are overlooked in the GVC framework. Other relevant actors such as international development organizations and NGOs are also neglected. Sustainability initiatives and their work are at the center of this thesis, making them a major part of the analysis.

Another deficiency of the GVC regarding its application to this thesis lies in its limited integration of the macro level. Here, Fischer et al. (cf. 2021b, p. 41f) argue that GVCs are often analyzed without taking the macroeconomic and -political background into account. Furthermore, their embeddedness in global capitalistic structures and the influence of these structures – for example through competition and financialization – is neglected (cf. Fischer et al., 2021b, p. 41f). Especially in the agricultural sector, the unequal world structure as described in Wallerstein's world systems theory plays a crucial role (cf. Wallerstein, 2016, pp. 209, 220f). This is evident in the West African cashew value chain, where the producing countries serve as providers of raw nuts that are processed elsewhere. Therefore, they are left with a small share of value-added, causing their disadvantaged position within the world economy. That way, global capitalistic structures influence not only the production process of cashew kernels from West Africa, but particularly the governance structures and the distribution of value along the chain.

The focus on upgrading possibilities of individual firms and the associated focus on micro-level developments is also a relevant limitation in the context of this thesis. Generally, upgrading can be discussed controversially, as it promotes a universal and linear development path, neglecting alternative ways. It is often portrayed as a development success, although the integration into the system of GVCs and the global capitalistic structure can also lead to devaluation and exclusion (cf. Fischer et al., 2021b, p. 41f). For all sustainability initiatives interviewed for this thesis, upgrading, especially in an economic sense, is a focus their work (see chapters 6.2 - 6.4). Thereby, they promote upgrading without questioning the concept and its implications.

Another point of criticism is the limited consideration of social and environmental issues that GVCs cause (cf. Fischer et al., 2021b, pp. 42–44, 46). The socio-economic and environmental problems that arise along the GVC of cashew kernels from West Africa are part of the research question and focus of the thesis. Thereby, the aim is to analyze which of these questions are addressed within the work of sustainability initiatives, which are overlooked, and which cannot be solved in a capitalistic world structure.

A final limitation of the GVC framework in the context of this thesis is its view of production as a linear process, a chain. Taking into account the various and widespread relations and connections between actors, the production rather resembles a dynamic network, as depicted later on in the GPN approach (cf. Fischer et al., 2021b, p. 39). In a complex GVC such as the one for cashew kernels from West Africa, where numerous actors are involved and the production process is globally dispersed, the depiction of a production chain is misleading.

I am aware of the limitations explained above. Nevertheless, the GVC framework forms a suitable theoretical basis for this thesis. I will address at least some of the limitations of the GVC approach by drawing on selected aspects of the GPN. For example, the central position of sustainability initiatives in the context of this thesis will already soften the GVC's narrow examination of lead firms and suppliers. It will also allow me to include relevant actors such as international organizations, civil society actors and local government institutions in my analysis. Especially in the cashew sector of Ivory Coast, a state-owned regulatory body called the Cotton and Cashew Council (CCA) shapes and controls the cashew trade and will therefore be a crucial part of the analysis. Moreover, by first looking at the trade with cashew kernels on global level before zooming in to West Africa and then to Ivory Coast, I will include a macro-level perspective at least to some extent. The same is true for the consideration of global

capitalistic structures: Analyzing where value is generated and where it is captured, which regions provide which resources and who consumes the final product will help to understand the embeddedness of production in capitalistic structures. Thereby, the role of African countries as providers of raw materials and the low share of value-added assigned to them is pointed out. Lastly, socio-economic and ecological issues will be considered. They represent major problems connected to the production of cashew kernels and are central to the analysis of the GVC and the cashew sector of Ivory Coast, but also to the work of sustainable initiatives.

2.2 Sustainability

The second theory pillar that is drawn upon in the scope of this thesis is the concept of sustainability. This chapter first gives an overview on sustainability before connecting the concept to the field of business. Before looking at limitations, the role of collaboration and multi-stakeholder initiatives (MSIs) will be examined.

2.2.1 Overview

Sustainability is a holistic approach that combines environmental protection with economic development. A common definition was made by the United Nations' (UN) Brundtland Report in 1987. There, sustainability is defined as “meeting the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations, 1987, p. 16). In that sense, sustainable development weakens the mutual exclusiveness of economic growth and environmental protection (cf. Ponte, 2019, p. 8f). Within the report, sustainability is based on three columns: Environmental protection, economic development, and social equity. A fourth one can also be seen in culture (cf. ten Have & Gordijn, 2020, p. 153).

Definitions of environmental sustainability vary according to disciplines², including a variety of tools, terms, and concepts (cf. Missimer et al., 2016, p. 32; cf. Ponte, 2019, p. 9). But in general, environmental sustainability is associated with conservation and resilience – for example in the sense of protecting natural resources (cf. ten Have & Gordijn, 2020, p. 153). Moreover, it “[...] refers to consuming natural resources at a rate below the natural regeneration or to consuming a substitute, generating limited emissions and not being engaged in activities that can degrade the ecosystem” (Longoni & Cagliano, 2015, p. 218).

² This thesis follows Ponte's perspective in taking “[...] a pragmatic approach to the definition of sustainability – accepting anything that is labelled by GVC actors as environmentally sustainable [...]” (Ponte, 2019, p. 9).

When it comes to social sustainability, the Framework for Strategic Sustainable Development (FSSD), formed to render the concept of sustainability clearer (cf. Missimer et al., 2016, p. 33), defines a society as sustainable when “[...] people are not subject to conditions that systematically undermine their capacity to meet their needs [...]” (Missimer et al., 2016, p. 33). That means that skills and competences associated with health, democracy and equality are supported (cf. Longoni & Cagliano, 2015, p. 218). But the FSSD framework is criticized for the insufficiency of the social dimension as an operational concept: It cannot be translated into the design, control, or analysis of social sustainability (cf. Missimer et al., 2016, p. 33).

Generally, in a sustainability context, success means to end activities that harm the society and damage the environment. Thus, the sustainability principles represent the planetary boundaries and can therefore mark the frame for a sustainable redesign of human activities (cf. Missimer et al., 2016, p. 33). Based on this, Missimer et al. (cf. 2016, p. 33) define three conditions for an environmentally and one for a socially sustainable society. Regarding the first category, sustainability means that concentrations of harmful substances – be it through the extraction of natural resources or through their production by society – are no longer systematically rising. The same applies for the physical destruction of the environment, for example through deforestation or overfishing. When it comes to social sustainability, they demand that the people’s ability to meet their needs is not restricted by their living conditions, for example through the misuse of political and/or economic power.

According to Wasieleski/Weber (cf. 2020, p. xiv), the Brundtland Report’s definition of sustainability indicates a long-term perspective including future generations. This is difficult to reconcile with classic economic perspectives that often aim for short-term successes. Therefore, they see sustainability “[...] as a major current moral issue [...]” (2020, p. xiv), and call for new solutions to it. In that context, ten Have/Gordijn (cf. 2020, p. 153) point at differences between Western countries and countries from the Global South: The first group achieved development and economic growth at the cost of environmental damage. Thus, the latter states that they should not be hindered from development and growth due to environmental limits. The authors therefore call for an approach that includes environmental sacrifices from developed countries. Generally, Wasielesky et al. (cf. 2020, p. xiv f) explain that the planetary boundaries are already met. Thus, concerns about sustainability are rising and goods produced in a sustainable way are in demand (cf. Azevedo et al., 2018, p. 1; cf. Schaltegger & Burritt, 2014, p. 233).

Since its first appearance in the Brundtland Report, the concept was further established in the context of several UN conferences (cf. Ponte, 2019, p. 9). The UN Johannesburg Declaration on Sustainable Development in 2002 for example builds on the Brundtland definition of sustainability and adds a clarification of sustainable development: “We commit ourselves to building a humane, equitable and caring global society, cognizant of the need for human dignity for all” (United Nations, 2002, p. 1). In 2015, objectives regarding sustainability were summarized in the United Nations’ Sustainable Development Goals (SDGs) (cf. ten Have & Gordijn, 2020, p. 153). They aim for a collaboration of different actors such as scientists, professionals, and citizens to tackle the social and environmental issues that humanity has caused (cf. Wasieleski & Weber, 2020, p. xv). This importance of a multi-stakeholder cooperation regarding sustainability is again underlined in Goal 17 on Partnerships for the Goals (cf. Ponte, 2019, p. 8f; cf. United Nations, n.d.-b).

2.2.2 Sustainability and Business

Sustainability is becoming more relevant for firms as well. Up until the 1990ies, firms were merely reacting to social movements and pressures, as sustainability demands seemed to threaten their business models. Thus, their efforts were focused on slowing down or even stopping such regulations (cf. Ponte, 2019, p. 13). But since the mid 2000s, the private sector’s motivation for sustainability has changed. Not only rising consumer demand for sustainable production, but also an improved profitability and brand image are driving factors: New product lines and markets can be discovered, net cost reductions can be achieved through eco-efficiency, and brand loyalty as well as commitment of the workers can be fostered. Consequently, sustainability efforts can give firms a competitive advantage, increase their power and help their capitalist interests (cf. Longoni & Cagliano, 2015, p. 218; cf. Ponte, 2019, pp. 14, 38). Thereby, Ponte (cf. 2019, p. 14f) explains that brand risk management, namely avoiding negative media coverage, plays a crucial role.

In that context, *Corporate Social Responsibility (CSR)* and/or *Corporate Social and Environmental Responsibility (CSER)* become important (cf. Agyemang et al., 2022, p. 1116; cf. Ponte, 2019, p. 36). These concepts mean that a company includes both social and environmental considerations into its business models as a voluntary and unilateral action (cf. Ponte, 2019, p. 36; cf. Wasieleski & Weber, 2020, p. xvi). Thereby, the motivation to address sustainability lies both in the financial improvements and in the avoidance of reputational damages (cf. Ponte, 2019, pp. 36, 39).

Ponte breaks the broad conceptualization of sustainability down into three analytical categories: Sustainability management, sustainability governance and orchestration. Thereby, *sustainability management* forms part of GVC governance: It consists of strategic actions of lead firms regarding environmental concerns. In contrast, *sustainability governance* focuses on other stakeholder groups: Public sector actors, firms and corporations, NGOs, civil society groups and similar actors. Their efforts to counteract environmental issues are subsumed under the term sustainability governance. Finally, *orchestration* looks specifically at public actors in the context of environmental issues: Thereby, national governments and their authorities as well as international organizations can shape environmental outcomes through binding guidelines and principles for actions. Moreover, they can integrate private sector actors by giving targeted support for certain initiatives (cf. Ponte, 2019, pp. 9f, 12).

As production is more and more dispersed both on a spatial and an organizational level, Ponte (cf. 2019, p. 10f) explains that environmental challenges are often of an international nature and therefore need global cooperation regarding environmental regulation. Issues such as greenhouse gas (GHG) emissions are intangible, and their consequences can occur delayed. They have a transnational dimension, but global governance is difficult to enforce. Alternative ways of solving international environmental issues function through different forms of public-business-civil society corporations, for example in the form of multi-stakeholder initiatives (MSIs) or private-public partnerships. Ponte (cf. 2019, p. 12) also promotes orchestration as an instrument suited to improve global government issues. Scholars state that sustainability will change the market landscapes on a spatial, organizational, and technological level. For example, new products, technologies, and business systems are being created, and material and energy uses are lowered (cf. Ponte, 2019, p. 17). Also, sustainability certifications have become an important factor of competitiveness (cf. Longoni & Cagliano, 2015, p. 216).

Altogether, Ponte summarizes that “[...] corporations are turning sustainability into a business” (Ponte, 2019, p. 14) by making it into an “[...] additional feature of contemporary capitalism [...]” (Ponte, 2019, p. 20). Thereby, a form of “green capitalism” (Ponte, 2019, p. 20) is established, where sustainability actions match the firms’ strategic goals (cf. Wasieleski & Weber, 2020, p. xvi). The perspective on sustainability is then focused on financial and reputational benefits that make a specific sustainability agenda profitable. Through associated instruments, firms can not only capture financial gains, but also externalize risks, exert more and better control over suppliers and manage, or rather improve, the company’s image.

Therefore, Ponte declares the current business of sustainability as inadequate to solve global environmental crisis such as climate change: Although some improvements in relative terms and in some places have been achieved, the resource use in absolute terms is globally rising, thus putting pressure on the environment and the planet (cf. Ponte, 2019, p. 19f).

2.2.3 Collaboration and Multi-Stakeholder Initiatives on Sustainability

In order to advance sustainability efforts, to tackle challenges and to improve efficiency, scholars promote collaboration between stakeholders and call for a sharing of knowledge across actors, areas and disciplines (cf. Azevedo et al., 2018, p. 1f; cf. Ponte, 2019, p. 37; cf. Wasieleski & Weber, 2020, p. xvi f). Thereby, supply chain collaboration is characterized by a cooperation of at least two independent members of the chain. Thus, firms include different actors such as suppliers, customers, and competitors, as this widens the resources available and improves the sustainability outcome. The performance of the whole chain is improved through mutual goals and benefits. Moreover, collaboration drives innovation and learning processes and promotes a shared vision of sustainability (cf. Azevedo et al., 2018, p. 1f). Due to the increased importance of the sustainability agenda, “[...] a true explosion of partnerships, coalitions and multi-stakeholder initiatives” (Ponte, 2019, p. 15) has taken place. This has urged lead firms to take part in MSIs for sustainability as well – or to at least observe them. Nevertheless, Ponte explains that their role within them is still marginal. As different actor groups from the private and public sector as well as the civil society are involved in MSIs, they fall into the analytical category of sustainability governance (cf. Ponte, 2019, pp. 15, 19). Altogether, MSIs can be defined as “[...] voluntary rule systems for sustainability that are governed by stakeholders who cross the profit/non-profit and state/non-state boundaries” (Ponte, 2019, p. 32).

According to Ponte (cf. 2019, p. 32f), three subjects are important in the context of MSI research. The first one is concerned with the formation and management of MSIs, thus analyzing relevant actors as well as input legitimacy – and associated infighting among stakeholder groups. In that context, it can also be analyzed if and how business-driven initiatives have adjusted their governance structures and their institutional nature. A second area refers to the development of MSIs, namely their institutionalization. Thereby, three aspects are crucial: Reasons to introduce MSIs such as opening up new markets, processes of commercialization and distribution, and lastly factors of competition, cooperation and parallelism (cf. Ponte, 2019, p. 32f). Finally, the third area of research is connected to the measurement of output – such as

certifications and market share – and outcome – like advances regarding working and production conditions and improvements of environmental issues. When it comes to output, the measurement of impacts proves to be difficult. Moreover, problems are often addressed without tackling their root causes, thereby sometimes even producing new problems. Thus, positive impacts on final target groups such as local communities remain marginal. Thereby, a main problem is a formal commitment without practical implementation (cf. Ponte, 2019, p. 34f).

2.2.4 Limitations

Scholars like Missimer et al. (cf. 2016, p. 32f) criticize the concept of sustainability for its broad and vague definitions. This leads to a trivialization of the whole concept and helps business to feign interests in and efforts of sustainable development while causing unsustainability at the same time. Moreover, the existence of various definitions, concepts and instruments can result in confusion and innocence of how to successfully realize sustainability goals (cf. Missimer et al., 2016, p. 32f). This applies to the Brundtland Report's definition of sustainability, too. There, ten Have & Gordijn point to the Commission's "[...] weak notion of sustainability [...]" (2020, p. 153): While the socio-political, the economic and the ecological domains are seen as clearly separable but equally important and integrative in theory, economic growth and social development are in fact prioritized over ecological protection. Ten Have & Gordijn (cf. 2020, p. 153) also describe the Commission's understanding of sustainability as anthropocentric, as it puts humans and their interests in the focus. Consequently, nature and its resources are instrumentalized for production and consumption purposes instead of being protected for their intrinsic value. Moreover, scholars point out that although sustainability is becoming increasingly relevant, individual behavior is not changing and issues are not or at least not fully addressed (cf. Schaltegger & Burritt, 2014, p. 233; cf. Wasieleski & Weber, 2020, p. xiv).

In the context of business and sustainability, the role of lead firms can be viewed critically. On the one hand, their engagement within MSIs remains marginal. On the other hand, as mentioned above, they have learnt to incorporate sustainability into capitalistic interests, making it financially profitable (cf. Ponte, 2019, pp. 17f, 19f; cf. Wasieleski & Weber, 2020, p. xvi). Therefore, their current engagement in sustainability is deemed inadequate to solve the global climate crisis, as its successes are selective and insufficient (cf. Ponte, 2019, p. 19).

Although these limitations have to be taken into account, the concept of sustainability still provides an important foundation of this thesis. In principle, the problem of a broad and vague

conceptualization of sustainability and the similarity of various definitions, concepts and tools remains. Nonetheless, I will address this issue by following Ponte's approach and considering everything that GVC participants declare to be environmentally sustainable (cf. Ponte, 2019, p. 9). Moreover, Ponte's explanations on sustainability (cf. 2019) summarized in the previous chapter and in particular the analytical category of sustainability governance (cf. 2019, p. 9f) will be used to operationalize sustainability in the context of initiatives working in the cashew sector of Ivory Coast. This theoretical basis provides a clear reference point and prevents confusion caused by the variety of concepts, tools and definitions. Moreover, the thesis will draw on other concepts to clear respective elements of sustainability. An example for this is the Framework for Strategic Sustainable Development (FSSD), created to provide a clearer outline of sustainability and social sustainability in particular (cf. Missimer et al., 2016, p. 33). Regarding the instrumentalization of sustainability as a way of firms to pursue economic interests, I will continually keep their potential strategic goals in mind when analyzing their efforts and participation in sustainability contexts.

2.3 Combining the GVC Framework and Sustainability

GVCs have become central in today's production process. Metaphorically speaking, Cattaneo et al. (2010, p. 7) call them "[...] the world economy's backbone and central nervous system [...]". Thus, a GVC analysis provides insights into the structure of global industries, the dynamics of the actors involved and the changing patterns of production and trade. This can be applied to the cashew sector of Ivory Coast and the associated GVC. Following the GVC framework, this thesis analyzes the input-output structure, from cashew cultivation in Ivory Coast to cashew processing in India and Vietnam to final consumption in Europe and North America. It maps relevant actors regarding both export and import countries, as well as the main actors in the cashew sector of Ivory Coast: Producers, buyers, processors, and government institutions. Moreover, it pays attention to governance structures and power dynamics, identifying Olam as a powerful actor. Lastly, the thesis also takes the role of the government into account, explaining the tasks and powers of the CCA as well as the successes and limitations of its regulations. On an international level, the importance of new legislations regarding sustainability are mentioned. Regarding the concept of sustainability, the often-criticized vagueness of definitions (cf. Missimer et al., 2016, p. 32f) allows to examine opportunities and challenges of the GVC of cashew kernels from a holistic perspective. Moreover, the concept takes into consideration not only socio-economic, but also ecological factors (cf. ten Have & Gordijn, 2020, p. 153; cf. United Nations, n.d.-b). This plays a crucial

role for the analysis of sustainability initiatives, who often aim to address both social and environmental issues through an intersectional, holistic way of working (e. g. cf. GIZ, n.d.; e. g. cf. Prosper Cashew, 2023; e. g. cf. The World Bank, 2022).

Thereby the GVC framework is a useful tool to study social and environmental development (cf. Fernandez-Stark & Gereffi, 2019, pp. 54f, 73). It allows to take the integration of sustainability initiatives into global structures into account. In that context, Fernandez-Stark & Gereffi explain the GVC's assets as follows:

“The comprehensive nature of the framework allows policy makers to answer questions regarding development issues that have not been addressed by previous paradigms. Additionally, it provides a means to explain the changed global–local dynamics that have emerged within the past 20 years.” (2019, p. 54)

With most of the global cashew supply being provided by so-called developing countries in West Africa (cf. CBI, 2018, p. 9), this analysis of development issues and their connection to global structures is central to the approach. Thereby, the focus on value – where it is added and where it is captured – is especially helpful. To adequately include actors that are not directly involved in the production process, I will draw on aspects of the GPN approach. Thus, relevant actors from the public and civil society sector such as international organizations and local government institutions (cf. Fischer et al., 2021b, p. 39), will be included in the analysis.

Altogether, the thesis takes over the two main concepts of the GVC framework: Governance structures and upgrading possibilities along the GVC. This holistic perspective allows for an analysis of the cashew industry both from bottom-up and top-down. As sustainability initiatives are investigated, the concept of sustainability is crucial to the analysis, too. By combining the two theoretical concepts, the thesis shows that sustainability initiatives form part of GVCs, and that these GVCs are again integrated into global structures. Thereby, the thesis investigates how global patterns of production and trade influence and structure their work. In that context, the GVC framework is a crucial tool to identify relevant actors within the GVC and to uncover power relations and governance structures among them. Moreover, it helps to track not only value creation, but value distribution in particular – and shows that due to global structures, the producing countries retain only small shares of the value generated through the global cashew trade. This then causes unequal positions within the global structures and leaves countries in the Global South with fewer resources. When it comes to upgrading, the thesis applies three main upgrading types – economic, social and environmental upgrading – drawn from the GVC

framework to the work of sustainability initiatives. It investigates how they are targeted and shows their intersectionality in practice.

Understanding the interaction of actors, governance structures and institutional regulations along the globally dispersed production process, is necessary to understand socio-economic and ecological issues and their causes. Thereby, the problems occurring in the production countries, namely in Ivory Coast, are often internationally anchored and intersectionally connected. Altogether, the combination of the GVC framework and the concept of sustainability form the theoretical perspective that guides the analysis, shows what aspects are crucial and adds points that are neglected in the interviews such as power asymmetries and inequalities on a global scale.

3 Methodology

To answer the research question on the approaches, successes, and limitations of sustainability initiatives in the cashew sector of Ivory Coast, a qualitative research design in form of a content analysis according to Mayring was chosen. Basis for the content analysis are selected reports and documents as well as semi-structured interviews with representatives from different sustainability initiatives. This qualitative research design was chosen due to its capacity to investigate broad and complex topics (cf. Gläser & Laudel, 2010, p. 27f). It allows for a detailed analysis of the work of sustainability initiatives in the cashew sector, investigating its structures and governance as well as complex relations and interactions between different actors. It also enables to reduce the complexity of the topic and to compare different actors.

3.1 Choice of Sustainability Initiatives

There are different types of sustainability initiatives working in the cashew sector of Ivory Coast. Among them are non-profit organizations (NPOs), responsible businesses, development aid organizations and private sector actors (cf. Cashew Coast, 2023b; cf. GIZ, n.d.; cf. ofi, 2022a; cf. SNI, 2023; cf. TechnoServe, 2023; cf. The World Bank, 2022). To answer the main research question, I chose to further analyze the following three sustainability initiatives: *ComCashew*, the *Cashew Trail* and *Cashew Coast*. They each represent a different type of sustainability initiative. That way, the different types can be compared, and their similarities and differences can be carved out in the analysis.

The *ComCashew* initiative is a governmental aid project, implemented by the GIZ (German Agency for International Cooperation) but commissioned by the BMZ (Federal Ministry for Economic Cooperation and Development). It was one of the first sustainability projects in the West African cashew sector. ComCashew is a multi-stakeholder cooperation, linking both public and private actors of the sector (cf. ComCashew, 2019a, p. 14). That way, it gives an overview over different actors and shows the complexity of the sustainability issues of the cashew sector, as well as the need for joint efforts to develop and implement solutions. With a total funding amount of 320 million Euro (cf. ComCashew, 2019a, p. 3), the project has large financial resources at its disposal. Thus, the scope for possible actions is broad and the potential for strong impact high. Compared to other projects, it runs for long period of time: It started in 2009 and is currently refunded in its third phase up to 2027 (cf. ComCashew, 2019a, p. 2; cf. GIZ, n.d.). This allows for a more detailed analysis, taking into account changes of the project and the sector in the course of time.

By contrast, the *Cashew Trail* is a private sector project. It is the most recent and extensive sustainability program of ofi (olam food ingredients), a subsidiary of Olam, a large food and agri-business. Olam has a powerful, influential position within the cashew sector of Ivory Coast. It is a huge company, buying large parts of the country's RCN supply (cf. I01, para. 17; cf. I03, para. 21; cf. I05, para. 27). Therefore, a detailed analysis of their sustainability projects, including intentions and working methods, is particularly interesting.

Finally, *Cashew Coast* is a responsible business operating only in Ivory Coast. It has significantly shortened the value chain, taking care of sourcing, processing and export itself (cf. Cashew Coast, 2022, cf. 2023a, p. 4). While the two initiatives mentioned above are projects implemented by an organization or a company, Cashew Coast as a company is itself a sustainability initiative. It follows a holistic, in-depth view of sustainability but at the same time it operates at comparatively small scales (cf. I01, para. 17).

The three initiatives differ greatly in their structure, which makes it interesting to compare them and allows to identify differences and similarities between them. They belong to different types of organizations, which influences their way of working, their financial resources, and their goals. They each have a different scale, depending on the organization behind them. This also means that they have different project countries: While the Cashew Trail includes India and Vietnam (cf. ofi, 2022a, p. 16), ComCashew focuses on West African countries (cf.

ComCashew, 2019b, p. 1). By contrast, Cashew Coast operates exclusively in Ivory Coast (cf. Cashew Coast, 2022). This affects their respective ways of working and influences successes and challenges. In contrast to other initiatives, they all have their own sustainability project instead taking over a supporting role in other projects, making them a focus group of this thesis. Lastly, the three initiatives were chosen for a practical reason: The availability and accessibility of relevant data. Apart from the data available on the official websites, both GIZ and ofi have published reports on their projects. Cashew Coast has not yet published a sustainability report, but the company provided me a presentation containing relevant data for the analysis. Moreover, these organizations agreed to give interviews, while several other initiatives that I repeatedly contacted did not answer or declined interview requests.

3.2 Data Generation

3.2.1 Literature Review and Trade Data

An in-depth literature review was conducted to shed light on both the global cashew sector and the GVC of cashew kernels from Ivory Coast in particular. It includes extensive gathering of data on the structure of the production process, the relevant actors and their geographical concentration, the institutions involved and the governance structures and power relations along the chain. Thus, it addresses the following two sub-question: *Which actors are involved in the cashew value chain globally and in Ivory Coast and how do they shape governance and power dynamics?* Intensive insights on the third sub-question on *main socio-economic and ecological problems* were gathered through a combination of literature review and data drawn from interviews. To find high quality and up-to-date publications I used the online library of the University of Vienna, the search engine Google Scholar, and the database ScienceDirect. Unfortunately, there are not many scientific papers on actors in the cashew sector of Ivory Coast published yet. Therefore, case studies of development aid organizations and NGOs were also used and cross-checked with each other. Among these case studies were publications from the UN, the CBI (Center for the Promotion of Imports from developing countries), GIZ and Nitidæ. It is important to keep in mind that these case studies are not scientific papers, but publications of organizations that are often published with specific intentions.

As part of the overview and to identify relevant actors in the cashew trade on a global level and for Ivory Coast in particular, I derived quantitative data from UN Comtrade, a commonly used database that collects data from reporters, namely from the countries or regions involved. While this data can provide a first overview over global trade and material flows, it must be evaluated

cautiously: Scholars argue that the data provided is deficient (cf. Chen et al., 2022, pp. 2, 9; cf. Ortiz-Ospina & Beltekian, 2018). In their analysis, Chen et al. (cf. 2022, pp. 1f, 5f) detect three types of data quality issues, namely outliers, missing values, and bilateral asymmetries. These issues can lead to data discrepancies that can distort results and conclusions. To avoid these issues, data from UN Comtrade was cross-checked with scientific papers to ensure their validity at least to a certain extent. To obtain the relevant data, I used the search mask and filtered by the following codes: *'080131 – Nuts, edible; cashew nuts, fresh or dried, in shell'* for raw cashew nuts and *'080132 nuts, edible; cashew nuts, fresh or dried, shelled'* for processed cashews. I created three rankings to identify relevant countries in the cashew trade. For the first one, I drew data for the time period from 2000 to 2020 and listed the top five export and import countries of cashews in shell for each year based on quantity in kg. Then, I compared the data to see which countries constantly remained in the ranking. For the second ranking, to identify important processing countries, I created a similar ranking listing the top five import countries of shelled cashews. Lastly, to see where Ivory Coast exports its RCN supply to, I created a ranking of the top five import countries of cashews in shell from Ivory Coast based on the quantity in kg and the trade volume in the time period from 2011 to 2020. While India was constantly placed first in the ranking, it was surpassed by Vietnam for the first time in 2016. Since then, Vietnam has remained the number one importer of RCNs from Ivory Coast. All tables can be found in the annex (Appendix III).

3.2.2 Documents

Documents can be analyzed both in a quantitative way – to gain statistic data – and in a qualitative way. They can be used as a stand-alone method or, as in the case of this thesis, complementary to other ways of data generation such as interviews (cf. Flick, 2023, p. 346). Flick explains that “[...] documents are not just a simple representation of facts or reality” (2023, p. 348), but are a means of communication produced with a specific intention, creating an intended version of reality (cf. Flick, 2023, pp. 347–349). Thus, a guiding question for doing a document analysis should be: “Who communicates what to whom, in what form and with what intention? [*author’s translation*]” (Noetzel et al., 2018, p. 373). That way, the context, use and function of the material is considered (cf. Flick, 2023, p. 352). Using documents as a source for an analysis is a time- and cost-efficient method as data does not have to be collected. Especially nowadays documents are often easily available on the internet. Challenges occur when documents needed for the research are not available in general or not accessible for the researcher. Moreover, the researcher can face problems in understanding the content due to the

use of references, codes, abbreviations, vague wording, and the like. As they are produced for a specific content, documents might not contain all information or intentionally omit details (cf. Bowen, 2009, p. 31f; cf. Flick, 2023, p. 350f). In the scope of this thesis, for each key initiative one or at most two related documents are analyzed. Especially when using documents published by institutions the researcher must be cautious, as documents are then often written for legitimization purposes. This is especially crucial in the context of problems, failures and mistakes that were made. To hide them, certain information can be omitted or left out (cf. Flick, 2023, p. 350).

ComCashew published two sustainability reports relevant for this thesis, where concrete figures to illustrate their successes are included: The ComCashew Factbook (FB), published in October 2019 and including a one-page country report for Ivory Coast (cf. ComCashew, 2019a), and the ComCashew Côte d'Ivoire – Country Report (CR), published in April 2019 (cf. ComCashew, 2019b). Ofi published a Cashew Trail document that can be downloaded on its websites. It is like a report, indicating the project's structure, targets, and impacts (cf. ofi, 2022a). These three documents are sustainability reports and were published by the respective initiatives to portray their efforts in sustainability. While they contain sections about the general conditions, as well as the project's targets, the focus lies on visualizing the positive impacts. Challenges or limitations are omitted. It should be kept in mind that these documents are biased and published to create a positive impression of the related initiatives and their work. Cashew Coast on the other hand does not have a sustainability report yet, but the interviewee sent me a company presentation instead (cf. Cashew Coast, 2023a). The document contains relevant information about structures, approaches, and successes of the company, while limitations and challenges are also neglected. Most of the information can also be found on the company's website. The document is designed to present Cashew Coast and its work in a positive way, but it should be kept in mind, that it is not a comprehensive sustainability report. Generally, the documents did not add a lot of crucial information to the interviews conducted in the research process.

3.2.3 Semi-structured Interviews

To complement the document analysis, I conducted semi-structured expert interviews with selective actors in the field. They were used to answer the main research question as well as the following sub-questions: *What sustainability initiatives exist in the cashew sector in Ivory Coast? What approaches, successes and limitations do they have? What are similarities and differences between them? What are overall limitations and contradictions within their work?*

Thereby, the interviews were based on a guideline. The questionnaire was designed in advance and served rather as an orientation than a fixed and unchangeable sequence of questions. In that approach, deviating questions depending on the interview partner are possible, thus enabling the researcher to adapt the interview to the individual situation and unanticipated developments. Moreover, it allows for targeted follow-up question, resulting in a higher yield of relevant data collection to answer the research question (cf. Gläser & Laudel, 2010, p. 41f). This was important for the thesis, as the initiatives and their work were very different. The guideline also had to be specially adapted depending on whether a key initiative was interviewed or not. Questions for the guideline were formulated following the approach suggested by Gläser & Laudel (cf. 2010, pp. 142–150). They were derived from the research question and sub-questions as well as from the state of the research, generated through the literature review. The final guideline contained four major thematic areas: *Structures and approaches (A)*, *Governance (B)*, *Impacts (C)* and *Challenges and limitations (D)*. At the end of each interview, interviewees were asked if they wanted to share any further information on the topic to make sure that no relevant information got lost.

Interviews were conducted with representatives of the following six initiatives: *FairMatch Support (FMS) (I01)*, *Agramondis (I02)*, *GIZ (I03)*, *ofi (I04)*, *Nitidæ (I05)*, and *Cashew Coast (I06)*. Apart from Agramondis, an agricultural consulting firm that evaluated different sustainability projects in the cashew sector of Ivory Coast (cf. Agramondis, 2023; cf. I02, para. 5, 7), all of the interviewed initiatives will be explained as part of the overview of sustainability initiatives working in the cashew sector of Ivory Coast (chapter 6.1). Due to financial and time constraints, all interviews were conducted online via zoom. They lasted between 36 minutes and 1 hour 5 minutes and were held in June 2023. Interviewees were informed in advance about the research process and the use of the data drawn from the interviews. All interview partners agreed to the recording and the processing of the data in the context of the thesis. Interviews were recorded with the researcher's smartphone and later transcribed using trint³, an online software program. Thereby, transcription was done verbatim. Language and punctuation have been slightly smoothed, but word repetitions and stuttering have generally been adopted. For data protection reasons, transcripts were anonymized. Data was treated confidentially at all stages of the research process.

³ www.trint.com is a web-based automated transcription software that uses speech recognition to convert audio and video files into text.

3.3 Data Analysis

The data from both the documents and the interviews was analyzed in a content analysis following Mayring (2022). Thereby, the software MAXQDA⁴ was used to reduce the complexity of the data and to summarize its contents. The data material was processed step by step and classified into a system of categories, combining theory-guided (*deductive*) and material-based (*inductive*) methods (cf. Mayring, 2022, pp. 60, 84, 96). In a first step, categories were deductively derived from the theory background and the research question. That way, the following six main categories were formed: *Problems of the sectors*, *ComCashew*, *Cashew Trail*, *Cashew Coast*, *comparison*, *trends and developments*. For each of the three key initiatives, four sub-categories were also created deductively: *Approaches*, *successes*, *challenges and limitations*, *criticism*. *Other* was introduced as an auxiliary category in order to collect text passages that could not be assigned to any existing category.

The next stage was a process of open coding, where codes were drawn from the empirical material and either assigned to the respective categories or used to inductively create new categories (cf. Mayring, 2022, pp. 84–87). That way, the categories *general successes of initiatives* and *general problems of initiatives* were added. Moreover, *information about the sector* and *information about other initiatives* were introduced as categories to collect background information. Furthermore, various new subcategories were formed. While coding the transcripts, attention was also paid to which questions were not answered within the interviews and which responses were evasive. Finally, the codes and categories were revised again to be structured and ordered. Thereby, similar codes were merged or grouped together into new subcategories. This process led to the creation of a category system, which served as a starting point and base for the discussion and interpretation of the results.

3.4 Limitations and Reflection

Limitations in the context of this thesis regard first and foremost the interviews. Initially, potential interview partners were contacted on a broad scale as I intended to interview different actor groups. But, even after repeated contacting several of them did not respond at all or declined the interview request. Among them were for example the Cotton and Cashew Council (CCA), the association of processors of Ivory Coast (Group of Industrial Processors, GIC-CI), the African Cashew Alliance (ACA), the CNFA (Cultivating New Frontiers in Agriculture) and

⁴ MAXQDA is a software for computer-assisted qualitative text and content analysis.

TechnoServe. In the end, I conducted six interviews, all of them with representatives of sustainability initiatives. Thus, the perspectives of other relevant actors are not adequately represented, although they are to a certain extent included through the literature review. This lack is particularly relevant when it comes farmers and farmer associations: Most of the work of sustainability initiatives is focused on improving the livelihood of cashew farmers, so their perspective would have been very valuable for the thesis. Another challenge regarding the interviews was setting the interview dates: Due to communication issues and/or time constraints it was often difficult to find a suitable time and date. Interviews were also postponed, sometimes repeatedly, or did not take place at all. Generally, the sample group of six interview partners is small. Therefore, the results of the thesis can be seen rather as a first insight on the topic than as a representative study.

Moreover, by conducting interviews online, I limited the research to interview partners who have access to necessary hardware such as a computer or smartphone. Certain information that accompanies on-site interviews such as the workspace and atmosphere and/or detailed facial expressions and gestures went missing due to the online setting. Since I did not do any research in the field, I was not able to gain insights into the living environment of the people interviewed. I also could not reach the people who are actually affected, namely the cashew farmers. Their perspective on the work of sustainability initiatives would have been valuable, as they are the ones to tell if measures, especially on socio-economic issues, were indeed successful.

Another challenge regards the difficulty to measure impacts and successes: What counts as a success? How do I measure it? This was already a point of concern in the conception of the thesis and was kept in mind during the whole research process. I decided to count as a success everything that the interview partners mentioned when asked about their successes as well as what the initiatives declared a success in their reports. Moreover, I tried to find concrete figures to make their successes more measurable. I realize that there is an inevitable bias in this approach and that not everyone agrees on what is or was a success. Especially different actor groups might have different perceptions of what counts as a success.

Finally, it is important to mention that both the data published in sustainability reports and the company presentation as well as the one obtained from interviews is not objective. By contrary, it should be considered that the interviewees, all working for a sustainability initiative, were biased: It can be assumed that they were eager to portray their initiative and its work positively.

Thus, they might withhold information on mistakes and failures, or only point at successes to create a positive image of their project and work. Moreover, actors in the cashew sector of Ivory Coast are connected and often collaborate. Governance also plays a crucial role, and actors are in different positions of power. Therefore, interviewees might refrain from criticizing the work of other actors in the sector. Some initiatives also rely on funding and therefore might be obliged to adhere to their partners wishes on public communication in order to prevent problems in current cooperation or with regards to future funding possibilities. I tried to overcome these limitations as much as possible. Therefore, I consulted additional papers to triangulate information and conducted several interviews. To also get critical views on the key initiatives and their work, I included interviews with three other initiatives and carved out their points of view. Lastly, I worked with a theoretical framework, which points to additional information, especially the one neglected by the interviewees.

Generally, the thesis does not claim to be objective but works through continuous and conscious analysis and reflection. That way, it points to certain structures, problems, and challenges, but also to successes, seeing them as the result of an analysis instead of an absolute truth. Thereby, the researcher should continuously reflect on the research process and his or her own position within it as well as on the results of the research. According to Haraway (cf. 1988, p. 583), the researcher's social localization and the respective context-specific privileges influence the production and interpretation of knowledge. Thus, researchers are not neutral, and neither is their work. By contrast, it is rather "situated", influenced by the researcher's perspective. This applies to this thesis as well. Having never been to Ivory Coast, my understanding of the country's cashew sector, the different actors and the GVC in general is based on publications on the topic, mostly from European or North American researchers. Moreover, as a white, European researcher I was never directly affected by the socio-economic and ecological problems that are at the center of this research – a privileged position that influenced the knowledge production. To overcome this position, I tried to include local actors into the analysis. Two of the key initiatives – ComCashew and the Cashew Trail – are international organizations, but the third one, Cashew Coast, is a local company working only in Ivory Coast. It claims to have a majority of local staff, also in management positions (cf. I06, para. 31). For the analysis of the Cashew Trail, I also conducted an interview with the local sustainability manager. Moreover, I tried to include local literature wherever possible, which is not easy as most of the published scientific papers are from organizations or researchers from the Global North. Lastly, I kept my position as a European researcher in mind during the whole process.

4 The Global Business with Cashew Kernels

On a global scale, cashew kernels are grown in different regions of the world: Africa, Asia and South America, with the share of the South American production being comparatively small (cf. Dendena & Corsi, 2014, p. 754; cf. United Nations, 2021, p. 8). This chapter will give an overview over the cashew industry on a global level. This broad perspective is important to understand the general dynamics and processes within the sector and lies the basis for an in-depth analysis of the West African chain and the case study of the Ivory Coast.

4.1 Background and History of Global Cashew Trade

Cashews grow on trees that produce a fruit, the cashew apple. As depicted in figure 4, each cashew apple grows one cashew nut only, hanging at the bottom of the apple. This nut contains the cashew kernel, formed like a kidney, and surrounded by a shell. The kernel represents the end product consumed in global markets (cf. Dendena & Corsi, 2014, p. 754f). Cashew kernels are popular as snacks and baking ingredients, especially for vegan products. They are known for being healthy and rich in nutrients such as protein, polyunsaturated fatty acids, and minerals. Further, they are believed to offer benefits against cancer, heart problems, nerve protection and antioxidants (cf. Aydar et al., 2020, p. 1; cf. Dendena & Corsi, 2014, p. 761; cf. Oliveira et al., 2020, p. 15f; cf. I03, para. 7; cf. I04, para. 61; cf. I06, para. 37).



Figure 2: Cashew apple with cashew kernels on a tree (CNFA, 2023b)

The cashew apple, also known as peduncle or pseudo-fruit, is a juicy by-product, high in carbohydrates, vitamin C and minerals. Despite their healthy potential, cashew apples are mostly discarded after the harvest. The few apples that are consumed are often processed into juice, vinegar and jam due to their perishable nature (cf. Agyemang et al., 2021, p. 22543; cf. Oliveira et al., 2020, p. 17). Besides the cashew apples, there are other valuable by-products. The cashew shell contains a poisonous oil, the so-called cashew nut shell liquid (CNSL). While

it makes the processing of RCNs a difficult and labor-intensive process, it can be used in industries such as polymer and brake pad production. Further, the cashew shell cake or shell waste can serve as a biofuel, although its full potential remains unexplored. Cashew skin extract, the so-called testa, is being studied for its natural antioxidant properties. Finally, the cashew bark was traditionally used for medicinal purposes such as the treatment of hypertension and inflammation, and its effects are being further investigated (cf. CBI, 2018, p. 34; cf. Dendena & Corsi, 2014, p. 764f; cf. Oliveira et al., 2020, p. 756; cf. TechnoServe, n.d., p. 3f). Generally, the utilization and sale of by-products is still marginal. Their commercial use thus presents economic opportunities (cf. CBI, 2018, p. 34; cf. United Nations, 2021, pp. 15, 32) and can be characterized as economic upgrading, or more precisely as product upgrading.

On a global level, 46 countries are actively engaged in the production of raw cashew nuts (RCNs). All of them are classified as so-called developing countries, and 18 are counted as least developed countries (cf. United Nations, 2021, p. 8). While the cashew tree originates in Brazil, it was brought to Africa and Asia by European colonizers in the 16th century (cf. Dendena & Corsi, 2014, p. 753f). Although cashews are still grown in Brazil, they are mainly cultivated in West Africa and Southeastern Asia today (cf. Ouattara et al., 2020, p. 117). According to Ouattara et al. “[i]n 2015, West Africa and South-Eastern Asia together produced around 90% (45% each) of the world’s raw cashews” (2020, p. 117), with Vietnam, India and Ivory Coast being the world’s largest producers in that regard (cf. Ouattara et al., 2020, p. 117). In 2017, the share of African countries in the global production rose to 59% (cf. CBI, 2018, p. 9).

Examining trade data from UN Comtrade paints a similar picture: In terms of exports of cashew kernel in shell, namely RCNs, African countries especially in the west of the continent are key actors. When listing them based on trade quantity in kilogram in the period from 2000 to 2020, the largest exporters remain constant: In this listing, with only a few exceptions, Ivory Coast occupied the first and Tanzania the second place of the exporting countries (cf. UN Comtrade, 2022). Other key export countries are for example Benin, Ghana, Guinea-Bissau, Nigeria, and Burkina-Faso, as well as Indonesia. Their trade volumes and the resulting place on the export ranking vary from year to year. It should be noted that figures for Guinea-Bissau are missing for the period from 2006-2020. At the same time, existing data like the one for the year 2003, where Guinea-Bissau was the leading export country for cashews in shell (cf. UN Comtrade, 2022), points to the country’s crucial role in the industry.

While West Africa is a main actor in the export of raw cashews, a closer look on India and Vietnam is worthwhile regarding processing. According to the UN, the two countries “[...] accounted for an average share of 98 per cent of global RCN imports by volume in the period 2014-2018” (2021, p. 21). The average import shares were thereby distributed among West Africa (77%), Asia (13%) and global trade (10%) (cf. United Nations, 2021, p. 23). Moreover, an estimated share of 90% of the cashews harvested in West Africa is exported in shell to India and Vietnam (cf. ComCashew, 2019a, p. 2; cf. Kolliesuah et al., 2020, pp. 187–189, 198). Besides these two, Brazil is a major processing site, too (cf. Oliveira et al., 2020, p. 16). It has quite constantly been on the third place among the importers. Recently, China has emerged as an actor in the field as well (cf. UN Comtrade, 2022). The major role of Vietnam and India is also reflected in the data drawn from UN Comtrade: They have dominated the import market of cashew nuts in shell throughout the whole period of 2000 to 2020. While India had long been the number one importer of cashews in shell, it was surpassed by Vietnam in 2016 in both trade volume and trade value. Since then, Vietnam has further expanded its lead in cashew processing (cf. UN Comtrade, 2022).

After being processed, the shelled cashews are mainly exported to countries in North America and Europe (cf. Agyemang et al., 2021, p. 22536). There, about 60% of traded cashew kernels are further processed, namely being roasted, salted, and packaged or used as ingredients for products such as drinks or bars (cf. UNCTAD, 2021). Lastly, the processed kernels are packaged and distributed to supermarkets and retailers (cf. CBI, 2018, p. 18). The data from UN Comtrade mirrors the domination of industrialized countries regarding the import of shelled cashews from 2000 to 2020: Among the top importers have constantly been the USA, the Netherlands, Germany, the United Kingdom (UK) and Australia (cf. UN Comtrade, 2022). According to the CBI (Centre for the Promotion of Imports from developing countries) the USA “[...] makes up for more than half of the internationally traded cashew kernels, while Europe accounts for approximately one-third” (2018, p. 9). The list of important import countries was complemented by China in 2008 and the United Arab Emirates in 2012 (cf. UN Comtrade, 2022).

Generally, the global demand for cashew kernels is growing by 6-8% per year (cf. Agyemang et al., 2018, p. 209). As depicted in figure 5, the global production follows this trend, rising strongly in Asia and West Africa. According to the UN, the global production of RCNs more than quadrupled from 1990 to 2018, where 3.9 million tons were produced (cf. 2021, p. 18f).

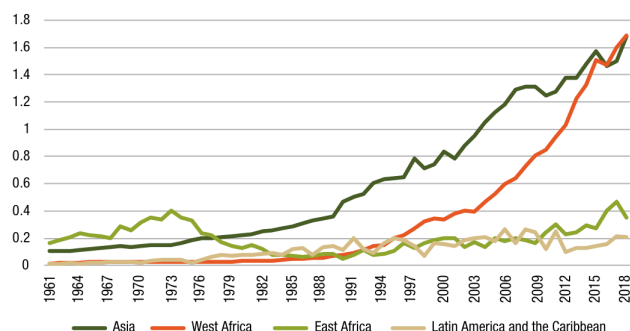


Figure 3: Raw cashew nut production by region (United Nations, 2021, p. 19)

4.2 The Global Value Chain of Cashew Kernels

The input-output structure of the global cashew value chain mainly consists of three steps: Farming, processing, and distribution (cf. Taghikhah et al., 2021, p. 853). Thereby, the main input are the cashew seeds or seedlings. As with most agricultural GVCs, value is added by transforming cashews from their raw form into the processed kernels desired by international marketplace (cf. Agyemang et al., 2016, p. 153; cf. Cucagna & Goldsmith, 2018, p. 295; cf. Dendena & Corsi, 2014, p. 757). Regarding the processing of RCNs, Weidinger (cf. 2019, p. 10) identifies six steps as depicted in figure 6: *Drying, pre-treating, de-shelling, peeling, grading, and packaging for export*, with de-shelling being the most critical step as it risks a devaluation of the kernel if it breaks (cf. GIZ, 2019, p. 14,17; cf. Oliveira et al., 2020, p. 16).

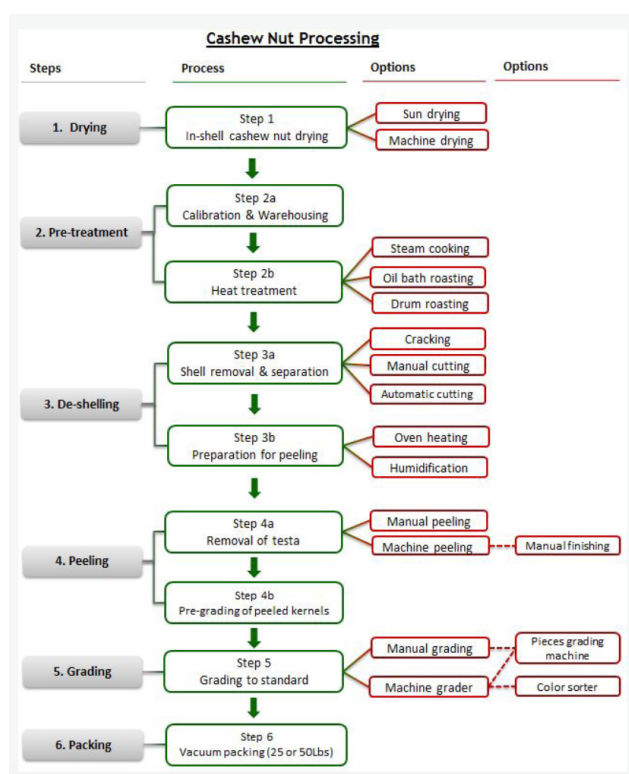


Figure 4: Basic Steps in Cashew Processing (ComCashew, 2019a, p. 11) based on (cf. Fitzpatrick, 2011)

Cashew processing changed in the course of time, especially with the introduction of new technology that led to automation at some stages of the chain (cf. Oliveira et al., 2020, p. 16). Generally, the industry emerged as a low-investment sector, where low-cost labour enabled a minimal use of technology (cf. Oliveira et al., 2020, p. 16). India was leading the sector, as it was the first country to build the respective infrastructure in form of small-scale factories based on skilled but cheap labour (cf. Dendena & Corsi, 2014, p. 765; cf. Tessmann, 2018, p. 272). To make full use of the processing capacities, India started importing RCNs from East African countries, among them Mozambique, Kenya, and Tanzania, and later from Southeast Asian countries, especially Vietnam and Indonesia (cf. Dendena & Corsi, 2014, p. 765f). In Vietnam, too, the country's processing capacities are significantly higher than the local cashew harvest, resulting in a need to import large amounts of RCNs from West and East Africa as well as from other Asian countries (cf. CBI, 2018, p. 45).

The governance structure of the global cashew kernel value chain is dominated by two groups: Large international buyers, namely supermarkets, and traders. They both inherit a very powerful position within the global cashew trade. While traders are connected to producers, namely small-scale farmers, buyers, namely supermarkets from the Global North, are linked to processors and distribute the processed kernels to the final consumers. Therefore, the governance structure can be characterized as bipolar, containing a trader-driven segment where international traders buy RCNs from farmers, and a buyer-driven segment, where large supermarkets connect processors with the final consumer markets (cf. Tessmann, 2018, p. 264). Generally, concentration rates are particularly high in the agricultural sector: 29 countries provide about 80% of the value-added generated through exports (cf. Fischer et al., 2021a, p. 22). Moreover, large international traders like Olam dominate the agri-food sector in general as well as the cashew trade on a global level (cf. I01, para. 17; cf. I03, para. 21; cf. I04, para. 17).

Apart from buyers and traders, governmental institutions and regulations play a crucial part within the cashew sectors of the individual countries, too. They can shape, control and support the cashew production and trade through various measures such as setting minimum prices, imposing export taxes on RCNs, and granting subventions to local investors. But government engagement varies greatly in between countries. For example, the governmental support of the local cashew processing industry in India and Vietnam is high, characterized by low interest rates, direct subsidies, and value-added tax. Government support in African countries, on the other hand, has historically been low, although this is changing nowadays (cf. I05 para. 29).

5 Cashew Kernels from West Africa and Ivory Coast

As West African countries provide a major part of the global cashew supply, this chapter first analyzes the cashew industry and value chain with a regional focus on West Africa. It then examines the example of Ivory Coast, the world's largest producer country of RCNs (cf. CNFA, 2023b). Finally, it sheds light on main problems that occur along the GVC of cashew kernels from West Africa and Ivory Coast in particular.

5.1 West Africa

West Africa⁵ is characterized through an abundance of natural resources (cf. World Bank, 2023). Therefore, the region often serves as an exporter of raw agricultural materials that are then processed elsewhere. Besides cashew nuts, oil, coffee, cocoa, and cotton also represent important export goods (cf. Krepl et al., 2016, p. 45f; cf. World Bank, 2023). By contrast, the import rate of finalized food products is high and growing at 8.2% per year. As processing capacities in most African countries are limited, most of the value-added leaves the countries of production (cf. Krepl et al., 2016, p. 45f).

After cocoa, cashew became the second high value export in the West African region⁶. As the cashew production in East Africa dropped in the 1980s due to political and economic reasons – in Mozambique for example because of the starting civil war –, several West African countries entered the market with Ivory Coast being the largest African provider of RCNs. Although there are several similarities regarding the cashew value chains from West African countries, it is important to note that the individual countries differ in the structuring of the respective cashew sectors. For example, the cashew production in Ivory Coast is essentially regulated by government forces, while the sector in Benin is structured mainly by market forces. Thus, the local government can significantly shape the trade: It can regulate the sector and can support the industry through various programs and measures (cf. CBI, 2018, pp. 7, 9, 19-21; cf. Dendena & Corsi, 2014, p. 765f; cf. United Nations, 2021, pp. 21, 23; cf. IOI, para. 29). The role of the government in the cashew sector of Ivory Coast will be further explained in chapter 5.2.

⁵Definitions on which countries form part of West Africa vary. This thesis uses the UN's classification and definition of regions which counts the following 17 countries as Western Africa: Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Saint Helena, Senegal, Sierra Leone und Togo (cf. United Nations, n.d.-a). Moreover, the term West Africa will be used instead of Western Africa, as most of the scientific papers cited in the following chapters use this term.

⁶ Eleven West African countries take part in cashew production: Ivory Coast, Nigeria, Benin, Guinea Bissau, Burkina Faso, Ghana, Mali, Guinea, The Gambia, Senegal and Togo (cf. Kolliesuah et al., 2020, p. 187).

5.1.1 The Value Chain of Cashew Kernels from West Africa

The West African cashew kernel value chain is a typical chain of the food and agricultural sector, spread over three continents. It represents a vivid example of the region's role as a provider of raw agricultural materials (cf. Agyemang et al., 2016, p. 150, cf. 2022, p. 1115). Thereby, cashews are typically grown by small-scale farmers in the central and northern regions of countries on the coastline (cf. Agyemang et al., 2016, p. 151; cf. CBI, 2018, p. 9). The main input consists of the trees, grown either through seeds in the field or by planting seedlings from nurseries (cf. Dendena & Corsi, 2014, p. 757). As depicted in figure 7, the typical value chain for cashew kernels from West Africa can take two broad forms depending on whether raw nuts are locally processed or exported for that purpose (cf. Agyemang et al., 2016, p. 153).

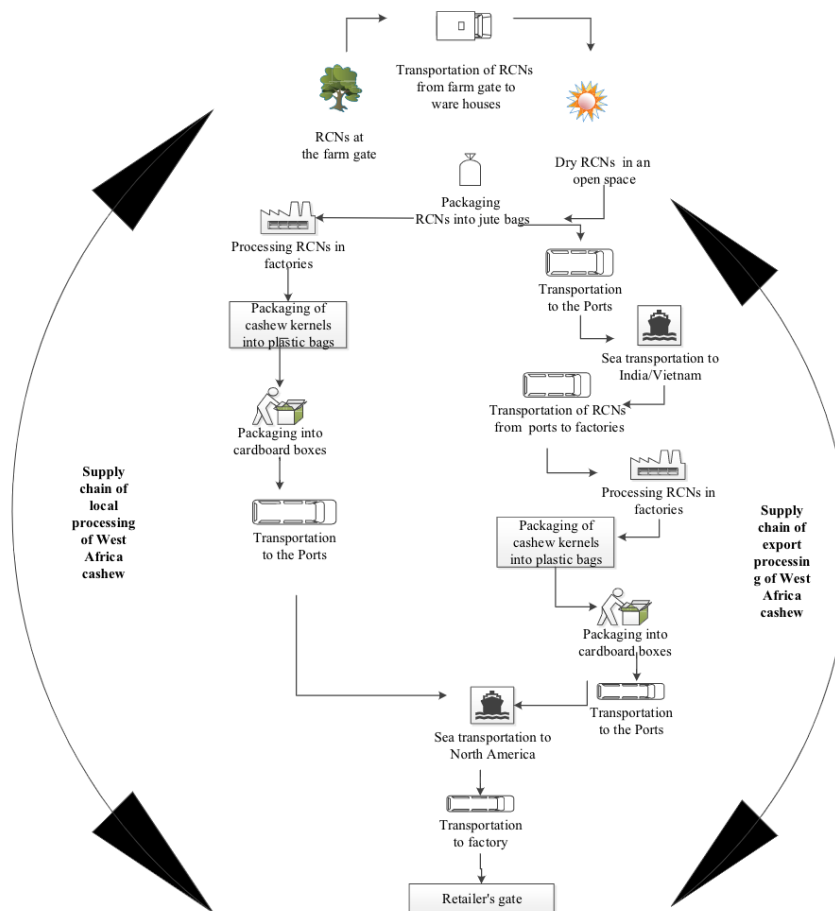


Figure 5: Two main GSCs of cashew from West Africa to an international retailer (Agyemang et al., 2016, p. 153)

Usually, cashew apples are not picked from the trees, but collected from the ground after they have fallen. Farmers then separate the nuts from the apples, sun-dry them and sell them to supply network agents (cf. Agyemang et al., 2016, p. 151). This happens only in the dry season from February to April, as farmers often do not have the means or knowledge to store RCNs under the right conditions, in which case they rot quickly (cf. CBI, 2018, p. 9). Through the aid of supply network agents, RCNs are then packed into jute bags and either stored at warehouses

until their local processing or exported to processing countries (cf. Agyemang et al., 2016, p. 151). From their place of processing, cashew kernels are packed into plastic bags and cardboard boxes before being exported by sea to the final markets (cf. Agyemang et al., 2016, p. 153).

In the West African cashew value chain, relevant actor groups include, amongst others, producers, traders, exporters, and importers (cf. CBI, 2018, p. 14). Usually, small-scale farmers produce RCNs and sell them to traders. In most cases, they do not have much knowledge about quality differentiations, the global trade in the sector and the dynamics of the respective markets. It is in their interest to sell their harvest fast to prevent it from rotting and to monetarize it. Altogether, this leaves farmers in a poor position regarding price negotiations. Organization in cooperatives and producer groups is marginal, especially compared to other crops produced in the region such as cotton. Thus, producers have limited influence on the value chain and its power dynamics (cf. CBI, 2018, pp. 13, 15, 22f).

The group of traders consists of different middlemen at the local, regional, and national level. Local and regional traders buy RCNs from different producers on-site in the villages. They pay in cash and store the RCNs for traders, processors, and exporters (cf. CBI, 2018, pp. 15f, 22). Due to the high export rate of RCNs, brokers, agents, exporters, shipping lines, importers, quality controllers, customs, and banks play an important role in the West African cashew value chain. Export is mostly carried out by the processing factories themselves, as they are often also international trading companies. They control the West African cashew sectors from their headquarters in Asia through large scale sourcing of RCNs (cf. CBI, 2018, pp. 18, 22). In that context, the CBI states that “[A]sia-based traders have largely made the cashew sectors in West Africa into what they are today” (CBI, 2018, p. 22). One of the most relevant exporters in the region is Bolloré Logistics (cf. CBI, 2018, p. 18).

Processed cashew kernels are generally imported by large international retailers, among them Caronut, Red River Foods and Universal Commodities (USA) as well as Intersnack and TDG (Netherlands). Some of these companies own processing units either in Vietnam or in African countries. Intersnack, the main importer for the EU (European Union) market, also runs secondary processing factories in Europe. Regarding organic and fairtrade cashew kernels, the Swiss company GEBANA is an important actor (cf. CBI, 2018, p. 18). With traders and buyers being powerful actors, the GVC of Cashew kernels from West Africa is a typical commodity chain, showing a bipolar governance structure.

Apart from these actors directly involved in the production process, financial institutions and governments play an important part as well. Engaging in cashew trade requires financial resources, not only for infrastructure such as factories and machinery, but also to pre-finance the purchase of RCNs in large volumes. Thus, operators often depend on credits. International traders are granted significantly lower interest rates (1-2%) by international banks compared to local processors (8-12%), which gives them a competitive advantage (cf. CBI, 2018, p. 19f). Government engagement in the cashew sector of West Africa differs among the individual countries. Common measures to support and regulate cashew trade are the establishment of an export tax for RCNs and the enforcement of minimum prices. Additionally, investment promotion policies, exemptions for export and import taxes and subsidies for local processing of RCNs are instruments aimed at fostering the cashew sector. But the effectiveness of these measures is discussed controversially (cf. CBI, 2018, p. 20f).

There is no international pricing mechanism for cashew nuts or kernels and price setting lacks transparency. Both farm gate prices and prices on the international market are highly volatile: On a local and regional level, they are vulnerable to heavy fluctuations in connection with the start and end of the harvesting season. On an international level, they depend on the market and its disruptions (cf. CBI, 2018, p. 20; cf. Dendena & Corsi, 2014, p. 767). Generally, the trade with cashews is considered a high-risk business. As in agriculture in general, the profit depends on the weather and the resulting yields. Additionally, the most important consumer markets, the USA and Europe, have evolved only recently, and as cashew kernels represent a luxury good, their markets are not considered stable (cf. CBI, 2018, p. 19f).

5.1.2 Local Processing Capacities

The infrastructure for local processing was first established in West Africa in the late 1990ies, with the machinery being imported to large parts from India. As processing was done manually, the industry provided opportunities for job creation and value addition (cf. CBI, 2018, p. 27). Within the last decade, processing factories have been built and existing ones have been improved in West Africa. Ivory Coast is currently the largest processing country in Africa: In Bouaké, Olam, a large international food and agri-business involved in cashew growing, trading, processing, and distribution, runs the biggest processing factory of West Africa with a capacity of 30,000 tons of RCNs. The company runs another factory in Dimbokro and carried out 84% of all cashew processing in Ivory Coast in 2018 with its two processing facilities (cf. CBI, 2018, pp. 27, 33; cf. United Nations, 2021, p. 31). In total, there are currently 20 factories

working in Ivory Coast, and 10 more are being built (cf. I05, para. 31). This can be seen as considerable progress in terms of capacity building: “[...] in 2017, you had only maybe five or four factories working in the country, and only two, the two Olam, really working, like processing a lot of cashew nuts” (I05, para. 31). Although the country’s processing industry is growing steadily, albeit at a low rate of about 6%, processing remains marginal in African countries (cf. CBI, 2018, p. 27; cf. Oliveira et al., 2020, p. 17; cf. I01, para. 9). Older units in West Africa operate manually, opening cashews by the aid of a scooping device, while newer factories have introduced semi-automated processes for shelling. Estimates suggest that between 2% and 20% of all processing in West Africa is done manually. Thereby, women do large parts of the shelling, peeling, sorting, and classification of cashews: They represent about 80% of the workers (cf. CBI, 2018, p. 38f).

Processing RCNs significantly adds to their value on the global market. Thus, countries that produce them but export them in their raw form are left with a small share of the value generated in the global cashew trade (cf. United Nations, 2021, p. 9). The UN Conference on Trade and Development (UNCTAD) analyzes these developments in more detail for cashews from Ivory Coast in 2018:

“[...], the export price of cashew kernels from India to the European Union was about 3.5 times higher than what was paid to cashew farmers in Côte d'Ivoire – a 250% difference in price.

And after secondary processing in the EU, the price of the cashew kernels was about 2.5 times higher than when exported from India – and about 8.5 times more than when they left the farm in Côte d'Ivoire” (cf. UNCTAD, 2021).

Scholars thus promote local processing as an advantage from an economic perspective (cf. CBI, 2018, p. 10; cf. Ouattara et al., 2020, p. 120), saying that it “[...] could create thousands of new jobs, increased incomes and improved livelihood” (CBI, 2018, p. 10) while also cutting CO2 emissions. This is a vivid example of how types of upgrading can overlap: The taking over of processing can be seen as functional upgrading, as Ivory Coast then carries out a task with higher value generation. At the same time, the creation of jobs and the resulting increase in income can be characterized as social upgrading, while the cut in emissions counts as environmental upgrading. But in practice, realizing the potential for local processing faces several challenges in West Africa (cf. Agyemang et al., 2016, p. 155; cf. Krepl et al., 2016, p. 46), which will be further explained in chapter 5.3.3.

5.2 The Cashew Sector in Ivory Coast

Ivory Coast⁷ is by far the largest producer and exporter of cashews on a global level (cf. Ouattara et al., 2020, p. 118). The CBI (cf. 2018, p. 9) states that Ivory Coast accounted for about one quarter of the global cashew nut production in 2018. Together with cocoa and rubber, RCNs have thus become one of Ivory Coast's most important export goods. Most of the cashew production takes place in central and northern parts of the country (cf. Ouattara et al., 2020, p. 118). The cashew value chain from Ivory Coast is typical for the one from West Africa and for agricultural value chains, with most of the production being exported for processing.

Cashew trees were first introduced in Ivory Coast by colonial foresters from France in the late 1920s and mainly used as fuel wood and/or as construction input. Later, in the 1950s and 1960s, they were planted through government aid in large parts of West Africa, including Ivory Coast, to counteract soil erosion and deforestation. It was only in the 1970s when the trees gained importance for their fruit and nut in Ivory Coast (cf. Bassett et al., 2018, p. 1229; cf. CBI, 2018, p. 22; cf. Kone, 2010, p. 23; cf. I03, para. 7, cf. I04, para. 35). Although a combination of soil conservation practices and economic production of cashew nuts was suggested by French foresters, farmers stuck with the traditional cotton crops due to their higher prices and subventions until the rising global demand and consequently the rising market prices for cashew kernels led to an expansion of cashew growing in the late 1990s (cf. Bassett et al., 2018, p. 1229f; cf. Kone, 2010, p. 23). While cotton and cashews were first often grown complementary as their harvesting seasons did not overlap, cashews more and more replaced cotton production in the 2000s due to political and economic reasons (cf. Bassett et al., 2018, p. 1230f).

5.2.1 Input-Output Structure

Today, around 400.000 small-scale farmers are cultivating cashew crops. The individual farms of varying sizes together occupy an estimated area of 3 million hectares. Cashew producers often also grow other food and cash crops such as rice, maize, peanuts, and cotton (cf. Ouattara et al., 2020, p. 120). Nevertheless, cashew production represents an important income factor (cf. CBI, 2018, p. 39f). Estimates suggest that Ivory Coast exports more than 90% of its production to Vietnam, India, and Brazil, where the raw nuts are processed into cashew kernels (cf. Ouattara et al., 2020, p. 118). This is also reflected in data drawn from UN Comtrade: When

⁷ Ivory Coast is a multi-ethnic state located in West Africa that accommodates about 24 million residents. Although it is considered a "[...] regional economic power in West Africa" (GIZ, 2022), the country is characterized by deep inequality within the population and by high poverty rates (cf. GIZ, 2022).

looking up destination countries for RCNs from Ivory Coast in a 10-year period from 2011 to 2020, India and Vietnam continuously occupied the first and second place, while Brazil has consistently been the third largest importer of RCNs from Ivory Coast. Other relevant import countries include Indonesia, Sri Lanka, and Singapore. China and the United Arab Emirates (UAE) have only recently emerged in the respective trade (cf. United Nations, 2022).

The production of cashews in Ivory Coast involves multiple different actors and is characterized by a lack of transparency and traceability (cf. Bassett et al., 2018, p. 1240; cf. Tessmann, 2018, p. 274). As depicted in figure 8, farmers generally sell their harvest to exporters and/or processors through different types of intermediaries. Local traders are usually well-known and often funded in advance by regional buyers. Regional buyers then either sell to a third intermediary, wholesalers, or directly to exporters and local processors. However, most RCNs are exported to India or Vietnam and just a small portion is processed locally (cf. Bassett et al., 2018, p. 1227f; cf. Ouattara et al., 2020, p. 120; cf. Soro et al., 2011, p. 240; cf. Tessmann, 2018, p. 270).

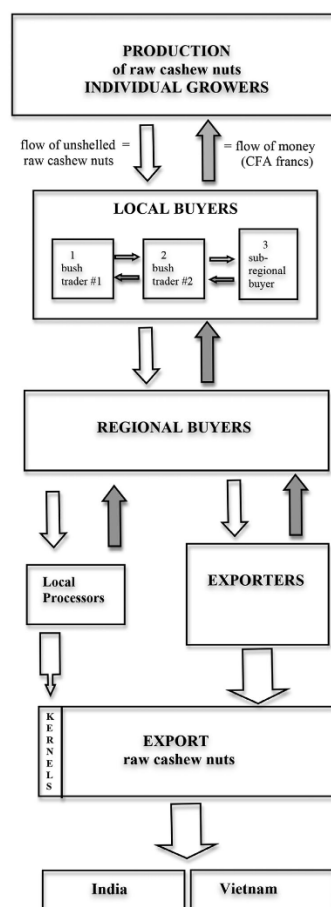


Figure 6: Trader-driven Cashew Value Chain, Production to Export Segment (Côte d'Ivoire, 2015) (Bassett et al., 2018, p. 1228)

According to Tessmann (cf. 2018, p. 276), this structure of numerous intermediaries has two main reasons. Firstly, the geographical dispersion of farmers hinders the procurement of large volumes for processors from individual producers. Secondly, processors have to source their entire annual demand for RCNs the short harvesting season from February to May, an amount that cannot be supplied by a single trader.

5.2.2 Actors and Governance

Relevant actors of the cashew value chain in Ivory Coast include producers, namely farmers, buyers, processors, and the regulation structure (cf. Ouattara et al., 2020, p. 120). Currently, there are only few cooperatives that organize producers in Ivory Coast (cf. I01, para. 13; cf. I06, para. 9). This lack of farmer organization is not only making direct procurement and the associated higher prices for farmers difficult, but it is also a loss in terms of negotiation power for them (cf. I01, para. 17; cf. I05, 35). Moreover, existing cooperatives are structured in a trader-oriented way (cf. I01, para. 13; cf. I06, para. 9): “So it's traders that organize their farmers, their suppliers around them, and then they can make use of the [...] advantages of running a, running as a co-op” (I01 para. 13). The few cooperatives that exist are mostly regional organizations that play a rather marginal role within the sector (cf. CBI, 2018, pp. 15, 23; cf. Ouattara et al., 2020, p. 120). They are subsumed in the National Federation of Cashew Producers (FENAPACI), a national organization counting 31 unions of cooperatives, 371 cooperatives and 352,000 producers. The FENACAJOU-CI (Fédération nationale des cajouculteurs de Côte d’Ivoire), also a producer organization, has 200,000 members (cf. CBI, 2018, p. 23).

Processors are organized within the Group of Industrial Cashew Processors (GIC-CI). They are not allowed to buy their supply of RCNs directly from producers: They need to source from a network of traders. Often, foreign processing firms also take over export (cf. CBI, 2018, p. 23f). Exporters are represented in the Association des Exportateurs de Cajou (AEC-CI) and cooperate with processors in some areas⁸ (cf. CBI, 2018, p. 23f). Processors and exporters play a crucial role in the trade with farmers: They can have a positive or negative impact on them, depending on whether they pay them good prices for the RCNs or not (cf. I02, para. 39). Some of them are supposedly connected to the government (cf. I06, para. 49), which further increases their power.

⁸ An example is the state regulation that reserves 15% of the local harvest to be processed locally. Large companies such as Olam seem to circumvent this regulation through contract processing (cf. CBI, 2018, p. 23f).

To classify the GVC into one of the GVC framework's five governance types, a closer look on Gereffi's determinants of GVC governance (cf. 2005, pp. 84–87) is worthwhile. The complexity of transactions is high as cashew processing is a complex task undertaken by lead firms, namely Olam, while suppliers are limited to cashew cultivation. The ability to codify transactions is low as transaction-specific investments in the form of processing units are necessary. Lastly, capabilities of suppliers are low in relation to the final product. Altogether, this makes the GVC of cashew kernels from Ivory Coast a *captive value chain*, where small suppliers are highly dependent on large buyers. Scholars also agree that the value chain of RCNs from Ivory Coast is a *buyer-driven chain*. Thus, buyers, traders and export companies inherit a powerful position, although they do not have a representative body or organization (cf. Bassett et al., 2018, p. 1236; cf. CBI, 2018, p. 23; cf. Tessmann, 2018, p. 276). Especially in the beginning of the cashew business in Ivory Coast, there was only few controls of their power due to weak government regulations: The first state-owned regulatory body, the Cotton and Cashew Regulatory Authority (Autorité de Régulation du Coton et de l'Anacarde, ARECA), was introduced only in 2002. In theory, it was responsible for licensing buyer and exporters and for setting an annual floor price for RCNs, but it could not impose its measures in practice (cf. Bassett et al., 2018, p. 1231f). The role of the government in Ivory Coast and its increasing regulation of the cashew sector will be explained in the next subchapter.

5.2.3 Institutions and Price-Setting

As mentioned before, an important processor, trader and exporter in Ivory Coast is Olam (cf. CBI, 2018, p. 23; cf. Soro et al., 2011, p. 241). According to Bassett et al. (cf. 2018, p. 1231f), Olam used its buying power to influence price-setting. Due to its high capital, Olam was able to start buying months before its competitors who were reliant on bank loans and before the floor price had been declared. When prices rose later, Olam halted purchases and urged ARECA to lower the prices due to processing plants already being filled. This strategic timing of purchases up to 25% of the total RCN production drove price fluctuations in the market and allowed Olam to buy RCNs below the floor price. Therefore, Olam can be considered a lead firm, as it exercises power within the chain by influencing prices. Further, it carries out the most profitable activities within the chain: Processing and trading. In his paper, Tessmann supports the argument of capital enabling international traders to monitor and control the chain:

“Since the profitability of cashew traders depends largely on volumes, a few powerful commodity traders dominate the Ivorian RCN exporting sector. Given that many of these companies are registered in Asian financial hubs, access to credit on preferential terms is a major source of competitiveness and market power” (2018, p. 276)

Moreover, “[...] thorough knowledge of the market, easier financing conditions and a range of business activities involving import and export [...]” (Kone, 2010, p. 23) allowed South Asian companies to dominate the sector.

To restrict the power of international traders, Intercajou, a cashew joint-trade organization consisting of representatives of growers, exporters, and processors, was established in 2007. Intercajou started to determine the minimum price per kilogram of RCNs once a year in relation to prices on the international market (cf. Kone, 2010, p. 49; cf. Soro et al., 2011, p. 241). Nevertheless, Indian buyers still induced price fluctuations within one campaign by exploiting the lack of quality measuring. That way, a devaluation of the product and consequently the lowering of prices was possible (cf. Soro et al., 2011, p. 242). Intercajou was disbanded in 2011, accused of mismanagement, fraud, and corruption (cf. CBI, 2018, p. 24).

To solve the issues mentioned above, the government set a reform in motion in 2014. As part of this reform, the Cotton and Cashew Council (CCA), a state-owned regulatory body was created. The CCA brings together government representatives and different industry stakeholders: In its Board of Directors, “[...] all cashew industry-related ministries and the private sector” (Tessmann, 2020, p. 74) are equally represented. They have a three-year mandate and elect the CCA’s president (cf. Tessmann, 2020, p. 74). With the objective to both structure and boost the cotton and cashew sectors, the CCA sets guaranteed minimum field-, store- and export prices. Thereby, farmers and processors are included in the floor price negotiations that take place once a year. Moreover, the floor price ensures farmers a 60% share of the RCN export price. Prices are announced in February and last for three months, but can be revised (cf. Ouattara et al., 2020, p. 120; cf. Tessmann, 2020, p. 74f; cf. I06, para. 7). To ensure compliance with minimum, the CCA has introduced a new traceability system, stipulating that all transactions along the GVC must be documented, for example by purchase receipts (cf. Bassett et al., 2018, p. 1240; cf. Tessmann, 2020, p. 75). Other responsibilities of the CCA include licensing buyers, exporters and traders and keeping record of these licensed companies⁹. Lastly, it aims to realize upgrading processes through local processing and quality improvements (cf. Bassett et al., 2018, pp. 1232, 1240; cf. CBI, 2018, p. 23; cf. Ouattara et al., 2020, p. 120). Altogether, the CCA’s efforts to ensure higher RCN prices for farmers can be characterized as a public governance path of social upgrading.

⁹ The list of licensed exporters for the year 2021 is published on the following website:
<https://www.cashewservice.com/bo-bien-nga-danh-sach-cac-nha-xuat-khau-duoc-cap-phep-mua-vu-2021>

According to Bassett et al., the CCA successfully reduced Olam's influence on price-setting and supports farmers (cf. 2018, p. 1240). Tessmann (cf. 2020, p. 79) explains that the floor prices gradually rose in a time period from 2013 to 2017, starting from 200 CFA per kg and growing to 4440 CFA. Therefore, he argues that farmers have benefited from these rising floor prices. But 2017 represented one of three historical price peaks (cf. I05, para. 11), and prices have fallen since then: For 2023 for example, an interviewee indicated the price was at 315 CFA (cf. I06, para. 7). Thus, prices remain highly volatile. Moreover, the minimum price set by the government is often circumvented: A 12-year study showed that the difference between the minimum prices and the prices charged was on average more than 10% in 80% of the study period (cf. CBI, 2018, p. 33; cf. Nitidæ, 2022, p. 2; cf. Tessmann, 2018, pp. 274–277).

In addition to these price regulations, the government of Ivory Coast put in place a comparatively high export tax for RCNs in 2015 and uses the generated funds to support the local processing industry (cf. CBI, 2018, p. 20). Thereby, the National Development Plan 2016 – 2020 sets a local processing rate of 40% as a target for the year 2020 (cf. United Nations, 2021, p. 35). The UN summarizes that “Côte d’Ivoire appears to have the most comprehensive support program for cashew processing in Africa” (United Nations, 2021, p. 36).

5.3 Main Problems along the Chain

Agricultural value chains cause several problems, both at the socio-economic and the ecological level. The GVC of cashew kernels from West Africa is no exception but faces several issues along the production process, too: “There's different challenges in these different, these different key parts of the value chain” (cf. I02, para. 29). The interviews I conducted shed light on these different problems and show their intersectionality and mutual dependance.

5.3.1 Socio-Economic Problems in West Africa and Ivory Coast

In the West African cashew sectors, socio-economic issues regard both the micro and macro level. At the micro level, low prices for farmers and low wages as well as bad working conditions and health issues for factory workers represent major issues. At the macro level, the unequal distribution of value-added along the GVC as well as gender inequalities in the production process pose serious problems (cf. Bassett et al., 2018, p. 1240; cf. Cucagna & Goldsmith, 2018, p. 294). As India and Vietnam are the main processing countries, factory workers there are also severely affected by similar problems, especially due to loose regulations

regarding safety and the well-being of workers (cf. Kanji, 2004, p. 83; cf. Krepl et al., 2016, p. 46; cf. Priya et al., 2021, p. 254). This is illustrated by the term “blood cashew”, introduced by the media with regards to forced labour in cashew factories in Vietnam (cf. Agyemang et al., 2022, pp. 1115, 1117). But as this thesis focuses on West Africa in general and Ivory Coast in particular, an analysis of problems in these processing countries cannot be included.

Farmer Income

“Probably, where cashew is grown, everywhere in the world it’s the poorest areas, rural areas of the world” (I05, para. 11). Thus, the cashew crop represents an important income factor for farmers and their families (cf. I05, para. 11). But although there is a minimum price set by the CCA, it is not enforced, and thus cannot be seen as a guaranteed income for farmers (cf. CBI, 2018, p. 39f). As cashew is traded through several intermediaries, even if industry stakeholders pay the respective minimum price to their trader, this price does not necessarily reach the farmer (cf. I06, para. 7) and prices are not transparent (cf. I03, para. 7). In June 2023, when the interviews were conducted, one interview partner stressed that “[...] currently, is a very, very low price. Prices have gone down, back to 100 CFA per kg, which is below the cost of production or close to the cost of production of many farmers” (I05, para. 37). Added to this, the interviews stressed the high volatility of prices already mentioned (cf. I05, para. 11; cf. I06, para. 7). One interviewee illustrates this as follows:

“[...] the volatility is high, particularly for farmers. Since I'm working in West Africa, the lowest price I have seen paid to farmers is 50 français CFA per kg. So if you, yes, it's um, let's say, 10 cents of Euro, little bit less than 10 cents of Euro per kg. And the highest was 1000. So you have a multiply factor of twenty between the lowest and the highest price, which is quite huge” (I05, para. 11).

Moreover, local trade patterns between farmers, middlemen and intermediaries reduce the final revenue for farmers as every intermediary has a 5% profit margin within the trade chain (cf. Bassett et al., 2018, p. 1227). Thus, “[...] the fewer the intermediaries between producers and wholesalers, the higher the producer price” (Bassett et al., 2018, p. 1236). Further, intermediaries make it possible to circumvent the minimum price set by the government, when actors do not buy directly from farmers (cf. I06, para. 7).

Another factor reducing the farmers’ income is the productivity per hectare, which is limited due to inadequate maintaining and treatment of trees and harvest as well as post-harvest efforts. Limited knowledge about and use of vegetative propagation methods as well as other factors like pruning and fertilization further reduce productivity (cf. Kone, 2010, p. 9; cf. Monteiro et

al., 2017, p. 2). Kone thus summarizes that “[y]ield per tree is very low, amounting to 2 or 3 kg of raw cashew nuts per tree per year. Average income from cashew production is subsequently also very low” (2010, p. 9). Advising farmers on techniques to improve their yields is difficult: Due the different geographic conditions of cashew growing areas even within countries, there are no universal agronomic solutions. Instead, individual research and field work in close collaboration is needed to improve production techniques (cf. I05, para. 35). Another problem regarding productivity is the growing age of cashew trees: Depending on the trees and the agricultural and geographic context, the yield can decrease after 25 years. Renewing the trees means an acute decrease of income and a lot of hard work (cf. I05, para. 37, cf. I06 39):

“[...] the thing for farmers, it’s always complicated, because if you have your production decreasing and you decide to cut it to replant new cashew, you will lose your incomes during three to four years. And then even you will have to wait maybe five to six years before getting more incomes than what you have today. So this decision is very hard” (I05, para. 37). (cf. I05, para. 37, cf. I06 39).

Research projects are not only looking on how to make seedlings more efficient, but also on how to make them resilient to climate change – another major issue the industry is facing in the long run (I02, para. 29, 31).

As cashew production is mostly provided by family plantations, community members such as children, relatives, neighbors, and friends are often involved, especially regarding the harvest. This raises the question of child labour in the sector: The differentiation between children’s voluntary work and child work is difficult to make. The CBI states that in the context of their observations, they did not detect child work in the cashew sector of Ivory Coast. Nevertheless, it also explains that systematized data about the topic could not be gathered and might not exist yet (cf. CBI, 2018, p. 40f). At the same time, Agyemang et al. (cf. 2022, p. 1115) declare that “[i]n recent years, there have been reported incidences of forced labour in the global cashew industry”. Moreover, the presence of child labour in similar areas such as the cocoa sector in Ivory Coast (cf. Boysen et al., 2022; e.g. cf. Perkiss et al., 2020) calls for further investigations.

Working Conditions and Health

Processing factories provide employment opportunities to generate additional income for farmers and their families (cf. CBI, 2018, p. 39f). But although the government set a minimum wage in Ivory Coast, factory workers are mostly paid piece wages instead. Contracts are thus based on performance, which usually leaves workers with a lower monthly pay. Moreover, local processing factories tend to close for several months throughout the year due to a lack of RCN

supply, and workers are neither paid nor compensated during that time. As a result, work is often temporary, mostly restricted to a few months of the year (cf. CBI, 2018, p. 39f). Subcontracts and seasonal contracts are common, which means that workers do not have any kind of insurance and do not pay into their retirement (cf. I01, para. 9; cf. I02, para. 7).

Regarding the working conditions in processing factories, health and safety of workers are a major concern. The poisonous oil contained in cashew shells, the CNSL, can cause skin irritation and injuries. While brief physical contact with the liquid is reversible, prolonged and frequent contact can lead to severe health issues on exposed body parts, namely workers' hands, fingers, nails, palms and forearms (cf. CBI, 2018, p. 38; cf. I05, para. 13). The CBI lists "[...] itching, pain, dermatitis, as well as visual and aesthetic skin problems" (CBI, 2018, p. 38) as typical symptoms. Therefore, protective clothing such as hand gloves is necessary to ensure worker's safety. But according to the CBI, factory visits revealed that often no gloves were worn at all (cf. CBI, 2018, p. 38). Especially manual processing is a hard, dirty, and repetitive work (cf. I05, para. 13). Therefore, the ongoing automatization in African processing factories is improving the working conditions. At the same time, it entails an elimination of jobs:

"[...] when you do an automatization, you cut the number of worker by five, more or less. But you still have a lot of workers, but you can really improve the condition of the workers because the tasks they will do are less hurting and less, um, let's say less repetitive, and you can equip them little bit better" (I05 para. 13).

Food and Income Insecurity

Not only the high volatility of prices mentioned above renders the farmers' income insecure. Most farmers grow cashew as their main cash crop, which makes them dependent on the market and vulnerable to its disruptions. Intercropping helps to reduce the dependence and ensures an additional income. If this income is missing, problems with food and nutrition can arise as the farmers and their families do not earn enough money to make a living (cf. Cashew Coast, 2023a, p. 12; cf. I02, para. 27; cf. I05, para. 11). Moreover, focusing on the most lucrative crop, namely cashews as they are in high demand on international markets, can mean reducing staple food production, a work traditionally done by women (I06, para. 7). That way, staple food needs to be bought on the markets, rendering farmers dependent on food prices. Altogether, intensive agriculture not only reduces biodiversity, but the related strong reliance on only one crop threatens local livelihoods and food security. Diversification of crops is therefore not only needed to ensure productivity and profitability of the sector, but also to improve the livelihood of farmer communities and to ensure a healthy and nutritious diet (cf. Monteiro et al., 2017, pp. 1, 6; cf. I02, para. 27).

Gender

From a gender perspective, issues arise particularly in production and processing, where women participate most. In Ivory Coast, plantations are rarely owned by women: Customary law usually grants ownership of land only to men. Women are not commonly involved in growing cashews, but rather carry out large shares of post-production activities such as harvesting, sorting, and drying. But as men are usually in charge of selling the RCNs, income scarcely reaches women directly (cf. CBI, 2018, p. 43; cf. Kone, 2010, p. 39; cf. United Nations, 2021, p. 30, cf. I06, para. 7). Especially in rural areas, where most cashew farms and factories are sited, women are affected by the traditional economic and social systems, reducing their economic opportunities and independence (cf. Agyemang et al., 2022, p. 1115). In addition to their responsibilities in cashew farming, they are often in charge of staple food and vegetable production as well as house and care work. This work is often hardened by a lack of necessary infrastructure such as access to water, which is often a long walk away (cf. I06, para. 7).

Generally, “[...] concerns have been raised on how the industry treats women” (Agyemang et al., 2022, p. 1117). Women dominate the processing sector, representing about 80% of the workers (cf. CBI, 2018, p. 43; cf. Kone, 2010, p. 39). They carry out primarily manual work like shelling, peeling and scooping while men take care of heavy work such as loading, as well as technical work and management. Thus, women are more often affected by health issues caused by cashew processing and exposure to CNSL. Moreover, they disproportionately face bad employment conditions such as temporary work contracts and closure of factories. Nevertheless, exceptions to this gendered division of work do exist (cf. CBI, 2018, pp. 39, 43; cf. United Nations, 2021, p. 30). Although Ivory Coast recognizes equal rights for men and women, which include same salaries for the same type of work, gendered inequalities exist in practice. In that context, the CBI explains that women are pushed into processing work as it can be combined with duties such as care work, assigned to them due to a gendered division of labour and traditional gender roles (cf. CBI, 2018, pp. 39, 43).

Value-added

As discussed in the course of this thesis, producer countries retain only small shares of the value generated in the international cashew business. They export most of the cashew supplies in their raw form, thus missing the opportunity to sell the processed kernels for higher prices (cf. CBI, 2018, p. 10; cf. Ouattara et al., 2020, p. 120). From an economic development perspective, local processing thus presents a possibility for economic upgrading, creating jobs and income and

stimulating the national economy (cf. CBI, 2018, p. 10; I02, para. 17; I06, para. 11). This was summed up by one of the interviewees, who advocated for “[...] processing to be locally because [...] there’s a lot of emissions reduction potential there as well as value retention within the country [...]. So economy opportunities as well [...]” (I02, para. 17).

Thus, local processing would be a way retain more value in the country, but the industry is not competitive yet (cf. I01, para. 29; cf. I02, para. 9; cf. I05, para. 29) and building up efficient and profitable local processing capacities remains a challenge (cf. I02, para. 9, 29; cf. I05, para. 11). Although there is a comparative advantage due to lower purchasing prices and omitted transport and customs costs at the ports, the financial costs of processing locally are higher overall (cf. I06, para. 29). Interest rates are higher for local companies, and they often have to loan larger amounts of money (cf. I05, para. 29). In that context, a major issue is providing a constant supply of RCNs: The harvesting season lasts only a few months, leaving facilities without fresh supply for seven to eight months of the year. Therefore, in order to keep the units running throughout the year, financial resources are required to buy and store large volumes of cashew nuts (cf. United Nations, 2021, p. 34). In that context, Asian processors have a competitive advantage:

“So you need a big amount of money to do the big stock for the whole year, while in Asia they can into months, let's say month by month, or two by two months. So they don't, the processors they don't need to do such big stocks” (I05, para. 29)

This lack of a continuous supply of RCNs is also responsible for the disparities between the technical processing capacities of local factories and the actual volumes of processed nuts: On average, less than 50% of the processing potential was seized in 2018 (cf. CBI, 2018, pp. 27, 33; cf. United Nations, 2021, p. 31). Additionally, African workers lack skills and experience compared to Asian workers, which significantly lowers their productivity per day. So, although the cost for wages is comparable in Africa and Asia, labour costs are overall higher in Africa. This is even more pressing when it comes to technical skills regarding processing machines and equipment. Here, local companies often have to hire expatriates for their technical knowledge and pay them comparably high wages (cf. I05, para. 29). According to some of the interview partners, this lack of knowledge also applies to other aspects such as company administration and management (cf. I02, para. 29; cf. I01, para. 33). Finally, another issue regarding the competitiveness of local processing is the lack of cheap and quickly available spare parts. Currently, spare parts need to be shipped in mainly from Vietnam, causing long waiting times and possibly temporary factory closings/breakdowns (cf. I01, para. 29). So altogether, “[h]igh

business and investment costs, as well as infrastructure deficits, weigh on the competitiveness of cashew processors in Africa” (United Nations, 2021, p. 34). Another challenge lies in adhering to requirements of consumer markets regarding quality standards. On the one hand this refers to a dominating demand for high-grade whole cashew kernels: While Asian countries have access to markets for broken and lower-grade cashew kernels, African processors lack these opportunities (cf. United Nations, 2021, p. 34f). This is not only an issue of competitiveness, but also of sustainability as imperfect or broken kernels cannot be sold as easily (I06, para. 43). On the other hand, consumer markets demand food safety standards such as limited pesticide residues and microbial contamination, often verified by certain certificates (cf. United Nations, 2021, p. 34f).

Apart from these issues, the lack of local processing and the resulting length of the trade causes another problem. The structure of various intermediaries on export level with international traders (cf. I06, para. 43) results in a lack of traceability (cf. I01, para. 9; cf. I06, para. 7):

“[...] I think at the moment you buy now a box of cashew in any supermarket in Europe, the chances you know where it's coming from is virtually zero. [...] It can come from Benin, it can come from Cambodia, it can come from anywhere, but we don't know and, and I think that is one of the key issues. So you don't know whether farmers make a living income out of it. You don't know what the CO2 setting is of that specific produce you have, no, we have no clue. But I think even beyond that, if you don't know, you can't also work on, uh, work on improvements. And that is for Ivory Coast, but it is the same for other countries. It's more a genetic setting of the, the cashew industry itself” (I01, para. 9).

On a national level, trade patterns between farmers, middlemen and intermediaries use cash instead of mobile money, making traceability even more difficult and opening possibilities for corruption (cf. I01, para. 9; cf. I06, para. 7).

5.3.2 Ecological Problems

Ecological concerns along the GVC of cashew kernels from West Africa are mainly about GHG emissions, waste management, deforestation, and the reduced quality of water and soils as a result of intensive agriculture (e.g. cf. Agyemang et al., 2016; e.g. cf. Monteiro et al., 2017).

GHG Emissions

Agyemang et al. (cf. 2016, p. 155) present three different emitting factors within the production chain of cashew kernels: Transportation, processing methods and waste management. The transportation of large volumes of RCNs for processing and final consumption relies to large parts on fossil fuels and is therefore a major factor of emission generation (cf. Agyemang et al.,

2016, p. 153, cf. 2021, p. 22542). Further, unprocessed nuts are significantly heavier than shelled nuts, as the shells constitute 75% of the weight. This makes their transportation even heavier (cf. Agyemang et al., 2016, p. 153,155). Moreover, the distance from West African countries to final consumer markets in Europe and North America is considerably shorter than from India or Vietnam (cf. CBI, 2018, p. 42). Limiting transportation by processing locally could therefore significantly reduce emissions (cf. Agyemang et al., 2016, p. 153,155). Nevertheless, it should be considered whether processing methods in India and Vietnam are more sustainable and could therefore compensate for the emissions caused by transportation. However, neither interviewees nor scientific papers consider this, as processing conditions in Asia do not seem to be more sustainable. The volume of emission generation in processing depends on the processing method, the level of mechanization and on the type of energy used. Due to low levels of mechanization and the widely used steam method with low pollution rates, stakeholders do not have major environmental concerns related to cashew processing in West Africa (cf. Agyemang et al., 2021, pp. 22542, 22550). Lastly, the disposal of cashew shell waste also represents an issue, as the next paragraph shows.

CNSL and Waste Management

Shell waste is usually either discarded on waste sites or burned in pits. This is both an economic problem – kernel processors have to pay for the waste disposal – and an ecological issue because of the poisonous CNSL. The decomposing shells on waste sites not only release methane and carbon dioxide, but the liquid also leaks in the ground, leading to a reduction of soil fertility and the pollution of surface water (cf. CBI, 2018, pp. 34, 41; cf. TechnoServe, n.d., p. 3; cf. United Nations, 2021, p. 32): “Where cashew nut shells are disposed of, the soils and subsoils are polluted and little or no vegetation grows for a long time” (CBI, 2018, p. 41). The burning of shells presents no valid alternative, as it also releases carbon emissions into the atmosphere (cf. CBI, 2018, pp. 34, 41; cf. TechnoServe, n.d., p. 3; cf. United Nations, 2021, p. 32). Altogether, the cashew production in Africa in 2019 accounted for an estimated volume of 195,000-209,000 tons of cashew shells, making their disposal a problem of large scale (cf. United Nations, 2021, p. 32). There are initiatives that develop and promote solutions for the problem of discarding cashew shell waste. One of these solutions is the extraction of the liquid from the shells in order to sell it: It can be used as a bio-alternative to chemicals in the industrial production, e. g. for brake linings and paints. Nevertheless, the issue of disposing de-oiled shells remains both economically and ecologically challenging (cf. Dendena & Corsi, 2014, p. 764; cf. TechnoServe, n.d., p. 3). In that context, some scholars point at the potential of cashew shells

as a green source of energy. In that scenario, shells can be used as a biofuel to generate energy. This is a potential being explored by different projects in Africa but has so far remained uncertain regarding its viability and its financial sustainability (cf. TechnoServe, n.d., p. 4; cf. United Nations, 2021, p. 32). Estimations suggest that only 5-25% of the total cashew shells produced in Africa are utilized – mostly as biofuel in the context of cashew processing (cf. United Nations, 2021, p. 32). In Ivory Coast for example, energy that is generated with cashew shells is used for cashew steaming processes (cf. CBI, 2018, p. 34). Except for cashew shells, cashew trade also produces other waste. From non-biodegradable seedling polyethylene bags to plastic and/or cardboard packaging for the distribution of kernels to secondary packaging in bags, plastic cans and glass containers for consumer markets, all stages of the production produce waste. If not disposed adequately, this represents an extensive contamination of the environment (cf. Agyemang et al., 2021, p. 22543). Another issue with waste management is the creation of wastewater. In most cases, this water is not recycled or reused, and it can damage the environment through residues of the poisonous CNSL (cf. Agyemang et al., 2021, p. 22544). Generally, the production, use and sale of cashew by- and waste-products remains marginal (cf. CBI, 2018, p. 34). Seizing their opportunities and tackling the challenges that have so far hindered their realization can reduce environmental damages while increasing profits (cf. Agyemang et al., 2016, p. 149; cf. TechnoServe, n.d.; cf. United Nations, 2021, p. 32).

Deforestation

In West Africa, land use for agricultural production has been characterized by large area expansion since the 1980s (cf. Monteiro et al., 2017, p. 2). Seca et al. explain that “[...] the displacement of land use occurred from high-income countries to low-income countries [...]” (2021, p. 386). Moreover, scholars agree that increases in production and export come along with expansions in area cultivation that lead to deforestation (cf. Kolliesuah et al., 2020, p. 196; cf. Monteiro et al., 2017, p. 2). As the global demand for cashews is growing, more and more cashews need to be harvested, which consequently might also increase deforestation (cf. Monteiro et al., 2017, p. 2). Figure 9 illustrates the development of the cashew cultivation area in West African countries from 1961-2013 and shows the high expansion rates in some of those countries, among them Ivory Coast, Nigeria, Benin and Guinea-Bissau. Deforestation is a serious issue not only because of the loss of trees and biodiversity, but also because of indirect consequences such as a higher vulnerability to natural catastrophes, e. g. floods. Moreover, forests play a crucial role regarding climate and climate change, especially because of their influence on temperature and humidity (cf. Seca et al., 2021, p. 392).

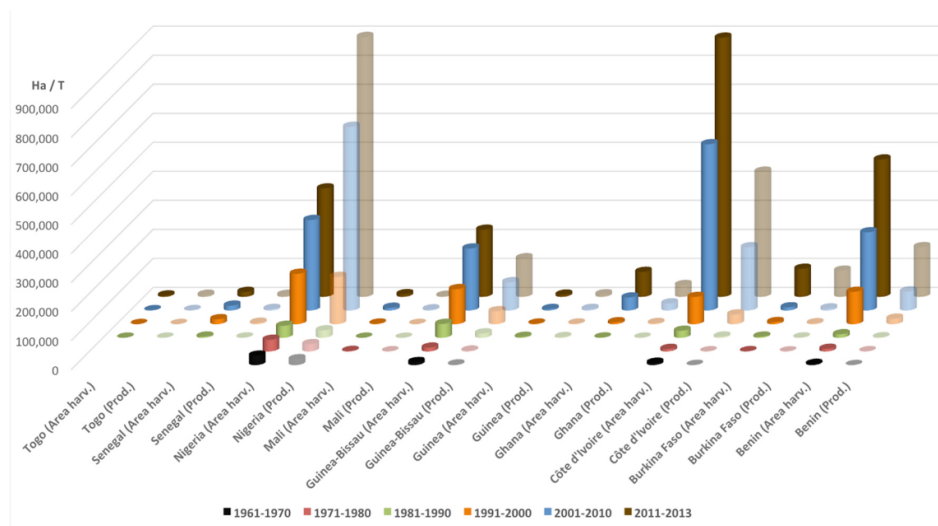


Figure 7: Increase of harvested cashew area (Ha) and nuts production (T) in West Africa during 1961-2013. (cf. Monteiro et al., 2017, p. 2)

Intensive Agriculture and Chemical Inputs

Intensive agriculture as practiced in the cashew sector in Ivory Coast “[...] can negatively impact ecosystems by affecting the rural landscape dynamic, soil resources and water quality. This can result in the loss of carbon sequestration and biodiversity, which are critical global public goods” (Monteiro et al., 2017, p. 2). Therefore, it can reduce soil and water fertility, which again decreases crop productivity (cf. Monteiro et al., 2017, pp. 2, 6). Another driver for negative environmental impacts often related to intensive agriculture is the use of fertilizers and pesticides: They cause acidification and eutrophication (cf. Agyemang et al., 2018, p. 210). But generally, the use of chemical inputs is low in Africa, especially compared to other regions like Brazil (cf. Agyemang et al., 2021, p. 22541). Farmers in West Africa consider them too expensive and/or unnecessary (cf. CBI, 2018, pp. 13, 41). On the other hand, cashews are often intercropped with cotton, where the use of synthetical inputs is common. For example, a spray against insects is often applied for cotton growing, impacting cashew cultivation as well (cf. CBI, 2018, pp. 13, 41; cf. Kone, 2010, p. 9). Moreover, these inputs can have negative effects on the farmers’ health as well.

5.3.3 Other Problems

While the problems explained above are the most tangible ones, often cited in scientific papers and sustainability reports, the interviews revealed some issues related to the sector, the GVC and the production circumstances. These issues are more abstract, often presenting the reasons behind more tangible problems.

Lack of Government Support

To set up a competitive local processing industry, several interview partners stressed the importance of government support (cf. I01, para. 29; cf. I05, para. 29; cf. I06, para. 55): “[...], there are technical issues, but most of the issues are politic. Because in the end you cannot increase processing without the political support” (I05, para. 29). And while the Indian and Vietnamese governments support their cashew industries with direct measures such as subsidies and fiscal incentives, countries in Africa have had only limited support for local processing historically. In some African countries, among them Ivory Coast, this is changing: Governments are increasingly supporting the growth of industrial production (cf. I01, para. 29, cf. I03, para. 7, cf. I05, para. 29, cf. I06, para. 55). In that context, interview partners agree that the government of Ivory Coast has set policies to regulate and support the local cashew industry in the last decade. Among those measures is the introduction of the CCA explained in chapter 5.2.3 (cf. I01, para. 9, 25; cf. I04, para. 35). Moreover, West African countries are stimulating country collaborations regarding industrial exports to strengthen their trade position (cf. I01, para. 25). But the work of governments and the implementation of changes takes time (cf. I01, para. 25; cf. I02, para. 17). Thus, actors must get connected and do “[...] a lobbying [...] in order to support players, in order to be and get into processing in Ivory Coast” (I06, para. 55). Because ultimately, local capacity building is also a question of investment and access to finances (cf. I02, para. 17, 29, 33):

“[...], the financial aspect, it still is a very, very big nut to crack. [...] And if that can be solved, so many other things can be solved. [...] And that’s why I think that the industry also needs to understand this kind of links back to, like, things will go if there’s a business case for them” (I02, para. 33).

The lack of government support and funding can at least partly be traced back to the historic development of the cashew sector in Ivory Coast: Cashew trees were initially introduced solely for soil conservation purposes and therefore not given any political or economic attention (cf. I03, para. 7, cf. I04, para. 35). They were not treated as a food crop, and the consequentially missing attention meant that “[...] neither did they have good varieties, neither did anybody have a knowledge about the trees, neither was there any processing in-country, no research, no government attention, no price transparency, no quality knowledge [...]” (I03, para. 7).

Governance

Further issues within the sector are also connected to governance: Power imbalances exist within the chain and the sector and are generally hard to change (cf. I01, para. 29; cf. I02, para. 27; cf. I06, para. 48-51). These issues were explained in chapter 5.2.3 and regard mainly the

lack of farmer organization (cf. I01, para. 9, 17; cf. I05, para. 35) as well as the powerful positions of processors and exporters (cf. I02, para. 39, cf. I06, para. 49) and especially of large international buyers such as Olam (cf. I05, para. 27, 29). Lastly, the final market also impacts the local cashew industry: “[...] depending also how the international market will evolve, the production markets will evolve, and vice versa” (I06, para. 55). This is especially relevant in the context of rendering the production more sustainable. Several interview partners explained that for a long time, final markets were not interested in sustainability and did not care where their cashews were coming from. Therefore, they call for a sensibilization of final markets and stress that with changing legislation and awareness on their parts, the sustainability agenda can be pushed (cf. I01, para. 27; cf. I04, 35; cf. I06, para. 43, 45).

In general, I noticed that most interview partners prioritized problems along the value chain in the sense that they found one key problem that causes several other problems. Whether it is the initial status of the cashew nut as a tool for soil conservation instead of a food crop (cf. I03, para. 7), the lack of traceability (cf. I01, para. 9) or getting access to finance (cf. I02, para. 29) – solving the key problem would consequently solve other problems, too. This again shows the complexity of the sector and the interconnectedness of its problems.

6 Sustainable Initiatives Working in the Cashew Sector in Ivory Coast

Several sustainability initiatives are working in the cashew sector of Ivory Coast to address the issues mentioned above and to render the production more sustainable. This chapter gives an overview of relevant initiatives in Ivory Coast before explaining each of the three key initiatives in detail. Then, the last subchapter compares them and carves out overall limitations and contradictions of their work.

6.1 Overview

There are various sustainability initiatives working in the cashew sector in Ivory Coast, ranging from non-profit organizations (NPOs) to responsible businesses, development aid organizations and private sector actors and companies (cf. Cashew Coast, 2023b; cf. GIZ, n.d.; cf. ofi, 2022a; cf. SNI, 2023; cf. TechnoServe, 2023; cf. The World Bank, 2022). Most of these initiatives are

international organizations, often also operating in other countries especially in West Africa, and sometimes even in other sectors (e. g. cf. CNFA, 2023b; e. g. cf. ComCashew, 2019a, p. 3). They all follow the holistic approach on sustainability portrayed by the United Nation's Brundtland Report (cf. United Nations, 1987) that includes environmental protection, economic development, and social equity. They also adopt the definition of environmental sustainability through conservation and resilience, for example by trying to reduce emissions and waste and by making efforts in circular economy. Their activities regarding social sustainability focus on measurable standards such as higher unit prices for farmers and better working conditions, but also enabling rights such as the support of farmer organization. To achieve their goals, the initiatives generally focus on upgrading. Thereby, they seem to share the general understanding of upgrading as a universal development path without alternatives (cf. Fischer et al., 2021b, p. 41f). Especially economic upgrading is often set as one of their primary targets, promoted to create jobs as well as to retain value-added in the country (e. g. cf. African Cashew Alliance, n.d.-a; e.g. cf. CNFA, 2023b; e. g. cf. GIZ, n.d.; e. g. cf. Prosper Cashew, 2023).

Another common ground of sustainability initiatives working in the cashew sector of Ivory Coast lies in their main goal: Strengthening the value chain and its competitiveness through local processing. This then creates a number of benefits for the environment and the society, among them less emission generation as well as job and value creation in the respective countries. However, the methods used by the initiatives can vary widely, ranging from financial support, knowledge and skills transfer, technical assistance, and networking to coaching and counselling. In general, sustainability initiatives often collaborate on their projects, supporting and advising each other. Actors within the sector appear to be well connected and place a strong emphasis on networking and collaboration - albeit to varying degrees (e. g. cf. African Cashew Alliance, n.d.-a; cf. FairMatch Support, n.d.; e. g. cf. GIZ, n.d.; e.g. cf. Prosper Cashew, 2023; e. g. cf. The World Bank, 2022). Table 2 shows an overview of relevant sustainability initiatives in the cashew sector of Ivory Coast.

This thesis analyzes three sustainability initiatives in detail: *ComCashew*, a multi-stakeholder program implemented by the GIZ, the *Cashew Trail*, ofi's sustainability program and *Cashew Coast*, a responsible business. During the interviews, some sustainability actors apart from the key initiatives were mentioned again and again. Therefore, they will be shortly explained in the next paragraphs, before the key initiatives are analyzed in detail in the next sub-chapters.

Table 2: Overview of Sustainability Initiatives in the Cashew Sector of Ivory Coast (own illustration)

Type	Project	Initiative/Organization	Approach	Goals
Development aid project	<u>ComCashew</u> ¹⁰	GIZ, BMZ	Multi-stakeholder, private-public partnership program	Strengthening the cashew value chain and its competitiveness
	<u>West Africa PRO-Cashew Project</u> ¹¹	CNFA, USDA	Engage with policy makers, private sector and development partners	Increase competitiveness, strengthen producer capacities, improve farms
	<u>Cashew Value Chain Competitiveness Project</u> ¹²	World Bank	Collaboration with various partners	Increase cashew productivity, quality and value-added
Responsible Business		<u>Cashew Coast</u> ¹³	Combine sustainability and profitability	Sourcing and processing locally, focus on women, environmental focus on emission saving
Nonprofit Organization/ Association	<u>Prosper Cashew Project</u>	TechnoServe ¹⁴ , USDA ¹⁵	Collaboration with different partners, participate in other initiatives/projects	Build a thriving and sustainable local processing industry
		<u>Nitidæ</u> ¹⁶	Monitoring of cashew sector, provide information	Create transparency, provide data
Private sector	<u>Cashew Trail</u>	ofi ¹⁷ (olam food ingredients, part of Olam, an agri-food business)	Collaboration with different partners, business case ¹⁸	Improve farmers' livelihood, increase yields
		<u>FairMatch Support</u> ¹⁹	International, independent social venture	Support all actors in the creation of sustainable food chains
		<u>Sustainable Nut Initiative</u> ²⁰	Pre-competitive collaboration platform (Different private sector companies)	Advisory
		<u>African Cashew Alliance</u> ²¹	Association of businesses	Build a sustainable cashew value chain, create value added in African countries by local processing and ensuring profitability for all actors
Others		<u>e. g. CBI, IDH</u> ²² , <u>TRAGSA</u> ²³	Often act as collaboration partners having no or only small own projects; governmental bodies often act as funding partners	Often also research projects

¹⁰ (cf. GIZ, n.d.)

¹¹ (cf. CNFA, 2023b)

¹² (cf. The World Bank, 2022)

¹³ (cf. Cashew Coast, 2022)

¹⁴ (cf. Prosper Cashew, 2023; cf. TechnoServe, 2023)

¹⁵ United States Department of Agriculture

¹⁶ (cf. Nitidæ, n.d.)

¹⁷ (cf. ofi, 2022b)

¹⁸ (Cf. I03, para. 21, cf. I04, para. 49)

¹⁹ (cf. FairMatch Support, n.d.)

²⁰ (cf. SNI, 2023)

²¹ (cf. African Cashew Alliance, n.d.-a)

²² Sustainable Trade Initiative

²³ (cf. I04, para. 25, 31; cf. I05, para. 25)

Regarding the non-profit engagement, there are two relevant actors. The first one is TechnoServe, an NPO that operates in around 30 countries, offering business solutions to fight poverty by increasing the competitiveness of farms and businesses (cf. TechnoServe, 2023). In an agricultural context their work is focused on the coffee and cashew sectors. Thereby, several projects were rolled out in African countries, among them *Prosper Cashew*. This project runs from 2020 to 2025 in Ivory Coast, Ghana and Nigeria and is funded by the United States Department of Agriculture (USDA). Its focus lies on building a local processing industry, aiming to process 50% of the domestic RCNs locally (cf. Prosper Cashew, 2023; cf. I03, para. 21; cf. I05, para. 29). The second relevant non-profit actor is Nitidæ, an association that closely monitors the cashew market and the related politics. It started its operations in Ivory Coast 13 years ago and aims at understanding the dynamics and impacts of cashew prices. The association wants to support farmers and has therefore started the N'kâlo service, a market information service that publishes weekly bulletins on the cashew market in Africa and worldwide. It also sends text messages to farmers with relevant information, thereby helping them to increase their average income (cf. Nitidæ, n.d.; cf. I05, para. 9, 35). Nitidæ also supported other initiatives, among them ComCashew, by providing relevant research data. Moreover, according to the interviewee, the association played a crucial part in convincing the government to support and promote the local cashew processing industry in Ivory Coast (cf. I05, para. 29, 35).

Some initiatives have also emerged from the private sector. FairMatch Support (FMS) for example is an international, independent social venture that is supporting actors in building sustainable supply chains in the agricultural sector. The company operates from a supply chain perspective and in a business-oriented way. Thus, it does not focus on a specific target group but tries to find win-win situations to improve the position of several stakeholder groups. Especially in collaborations with private sector companies, FMS often helps these actors to successfully implement their own projects (cf. FairMatch Support, n.d.; cf. I01, para. 7, 11; cf. I04, para. 31). A closely connected actor is the Sustainable Nut Initiative (SNI) a collaboration platform for all actors in the cashew industry that want to drive change towards sustainability. While it currently only operates in the cashew sector, it aims to expand its work to other nut categories later on. The platform currently consists of 13 actors from different stages of the supply chain, among them European retailers like Aldi and Lidl, processors from India as well as East and West Africa, and roasters in between. Farmer groups are not yet involved but shall be included in the future (cf. SNI, 2023; cf. I01, para. 7). The two organizations are closely

connected, as FMS runs the SNI's secretariat. Both initiatives did or do collaborate with other sustainability actors, among them both ComCashew and ofi (cf. GIZ, n.d.; cf. I01, para. 7, cf. I03, para. 21; cf. I04, para. 31).

Another important initiative of the private sector is the *African Cashew Alliance* (ACA), an “[...] association of African and international businesses with an interest in promoting a globally competitive African cashew industry” (African Cashew Alliance, n.d.-a). Almost 130 companies form part of the alliance, representing different steps in the value chain. The objective of the alliance is to build a sustainable cashew value chain, creating value added by local processing and ensuring profitability for all actors (cf. African Cashew Alliance, n.d.-a). It serves as a platform to connect actors but also rolls out specific projects, mainly funded by the United States Agency for International Development (USAID) (cf. African Cashew Alliance, n.d.-b).

Apart from ComCashew, there are two other relevant development aid programs. The first one is the World Bank's (WB) *Cashew Value Chain Competitiveness Project*, a project running only in Ivory Coast from 2018 to 2023. It aims at expanding productivity, quality and added value of the cashew sector, thus increasing the farmers benefit and supporting the processing capacities of the country. The financing is provided by the WB and consist of 200.00 million US\$ (cf. The World Bank, 2022). The second one is the *West Africa PRO-Cashew Project* (cf. CNFA, 2023b), implemented by Cultivating New Frontiers in Agriculture (CNFA), an international agricultural development organization (cf. CNFA, 2023a). This 5-year project runs from 2019 to 2024 and is financed by USDA. It has a budget of \$47.3 million and is rolled out in Benin, Burkina Faso, Ivory Coast, Ghana and Nigeria (cf. CNFA, 2023b).

6.2 ComCashew

ComCashew was one of the first sustainability initiatives to work in the cashew sector of Ivory Coast (cf. I01, para. 27; cf. I03, para. 17). It is designed as a multi-stakeholder, private-public partnership program. While it is carried out by the GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit, German Agency for International Cooperation), it is commissioned by the BMZ (cf. ComCashew, 2019a, pp. 4, 15, cf. 2019b, p. 1; cf. GIZ, n.d.).

6.2.1 Background

ComCashew started in 2009 and ran in different phases. While the third phase lasted from 2016 to 2020, it is currently re-funded until 2027 by the BMZ, the EU and the Swiss State Secretariat for Economic Affairs (SECO). In the past, the project was also funded by the Bill and Melinda Gates Foundation (cf. ComCashew, 2019a, p. 2, cf. 2019b, p. 1f; cf. I03, para. 3, 5). The project runs in six African countries – Benin, Burkina Faso, Ivory Coast, Ghana, Mozambique, and Sierra Leone – and aims to strengthen the competitiveness of the respective cashew value chains. To achieve this goal, it focuses on four pillars: Production, processing, supply chain linkages and sector organization (cf. ComCashew, 2019b, p. 1, cf. 2019a, p. 5). With a total project budget of more than €139 million, provided by funding partners and additional private partner contributions, the initiative has a comparatively large amount of financial resources at its disposal (cf. ComCashew, 2019b, p. 2, cf. 2019a, p. 4; cf. I05, para. 29). Budget information on the individual project countries is not publicly available. As a multi-stakeholder partnership program, ComCashew collaborates with more than 100 partners coming from the public, private and development sector, among them Intersnack, Olam, Walmart, the ACA, the Sustainable Trade Initiative (IDH) and the SNI – to name just a few (cf. ComCashew, 2019a, p. 15). With these various collaboration partners, ComCashew represents a prime example of collaboration and MSIs on sustainability as depicted by Ponte (cf. Ponte, 2019, p. 37). A visualization of ComCashew’s collaboration partners is in the annex (figure A.1, appendix IV).

6.2.2 Approaches, Characteristics and Assets

The interviews and reports revealed five key points regarding ComCashew’s approaches: The initiative takes a value chain approach, is adaptive and trend sensitive, focuses on cross-country applications, places importance on collaboration and promotes knowledge exchange. When it comes to the first point, the *value chain approach*, ComCashew stresses that it addresses all stages of the production process, namely inputs, smallholder production, processing, marketing and trade, and retail and consumption (cf. ComCashew, 2019a, p. 4). According to the interview partner, the project’s goal is first and foremost to create and retain value addition in the country (cf. I01, para. 23). Therefore, the main target groups are farmers and processors, but also employees in the sector and service providers for cashew companies (cf. I01, para. 23). Regarding producers, ComCashew “[...] really looked at very small farms. Our cut-off point were ten trees, where we said ‘that’s a farmer’. [...] We never targeted like large scale, um, plantations” (I03, para. 23). By contrast, only large processors were targeted initially, while

small ones were excluded because there were no markets for them (cf. I01, para. 23). However, this changed in the course of the project as smaller companies became increasingly involved:

„And now this phase we are looking more diversified again on the sector and we have smaller companies really involved because we have included the, the local consumption with it. And now we can even have a small entity with ten women cracking the nut, seasoning them, uh, roasting them, seasoning them and sending to the next bigger town.” (I03, para. 23)

This *adaptation* of the project structure and focus over time is a second key approach of ComCashew. It was also mentioned in the interview with FMS²⁴ in the context of their collaboration with ComCashew: “So first we were hired, we were part of the consortium and then we could support companies. Later on, it became much more the companies that were in charge of making those changes and they could subcontractor, could hire us” (I01, para. 23). The interview partner continues by underlining the project’s *trend sensitivity* and its ability to capitalize on these trends, for example by working closely with governments after they had started to increasingly regulate the sector. Moreover, he highlights the sector knowledge that the ComCashew staff has gained and that makes their work more efficient (cf. I01, para. 23).

The third factor, ComCashew’s *cross-country approach*, is reflected in the fact that the initiative works in several African countries. In that context, the interview partner argued that you “[...] have to go across country, um, to really have mar, more market transparency and also to have a faster learning” (I03, para. 9). Moreover, it opens up the opportunity to learn from the project’s experiences in other countries (cf. I03, para. 17). Thereby, you need a balanced mix of countries: “You need to have the fast starters and pioneers where you can showcase your, your, your idea. You don’t want to start with the most difficult set up. But you shouldn’t only do it [...] where the cherries are very low” (I03, para. 19). Although the interview stressed that there are big differences between the project countries, it also highlighted the advantage of transferring measures to other countries (cf. I03, para. 15, 19): “Any, anything we, we tried and it was working in one country, we tried in the next. So we were [...] not shy to copy, and always thinking on scale” (I03, para. 15). This approach can be seen as inter-chain or intersectoral upgrading, as successful measures are applied to other countries or even sectors.

The fourth point refers to an interorganizational level, where ComCashew also puts a strong focus on *collaboration*. This ranges from a system of matching funds to a cooperation with

²⁴ Interview partners are anonymized for data protection. Therefore, I will name the organization rather than the interview partner. In this case, the statement was made by the interviewee from FMS, not from FMS itself.

various partners to paying private sector partners to set up sustainable practices such as direct procurement (cf. ComCashew, 2019a, p. 10; cf. I05, para. 25, 29). Thereby, the interviewee stressed the importance of close communication between implementing partners (cf. I03, para. 17). Other initiatives also perceive collaboration as one of ComCashew's key characteristics: They "[...] seriously see that only jointly you can make a difference" (I01, para. 23).

A last focus regarding ComCashew's way of working is on *knowledge generation and sharing*. This links back to collaboration: "[...] that [...] has brought us to country level and sometimes regional level exchanges so that we, we put a huge effort, everybody in this exchange. Because it's new, we need to learn from each other" (I03, para. 17). That way, ComCashew also collaborated on a WB project to formalize research exchanges (cf. I03, para. 17).

When it comes to the characteristics of its work, the GIZ interviewee described ComCashew's approach as ambitious, innovative, targeted, and hands-on. Moreover, the interview declares the work as need based and therefore efficient and stresses the importance of diverse measures and ideas (cf. ComCashew, 2019b, p. 1; cf. I03, para. 15, 17, 23). ComCashew is perceived and also sees it itself as a front runner, a pioneer in the cashew sector of Ivory Coast (cf. I01, para. 27, I03 para. 17). The initiative focuses on scale and the spreading of successful measures (cf. I01, para. 15, 17, cf. I05, para. 29). Furthermore, its role in the sector is also characterized through advising and supporting other actors in the sector (cf. ComCashew, 2019b, p. 2). The FMS interview described ComCashew's approach and its role as follows:

"I think the management of this project has a unique capability of seeing the project as a tool to facilitate a transition in the sector and not the project in itself as the key and the, the, the, the pivot of the of the change. And I think by doing that and creating a platform where people can meet, or people can discuss and stimulate the right things, they have also stimulated the emerging of SNI, they have stimulated the emerging of the African Cashew Initiative, they have stimulated the, the emerging of the CICC. [...] I think that is a key of the success of ComCashew, which I think as, has been a major drive for change also in the cashew sector." (I01, para. 23)

Interview partners agree that *scale* is one of ComCashew's biggest assets. The initiative can reach many farmers, which makes its measures impactful (cf. I03, para. 17; cf. I05, para. 29). The size of the project and its related funding is also an asset in terms of generosity and knowledge sharing: "You can be much more gracious with your information because you know you, you have your government share, which, anyhow, and, and we have EU on our side. [...] That allows us to be a bit the knowledge broker, I would say" (I03, para. 21). Moreover, a consistent and continuous work with a long-term perspective is central to the work of

ComCashew and its success (cf. I03, para. 17, 19; I01, para. 23). This applies not only to the project, but also to the people working for it:

“[...] around ComCashew, there is a group of people that seriously would like to drive change and I think we always find each other and on those terms [...]. [...] I think one of the reasons why that project is quite successful because the core of that staff has been there for, since the start and is still there.” (I01, para. 23)

6.2.3 Measures and Successes

In the interview, the GIZ representative explained five “coups” of the ComCashew project in Ivory Coast: Spreading knowledge about quality, improving processing machinery, rolling out various trainings, supporting processors and working with the government (cf. I03, para. 9, 15). The first coup about *cashew quality* and its measurements meant creating and multiplying knowledge that did not exist before. In collaboration with Nitidæ and the ACA, ComCashew created a *quality manual* which became the “core commodity of knowledge for farmers” (I03, para. 9). Its success lied in giving them power in price negotiations with traders: They now knew what quality their harvest was and consequently what it was worth. Moreover, it contributed to improve the overall quality, as it gave farmers an incentive: The higher the quality of their harvest, the more they would earn (cf. I03, para. 9; cf. I05, para. 35). That way, ComCashew introduced product upgrading, aiming at higher unit prices for cashew kernels in kg. This then spills over to the whole value chain:

“[...] when you improve the quality, you improve the value for everyone in the value chain. [...] If you improve the quality, this bag has much more value. And during the process, in the trade and the processing, the value will be also much higher. And so everyone is winning in the value chain.” (I05, para 35)

In the context of improving farmers’ position within the value chain, ComCashew also tried to *shorten the value chain* by organizing farmer groupings that sell together and by supporting them to build up local processing. The interview sums up: “And our intention was always: Keep the value in the country, shorten the chain and bring processing to Africa” (I03, para. 9).

The second coup was also related to knowledge sharing, but about *machinery and processing* instead of cashew quality. When the project started in 2009, processing companies in Africa largely used one type of processing machinery, “[...] which was definitely not yet in its optimum of efficiency” (I03, para. 15). To *create transparency* about other existing machinery, ComCashew did a worldwide, large-scale study and published the collected information in a document to download on their website. Moreover, they started bringing flyers and exposing equipment and machinery on conferences to spread knowledge and innovation. This *promotion*

of innovative processing technology brought “[...] a huge efficiency gain” (I03, para. 15): The initial machinery caused at least 30% of the RCNs to break when cracking the shells. These broken nuts can only be sold for one third of the price of whole nuts, therefore causing a loss of money. A combination of various new processing technologies lead to a significant decrease in broken nuts (cf. I03, para. 9, 15): “[...] today we have virtually 5% of broken and the price for the, price for the broken is also up because of course there's not so much, and now that is much more in demand. So now they lose probably only 20% on broken nuts and have so much less.” (I03, para. 15). This coup again shows the interdependence of upgrading types: ComCashew targeted process upgrading when introducing and promoting new types of processing machinery that reduced the amount of broken nuts. But this is also related to product upgrading, as whole nuts translate into higher prices on the market. In terms of social upgrading trajectories, ComCashew drives a multi-stakeholder trajectory with a focus on measurable standards by improving the farmers’ revenues.

ComCashew’s third coup was the introduction of *regional training programs* in 2014. When the project staff realized that there was no connection of knowledge among actors, they designed a *Master Training Programme* which bases on sharing technical knowledge to increase individual skills. These trainings take place in three theory sessions and practical ones in between (cf. ComCashew, 2019a, p. 18; cf. I03, para. 15). To create networking opportunities and to promote peer-learning, trainings consist of groups with a “[...] mix of country and mix of actors along the chain and we invited for each training about 80 people. And then we had very well chosen and well-prepared resource people who brought an input” (I03, para. 15). Bringing together different actors also revealed communication issues between different groups and helped them to understand each other better (cf. I03, para. 15). Apart from the Master Training Programme, several other trainings were rolled out, among them a training on Good Agricultural Practices (GAP) (cf. ComCashew, 2019a, pp. 3, 18). Moreover, “[...] trainings on all levels, research linkages, farmer training, processor training, group training, farmer business school training [...]” (I03, para. 15) were conducted.

Processor trainings in particular were also part of the fourth coup, a *targeted approach to individual processors*. To support them, ComCashew used a variety of measures, among them peer-to-peer exchanges, support from business development service providers as well as financial assistance, analysis, and support (cf. I03, para. 15). By training various actors on efficiency in the production process, ComCashew initiated process upgrading in the GVC.

Lastly, the fifth coup was to *work very close with governments*:

„And fifth, we always worked with the government. In all stages we involved the government, being it on statistics, being it on training and and gradually we teased them in a regional communication and set-up and also looking at cross-country experiences and policies. So this also has formalized a bit. I do think also, um, that's a huge gain.“ (I03, para. 15)

Altogether, the first four coups in particular highlight ComCashew's focus on and success in creating knowledge and transparency (cf. I03, para. 9): They used it to reach goals such as higher farmer incomes and increases in processing efficiency. With this focus on knowledge exchange across actors and across countries, ComCashew fits into Pone's description of collaboration and MSIs on sustainability (cf. Ponte, 2019, p. 37f): As part of the project's Master Training Program for example, it promotes the collaboration of various actors along the chain. Moreover, by bringing together actors from the public and private sector as well as the civil society, ComCashew uses the analytical category of sustainability governance. Thereby, it includes lead firms, namely Olam, into their activities.

To investigate concrete figures on the successes of ComCashew, two sustainability reports published by the initiative were analyzed: The ComCashew Factbook (FB), published in October 2019 and including a one-page country report for Ivory Coast (cf. ComCashew, 2019a, p. 10), and the ComCashew Côte d'Ivoire – Country Report (CR) (cf. ComCashew, 2019b, p. 1f), published in April 2019. Although both documents are from 2019, the published figures and statistics vary significantly. While the CR shows data only up to 2018, the FB also includes data from 2019 – without pointing out that it cannot contain the whole of 2019, but only the period up to October at the most. This shows that such data published has to be evaluated critically, taking into account that there might be certain information such as references or baselines missing. This can significantly alter the results and tip them in a desired direction.

While the FB counts 250,000 farmers trained, thereof 29,000 women, the CR reduces the total number to 163.440. Moreover, the CR specifies that 73 Master Training Programmes have been conducted in Ivory Coast, 14 of them for women. To illustrate the increases in installed national processing capacity, given in metric tons, the two documents use different time periods: 2015 (56,000) – 2018 (140,100) (CR) vs. 2009 (12,000) – 2019 (140,000) (FB). The same applies for the utilized processing capacities: 2015 (30,500) – 2018 (68,000) (CR) vs. 2009 (5,300) – 2019 (57,000) (FB). The references of jobs created also differ: While the FB declares that 29,000 “Full-time job equivalents and jobs” (ComCashew, 2019a, p. 10) were created, the CR differentiates “136,530 jobs created in production” and “10,738 jobs existing in processing”

(ComCashew, 2019b, p. 2). Although the reference year varies, both documents agree on a yield or rather productivity increase of 650kg/ha. Lastly, the FB informs about the distribution of 158.000 seedlings (cf. ComCashew, 2019b, p. 1f, cf. 2019a, p. 10).

6.2.4 Challenges and Limitations

Within its work, ComCashew faced several challenges and limitation. For example, the simultaneous work in different countries means finding out and taking into account the differences among those countries – which can be huge (cf. I03, para. 19). Moreover, the large-scale approach of the project entails a risk: “[...], if you make a mistake, it will spread so fast. So my, my worry was always: What if we are wrong?” (I03, para. 17). Another challenge lies in the hazardous and fast-changing market environment of Ivory Coast: “[...] I think we also had, um, virtually every two years a totally new market situation. There came new players in, um, there fell, very traditional processor from one day to the next dropped out, totally collapsed” (I03, para. 17). Finally, the seasonal nature of agriculture prolongs projects (cf. I03, para. 19).

But the most challenging factor within the work of ComCashew seems to be the focus on collaboration with various partners. First and foremost, the dependence on funding partners can be difficult. Especially in a long-term project such as ComCashew with different project phases, the budget available can fluctuate (cf. I01, para. 23). Funding can also be reduced or withdrawn, even at short notice or after a project has started and even if a certain budget was expected (cf. I03, para. 19). The system of matching grants, where private sector partners receive funding to implement their own projects, ties up a lot resources, both time and financial:

“[...] we have accompanied them [private companies, *author's note*] closely. This is really a need. If you can't do that, um, it's tricky because there's a lot of technical challenges, then you still need to do the administrative bit. Um, it's definitely a challenge.” (I03, para. 19)

Apart from these collaboration problems connected to financial issues, it is also challenging to work with partners that have different structures, approaches and degrees of patience. Furthermore, there are communication issues and risks of misinformation among partners (cf. I03, para. 19). As an example, the interview partner mentions the collaboration with Olam. While the company has been an important and close partner since the beginning, there have also been debates and fights that made compromises necessary. For example, Olam has resisted the introduction of ComCashew's quality manual because it weakened the company's negotiation power by revealing quality standards. In the end, ComCashew agreed to hold the information back for a year (cf. I03, para. 21). Lastly, there were also challenges with research

and knowledge exchange in the beginning (cf. I03, para. 17): “Yet governments there did not freely share. So they did not share their varieties as we would have wished. They shared a bit, but definitely not profoundly” (I03, para. 17).

6.2.5 Criticism

Criticism about ComCashew refers mainly to the portrayal and description of its successes within the sustainability reports, as well as to its approaches and its characteristics. Regarding the reports, a major criticism applying not only to GIZ, but also to other sustainability initiatives is the exaggeration of their impacts. Even more, omitting information to create a certain impression can be considered cheating. One interviewee illustrates this:

“[...] they say, ‘look, we start the project this year, and so production, and we start working with 1000 farms, in three years after when we finish our project, the average yield increased by 20 percents.’ ‘Wow’, you think, ‘it’s nice!’ But the question is: How old were the trees? Because if the trees were ten years old when you start your project, it’s not, it’s completely natural, it’s a natural grow because the, the most of the trees they reach their highest yield at between 15 and 20 some, sometimes even after. So just working with farmers and seeing the, the, the yield of trees are increasing, doesn’t mean anything. Like trees are naturally, they have increasing yields. So you see natural phenomenon like that, they use them to explain, this is our, the result of our work.” (I05, para. 39)

This exact example can be found in the ComCashew sustainability reports on Ivory Coast: They indicate a high yield increase of 650kg/ha without explaining factors contributing to that increase (cf. ComCashew, 2019a, p. 10, cf. 2019b, p. 1). A second point of criticism regarding these sustainability reports was already explained in the previous chapter: The two documents use different reference years and comparative periods, resulting in differing figures and statistics (cf. ComCashew, 2019a, p. 10, cf. 2019b, p. 1). Furthermore, information from the reports often remains vague. For example, the chapter on sector organization in the FB states that 50 development partners have been identified in the cashew sector (cf. ComCashew, 2019a, p. 17), but it neither specifies the countries nor does it explain if those partners are collaborating or if they were just “identified”. Finally, the reports are at least partly designed in a way that creates the impression that successes in individual countries apply to the project as a whole (cf. ComCashew, 2019a, p. 20).

One interview partner also criticized ComCashew’s approaches more profoundly. According to the interviewee, too little time is spent on research and on testing methods and recommendations before advising farmers. That way, the project was responsible for mistakes in the past. For example, a model for cashew cultivation was promoted in which the distances

between trees are increased and the trees are pruned in a certain way, which led to yield losses for many farmers (cf. I05, para. 29). These mistakes can happen because ComCashew copy-pastes their approaches to different countries without adapting them to individual conditions:

“So you see it's like they, they didn't base their advisory on, um, very scientifically based approach and on the same, at the same time, they have the same approach for many countries. And even for one country, in, in one country, you have maybe ten kind of agro-climatic area with different production models.” (I05, para. 29)

The interview also contradicts ComCashew's self-description, stating that ComCashew does not innovate, but rather leverages the innovations of others or pays private sector partners to implement sustainable projects. Consequently, compared to the amount of financial resources they have at their disposal, the project is not efficient, but has only limited impact. According to the interviewee, ComCashew for example organizes conferences to connect actors, but as they do not have clear objectives, the discussions are useless (cf. I05, para. 29).

6.3 The Cashew Trail

Ofi (olam food ingredients) is a subsidiary of *Olam* and runs the company's sustainability program for agricultural products, aiming to make “[...] a positive impact on people and planet [...]” (ofi, 2022c). While interview partners mostly refer to *Olam*, the interview conducted for this thesis was with a representative from *ofi*. As the two companies are closely connected, *Olam* and *ofi* are seen as one entity in the context of this thesis. *Ofi* is working in 64 countries worldwide, among them many in Africa. The company focuses on five agricultural categories: Cocoa, coffee, dairy products, spices and nuts – including cashews (cf. I04, para. 17). While it started as a pure trading company, it is today active in sourcing and processing as well (cf. I03, para. 21). The company started its operations in 1989 in Nigeria with cashew as their first product and works in Ivory Coast since 1994. Today, it runs four processing facilities in the country, employing more than 3.300 people (cf. ofi, 2022a, p. 17; cf. I04, para. 29, 59).

6.3.1 Background

Scholars agree that *Olam* plays an important role in the cashew sector of Ivory Coast, holding a very powerful position. Initially, *Olam* was the main processing company in the country, controlling 70%-80% of the export market. Today, they still have a market share of about 25%, but the total production volume of the country has increased considerably and so has *Olam*'s trade volume. The company is still the biggest buyer of RCN and the biggest processor in the country, which makes it an influential actor. The close cooperation with the government

increases its power even more (cf. I01, para. 17; cf. I03, para. 21; cf. I05, para. 27). The company has also expanded its operations to the final market: It now owns a German roasting company and supplies Aldi, among others, with the final products (cf. I03, para. 21). Olam represents a typically powerful trader in a trader-driven chain: The company sources from various suppliers, derives profitability through volume and is part of a small group of trading companies that control the chain (cf. I01, para. 17; cf. I06, para. 27, 29).

Ofi runs different sustainability projects, among them the Sustainable Cashew Growers Program, which was founded in 2011 and aims at sourcing RCNs directly from farmers (cf. I04, para. 17, 23). The thesis focuses on ofi's most recent and extensive sustainability program in the cashew sector, the *Cashew Trail*. It was the core content of the interview, and its sustainability report can be downloaded online. The *Cashew Trail* determines specific goals to help build a sustainable cashew supply "[...] from farm to factory [...]"(ofi, 2022b) until 2030 by fighting poverty and by supporting farmer communities (cf. ofi, 2022b). It is a program running in several countries where the company operates in the cashew sector, among them Nigeria, Ghana, Tanzania and Ivory Coast as well as Vietnam and India (cf. ofi, 2022a, p. 16; cf. I04, para. 27). Information on the project budget is not available for individual countries or for the project as a whole. Nevertheless, figures for individual measures are indicated in the Cashew Trail (cf. ofi, 2022a).

6.3.2 Approaches, Characteristics and Assets

Generally, ofi follows a holistic view on sustainability and has translated this view into five pillars of their Cashew Trail: Economic opportunity, education and skills, nutrition and health, diversity and inclusion and climate action (cf. ofi, 2022a, p. 3; cf. I04, para. 21). These pillars will be further explained in the next subchapter. Regarding the company's approach, there are five key points identified through the interviews, namely the setting of concrete targets, a focus on scale, a cross-country and cross-sector approach, the long-term presence and collaboration within the sector and a business case approach.

The first of these key points, *setting concrete targets*, is often realized by setting clear figures that the company wants to achieve by specific deadline: The Cashew Trail for example entails a section about the "2030 targets" for each one of the pillars (cf. ofi, 2022a, pp. 4, 6, 8, 10, 12; I04, para. 23). The project's main target group are farmers and farmer communities, and four of the Cashew Trail's five pillars are designed to support them (cf. ofi, 2022a, p. 3; cf. 04, para.

29). The interview partner sums up: “[...] having this kind of positive impact in the community is really, it's really making a lot of sense to us” (I04, para. 47).

The second key point to Olam’s approach is heavily influenced by the size of the company: It works at *large scales* (cf. I01, para. 17; I03, para. 21; cf. I04, para. 43, 35). This means that the project has large impacts (cf. I03, para. 21): “And so if they make a move, [...], it's like a tanker. If a tanker, they don't move that easy. But if they move, it makes it, it makes a difference” (I01, para. 17). That way, they can reach many farmers, and they use this network to implement their sustainability programs (cf. I04, para. 23).

A third crucial part of ofi’s approach is related to its work in *other countries and sectors* and the related idea of inter-chain and intersectoral upgrading: The company shares experiences and learns from each other (cf. I05, para. 43): “[...] we can really quickly learn from our different experience in the country in other commodities, but also in the world in the same commodity” (I04, para. 45). Moreover, it helps to attract more donors and customers:

“And the fact that we are in different product like coco, coffee, really help us to attract more donors. So we have customers buying coco from us, buying at the same time cashew from us, so it's easy, if they have a successful product in coco, to really tie up with us with cashew also.” (I04, para. 43)

Together with the company’s size and scale comes a fourth key approach, namely its *strong presence and focus on collaboration* in the cashew sector of Ivory Coast: “Olam is part of everything” (I03, para. 21). The company supports other sustainability initiatives, among them ComCashew, and collaborates with different partners such as FMS and SNI. In that context, its long presence in Ivory Coast has led to long-term partnerships and collaborations (cf. I03, para. 21; cf. I01, para. 13, 19, 21). According to the interview, ofi is also collaborating with other private sector firms, for example on projects to use shell waste (cf. I05, para. 23). The Cashew Trail underlines ofi’s focus on collaboration: “We cannot do this alone. We need the support, expertise and reach of our customers and partners to make a real difference to farmers, communities and the planet. So please join us on our trail and together we can scale positive impact” (ofi, 2022a, p. 2). Moreover, the interview highlighted the advantages of ofi itself as a cooperation partner: “We are a natural partner for many people because in any kind of sustainability project the scale is really important” (I04, para. 45). Referring to the collaborations with other sustainability actors, the interviewee also says its “[...] quite easy and obvious for them to partner with us” (I04, para. 29). Olam’s role and presence in the cashew sector of Ivory Coast and the influential position other actors attribute to the company shows

that the engagement of lead firms in environmental upgrading is important in the cashew sector of Ivory Coast.

According to the interviews, a last key point of ofi's approach is that it remains a private sector company and therefore generally follows a *business case* (cf. I03, para. 21). The final market and its increasing concerns about sustainability are putting pressure on the company to commit to sustainability (cf. I03, para. 21). That way, Olam pursues a CSR-driven trajectory, initiated to improve the company's image. At the same time, the social upgrading trajectory taking place in the cashew sector in Ivory Coast can be seen as market-driven, as rising consumer concerns about sustainability urged the private sector to engage in sustainability actions (cf. I03, para. 21). Although the ofi interviewee claimed that its sustainability actions in the cashew sector are not a business case yet, it admits that the company expects a return on investment in the future:

„So, you know, whatever job you are doing sustainability, you're spending money, you're spending in energy, and at the end of the day you're expecting some return, being in cash, being in premium, or being in increasing market share. But for now, we don't see that much yet. But we strongly believe that going forward it will be the case.“ (I04, para. 49)

Furthermore, the interview claims: “We are engaged, we are investing in these sustainability activities since more than 10 years. But there is not yet a direct premium associated sustainability initiative” (cf. I04, para. 49).

Generally, ofi characterizes itself as a pioneer of the cashew industry, especially in Ivory Coast (cf. I04, para. 17). This influences its sustainability efforts as well: “As usual, we always want to be the pioneer and the progressor in any moment. We know that this [sustainable practices, *author's note*] will become the rule soon. That's why we started all those initiatives” (I04, para. 51). Ofi's continuous presence in Ivory Coast since 1994 and its involvement in production, processing and trade has strengthened its position in the sector (cf. I04, para. 43). It has also provided it time to develop and implement sustainability projects (cf. I06, para. 29). The company describes itself as eager, flexible and agile (cf. I04, para. 29, 43, 45; I03, para. 21). The GIZ interviewee adds “innovative” to these features: “Um, so Olam remains a very important strategic partner, innovative partner. We have done climate modeling with them, we, if I have an innovation question, I will check with Olam, always” (I03, para. 21).

In summary, ofi sees its strong and continuous presence both in the cashew sector in Ivory Coast and in other countries and sectors as one of its key assets (cf. I04, para. 43). Moreover, scale is a huge advantage, especially in comparison to other initiatives: It multiplies the impact

of the company's sustainability efforts (cf. I01, para. 17; I04, para. 45). Olam offers a good example regarding sustainability and business. Through its sustainability programs, the company uses both sustainability management and CSER within its business models. Moreover, Olam declares being a pioneer in the field of sustainability in the cashew sector of Ivory Coast, which gives it a competitive advantage (see chapters 2.2.2, 5.2.3).

6.3.3 Measures and Successes

The Cashew Trail bases on the five pillars mentioned above and includes measures for all of these categories (cf. ofi, 2022a, p. 4). The first pillar, *economic opportunity*, targets farmers and aims at increasing their revenues through various measures (cf. I04, para. 21), thus focusing on measurable standards such as higher prices. Thereby, the focus lies on improving their yield:

“Whenever we train the farmers, we want them to improve the yield, and basically we think that that will help them to have more cashews, selling more cashews than most of the time impact their revenue, so, and increase the amount of money they are carrying to their house. So in our program we have been able to really, to, to increase the yield for, for, for our farmers.” (I04, para. 47)

To improve farmers' yields, the Cashew Trail lists *access to credit*, *specific training programs* as well as the *distribution of seeds and fertilizers* as chosen measures and indicates a yield increase of 57% for farmers in Ivory Coast from 2011 to 2020 (cf. ofi, 2022a, p. 5f). The interview claims that farmers were able to increase their average yield from 550 kilograms to 650 kilograms thanks to ofi's programs (cf. I05, para. 47). Both these indications lack further information to classify and verify these figures. With specific training programs, ofi targets to increase their farmers' skills. One of the trainings is on GAP, helping them to generate more revenue from their cashew crops through improved yields, as well as trainings on business and marketing skills (cf. I04, para. 21, 23, 29). The company also invests in projects such as beekeeping, which provide farmers an additional income besides cashew production (cf. ofi, 2022a, p. 5; cf. I04, para. 21, 29). Ofi also trains farmers on traceability and its importance in the market (cf. I05, para. 29). It has established its own *digital trade traceability platform* called *AtSource Plus*. The platform aims at covering the whole value chain from farm- to factory gate, ensuring full traceability on social and environmental impacts (cf. ofi, 2022a, pp. 2, 14; cf. I03, para. 21). Implementing mobile banking further enhances traceability and grants improved access to finance and savings to farmers and processing employees (cf. ofi, 2022a, p. 6).

Another important measure in the context of improving farmers' revenues is *direct procurement* (cf. I01, para. 17; cf. I04, para. 17, 23; cf. I05, para. 27). To start sourcing directly from farmers,

Olam rolled out a five-year-project in collaboration with FMS. This was challenging at the time because farmers were not organized, and farmers and traders were not connected. So, Olam started their direct procurement project “from scratch” (I01, para. 17) and moved stepwise (cf. I01, para. 17). Today, the company sources directly from a network of 30,000 farmers, giving them a direct access to the market and *paying them premium prices* (cf. I04, para. 21, 23; cf. I05, para. 27). Thereby, the interviewee did not define what is meant by premium prices, nor how these prices are set and whether they vary during the campaign.

The second category, *education and skill*, is aimed at farmer communities and at children in particular. According to the interview, the company has built an *education center*, constructed a *school*, and rehabilitated two other schools (cf. I04, para. 47). The Cashew Trail even adds further successes in that context: “Since 2013, ofi’s cashew business has provided educational support to over 7,500 children in Côte d’Ivoire by building three schools, refurbishing existing school buildings and canteens, and providing school kits consisting of reading books, textbooks, and stationery” (ofi, 2022a, p. 8). The document mentions an annual investment of 20,000 US dollars in the country's education infrastructure, which will enable the children of farmers in their supply chain to go to school (cf. ofi, 2022a, p. 8; cf. I04, para. 21). Lastly, ofi also offers trainings to farmer communities, for example on literacy (cf. I04, para. 21).

Another focus of the Cashew Trail lies on *health and nutrition*. Main problems in this area are malnutrition and access to health infrastructure as well as to clean water and sanitation (cf. ofi, 2022a, p. 9). To address these issues, ofi targets two areas: Farmer communities and processing sites. To support farmer communities, ofi collaborated with the government of Ivory Coast:

“As part of a multi-stakeholder partnership with Côte d’Ivoire’s National Nutrition Programme* in 2020, ofi helped reach 2.5 million children with vitamin A supplementation, nearly 400,000 with deworming tablets and some 200,000 with acute malnutrition screening, to promote good nutrition and COVID-19 prevention practices amongst cashew-producing communities.” (ofi, 2022a, p. 10)

Moreover, the company set up two *water pumps* to provide farmer communities with access to water (cf. I04, para. 23, 47). Ofi has also installed “[...] adequate facilities in our processing unit for health and nutrition [...]” (I04, para. 21), among them day-care and breastfeeding facilities to support female employees as well as a dispensary and nurse on site (cf. ofi, 2022a, p. 10). According to the Cashew Trail, all processing units are mechanized, “[...] operate under superior safety and hygiene parameters, and are all HACCP and BRC certified [...]” (ofi,

2022a, p. 17). Employees are supplied with *protective work gear* including gloves, masks, aprons, shoes and hairnets (cf. ofi, 2022a, p. 17).

Regarding *diversity and inclusion*, ofi “[...] really focused on having more and more women in our supply chain, being women farmers or women working in our processing unit” (cf. I05, para. 21). The Cashew Trail specifies that *women are supported through targeted trainings*, among them professional development initiatives that intended to boost confidence, motivation, and financial autonomy (cf. ofi, 2022a, p. 11). In Ivory Coast, the company “[...] outsources raw cashew processing to a satellite unit staffed by members of an all-women cooperative [...]” (ofi, 2022a, p. 12), employing 300 workers, with women making up 80% of the staff (cf. ofi, 2022a, p. 12). Empowering women can be seen as a social upgrading in terms of enabling rights.

Lastly, ofi engages in *climate action* to reduce impacts on the environment. On an international level, they *invest in local processing* to avoid emission generation through transportation. Here again, local processing targets both social upgrading in creating jobs and incomes and environmental upgrading in reducing emissions. At farmgate level, the company trains farmers on *climate-friendly agriculture*, including organic fertilizers and waste reduction. In that context, ofi increases its efforts to use *cashew by-products* such as shells and apple (cf. ofi, 2022a, p. 13f; cf. I04, para. 21, 23). Thereby, the company again taps both social and environmental upgrading by generating additional value-added through circular economy.

Summing up Olam’s positive impacts in the cashew sector, one interviewee credits the firm with investing in Africa, especially in local processing and the associated infrastructure (cf. I05, para. 29) Ofi itself counts its continuous presence in and influence on the country as a success:

“[...] growing the country over the last 25 years. So we started as a very small trader of raw cashew nut, today we a trader and processor, and being very important in the country today. So all this is making us very, very proud. And last but not the least, starting all those sustainability project and being able at the end to deliver our commitment to something remarkable in meeting these really committed projects.” (cf. I05, para. 47)

Altogether, the example of Olam also shows how orchestration can integrate private sector firms into a sustainability agenda – through government regulations such as the minimum price for RCNs, but also through incentives such as ComCashew’s financial support to implement sustainability projects (see chapters 2.2.2, 5.2.3, 6.2 and 6.3).

6.3.4 Challenges and Limitations

According to the interviewee, challenges within ofi's sustainability work are mainly connected to profitability issues: Throughout the interview, ofi stressed that there is no business case for sustainable practices in the cashew sector of Ivory Coast yet, partly because the final consumers are not willing to pay premium prices (cf. I04, para. 41, 49): "For now in cashew is not really business case because to be a business case, I think the, the buyers should be ready to pay a premium for that. But going forward, I feel it will become a business case" (cf. I04, para. 41). Thereby, the Olam interviewee also supports Ponte's (cf. Ponte, 2019, p. 147f) statement that consumers are currently not willing to pay higher prices for sustainably produced goods. Thus, the interviewee calls on all actors, including final consumers, to invest in sustainability. This means doing research about products and their origins (cf. I04, para. 61). Lastly, the interviewee argues that more consumption is needed to push the sustainability agenda:

„[...] at the end of the day increase also the consumption because if we increase in consumption of nuts, which are really healthy for the life of the human being, that would put more pressure also on the buyers, put more pressure on the processors, and our customer would keep on asking questions and that will put sustainability at a certain level when it's come to the marketing of those cashews.“ (I04, para. 61)

The interview thus attributes power to final consumers, stressing that if they are more concerned about sustainability as a group, they can change production processes (cf. I04, para. 41).

On a more practical level, the interviews list farmer involvement, problems in collaborations and multiplying sustainability efforts as relevant challenges. Thereby, the first category refers to issues regarding the communication with farmers and their engagement in sustainability activities: "Yeah sometimes the farmers really, really don't understand why we are doing that, because they keep on saying 'every year you're coming here, training us from different topic. But we want to see what is the need of those training'" (I04, para. 53). In that context, the interviewee explains that farmers are more engaged in some projects than others:

"So if it about, um, yield improvement, they do understand. But when you going to train them to traceability, they're not very clear, and they don't always relate that easily to do what they are doing because they believe that this is not directly linked to the operation. So when you tell them, okay, we need 30% of the women to be part of the training, they're like, why is that a requirement from you guys. We are here to supply you raw cashew nut, why do you want, why, percentage of women in the, in the, in the audience" (I04 para. 53)

Thus, explaining the importance of some topics and measures to farmers takes time and energy (cf. I04, para. 53). Secondly, the collaboration with other sustainability actors can be challenging. Here, the interview refers specifically to NGOs: While collaboration with them

mostly works well, challenges can arise concerning administrative work such as reporting. There, different expectations can be an issue, for example regarding size requirements (cf. I04, para. 53). Lastly, one of the other interview partners adds multiplying sustainability efforts as one of ofi's challenges: "And I think their biggest challenge now is to, to, to multiply that into different settings" (I01, para. 17).

6.3.5 Criticism

A main criticism regarding Olam's sustainability projects in the cashew sector of Ivory Coast is that they apply only to a small proportion of farmers, while the remaining practices are not sustainable or socially just: "But it's more or less 20 to 30% of their procurement, and on the rest they have the reputation of being the more, the worst in terms of negotiation" (cf. I05, para. 29). That way, Olam applies a mix of engagement strategies: While the company uses deep engagement strategies for farmers involved in its direct sourcing programs, the rest of its procurement is characterized by shallow engagement or no engagement at all. According to the interviews, Olam follows external drivers in its sustainability program, as sustainable practices are not profitable yet, but demanded by regulations and the final markets. Generally, paying premium prices represents a contradiction for private sector companies like Olam: Their main interest lies in maximizing profits and therefore to keep prices low, and paying fair prices to farmers as part of their sustainability programs contradicts this goal. In that context, one of the interviews also confirms the company's influence on RCN prices at the national level through the timing of their purchases. The interviewee indicates that Olam's bad reputation is sometimes true, but sometimes also exaggerated (cf. I05, para. 29) and sums up: "So they [Olam, *author's note*], they really invest in Africa, and they are doing good things but at the other side they are businessmen, and they also sometimes are doing bad things (I05, para. 29)".

Some criticism also regards ofi's sustainability reports. Firstly, the company's self-portrayal in public, also through the sustainability reports, and the actual practices differ (cf. I06, para. 29, 31): "[...] of course in reports it looks nice and bright, but I think there are a lot of things behind which are not possible to see" (I06, para. 31). Generally, Olam's reputation is controversial, and some interviewees see the company's sustainability efforts as part of its strategic goals. That would mean that Olam uses "green capitalism" (Ponte, 2019, p. 20) to increase its profitability and to improve its image. This is possible thanks to its powerful position within the GVC as a major trader. For example, the company can not only influence prices, but also decide whom it pays what prices. Secondly, some of the criticism of the ComCashew

sustainability reports apply to ofi's Cashew Trail document as well. For example, the information on both achievements and goals is at least partly not specific, but rather vague due to a lack of information on the context and influencing factors. As with ComCashew, this applies to yield increases given without further information on factors such as the age of the trees (cf. ofi, 2022a, pp. 4, 6). Another example is one of the 2030 targets in education and health, where the report states that the company wants to "[i]nvest in education infrastructure in 100% of ofi directly sourced cashew communities in rural Africa" (ofi, 2022a, p. 6). This does not specify the types of infrastructure or the specific measures to achieve the goal. Moreover, the report does not give much information about individual countries, but only gives examples here and there. That way, it creates the impression that impacts and successes apply to all project countries, while a closer look reveals that activities have only been carried out in one or two countries (cf. ofi, 2022a). The same result is achieved when only vague numbers are given, for example when the report indicates that „[d]aily meals are also provided for employees in most facilities [...]” (ofi, 2022a, p. 9) without specifying what “most factories” means.

A certain vagueness also applies to the five pillars of the Cashew Trail. For example, the category of diversity and inclusion seems to target only women, but does not include other discriminated population groups (cf. ofi, 2022a, pp. 3, 10f). Furthermore, the report presents high rates of female employees in processing facilities as a success without clarifying that those are often precarious jobs. It also does not indicate gender shares in management positions (cf. ofi, 2022a, p. 11). In that context, one interview criticized that Olam's whole management team in Ivory Coast is male and Indian and does not include local people and/or women into these positions (cf. I06, para. 31).

Generally, the fact that no country-specific reports are available and that the Cashew Trail report is divided in pillars rather than countries suggests that ofi has a universal approach to its projects and does not adapt its measures to the individual countries (cf. ofi, 2022a). Moreover the company's focus on scale makes its approach less comprehensive, as one interview shows:

“I think you have you have some smaller co-ops and smaller companies that have done it more in depth. [...] But if you have to do it at a scale, which when we talk Olam you talk directly scale, and then of course you might do it not so that in depth, but you make a difference because you do it at a specific scale.” (I01, para. 17)

In general, I had the impression that the ofi interviewee was very keen to portray ofi positively. Of course, all interview partners did that to a certain extent, but with the ofi interview it was even more extreme. For example, the interviewee stressed several times that there is no business

case for sustainable practices, but that the company is doing them anyways. Furthermore, when I asked at the end of the interview if he had any more comments, he took the opportunity to repeat ofi's positive impacts on the sector: "Yeah, I think, ofi is trying as much as we can to really improve the livelihood of thousands and thousands of farmers in the Ivory Coast in the cashew sector" (I04, para. 59).

6.4 Cashew Coast

The last key initiative of this thesis is *Cashew Coast*, a producer, processor and exporter of cashews operating in Ivory Coast. The company works with a network of 7000 farmers, including 23 cooperatives and 100 villages. It runs two local processing factories, one of them in Bouaké, the second largest city in the country, with a capacity of 19.000 tons (cf. Cashew Coast, 2023a, p. 3; cf. I06, para. 5). Cashew Coast started operating in Ivory Coast four years ago and sells directly to consumer markets, especially in Europe (cf. I06, para. 7). Several subsidiaries work under the Canadian Cashew Coast brand, each of them specialized on a part of the value chain: Production, processing, and marketing (cf. Cashew Coast, 2023a, p. 4).

6.4.1 Background

Cashew Coast's mission is to source and process locally, thereby supporting farmers and empowering women in particular (cf. Cashew Coast, 2022). A main focus is put on environmental issues: Stating that local processing saves emissions due to less transportation routes, the website includes a cashew calculator that estimates the amount of emissions as well as transportation days and kilometers that can be saved by purchasing a certain amount of Cashew Coast's locally processed cashews (cf. Cashew Coast, 2023b). These work areas translate into three thematic pillars: Farmer resilience, female empowerment, and circular economy (cf. Cashew Coast, 2023a, p. 12). Cashew Coast values organic production with fair working conditions. Its plants are BRC and SMETA certified, adhering to US and EU food safety and hygiene standards. Three of the cooperatives the company works with are Fairtrade certified (cf. Cashew Coast, 2023a, p. 13; cf. I06, para. 5). Moreover, all farmers are certified bio, and no chemical inputs are used to disinfect factories (cf. I06, para. 43, 57).

As a company, Cashew Coast attaches great importance to the further training and qualification of its employees. Therefore, they "[...] do a lot of internal training, but of every kind of level. So it's starting from literacy training to leadership training, depending where you are at the stage at the company [...]" (I06, para. 7). That way, employees are offered internal

opportunities for promotion and mobility. Cashew Coast employs many local people, with 90% of the management team and 99% of the whole company being from Ivory Coast or West Africa (cf. Cashew Coast, 2023a, p. 13; cf. I06, para. 31).

6.4.2 Approaches, Characteristics and Assets

The interview revealed five key points regarding Cashew Coast's approaches: The company follows a supply chain approach, implements an in-depth conceptualization of sustainable production, goes its own path while putting emphasis on networking and promotes local consumption. Regarding the first key point, Cashew Coast has a *holistic view of sustainability*, addressing *all parts of the supply chain* in their work: "From farm to fork – secure, safe and traced" (Cashew Coast, 2023a, p. 12). Compared to large scale companies such as Olam, they do not have the same reach, but their approach is more *in-depth* (cf. I01, para. 17), which represents a second focus point. Thereby, the company follows an approach of responsible business, aiming to combine sustainability and profitability (cf. Cashew Coast, 2022). Their main target group are farmers, but also their families and farmer communities (cf. I06, para.13). Cashew Coast works in close collaboration with the government, or rather with the CCA, and perceives their work as positive and successful (cf. I06, para. 37). This is connected to a third key point, namely the great importance the company attaches to *networking*. Nevertheless, it does not directly collaborate with other sustainability actors in the sector (cf. I06, para. 21). In that sense, they "do it their own way" (I01, para. 31) but are still in exchange with other actors, among them ComCashew and the ACA. Moreover, Cashew Coast is present on conferences and CSR events and aims to get connected within the cashew industry, but also within the food industry in general (cf. I01, para. 31, cf. I06, para. 21). That way, sustainability actors can learn from each other across sectors:

„[...] it's still a small ecosystem. So it's better to learn practices even from other sectors and not only focusing on yours. And then of course do the link with the international sustainability challenges and best practices in order to find a good compromise, where sustainability international strategies could be translated into local and sector specific needs of the cashew industry in Ivory Coast." (I06, para. 23)

A last key point of Cashew Coast's approach lies in its efforts tap into *local markets* and to promote local consumption. But demand for cashew kernels is still low in Ivory Coast (cf. I06, para. 37). Nevertheless, accessing local markets is interesting from a GVC perspective because it can change, or at least circumvent, existing governance structures. Currently, power asymmetries in the cashew sector of Ivory Coast are responsible for an unequal distribution of value: A small number of international traders dominates the GVC and has the power to

influence prices and to decide to whom they pay which prices. Accessing local markets could increase farmers' bargaining power, as they would not be dependent on large international traders but could switch to local markets if the prices offered by trading companies were too low. In combination with other measures such as building up unions and cooperations, it could create alternative selling opportunities for farmers, altogether improving their position in the GVC and increasing their income.

Regarding Cashew Coast's characteristics and dynamics, Salma Seetaroo, the current CEO, seems to play a crucial role within the company. Interviewees describe her as dynamic, proactive, and visionary (cf. I01, para. 31; cf. I03, para. 21). They confirm that she is well connected in the sector, talking to other actors, and learning from them: "But what she does, she, she talks with a lot of people, she listens very carefully. Then she picks out what she can do and how she can put it in her own setting. And she does that in a very open and quite a successful way" (I01, 31). So, although she is working on her own, she is not isolated – quite the opposite (cf. I01, para. 21). One interviewee sums up her way of working: "[...] she has done away with all hypotheses for the cashew sector and remodeled, going to the final market, really driving it to the shortest value chain which we can ever imagine" (I03, para. 21).

When asked about their biggest assets, the Cashew Coast interviewee points to the people working for and with the company and to their cumulative knowledge: "So all the people, farmers, the factory workers, the management team. I think our asset is the people and the knowledge and the training everyone get and that they stick together" (I06, para. 41). As a second asset, the interviewee refers to Cashew Coast's direct access to the final market: That way, the company avoids involving intermediaries and takes care of trade and export itself. Moreover, Cashew Coast has customers for all cashew nut qualities, while other companies can often only sell the best quality, namely whole white cashews (cf. I06, para. 43):

"But we can also, we are also able to find buyers for any type of product, whereas a lot of other industries often don't find and they are focusing on premium quality only, which is not sustainable because on the, in the nature we don't have the, only the biggest and whitest and wholes of cashews. We have every kind of cashews and especially in the processing steps, you will have a lot of broken cashews." (I06, para 43)

Lastly, Cashew Coast's achievements in traceability are also one of its most important assets: In collaboration with SAP, the company has introduced the digital traceability program "*from farm to fork*" (I06, para. 43), which is currently their "biggest selling point [...] in terms of sustainability" (I06, para. 57).

6.4.3 Measures and Successes

In its company presentation, Cashew Coast sums up its measures and successes in the three pillars mentioned above: *Farmer resilience*, *female empowerment*, and *circular economy* (cf. Cashew Coast, 2023a, p. 12). The first pillar contains an extensive set of activities to support farmers. The main one of these instruments is *direct sourcing*: Buying through intermediaries – which is what most other industries do – reduces the farmers’ revenue and renders the trade untransparent and untraceable. Cashew Coast ensures to pay farmers the *minimum price* set by the government throughout the whole campaign, even if the price crashes on the market and RCNs are available at lower prices (cf. I06, para. 7). In that context, the *SAP digitalization* program plays a crucial role, too: It includes the introduction of payment via mobile money instead of cash. This not only reduces the possibility of corruption, but also makes prices and payments comprehensible (cf. Cashew Coast, 2023a, p. 13; cf. I06, para. 7, 39, 57):

„[...] the aim is to really trace the money from the farmer to prove to our buyers that we paid this price and also to somehow sensitize the farmer that the mobile money is not something of witch work. It's more something that they can be sure that they receive the amount and there's no, no person who could corrupt inside the way, because it's directly Cashew Coast to the farmer.“ (I06, para. 7)

Cashew Coast also helps their farmers to improve their yield by offering *GAP trainings*. Moreover, the company has planted 15.000 seedlings in its nursery. These seedlings are not only supposed to replace older trees with decreasing yields but are also grafted to be more climate resilient (cf. Cashew Coast, 2023a, p. 13; cf. I06, para. 7, 39). The presentation lists further instruments to support farmers, among them *trainings on agroforestry and intercropping*, the *distribution of farming equipment* and the provision of *storage facilities* (cf. Cashew Coast, 2023a, p. 13; cf. I06, para. 7). Lastly, Cashew Coast supports farmers by *buying all quality types* of cashews instead of only focusing on premium quality (cf. I06, para. 43).

Cashew Coast has helped to *build up farmer organization* in the cashew sector of Ivory Coast. As a community and a legal entity, namely a cooperative, farmers can have much more impact than if they each work on their own. Therefore, the company has supported several of these cooperatives to constitute themselves as cooperatives, given them governance and offered them specific trainings for example on leadership (cf. I06, para. 9). In terms of social upgrading, the support of farmer organization can be characterized as enabling rights. Altogether Cashew Coast established long-term, comprehensive partnerships with farmers: “So what we are doing with the farmers is to, to make them understand that we are a partner and not just a buyer, and that we are here before the campaign and afterwards the campaign” (I06, para 7). As far as

processing workers are concerned, Cashew Coast hires *full-time workers instead of giving seasonal contracts* as is common in the industry. This brings several advantages for workers, including health insurance and paying into the pension scheme (cf. I06, para. 7).

The second pillar, *female empowerment*, applies to both farm and factory level. In that context, the presentation mentions the creation of a *Women Pickers' association* as well as a *Factory women association*. Generally, Cashew Coast employs 70% women and 45% are in senior- and mid-management positions. The company also gives *school loans* to children from farmer communities and provides access to water by building *water pumps*. This is considered female empowerment because women do most care and household work. Nevertheless, the whole community benefits from these measures (cf. Cashew Coast, 2023a, p. 13; cf. I06, para 7, 13).

The last pillar, *circular economy*, contains mainly the *valorization and use of by-products*: “Nothing is lost – everything is transformed!” (Cashew Coast, 2023a, p. 15). Currently, apples and testa are used for permaculture and composting on farms, but in the long-run, Cashew Coast aims to process cashew apples into food products. Cashew shells are mainly exported to certified actors who use them to generate renewable energy or to produce natural cement for sustainable construction. That way, Cashew Coast targets product upgrading, and environmental upgrading. Nevertheless, Cashew Coast’s long-term goal is to do this in Ivory Coast as well. Other residues of the production are used as animal feed (cf. Cashew Coast, 2023a, p. 13; cf. I06, para. 39).

As mentioned above, Cashew Coast has managed to *significantly shorten their value chain* by taking care of sourcing, processing, and exporting itself (cf. I03, para. 21; I06, para. 5). Due the diverse measures contained in the three pillars, the interviewee sums up: “I think we really are the most impactful company in the cashew industry [...]” (I06, para. 25).

6.4.4 Challenges and Limitations

According to the interviews, Cashew Coast faces five major challenges. Thereby, the first two challenges are related to the government and its work. They include the lack of local consumption and the late announcement of the minimum prices. In that context, the interviewee explains that “[...] hinders are more into, uh, into the population and to, maybe the government as well to more promote, but as I said, the CCA, they are already doing it, to promote local consumption. I think this is a big challenge” (I06, para. 47). Increasing local consumption would

thereby not only boost the industry but could also be a healthy substitute for some imported goods such as dehydrated milk powder (cf. I06, para. 37). As explained above, it could also reduce the power of international traders, increase the farmers' bargaining power and strengthen their overall position within the GVC. Another challenge related to the government is the comparatively late announcement of the minimum price: While the campaign starts in December, the government sets the minimum price in February and actors from the formal sector such as Cashew Coast cannot buy RCNs before (cf. I06, para. 7, 47). A third challenge lies in building long-term relationships with farmers, as gaining their trust can be challenging: "So I think this is another issue like the trust, to get the trust of farmers because the industry is really, well it's not based on trust" (I06, para. 7). Moreover, the interview highlights the challenges of implementing circular economy in the cashew sector as a fourth challenge. There, research needs to be done and production or harvesting methods might have to be changed. But due to the seasonality in agriculture, the window of opportunity for testing different methods is quite small (cf. I06, para. 39). The interview explains this at the example of cashew apples:

"[...], but we wish to do other kind of products with the, with the apple because it's actually a product that you can eat. But it uh, it requires a lot of research and also another harvesting method in order to have the apples at a good quality during harvesting time. And since the harvesting time now is over, you only have a small slot to actually test on the product and see what you do with it." (I06, para. 39)

Lastly, one of the other interviews indirectly mentioned scale as one of Cashew Coast's challenges, especially in comparison to other actors such as Olam: "Cashew Coast, for example, which probably have done it much more into detail, much more on all the specific aspects of sustainability. But the volumes that they do, you can't compare with the volumes that Olam is doing" (I01, para. 39).

6.4.5 Criticism

In general, interviewees were quite positive about Cashew Coast and its work in the cashew sector in Ivory Coast and did not express any direct criticism, as was the case with both Olam and ComCashew. It can be noted, however, that the company's success in the area of circular economy remains limited: By-products like apples are used, but their potential is not yet fully realized. The same applies to the shells, as they are currently exported.

Cashew Coast does not have a sustainability report yet. I was informed via e-mail that the first one is planned to be published in 2024. Thankfully, the interview partner sent me a presentation about Cashew Coast instead. Some information in this presentation is vague and at some points

it lacks detailed information. For example, the pillar on circular economy contains the bullet point ‘solar energy’ but does not contain any further explanations (cf. Cashew Coast, 2023a, p. 12). But regarding this missing information it should be kept in mind that the document is not a sustainability report, but a presentation of the company. Nevertheless, some information also remains vague on the official website: Both the presentation and the website indicate that 250+ containers of cashew have been exported so far (cf. Cashew Coast, 2022, cf. 2023a, p. 3). But without the specification of a concrete unit of measurement, this information is of no help.

Regarding the interview, it is worth mentioning that the Cashew Coast interviewee joined the company only a few months ago (cf. I06, para. 7) and was therefore not able to answer all questions in detail. One statement regarding Olam’s sustainability work also contradicted information of other interview partners. There, the interviewee claimed that Olam does not source directly from farmers, does not work with cooperatives, and does not support farmers and farmer communities through additional measures (cf. I06, para. 31). By contrast, other interviews revealed that Olam does source a share of its total RCN supply directly from farmers and has programs to support certain farmer communities (cf. I01, para. 17, cf. I05, para. 29).

6.5 Comparison, Overall Limitations and Contradictions

Altogether, interviewees agreed that there have been significant improvements in the cashew sector of Ivory Coast. For example, they mentioned the general increase in cashew quality and quantity, also through GAP trainings (cf. I01, para. 11; I02, para. 39; I05, para. 35). Another success lies in an increasing share of both direct procurement and local processing, which in turn leads to a stabilization of the market and the prices (cf. I02, para. 35, I03, para. 7, 17; cf. I05, para. 35). These developments have been initiated by several social upgrading trajectories: There is a market-driven trajectory through rising consumer concerns about sustainability, a CSR-driven trajectory from large buyers such as Olam, a multi-stakeholder path implemented by initiatives such as ComCashew as well as a public governance path used by the CCA for example by setting minimum prices for RCNs. As farmer cooperatives still play a marginal role, a labour-centered trajectory is not yet visible (see chapters 6.2-6.4) The following table 3 gives an overview of similarities and differences of the three key initiatives, before they will be explained in the course of the chapter.

	ComCashew	Ofi	Cashew Coast
Target Group	Farmer and farmer communities		
Approach	Focus on collaboration Large-scale and cross-country approach Focus on international markets		Own way In-depth approach Promote local consumption
	Knowledge generation and exchange	Practical measures	
	Focus on economic upgrading		
Key Measures	Direct sourcing Paying premium prices GAP trainings and other trainings Support of farmer communities Support of local processing industry Waste management and use of by-products Women empowerment Climate resilience		
		Digital traceability program	
Main Goals	Increase farmer’s yields and revenues Improve livelihood of farmers and their communities Increase share of local processing		
Challenges	Farmer involvement		
	Collaboration issues		
	Large-scale risks	Lack of business case	Increase volumes
Overall Limitations of Sustainability Initiatives	Lack of traceability Lack of government funding Governance structure and power issues Missing consumer awareness and support Difficulty to get funding for sustainability efforts Seasonality reduces time span for improvements		
Contradictions/Problems not addressed	Deforestation Intensive Agriculture Governance and Power asymmetries Emission generation through transportation to final markets Global consumption and trade structure and the resulting unequal distribution of value		

Table 3: Similarities and differences of the three key initiatives (own illustration)

6.5.1 Comparison

Generally, all three key initiatives in the cashew sector of Ivory Coast follow the *holistic approach* portrayed by the United Nation's Brundtland Report (cf. United Nations, 1987) that includes environmental protection, economic development, and social equity. They also adopt the definition of environmental sustainability through conservation and resilience, for example by reducing emissions and adequately managing waste and by making efforts in circular economy. Their activities regarding social sustainability include both measurable standards and enabling rights. The former is targeted for example through higher incomes, while the latter is focused on ensuring adequate working conditions in factories and supporting farmer organization (see chapters 2.2.1, 6.2, 6.3 and 6.4). To solve socio-economic and ecological issues, the initiatives include economic as well as social and ecological upgrading. Thereby, their work shows the interdependence of these different types of upgrading. The shift to local processing presents an illustrative example as it can be considered as economic as well as environmental and social upgrading. Seeing that economic upgrading resulted at least in parts in social upgrading in the case of the cashew sector of Ivory Coast, it can be defined as a high-road growth (see chapters 2.1.4, 6.2, 6.3 and 6.4).

When comparing the three organizations, it is noticeable that parts of their approaches and measures overlap. For example, they all indicate *farmers as one of their main target groups* and include *direct sourcing* as a key measure. When it comes to social sustainability for farmers and their communities, they all see prices as a crucial instrument and are focused on increasing farmers' incomes from their harvest. While ComCashew targets mainly quality improvements, Ofi and Cashew Coast stress paying premium prices for RCNs as one of their most important measures. But they define only vaguely or not at all what they mean by premium prices. For Cashew Coast, paying premium prices seems to mean adhering to the minimum price set by the government throughout the whole campaign, even if RCNs are available to lower prices. Ofi on the other hand does not give a clearer definition of the prices they pay to their farmers. ComCashew stresses the need for direct sourcing, but the initiative does not source or process RCNs itself. Instead, it supports their private sector partners, among them Olam, in building up direct sourcing programs. Therefore, it remains questionable to what extent they can ensure that farmers are paid fair prices (see chapters 6.2 - 6.4). Especially in the case of Olam, a contradiction arises when it comes to prices: As a private sector company, their interest is to maximize profits and therefore to keep prices low. But for their sustainability efforts, paying fair prices to farmers is crucial. Their solution to this conflict seems to be to pay premium prices

only for a share of their total direct procurement (see chapter 6.3). Other shared measures of the three key initiatives to improve farmers' yields and to increase their revenues include trainings, particular on GAP. Ofi and Cashew Coast appear to support farming communities to a greater extent than ComCashew, with a focus on improving education and health infrastructure. Another common feature of all three initiatives is a focus on women empowerment (see chapters 6.2 – 6.4).

Moreover, all three initiatives identified the *lack of traceability* as one of the sector's major issues. Cashew Coast and ofi have both launched their own *digital traceability program*, both including a focus on mobile money instead of cash to increase transparency. In addition, all three initiatives draw attention to the length of the value chain and propose *local processing* as a way to shorten it and to solve related problems. Therefore, they support the local processing industry through various measures. While Cashew Coast and ofi or rather Olam run their own facilities in the country, ComCashew supports local processors through financial assistance and trainings. Lastly all three initiatives address *climate change* – for example through the nurturing and distribution of climate-resilient seedlings – but Cashew Coast seems to be focusing more on that area through its efforts in circular economy (see chapters 6.2 – 6.4).

In terms of their approaches, ComCashew and ofi seem to have some common ground, while Cashew Coast tends to go its own way. While the former two initiatives work on a large scale – both within Ivory Coast and with their projects running in different countries – Cashew Coast has a comparatively small reach, but a comprehensive approach. While ComCashew and ofi both see a major asset in their long-term presence in the country and the sector, Cashew Coast is a relatively new actor. Although all three initiatives attach great importance to *networking*, direct collaboration seems to be a focus point for ofi and especially for ComCashew. Nevertheless, all three initiatives claim to work closely together with the government and stress the *importance of national regulations* (see chapters 6.2 – 6.4). Another common ground lies in the initiative's shared *understanding of upgrading as a universal development path* without alternatives (cf. Fischer et al., 2021b, p. 41f). Especially economic upgrading is often set as one of their primary targets, promoted to create jobs as well as to retain value-added in the country (e. g. cf. African Cashew Alliance, n.d.-a; e.g. cf. CNFA, 2023b; e. g. cf. GIZ, n.d.; e. g. cf. Prosper Cashew, 2023). In general, ComCashew seems to have a more abstract approach in comparison with ofi and Cashew Coast: The initiative focuses on generating and exchanging knowledge, seeing it as a tool to solve other problems in the sector. Although learning and skills

development are also a large part of ofi's and Cashew Coast's work, they seem to prefer practical measures. Another difference lies in the financing aspects: ComCashew receives funding from donors and private sector partners. By contrast, ofi/Olam as a large company has its own resources for sustainability effort. But it remains a private sector firm, thus expecting a return on investment in sustainable practices. Cashew Coast on the other hand is a young, local company. It follows an approach of responsible business, thus trying to combine profitability and sustainability. Moreover, it significantly shortened the value chain, taking care of sourcing, processing, and exporting itself. That way, it circumvents powerful traders such as Olam. Cashew Coast is also the only one of the key initiatives that focuses on promoting local consumption and accessing domestic markets. This offers farmers alternative opportunities to sell their harvest and makes them less dependent on traders and the volatility of international markets and prices (see chapters 6.2 – 6.4).

In addition to the ways of working, the challenges faced by the initiatives also differ. For ComCashew, the biggest challenges arise from the focus on collaboration, whether they are about adapting to different organizational structures or holding back on knowledge sharing. Ofi also indicates problems with cooperation, but rather regarding differing formal requirements. In addition, ComCashew mentions the problems of large-scale approaches, such as the rapid spread of mistakes, whereas Cashew Coast aims at increasing its reach. One common challenge for all three initiatives lies in farmer involvement – be it due to communication issues or missing trust (see chapters 6.2 – 6.4).

6.5.2 Overall Limitations, Contradictions and Criticism

The interviewees also revealed remaining challenges within the industry. First and foremost, there are often problems related to financing and funding. For private sector companies, sustainability practices can be costly and therefore not profitable (cf. I02, para. 17, 29, 33; cf. I03, para. 7, 17; cf. I04, para. 41, 57; cf. I05, para. 31). For NGOs and aid organizations on the other hand, it can be challenging to get funding in. Moreover, funding can result in a dependence on donors and their money, and funding streams can go in the wrong direction:

“Now, we rather have a bit over-attention at sometimes or funding streams not going into the right areas. There's too little funding for research. There's a lot of jumping on, on publicity, nice, um, women employment. It's not always strategically well placed and, um, I still say the crop is underfunded. It has still too little attention, but there's a little bit of a hype on the other side about the story.” (I03, para. 7)

Moreover, it can be challenging for initiatives collaborate with local authorities and to adhere to certain regulations (cf. I02, para. 33, I04, para. 57). Within the work of sustainability initiatives, the seasonal nature of agriculture also seems to be a general issue: The time span in which improvements can be tested is very short and many effects, especially on yield increase, only become visible after a few years. That is why positive impacts of short-term projects are often limited (cf. I01, para. 11; cf. I03 para. 19, I05, para. 39). Lastly, interviewees also point to communication problems among actor groups, especially among farmers and processors or companies (cf. I01, para. 11; cf. I03, para. 15).

In general, it is worth noting that some issues are not addressed at all within the work of sustainability initiatives. This is at least partly due to inherent contradictions to their work and approaches. On an ecological level, this applies for example to the expansion of land use for cashew cultivation and the resulting deforestation in connection with the increasing global demand for cashew kernels. There, a contradiction arises: The initiatives generally focus on growth. Ivory Coast being the largest producer of RCNs is continuously mentioned as an asset, and the country is urged to keep or even expand that position (cf. e.g. I01, para. 29). Initiatives argue that sector growth is needed to solve socio-economic issues (cf. ofi 2022a, p. 4f; cf. e.g. I03, para. 15). At the same time, growth can only be achieved with more production, and production efficiency has its limits. Thus, in the long run, there seems to be no alternative to an expansion of land use for cashew cultivation and the resulting deforestation. A similar contradiction concerns intensive agriculture: It is used as a crucial instrument to increase the harvest of a crop that is in high demand. Since the global demand for cashew kernels is continuously rising (cf. Agyemang et al., 2018, p. 209) and sector growth is generally portrayed as an overall goal, it is difficult to reduce intensive agriculture. Thereby inter-cropping can only reduce its negative consequences. Moreover, intensive agriculture and mono-cropping threaten farmers' livelihoods and food security, as it creates a dependance not only on RCN prices but also on the prices of staple crops that farmers can no longer grow themselves. Altogether, the rising demand for cashew kernels and its high value on international markets offers income opportunities for farmers, but at the same time it is not compatible with the planetary boundaries and can have negative consequences for farmer communities (see chapter 5.3).

On a more abstract level, overall limitations of sustainability initiatives also apply to the problem of governance and power asymmetries in the sector. Interviewees agree that they exist but cannot be changed or are not even addressed (cf. I01, para. 29; cf. I06, para. 49-51). In this

context, the traders and Olam in particular are said to have great power (cf. I01, para. 13; I03, para. 9, 21; I05, para. 27, 29). Actors that inherit a powerful position, namely Olam, are not interested in changing the governance structure, as it would reduce their power. Another problem regarding the sustainability programs of private sector companies like Olam is the inherent contradiction mentioned above: Sustainability efforts are cost-intensive and therefore contradicts the company's main interest, which is to increase profit. Furthermore, the government plays an important part in regulating the sector, mainly in creating transparency, especially on prices and in setting environmental standards (cf. I02, para. 9, 27; I06, para. 47). This is also a factor that lies outside the scope of action of the initiatives: Although they can advise governments and try to convince it to adapt certain measures, they cannot force them to regulate and support the sector. Lastly, another governance issue lies in the collaboration of Ivory Coast with international organizations. An example is the large loan the WB provided to the country to boost the cashew industry. According to one interview partner, Ivory Coast did not need that money, but had no way of politely declining the offer. Since the loan has to be paid back with an interest rate, the country ends up losing money (cf. I03, para. 17).

From a GVC perspective, problems within the cashew sector of Ivory Coast are caused by the global production and trade structure and by power asymmetries within the GVC. Thereby, the unequal distribution of value benefits the countries in the Global North, while countries in the Global South provide raw materials and retain only small shares of the value-added (cf. Fischer et al., 2021b, p. 33; cf. Gereffi et al., 1994, p. 2). In that sense, sustainability initiatives face another major limitation: While they can target to retain more value-added within Ivory Coast by local processing, a change within the world structure would be necessary to achieve a fair value distribution in the long run. Moreover, power asymmetries affect not only actors as in organizations, as explained repeatedly in the course of the thesis. They also affect power asymmetries between the Global North and the Global South (cf. Gereffi et al., 1994, p. 2; cf. Wallerstein, 2016, pp. 209, 220f). Thereby, the GVC of cashew kernels from Ivory Coast is an illustrative example for the unequal global structures: While consumption takes place to large parts in the Global North, Ivory Coast provides the raw materials and takes on the socio-economic and ecological burdens of the production process but retains only a small share of value in the country. To achieve more sustainability on a global level and in a long-term perspective, these production and consumption structures need to be changed as well.

There are also some general criticisms regarding the overall work of sustainability initiatives in the cashew sector of Ivory Coast. One interviewee mentioned that they work from a top-down approach. This leads to misunderstandings and problems in implementing sustainable practices. For example, farmers receive GAP trainings, but realizing these practices often requires financial and time commitments that farmers are unable or unwilling to make: Farmers will only implement changes if they are financially rewarding (cf. I02, para. 27, 29, 31, 33, 39). This impression of a top-down approach was confirmed for me by the interviews. Often, initiatives tell farmers what to do and how to do it without taking their preferences and constraints into account. They do help and support farmers and their communities, but only to their terms (cf. I01, para. 11; cf. I04, para. 53; cf. I06, para. 7). Another criticism, especially for private sector firms like Olam, refers to their tendency to implement sustainability efforts only if it fits their own capitalist agenda (cf. Ponte, 2019, p. 19f, cf. I05, para. 29, I06, para. 31). Lastly, a general criticism also regards the initiatives' portrayal of their work and its impacts. In that context, one interview partner explains that all actors exaggerate their impacts or even cheat, for example by omitting relevant information to create a certain impression (cf. I05, para. 39). In general, I also noticed that interview partners were reluctant to criticize one another. They seemed to know each other quite well and to be in regular exchange. As they often work together or support each other on projects, they may not have been able to share information that portrays others negatively.

7 Conclusion and Outlook

This thesis aimed at analyzing the approaches, successes, and limitations of sustainability initiatives in the cashew sector of Ivory Coast. It used the GVC approach and the concept of sustainability as a theoretical basis. Methodologically, it conducted a literature review to establish background information on the cashew sector of Ivory Coast and the corresponding GVC. To answer the main research question, data from sustainability reports or documents and from semi-structured interviews was evaluated through a qualitative content analysis according to Mayring (2022). The three key initiatives represent three different types of organizations: A development aid organization, a private sector project and a responsible business. This makes it possible to compare their approaches, successes, and limitations and to carve out similarities and differences.

The thesis points to several socio-economic and ecological problems associated with the GVC of cashew kernels from Ivory Coast. Among them are low incomes for farmers as well as bad working conditions in processing factories. Moreover, emission generation, waste management and intensive agriculture also present serious issues. Further, the interviews identified the length of the chain as a main problem both on an international level – due to the generation of emissions and the loss of value added – and on a national level. There, the system of several intermediaries in the cashew trade and the common use of cash instead of mobile money leads to a lack of traceability and transparency. Another issue regards the marginal share of local processing that results in a low retention of value-added within the country. Although progress has been made over the last decades to build up a local processing industry, the industry is not competitive yet. Lastly, governance also plays an important role in the sector. Traders in general and Olam in particular are said to have a powerful position that they use for example to influence prices. Moreover, the final market was identified as a powerful group. While the interest in sustainability is growing, some interviewees mentioned that consumers are still not willing to pay premium prices for sustainable products (see chapter 5.3.3).

Sustainability initiatives in the cashew sector of Ivory Coast address several of these problems. Thereby, their approaches and measures overlap to a certain extent. All key initiatives indicate farmers and farmer communities as their main target groups. Their shared goals seem to be an improvement of their livelihood, mainly through a better and more efficient production process and higher yields and revenues. Another common target is to increase the share of local processing. When it comes to their approaches, ComCashew and ofi characterize themselves as frontrunners with regards to sustainability in the cashew sector of Ivory Coast. While they both work with scale and follow a cross-country or even cross-sector approach, Cashew Coast operates only in Ivory Coast and places importance on a detailed, extensive sustainability concept. Although all three initiatives emphasize networking within the sector, ComCashew and ofi consider collaboration and MSIs as central to their work. Cashew Coast on the other hand is rather going its own way, even though the company is connected to other actors, too. ComCashew's main instrument to push sustainability in the sector seems to be generating and sharing knowledge. This then results in better agro-economic practices, increased yields, higher quality nuts and, altogether, higher farmer incomes. Although Cashew Coast and ofi also stress the importance of knowledge exchange, they seem to put their focus rather on practical measures (see chapter 6.2 – 6.4).

In terms of concrete measures, the three initiatives also have some things in common. They all implemented direct sourcing programs, are paying premium prices, offer GAP and other trainings, support farmer communities, invest in the local processing industry, focus on women empowerment and promote climate resilience in the sector. However, the importance attached to each measure varies depending on the initiative. For example, ComCashew initiated and centralized a large-scale Master Training Programme additionally to other trainings. Ofi on the other hand runs two local processing units and is responsible for large shares of the domestic RCN processing. Cashew Coast seems to put the largest focus on circular economy, using all the by- and waste-products of cashew production, among them for example cashew apples and shell waste. Moreover, the company significantly shortened the value chain, taking care of sourcing, processing, and exporting itself and promoting local consumption. That way, it circumvents powerful actors such as international trading companies and offers alternative markets to farmers. Lastly, all initiatives identified the lack of traceability as a key problem of the sector, and ComCashew and ofi launched their own digital traceability programs to target that issue and to trace cashews from farm- to factory gate (see chapter 6.2 – 6.4).

Some overall challenges persist for sustainability initiatives working in the cashew sector in general. Among them is for example the trade structure of various intermediaries and the common use of cash payments that makes it difficult to ensure traceability. Moreover, the historical lack of government support is only recently changing. The government plays a crucial role in structuring and promoting the cashew sector and trade, and its support is crucial to building up the industry. Further, all interview partners stressed the importance of consumer awareness and support in order to push the sustainability agenda. Thereby, the final market needs to be willing to pay higher prices for sustainably produced goods to make sustainable production profitable. On a more practical level, sustainability initiatives face two major challenges. The first one is especially relevant for NGOs and civil society organizations: They often struggle to get funding for their activities. But for private sector firms, financing can be a “key bottleneck” (I02, para. 17), too: Sustainability efforts can be cost-intensive, especially in the short-term. Lastly, initiatives struggle with the seasonal nature of cashew production: The time span in which improvements on agricultural practices can be tested is very short and many effects, especially on yield increase, only become visible after a few years. That is why positive impacts of short-term projects are often limited (cf. chapter 6.5.2).

Altogether, one interviewee sums up the work of sustainability initiatives, stressing that “[t]his are examples, you can take any donor and go through, we all have our strengths and we have our weakness as a donor organization, so, or as an implementer like GIZ” (I03, para. 19). In general, scholars agree that there have been a lot of changes in the cashew sector of Ivory Coast in the last decades, and they are convinced that these developments will continue: “But there is quite some things moving on. It's a dynamic sector, I can assure you” (I01, para. 33). Thereby, a major trend expected by most interviewees is the final market’s growing interest in sustainability: Consumers want to know where products are coming from and how they were produced. Thus, traceability becomes increasingly important. This impacts private sector firms, urging them to invest into CSR measures and sustainable practices (cf. I02, para. 3; cf. I04, para. 35, 39; cf. I06, para. 21, 57). Regulations are also changing: European countries as well as the EU are introducing regulations on sustainability and traceability (cf. I02, para. 27; I04, para. 35, 51; cf. I06, para. 57). But also on a national level, legislation changes to better regulate the sector, but also to push the sustainability agenda (cf. I01, para. 13, 25; cf. I04, para. 35). Moreover, the local processing industry in Ivory Coast is growing, also due to increased government support (cf. I02, para. 9; cf. I04, para. 5; cf. I05, para. 37; cf. I06, para. 55). More and more actors, including sustainability initiatives, are coming to Africa, and to Ivory Coast in particular. They invest in the industry and professionalize the value chain (cf. I01, para. 33; cf. I02, para. 31, 37; I04, para. 57; I05, para. 55). At the same time, farmer organization is growing (cf. I01, para. 13; I05, para. 35). Lastly, the growing threat of climate change also influences the industry, leading to more research in circularity and climate resilience (cf. I01, para. 29; I02, para. 29, 31; cf. I06, para. 39).

It remains to be noted that some issues can only be improved, but due to their connection to the system of GVCs and global trade, they cannot be eliminated. An example is the generation of emission: Even if they are reduced by local processing and/or increasing local consumption, the export of the final product to consumer markets in Europe and North America is inevitably causing emissions. Moreover, not all problems are addressed in the scope of the initiatives’ work. An example is deforestation as a result of land expansion for cashew cultivation. This issue was neither mentioned by the interviewees nor written in their reports. Regarding deforestation, a contradiction arises within the work of sustainability initiatives: From a sustainability perspective, their goal is to protect the environment, but on the other hand, they promote sector growth to improve the livelihood of farmers and to address socio-economic problems. At the same time, the threat of climate change makes it even more urgent to protect

the environment and to invest in more sustainable practices. Thereby, a sustainable production benefits all stakeholder groups, as one interviewee explains: “But in the end it's whether the, the, the sector itself can create example of a more sustainable supply chain, which is interesting for everybody, both the farmers as well as processors for roasters, as well as the final consumer” (I01, para. 23).

In the end, the question remains if sustainability initiatives can create positive socio-economic changes without pushing planetary boundaries through a focus on economic growth. While this question cannot be fully answered in the scope of this thesis, the analysis has shown that some crucial issues currently either cannot be addressed within the work of sustainability initiatives or represent a contradiction to the focus of their work. To find a sustainable solution to cashew production and trade in the long run, these issues need to be tackled. Therefore, planetary boundaries have to be respected, and ecological sustainability should be focused on all aspects of the production, including issues such as deforestation that contradict the focus on economic growth. Moreover, especially the private sector needs to focus on sustainability without searching for win-win situations, where their sustainability efforts fit their own agenda. To achieve this, states must set more regulations and incentives and further support sustainability efforts of the industry. Lastly, it is also crucial to change governance issues and trade structures. From a GVC perspective, they are responsible for major issues such as an unequal distribution of value-added, resulting in unequal positions and development opportunities of countries within the world structure. Changing these existing patterns, however, seems to be outside the scope of work of sustainability initiatives. It will require serious efforts and commitment from all actors and countries involved, including those who benefit from the current situation.

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Appendix

Appendix I: Interview Schedule

	Name of project	Name of initiative/ organization	Type of organization	Interview partner	Position	Date	Location
1		FairMatch Support	Independent, international social venture	Herman uit de Bosch	Founder & Executive Director	12.06.23	Zoom
		Sustainable Nut Initiative	Pre-competitive collaboration platform				
2		Agramondis	Research and Consulting firm	Johanna Joy Farrell	Co-Founder and CEO	13.06.23	Zoom
3	ComCashew	GIZ	Development Aid (GIZ)	Rita Weidinger	Project lead	14.06.23	MS-Teams
4	Cashew Trail	ofi	Agro-food business	Issa Konaté	Sustainability Manager	20.06.23	
5		Nitidæ	Non-Profit Association	Pierre Ricau	Researcher	21.06.23	Zoom
6	Cashew Coast	Cashew Coast	Responsible Business	Julia Venn	Sustainability Manager	26.06.23	Zoom

Appendix II: Questionnaire (Basic Version)

Greeting and general information

Thank you very much for taking the time to do this interview. This helps me a lot.

As you know from our email exchange, I am investigating the work of sustainability initiatives/projects in the cashew sector of Ivory Coast as part of my master's thesis.

I am particularly interested in their structure and approaches, as well as the successes and limitations of their work. Therefore, I would appreciate your point of view both on your initiative/project in particular and on the general work of sustainable initiatives/projects.

If you have any questions or if anything is unclear, please feel free to interrupt me at any time. With your permission, the interview will be recorded and later on transcribed in order to process the data.

The information from this interview is only used for research purposes and will be treated confidentially. It is crucial for the research focus to name your initiative/project, but otherwise data will be anonymized unless you agree to be named:

Is it okay for you to be mentioned by name and position with your initiative? Perfect, thank you. Let's get started then!

I. Introductory questions

1. Please introduce yourself and the initiative/project/organization you work for shortly.
 - Since when is the project running/does the organization/initiative exist?

II. Key questions

A. Structures and approaches

1. What do you see as key problems along the GVC of cashew kernels from Ivory Coast?
2. What approaches do you have to your work?
 - What are differences to other initiatives?
3. How are projects developed and implemented?
 - Do you work in several countries?
4. What activities do you carry out?
5. Who are you addressing with your work?
6. What are main goals you aim to achieve and how?
7. Who is involved in the project?
 - Do you cooperate with other organizations?
 - If so, which ones? (Institutionally and individually)

B. Governance

8. How is your work financed?
9. Do you address power dynamics in the value chain?

C. Impacts

10. What are impacts of your work?
 - What are impacts in comparison to other initiatives?
11. What are key successes of your work?
 - What are your successes in comparison to other initiatives?
12. What factors are important for the success of your work?

D. Challenges and limitations

13. What challenges and limitations do you face?
 - What factors hinder your work?
 - Do you have insights on the challenges and limitations of other initiatives?
14. Are there any problems of the cashew value chain from Ivory Coast that cannot be addressed in the scope of your work (and the work of other initiatives)?

III. Reflection of the interview

15. Do you have any notes, comments, or additional information that you want to share on the topic?

Concluding Remark

This is the end of the interview.

If you can recommend any other potential interview partners that you can connect me with, I would really appreciate it.

Also, if you have any documents/reports from your or other organizations that you could send me that would help me a lot.

In any case, thank you so much for your participation!

Appendix III: Tables with Data Drawn from UN Comtrade

Top five import countries of cashews in shell from 2000-2020 sorted by quantity in kg

Year	Top Importer	Quantity in kg
2000	- India - Vietnam - Brazil - USA - Canada	270739761 19094000 6433855 1597113 1331899
2001	- India - Vietnam - Canada - USA - China	173865090 6459578 1768627 1274029 406205
2002	- India - Vietnam - USA - France - Canada	359104185 8116042 3083742 430500 363061
2003	- India - Vietnam - Burkina Faso - USA - Singapore	434180697 11531378 4446401 1829499 1249446
2004	- India - Vietnam - France - Burkina Faso - USA	480789582 16980890 1492200 1361881 1121605
2005	- India - Vietnam - France - Saudi Arabia - USA	523407122 25602098 1487700 908000 702472
2006	- India - Vietnam - France - Australia - USA	576753642 20682419 1837600 635297 523064
2007	- India - Vietnam - Kenya - France - USA	570517793 192855007 2526538 2130800 1245032
2008	- India - Vietnam - Brazil - France - USA	655458688 53597108 9467122 2162800 1188714
2009	- India - Vietnam - Brazil - Indonesia - France	662093092 30748420 4472302 2247478 2102900

2010	• India • Vietnam • USA • UK • France	• 564785092 • 89201594 • 2155749 • 2143813 • 2033800
2011	• India • Vietnam • Brazil • Ghana • Nigeria	• 798280750 • 88094177 • 42915245 • 4500299 • 3819197
2012	• India • Vietnam • Brazil • China • Myanmar	• 821647835 • 323315769 • 59450380 • 7044342 • 2771521
2013	• India • Vietnam • Egypt • Brazil • China	• 829926305 • 635238583 • 46907969 • 42176040 • 9038246
2014	• India • Vietnam • Brazil • China • Saudi Arabia	• 906748801 • 574320931 • 11766769 • 4069154 • 2092000
2015	• India • Vietnam • Brazil • China • Sri Lanka	• 969647199 • 888707193 • 26143752 • 4771594 • 2490827
2016	• Vietnam • India • Brazil • Belarus • Togo	• 1034216240 • 726824221 • 9797046 • 2996391 • 2864000
2017	• Vietnam • India • Brazil • China • Saudi Arabia	• 1289754400 • 701501828 • 21968978 • 7862963 • 3536412
2018	• India • Vietnam • Afghanistan • China • Brazil	• 871162715 • 171493093 • 11232257 • 6757008 • 6502989
2019	• Vietnam • India • China • Afghanistan • Indonesia • (Brazil)	• 1304922120 • 850202075 • 12781609 • 12718422 • 6464763
2020	• Vietnam • India • China • Saudi Arabia • Sri Lanka	• 1233643288 • 874081566 • 15946902 • 3571262 • 549198

Top five export countries of cashews in shell from 2000 to 2020 by quantity in kg

Year	Top Exporters	Quantity in kg
2000	- Ivory Coast - Benin - Indonesia - Tanzania - India	63378791 36370290 25620573 17854150 7611256
2001	- Tanzania - Ivory Coast - Indonesia - Kenya - India	96486831 87573941 39546013 10083374 9417045
2002	- Ivory Coast - Tanzania - Indonesia - Benin - India	104772929 75344666 50384980 43117437 8902254
2003	- Guinea-Bissau - Ivory Coast - Tanzania - Indonesia - Benin	99449696 84811273 71448044 57087452 27407510
2004	- Ivory Coast - Tanzania - Guinea-Bissau - Indonesia - Benin	140636191 82893941 77442000 56490967 36561290
2005	- Ivory Coast - Indonesia - Tanzania - Benin - Guinea-Bissau	167919078 65958508 50565466 42871703 34823102
2006	- Ivory Coast - Indonesia - Tanzania - Benin - Ghana	210728337 56555711 55064832 40727501 27114749
2007	- Ivory Coast - Indonesia - Benin - Ghana - Tanzania	250544587 71900516 40789264 21868280 8860620
2008	- Ivory Coast - Ghana - Indonesia - Benin - Tanzania	312228966 70031608 56586662 56463096 52742661
2009	- Ivory Coast - Nigeria - Tanzania - Indonesia - Benin	340318387 327905065 95576751 60627785 57220062
2010	- Ivory Coast - Tanzania - Nigeria - Benin	349949167 102706979 85669216 59840626

	Indonesia	38484225
2011	- Ivory Coast - Ghana - Mozambique - Tanzania - Burkina-Faso	278319656 132018410 130626027 99425279 81077154
2012	- Ivory Coast - Tanzania - Ghana - Benin - Nigeria	409813827 130882422 101103754 93942327 79117620
2013	- Ivory Coast - Ghana - Tanzania - Benin - Burkina-Faso	443862740 169619258 150882283 115669573 70463125
2014	- Ivory Coast - Tanzania - Benin - Burkina-Faso - Gambia	532218416 196138168 117783983 71722994 69832339
2015	- Ivory Coast - Gambia - Tanzania - Benin - Burkina-Faso	659123391 185982962 170161695 131131248 107223237
2016	- Ivory Coast - Gambia - Tanzania - Ghana - Burkina-Faso	614394140 589163471 217050889 161615169 90360067
2017	- Ivory Coast - Tanzania - Ghana - Burkina-Faso - Benin	624151377 329060236 191330643 106876682 83667878
2018	- Ivory Coast - Nigeria - Ghana - Burkina-Faso - Benin	654327510 365088179 279397419 126611813 102474083
2019	- Ivory Coast - Tanzania - Ghana - Burkina-Faso - Benin	609072801 295600928 236291206 96553678 92392542
2020	- Ivory Coast - Tanzania - Nigeria - Benin - Indonesia	691289878 320861978 90152751 86601777 77400422

Top five import countries of shelled cashews from 2000 to 2020 sorted by quantity in kg

Year	Top Importers
2000	• USA • Netherlands • UK • Germany • Australia
2001	• USA • Netherlands • Germany • UK • Australia
2002	• USA • Netherlands • UK • Australia • Germany
2003	• USA • Netherlands • Australia • UK • Canada
2004	• USA • Netherlands • UK • Australia • Canada
2005	• USA • Netherlands • UK • Australia • Germany
2006	• USA • Netherlands • UK • Australia • Germany
2007	• USA • Netherlands • UK • Germany • Australia
2008	• China • Germany • Australia • Canada • France
2009	• USA • Netherlands • China • Germany • UK
2010	• USA • Netherlands • Germany • China • Australia

Year	Top Importers
2011	• USA • Netherlands • Germany • Australia • UK
2012	• USA • Netherlands • Germany • United Arab Emirates • Australia
2013	• USA • Egypt • Germany • UAE • Australia
2014	• USA • Netherlands • Germany • UAE • UK
2015	• USA • Netherlands • Germany • UAE • UK •
2016	• USA • Germany • Netherlands • UAE • UK
2017	• USA • Germany • Netherlands • UAE • UK
2018	• USA • Germany • Netherlands • UAE • UK
2019	• USA • Germany • Netherlands • China • UK
2020	• USA • Germany • Netherlands • China • Vietnam

Top 5 import countries of RCNs from Ivory Coast from 2011 to 2020 sorted by quantity in kg

Year	Import	Quantity in kg	Trade value in \$
2020	- Vietnam - India - Singapore - Algeria - China - UAE	580714000 108631000 1050000 468323 376400 50000	\$710,684,467 \$135,416,542 \$1,284,320 \$572,987 \$500,736 \$68,478
2019	- Vietnam - India - Brazil - Indonesia - Singapore	450044170 147093140 5000000 2666830 2608020	\$543,249,804 \$173,145,816 \$6,106,259 \$3,141,210 \$3,151,466
2018	- Vietnam - India - Brazil - Indonesia - Ghana	433137100 205594523 6497250 5427524 2895980	\$697,632,200 \$336,432,118 \$10,258,412 \$7,363,267 \$4,469,150
2017	- Vietnam - India - Brazil - Singapore - Ghana	437356732 154156422 21836280 6990880 1475433	\$724,818,559 \$251,836,447 \$38,702,919 \$12,493,190 \$2,656,706
2016	- Vietnam - India - Brazil - Singapore - Sri Lanka	385874540 210797350 10310000 5057492 1999390	\$499,716,030 \$267,260,694 \$13,744,134 \$6,401,761 \$2,575,922
2015	- India - Vietnam - Brazil - Singapore - Sri Lanka	330270498 298975561 26209620 1162600 106423	\$384,304,237 \$310,495,281 \$24,551,904 \$1,172,436 \$1,051,401
2014	- India - Vietnam - Brazil - China - Areas, nes*	341218010 172365751 15266390 1257980 825012	\$288,282,073 \$151,392,432 \$13,052,949 \$1,092,214 \$697,818
2013	- India - Vietnam - Ghana - Brazil - Burkina Faso	217703858 206370535 9260000 5200000 2123000	\$156,667,125 \$149,367,601 \$7,186,399 \$2,880,267 \$1,646,515
2012	- India - Vietnam - Brazil - China - Myanmar	263603955 101128689 42014920 1560513 597954	\$209,957,883 \$83,444,483 \$32,063,743 \$1,245,940 \$476,367
2011	- India - Vietnam - Brazil - Sri Lanka - Nicaragua - China	159761971 107094446 10972720 351568 79113 59838	\$154,055,201 \$99,035,165 \$10,406,914 \$364,388 \$88,701 \$53,142

*Areas, not elsewhere specified (code 899)

Appendix IV: Additional Figure



Figure A. 1: ComCashew Partners (ComCashew, 2019a, p. 15)