# "Strengthening the competitiveness of cocoa production and improving the income of cocoa producers in West and Central Africa"


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# 1 EXECUTIVE SUMMARY

This study has been commissioned by the German Federal Ministry of Economic Cooperation and Development (BMZ) in close cooperation with the four West and Central African cocoa producing countries to get a deeper insight into the huge challenges cocoa production and cocoa producers face regarding their livelihoods. The paper aims at analysing the global cocoa market's structure and pricing mechanisms as well as the sector policies of the eight most important cocoa producing countries (Côte d'Ivoire, Ghana, Indonesia, Ecuador, Nigeria, Cameroon, Brazil, Peru) to identify measures that strengthen sustainability of cocoa production and improve livelihoods of producers.

Cocoa is an important crop for consuming and producing countries and it is estimated that at least 5 million smallholder farmers work on cocoa plantations worldwide providing a living for roughly 40 to 50 million people. In 2014/15 4.2 million MT of cocoa with an approximate value of 12 billion USD were produced of which roughly three quarters were grown in West Africa and the rest in South and Central America and 10% in Asia. However, the cocoa value chain lacks sustainability and farmers often cannot escape the vicious circle of low productivity and low incomes, lack of investment in their farms and persisting low yields.

At the level of the industry, due to increasing pressure caused by economies of scale some companies diversified into grinding and the production of industrial chocolate. At the same time and based on the need for high investments, the number of grinders and industrial chocolate producers decreased significantly.

The cocoa price is one of the main issues within the cocoa value chain, especially due to the powerlessness of farmers in the price setting mechanism. Farmers have no negotiating power and price setting has no direct relation to the cost structures of cocoa producers. Besides the price, other factors, such as weather patterns, pests and diseases, cost for land tenure, transportation and inputs influence the income of a farmer. High price volatility has a considerable impact on the livelihood of farmers and makes it very difficult for all market participants to decide whether to invest in the value chain or not. Although, there is no evidence that the concentration process in the industry puts additional pressure on farm gate prices, it has become clear that the long-term rise of chocolate prices did not lead to higher prices for cocoa producers. The power relations within the market lead to a declining inflation-adjusted cocoa price combined with declining incomes of farmers.

The relevance of cocoa production for the economy of the eight main producing countries, tax income for governments and the livelihood of farmers vary. The paper comes to the conclusion that in the two main cocoa producing countries, Côte d'Ivoire and Ghana, cocoa has a central influence on the economy of the nation. In Cameroon, the relevance of cocoa is lower and in Nigeria income from cocoa production is nearly insignificant compared to the export earnings from oil, but very significant in certain regions. However, in both countries, Cameroon and Nigeria, a huge number of farmers and their families depend on the income generated by the production of cocoa. In Brazil, Peru and Ecuador cocoa is not a central crop for the economy, but it has a high importance in some regions. The same is true for Indonesia.

Finally, the authors distil critical factors – impeding and/or beneficial - for the cocoa sector and develop recommendations on how to improve the cocoa sector's sustainability. Certain policies and interventions may improve farmers' livelihoods if well implemented, or may be a burden to farmers if not executed well. The sector needs a holistic approach; no single recommendation alone will be able to make a significant difference; many recommendations are highly interconnected. For each recommendation, the authors present ideas on how the different

actors in the value chain could get involved. The critical factors and the recommendations are structured in six large areas from a policy perspective towards a micro level perspective.

Recommendations on **global market and international price setting** focus on aligning broad policy goals of main producing countries, especially concerning production. Their large share in global production provides these countries with a high potential to coordinate activities and to exercise market power. An exchange platform, potentially hosted by ECOWAS, should be created. Monopolies Commissions should observe closely the impact of market concentration and speculation on cocoa prices. A **stable policy and legal framework and specific sector policies** are essential for a well-functioning cocoa sector. Governments are responsible for ensuring framework conditions, such as basic infrastructure, clear and transparent land laws and tax policies. A long-term vision and constant sector strategy with clearly aligned government policies and responsibilities support a sustainable cocoa sector. **Coordination of stakeholders, data collection and research** have started in some countries, but initiatives are nascent and need to be drastically scaled up and participation improved to show impact. Cocoa producing countries need a framework for data collection including strict rules for data protection. Transparency and sharing of data should be made mandatory. Coordination of research should be intensified through regular meetings at a regional and global level. A focus should be put on improvement on cocoa varieties and resistance to pests and diseases, as well as measures to improve climate resilience. In general, measures to adapt to climate change and fight deforestation need to be mainstreamed. Finally, stakeholders in the cocoa sector should align to develop a strategy to determine a living income for farmers and a living wage for their employees and integrate the concept in their programs and projects. As regards certification, the positive potential of standards needs to be reinforced by assuring reliability in planning to farmers and preventing misuse and fraud. Farmers generally receive only a share of the world market price for cocoa and there is a missing **transparency in price setting**. In both, countries with and without a guaranteed minimum price, transparency of market and price information is essential to reduce asymmetries. Price volatility in both systems needs to be managed by introducing mechanisms to manage risks. Besides financial instruments, such as hedging, diversification of farmers' income is recommended as a main strategy to reduce their dependence on cocoa. Furthermore, governments should promote local small-scale processing of cocoa into chocolate and other products and determine whether costs of subsidies and tax reductions for large-scale processing lead to expected value-added at the national level. With increasing concentration in the downstream part of the value chain, set-up and support to **farmer organisations** is essential for farmers to benefit from economies of scale when negotiating with traders. Developing professionally managed farmer organisations that can negotiate at eye level with buyers will be essential. Furthermore, a body representing farmers at the national level will be important. These national bodies could be the foundation to form an international representation of farmers. Good quality **extension services** need to reach out to remote farmers and provide them with important services such as training in good agricultural practices (GAP), new research results or information on how to store and apply fertilizers and pesticides, as well as trainings on household budgeting. Additionally, access to high-quality **inputs** reaching farmers on time and in sufficient amount is very important for farmers' productivity and competitiveness. Since the provision of free inputs is often accompanied with inefficiencies, policies should ideally aim at a market-based system where the income generated from cocoa allows farmers to afford non-subsidised inputs. Facilitating access to financial services, especially working capital and investments, should be supported by collaborating with financial institutions in developing a strategy and products for cocoa farmers.

# 2 INTRODUCTION: „IF YOU WANT TO BUILD YOUR HOUSE, IT IS COCOA"

*"If you want to send your children to school, it is cocoa*
*If you want to build your house, it is cocoa*
*If you want to marry, it is cocoa*
*If you want to buy cloths, it is cocoa*
*If you want to buy lorry, it is cocoa*
*Whatever you want to do in this world*
*It is cocoa money that you do it"*
(Text from a Ghanaian song in the 1950s, cited in Orla Ryan 2011: 9)

This song and memories from old farmers remind stakeholders in the cocoa and chocolate industry that there was a time when cocoa allowed farmers to earn a living income. Nowadays, the sector is - at least from the perspective of the farmers - in a crisis. Widespread poverty in cocoa growing regions, ageing farmers and low productivity are only a few of the current challenges. While most stakeholders agree that something has to be done, there is no agreement on how to proceed. During the last decade many companies focused on supporting farmers to increase productivity. They hoped that a massive increase of yield per hectare would enable farmers to overcome poverty as well as secure cocoa supply for companies.

Most of the stakeholders in the cocoa sector agree, however, that many projects implemented by governments, companies, development cooperation and non-governmental organisations alike have up to now had only limited impact on livelihoods of cocoa farmers. They also agree that more research is needed to understand why progress is slow and to develop activities with higher impact. This includes a deeper analysis of the structure of the cocoa value chain as well as of the role of government policies within the sector. Additionally, ageing rural populations combined with the migration of young people into the cities, urbanisation and increasing national populations set a complex frame for the cocoa sector.

## 2.1 Objective and methodology

This study has been commissioned by the German Federal Ministry of Economic Cooperation and Development (BMZ) to get a deeper insight into the huge challenges that the cocoa production is confronted with, and the problems related to the livelihoods of cocoa producers, especially in West and Central Africa.

Several German companies are running their own programmes to help increase productivity, competitiveness and quality. Also official German development cooperation collaborates in providing training and promoting sustainable cocoa production among farmers. The German Initiative on Sustainable Cocoa (GISCO) was founded in 2012 and seeks to improve the living conditions of cocoa farmers and their families and to help secure livelihoods. It is, however, understood that this approach based on projects can only reach a limited number of small farmers. This approach does not address the structural deficiencies within the value chain. A sector policy approach will be necessary in order to take sustainable competitiveness to a higher level in the long term and improve the living conditions of all cocoa growers.

The Terms of Reference for this study were developed in close cooperation with the four West and Central African countries. They aim at analysing the structure and the pricing mechanisms of the global Cocoa market, and the sector policies of the eight most important cocoa producing countries (Côte d'Ivoire, Ghana, Indonesia, Ecuador, Nigeria, Cameroon, Brazil, Peru) in order to identify sector policy measures that can strengthen the sustainable competitiveness of cocoa production and improve the incomes of coca producers in West and Central Africa. The crosscutting question for this study is the role of government policies, private sector initiatives and development cooperation in the cocoa sector and their impact on smallholders.

The research findings will feed into the work the BMZ is doing within the GISCO multi-stakeholder initiative, which the BMZ co-founded, and into the dialogue with West and Central African partner governments.

The study is based on a combination of methods including a literature review, stakeholder interviews and the review of databases to cross-check and validate information. Additionally, discussions from two stakeholder workshops in Accra, Ghana, in April 2016 and in Abidjan, Côte d'Ivoire in October 2016 are included.

- The **literature review** represents the primary means to gain information on the framework conditions, the history of the cocoa sector in the various countries, the globalized cocoa value chain, the price setting mechanisms and on power relations among stakeholders.
- **Databases** (ICCO, FAOStat, Worldbank, USDA, national databases of producing countries) complement the literature review and provide the opportunity to cross-check data from reports and articles.
- The authors of this study carried out 90 **interviews** with a total of over 100 stakeholders, among them government representatives, farmer organisations, trading and confectionery companies, non-governmental organisations (NGOs) working in producer countries, standard setting organisations, cocoa associations, development cooperation and foundations. Most interviews have been carried out individually, some with groups of stakeholders (see Annex III for a list of interviewees).

  The interviews were carried out in a semi-structured way and supported by a set of guiding questions (see Annex IV). Interviews in the four West and Central African countries Côte d'Ivoire, Ghana, Cameroon and Nigeria were conducted in-person in the countries between February and April 2016. Moreover, the authors interviewed further stakeholders at the World Cocoa Conference 2016 in the Dominican Republic. Additional interviews were held in meetings in Germany and Switzerland, via Skype or telephone. Some interviewees responded to the interview questions in writing.
- During the 1.5-day-**workshop in Ghana** in April 2016, West and Central African stakeholders from governments, producer organisations, companies and NGOs had the chance to comment the findings. After a presentation of the preliminary findings working groups identified critical factors and possible solutions. These comments were taken into consideration when distilling critical factors and developing recommendations as included in Chapters 6 and 7 of this study. 35 participants from 6 different countries (Côte d'Ivoire, Ghana, Cameroon, Nigeria, Germany and Switzerland) took part in the discussions. Among them were representatives of the governments of West and Central African countries, farmer cooperatives, standard setting organisations, trading and confectionery companies, NGOs and development cooperation. Moreover, aspects for a potential contribution of German development cooperation were identified (see Annex V-VIII).
- The objective of the 1.5-day-**workshop in Côte d'Ivoire** in October 2016, which was attended by more than 50 participants from five producing countries (Côte d'Ivoire, Ghana, Nigeria, Cameroon, Peru) was to present the findings of the research study followed by a plenary discussion. The second part of the workshop provided an opportunity to continue and build on discussions which started at the first workshop in Ghana in April 2016. Participants worked in groups to discuss and develop concrete solutions for the topics identified as the most imminent challenges for the cocoa sector at the last meeting, namely the policy and regulatory framework, access to finance for farmers and farmer organizations. The objective was to foster multi-stakeholder as well as cross-country and regional collaboration and coordination.

## 2.2 Outline of the study

Chapter 3 of this report describes the structure of the globalized value chain which connects cocoa plantations with the chocolate bars on retailers' shelves. This includes the description of various initiatives to achieve a more sustainable cocoa market. Chapter 4 presents an analysis of the power relations among different actors along the value chain. Also, the price setting mechanisms for cocoa on the world market is being discussed. In Chapter 5, the authors analyse the legal, economic and socio-cultural framework of the cocoa sectors of the eight leading cocoa producing countries Côte d'Ivoire, Ghana, Nigeria, Cameroon, Indonesia, Ecuador, Brazil and Peru. Finally, Chapter 6 analyses critical factors which influence the competitiveness and livelihoods of farmers in cocoa producing countries and concludes with recommendations on how to address these challenges. In-depth descriptions of the cocoa sectors in the countries included in this study and more statistical data can be found in Annex II.

# 3 SETTING THE FRAME: THE CONTEXT OF COCOA PRODUCTION

## 3.1 A smallholders‘ crop

The cocoa tree originates from Central America, where cocoa was consumed as early as 1500 BC. Due to its specific climatic requirements the cocoa tree can only be grown in the so-called cocoa belt along the Equator. Also known as a demanding “diva”, cocoa favours nutrient-rich soils, an average temperature between 24 and 28 °C, a relative humidity of 80-90% and at least 1,500 mm precipitation/year, evenly distributed throughout the year. Whereas traditional varieties need to be grown in shade beneath larger trees, newer cocoa species also thrive in full sun. As of latest, these species are favoured in cocoa plantations because it allows trees to be planted in higher density. However, they require much more care, fertilizers and pesticides. Cocoa trees and cocoa fruits are prone to many pests and diseases. Additionally, they are very sensitive to changing climatic patterns (Durry/Schiffer 2012: 23–26).

A cocoa tree may grow as high as 15 m, but is often cut down to 4 m. In West Africa, the average density of cocoa trees per hectare is 1,100 (Afari-Sefa et al. 2010: 11). In Latin America many farmers work on small plantations which combine cocoa production with other tree crops. Such agroforestry systems are also widespread in Indonesia. The productivity of cocoa trees depends on different factors including its genetic code, soil quality, weather conditions, the age of a tree and its pruning, inputs applied and other cropping techniques. Usually, a tree starts producing fruits after 3 or 4 years; some new varieties more quickly. Depending on the variety a productivity plateau is reached after 5 to 10 years. Afterwards, the number of pods starts to decrease. Trees older than 20 years usually grow a low number of pods and have to be replaced.

About 95% of cocoa worldwide is produced on smallholder farms with an average size between 2 and 5 ha. It is estimated that at least 5 million smallholder farmers work on cocoa plantations (Anga 2016: 4). They provide a living for their (extended) families of roughly 40 to 50 million people worldwide. Growing cocoa is a tedious task. Farmers weed, prune, apply fertilizer and pesticides, harvest, collect, transport and break cocoa pods and ferment and dry cocoa beans. All these pre-processing steps require hard physical work which is carried out manually in most countries.

Most of the cocoa that is produced worldwide is the standard variety Forastero. The production of fine or flavour cocoa (FFC) only accounts for about 7% of global cocoa production and more than half of this comes from Ecuador. FFC receives a premium on the world market.

Even if data are unreliable, it is obvious that the average yield per hectare increased only marginally during the last decades, especially compared to other crops, such as coffee or palm oil. Since the beginning of the 1990s, the average yield per hectare is approximately only slightly above 500 kg/ha and has stagnated since then (Anga 2016: 5-6).

Various studies prove that average yield in many cocoa producing regions is even lower (see chapter 4). If high yielding new varieties, good agricultural practices, pesticides and fertilizers are used, yields per hectare could double or even triple. Well-equipped plantations even have a yield of more than 2 MT/h and some investors claim that on irrigated plantations with new cocoa varieties and a high input of fertilisers and pesticides up to 5 MT/ha are possible (Hawkins/Chen 2016a: 33-52).

## 3.2 Main producing and consuming countries

In 2014/15 4.2 million MT of cocoa with an approximate value of 12 billion USD were produced worldwide. 73% of global productions were grown in West Africa, 17% in South and Central America and 10% in Asia. The eight largest producer countries were Côte d’Ivoire (42% of world production), Ghana (18%), Indonesia (8%), Ecuador (6%), Cameroon (5%), Brazil (4%), Nigeria (4%) and Peru (2%) (ICCO 2016c: Table 1 and 2; for details see chapter 4; see Table 1).

**Table 1: Main cocoa producing countries**

| Country | Production in 1,000 MT, 2014/15 | Percentage of global production |
|---|---|---|
| **Côte d'Ivoire** | 1,650.0 | 42 |
| **Ghana** | 800.0 | 18 |
| **Indonesia** | 320.0 | 8 |
| **Cameroon** | 220.0 | 5 |
| **Ecuador** | 220.0 | 5 |
| **Nigeria** | 190.0 | 4 |
| **Brazil** | 180.0 | 4 |
| **Peru** | 85.0 | 2 |
| **Other countries** | 489.1 | 12 |
| **World Total** | **4,154.1** | **100** |

**Source: ICCO 2016c: Table 4**

The demand for chocolate varies regionally. Presently, Europe and North America are still dominating cocoa consumption. Most important countries are the United States, Germany and France, importing respectively 18%, 8.4% and 5.5% of the world harvest. Even if the appetite for chocolate in China and India grew as fast as some experts predict it will, these countries would take many years to increase cocoa demand to the level of the market in Germany with its consumption of approximately 350,000 MT/year. Food consumption is influenced by habits and affordability. Cocoa was introduced in Africa in the 1870s. The continent has no tradition to consume products made from cocoa. Combined with the relatively high price for chocolate products, this leads to the fact that only a very small amount of the cocoa grown in Africa is consumed locally. On the contrary, countries in Central and Latin America have a long tradition of consuming cocoa products. This tradition combined with rising incomes has led to an increase in chocolate consumption. The biggest market is by far Brazil which nowadays imports small amounts of cocoa in addition to its own production to satisfy local demand. According to statistics of the International Cocoa Organization (ICCO), Brazil is the sixth biggest market for cocoa consumption (ICCO 2016c: Table 37; details see Table 2).

**Table 2: Main cocoa consuming countries**

| Country | Consumption in 1,000 MT, 2014/15 |
|---|---|
| **United States** | 736.7 |
| **Germany** | 350.0 |
| **France** | 225.0 |
| **United Kingdom** | 220.0 |
| **Russian Federation** | 205.0 |
| **Brazil** | 200.0 |
| **Japan** | 176.4 |
| **Spain** | 115.0 |
| **Italy** | 100.0 |
| **Canada** | 90.0 |
| **China** | 77.8 |

**Source: ICCO 2016c: Chart V. Consumption is calculated as grindings plus net imports of cocoa products and of chocolate products in beans equivalent**

## 3.3 Widespread poverty

According to numerous recent studies, the cocoa value chain lacks sustainability on several levels.[1] Since the cocoa price dropped to an all-time low in 2000 (see page 17, Fig. 2), poverty has been widespread among cocoa farmers. Even after prices recovered partly during the last 15 years the majority of farmers still lives in poverty (details see country chapters). Farmers often cannot escape the vicious cycle of low productivity of cocoa and low incomes, lack of investment in their farms and persisting low yields. The situation of many farmers is aggravated by uncertain land titles. Often they cannot be sure that they will benefit from investments since they don't own the land. Many cocoa farmers are older than 50 years and do not have the prospect of a young farmer taking over their plantation. Instead, the younger generation tends to search for work in the cities. If they stay in agriculture, they often switch to more profitable crops than cocoa. Not only are farmers ageing, their plantations age with them. A lack of investment in the rejuvenation of tree stocks has resulted in low productivity and, along with it, low incomes from cocoa sales. What is more, support from governments and companies is often not adequate (see country profiles in chapter 5).

Figures on the incomes of farmers are hard to get. The Cocoa Barometer published data for Côte d'Ivoire and Ghana in 2015 based on figures from publicly available studies. These figures show that most of the cocoa farmers live far below the poverty line of 1.90 USD per person per day defined by the World Bank (Fountain/Hütz-Adams 2015: 42-44). Other studies show similar results.

Barry Parkin, Head of Global Procurement at Mars and Chairman of the World Cocoa Foundation, admitted the large gap between a sustainable income for farmers and the reality on the ground: "*To get to sustainable [cocoa production] we've got to triple or even quadruple the income*" (quoted in Nieburg 2016).

Recent studies show that, as a result of the bad income situation of farmers, child labour on West African plantation is still a widespread problem. Many cocoa producing families use children to cover their need for labour on the farms to an extent that violates national laws and international child rights conventions (Tulane University 2015; Kapoor 2016a and 2016b; ICI 2016a and 2016b).

From an ecological perspective, the depletion of soils is a serious threat to farmers. In the past, farmers moved on to clear virgin forests once soils depleted. Nowadays, unsustainable production methods lead to the depletion of soils but farmers cannot move from depleted fields. Hardly any forests are left and in many countries legislation on deforestation has been enforced. The impact of climate change is tangible in West and Central Africa and will become more severe. Regarding cocoa production, this implies a reduction of suitable areas.

Furthermore, climate change leads to changing weather patterns which influence cocoa production. Researchers assume that major cocoa growing regions in West and Central Africa will experience less and less regular rainfall and more extreme temperatures (Climate Change/CIAT 2011). Thus researchers are currently working on breeds of cocoa varieties suitable for a drier climate. If these attempts fail, yields could decrease significantly in the future.

Substantial investments are needed, so that self-employed farmers may achieve a living income or pay their labourers a living wage. A lack of financial resources and consequently the unaffordability of labour lead to reduced productivity, if not to farmers leaving their fields. More profitable crops might replace cocoa.

[1] E.g. Boas/Huser 2006; Climate Change/CIAT 2011; Fountain/ Hütz-Adams 2015; Gayi/Tsowou 2015; Hainmueller/Hiscox/Tampe 2011; Hawkins/Chen 2016a; ICCO 2012a; Fountain/ Hütz-Adams 2015; Kapoor 2016a and 2016b; Republic of Côte d'Ivoire 2008; Republic of Ghana 2008; Tulane University (2015).

## 3.4 In search of a common agenda

All stakeholders in the cocoa industry are aware of the issues discussed so far. A multitude of projects has been implemented in order to support farmers. Ideas about holistic approaches to improve the situation of cocoa farmers were discussed at many conferences. As starting points the meetings of the "Round Table for a Sustainable Cocoa Economy" in Accra in 2007 and in Trinidad and Tobago in 2009 were important. It was concluded that all stakeholders, producers, trade and industry, governments and consumers alike, have to play a role in achieving sustainability in the cocoa business. Stakeholders also agreed on a set of drivers to achieve these improvements (RSCE 2009: 8).

In 2012, at the First World Cocoa Conference held in Abidjan, Côte d'Ivoire, the Global Cocoa Agenda was approved as a framework to the changes needed in the sector. In order to improve their situation farmers should use "*better planting material and inputs, innovative technology, integrated pest management to control pests and diseases [and] comply with international labour standards*" (ICCO 2012a: 15).

The Global Cocoa Agenda and its Technical Annex clearly define responsibilities to improve the situation of farmers. Governments are requested to

> *"develop a national cocoa development plan which outlines the vision and strategies in cooperation with the other national actors involved in the sector, taking into consideration the international perspective, to deliver a sustainable cocoa economy. The participatory approach in each country would be ensured through public-private partnership, with government institutions in charge of cocoa in the lead, with all relevant strategic partners involved in the process. A body in charge of the monitoring of the progress made would also ensure adequate coordination of national cocoa initiatives" (ICCO 2012a: 22).*

The Bávaro Cocoa Declaration of the Third World Cocoa Conference in the Dominican Republic in 2016 stresses that the Global Cocoa Agenda "*provided a roadmap towards sustainability and world cocoa economy*" (ICCO 2016b: 1). Some steps have already been taken, but the agenda is far from being implemented.

The participants of the workshop in Accra in spring 2016 organised by Südwind as part of the research project also came to the conclusion that problems are known and that all stakeholders more or less agree on what has to be done. However, while small things change, overall a push in moving from words to action and a coordinated approach to change the whole sector is still lacking.

## 3.5 Current sustainability approaches

Companies, governments[2] and non-governmental organisations, donor agencies and foundations started programmes to improve the sustainability in the cocoa sector.

**Cocoa and chocolate companies**

Many cocoa and chocolate companies launched their own sustainability programmes in recent years. There is no publicly available overview of programmes and some first companies only recently started publishing numbers regarding their investment in sustainable cocoa supply. Numbers might also be double-counted since some chocolate companies work through their suppliers and often both companies count their involvement. Some of the largest programmes are

- Mondelēz' Cocoa Life initiative which was launched in 2012 with a ten-year budget of 400 million USD aiming at 200,000 cocoa farmers and 1 million community members

[2] An analysis of the efforts of the governments of cocoa producing countries can be found in detail in the country descriptions in chapter 4.

in six cocoa growing origins (Côte d'Ivoire, Ghana, Indonesia, India, the Dominican Republic and Brazil).

- Nestlé's Cocoa Plan invests 110 million CHF from 2010 to 2019 covering besides West Africa, Indonesia, Ecuador, Venezuela as well as Brazil and Mexico. Cocoa Plan's objective is to source 175,000 MT of cocoa through Cocoa Plan.
- Mars with its Vision for Change is scaling up its projects step-by-step and wants to reach 150,000 farmers.
- Lindt & Sprüngli has bundled its efforts in the Lindt Cocoa Foundation and works with 48,000 farmers. The company wants to scale up its programs.
- Barry Callebaut's 10-year Cocoa Horizons initiative launched in 2012 was transformed into a foundation in 2015. The company contributes 40 million CHF and draws on donor and other partners' funds. The programs under this umbrella aim to reach at least 100,000 farmers
- Cargill's Cocoa Promise aims to reach at least 116,000 farmers through its different projects.
- Olam has the Olam Livelihood Charter which is an umbrella for its projects and reaches currently at least 109,000 farmers.

Additionally, many other companies along the value chain finance projects in the cocoa producing countries.

Most of the projects started with the aim to increase farmers' yields and bean quality to improve farmers' incomes and secure cocoa supply. More recently, some companies started implementing more holistic approaches including project components aiming at community development by reducing child labour, improving the situation of women, attracting young farmers to stay in cocoa, supporting farmer organisations or assisting farmers in income diversification.

**Insufficient investment**

Most of the large chocolate manufacturers, except Mondelēz and Nestlé, have committed to sourcing either 100% certified cocoa or third-party approved sustainable cocoa from own projects by 2020. Prominent examples are Mars, Hershey's, Lindt & Sprüngli and Ferrero. Usually, it is not defined what the companies exactly mean with the expression sustainable cocoa. Some of them refer to certified cocoa as being sustainable while others admit that certification is only a part of the solution.

However, even if it is widely accepted that the cocoa sector has a major problem, many companies still do not invest sufficiently in diverse measures to assure sustainability in cocoa production. Tony Lass, an expert on cocoa, estimates that the six largest chocolate companies spend considerable amounts to achieve a more sustainable business. Whereas some of the world's largest companies support projects with budgets of more than 10 million USD annually, other companies which produce 55 to 65% of the globally sold chocolate invest on a much lower scale or "*are getting a 'free ride'*" (Lass 2016: 6).

**Donor initiatives**

Bi- and multilateral development institutions are also active in the cocoa sector, although at a much smaller scale than some of the larger companies. The following organisations are active in projects and in public-private partnerships (PPPs): the German technical cooperation (*Deutsche Gesellschaft für Internationale Zusammenarbeit,* GIZ) on behalf of the German Federal Ministry for Economic Development and Cooperation (BMZ) and the German Federal Ministry of Food and Agriculture (BMEL), the Swiss State Secretariat for Economic Affairs (SECO), the Sustainable Trade Initiative (IDH) and the U.S. Agency for International Development (USAID), as well as the U.S. Department of Agriculture (USDA).

**Non-governmental organisations (NGOs)**

Most companies as well as donors and foundations do not implement activities themselves but work through local and international NGOs present in origin countries. A

few NGOs have been involved in cocoa growing communities for a number of years and have accumulated considerable experience. These include organisations such as Swisscontact, Technoserve, CARE, or Solidaridad. Some of them are present in a number of countries.

**Variety of strategies and incipient stakeholder coordination**

Some companies or donors cooperate with certification schemes or NGOs in the framework of PPPs, some implement their own projects and others combine the two approaches. In general, there has been little coordination between the various projects of different companies, NGOs and donors. The multi-stakeholder International Cocoa Initiative (ICI) is focused on child labour and has been trying to achieve an alignment of the different approaches to monitor and reduce child labour. Meanwhile, the World Cocoa Foundation (WCF) which was founded by companies set up a number of pilot projects but did also not succeed yet in coordinating and aligning existing projects of its members. An innovative tool to collect data on a common internet-based platform was developed but until today it is not used by the industry.

In some cocoa producing countries, roundtables or platforms have been set up either by local governments or donor (see chapter 4). Overall, there does not seem to be a common approach on how to coordinate efforts, measure impact and identify and exchange on what works and what doesn't.

Therefore, the ten largest cocoa and chocolate companies within the WCF started CocoaAction, a new initiative with the aim of improving coordination and draw lessons from the measures taken. CocoaAction aims at aligning companies, as well as origin governments, and key stakeholders on regional priority issues in cocoa sustainability.[3] Coordination among CocoaAction members is reported to have increased considerably. However, stakeholders who are not part of CocoaAction state that they have not been included in these coordination efforts (Int. 5, 17, 28, 36[4]).

Additional efforts to improve coordination of stakeholders are taking place in cocoa consuming countries. The Netherlands, Germany and Switzerland have set up multi-stakeholder platforms to discuss good practices.

**Certified cocoa as a measure for impact**

Many companies try to improve the situation of farmers by cooperating with standard-setting organisations like Fairtrade, UTZ Certified and the Rainforest Alliance. These set up projects to train farmers and to improve their organisational structure. They usually work in close cooperation with implementing organizations like Solidaridad, Technoserve, GIZ or SwissContact.

Data published by the most important standard setting organisations (Organic, Fairtrade, UTZ and Rainforest Alliance/SAN) show that approximately 1.7 million MT of certified cocoa were produced on 2 million ha in 2014 (Lernoud et al. 2015: 125-127; UTZ 2016: 13). However, due to double and even triple certification of farmer groups, only about 50% to 66% of the certified cocoa was actually available. It is not transparent how much certified cocoa is physically available. Many farmers pay for the services of more than one standard-setting organisation without any guarantee that they will have any benefits (Fountain/Hütz-Adams 2015: 28; for more details see chapter 6.3).

Many of the certification projects started only after 2008, therefore long-term impact on farmers has not yet been determined. Most projects did start without determining baseline data which will make impact measurement difficult.

[3] Cf. to CocoaAction web page for more information (http://www.worldcocoafoundation.org/about-wcf/cocoaaction/).

[4] Interview partners have been anonymised by numbering the interviews. See Annex III for a list of interviewees.

| **Certified cocoa production/sold** | 2009 produced | 2011 produced | 2013 produced | 2013 sold certified | 2014 produced | 2014 sold certified |
|---|---|---|---|---|---|---|
| UTZ Certified | 5,396 | 214,172 | 691,490 | 297,341 | 879,771 | 390,416 |
| Rainforest Alliance | 13,300 | 98,417 | 571,695 | 278,870 | 575,000 | 238,000 |
| Fairtrade | 106,000 | 124,000 | 176,400 | 60,400 | 218,000 | 70,600 |
| **Total certified/sold** | **124,696** | **436,589** | **1,439,585** | **636,611** | **1,672,771** | **699,016** |

**Certified Cocoa by standards in tonnes (Hütz-Adams/Fountain 2012, Fountain/Hütz-Adams 2015, authors' own research)**

Nevertheless, the amount of certified cocoa and the number of farmers reached by certification schemes is often used as a reference for progress made. Although a vague approximation, as long as many companies do not let their own sustainability projects be evaluated by third party verification, it might be the only reference for progress in the sector.

### Low adoption rate of farmer trainings

In 2014, industry sources estimated that at most 650,000 farmers, about 12% of farmers world-wide, were reached by any of the projects. This figure may include a lot of double counting as some farmers are involved in different projects. Furthermore, activities have so far often concentrated on farmers who are already organised in groups and therefore easier and less costly to reach. To reach unorganised farmers and especially those living in remote areas will be a great challenge and much more cost-intensive (Fountain/Hütz-Adams 2015: 27). Another problem is that many of the existing farmer organisations do not function in a transparent and effective way. In some countries they are often under the control of cocoa traders. Even where they have set up functioning structures they usually don't have the necessary means to support their members and to build up umbrella organisations which could provide a powerful structure to influence national cocoa strategies.

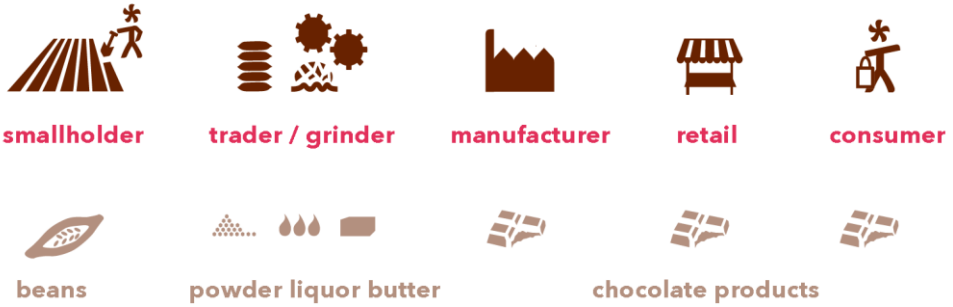
Additionally, even farmers who participated in trainings are often not able to implement what they have learned due to a lack of resources, the unavailability of inputs or sharecropping systems in which the people working on the farm are not allowed to change production patterns without asking the land owner (Int. 25, 83, 84, 86, 90). Nicko Debenham, VP Global Cocoa Sustainability of Barry Callebaut, a major grinder of cocoa, summarised these experiences at the Third World Cocoa Conference in 2016: "*There's been a lot of effort put into farmer training on agronomy, but [adoption rates are] anywhere between 10-20%. So historically you could say we have all been wasting a lot of money on farmer training*" (quoted in: Nieburg 2016).

# 4 FROM BEAN TO BAR: ASSESSING THE VALUE CHAIN, PRICES AND POWER RELATIONS

## 4.1 The cocoa value chain

Simply speaking, the value chain of cocoa (see Figure 1) starts with (mainly small-scale) farmers who run their plantations, harvest cocoa pods and carry out the first processing steps, fermentation and drying, of the beans[5]. They sell the cocoa directly or via cooperatives and/or traders to exporters or to the local industry. The traders sell the beans to grinders, which often also produce industrial chocolate and other downstream products. Most of the cocoa is used by specialized companies to produce chocolates. The last steps of the value chain are retailers who sell chocolate bars and other products to consumers. Beside the stakeholders which are directly involved in the growing, processing and selling of cocoa, a huge number of further actors participate in the value chain. This includes producers of input, pesticides, fertilizers, machinery and packaging material, as well as research institutions, growers of cocoa plants, providers of transport and storage facilities and financial institutions.

**Fig. 1: Direct stakeholders in the value chain of cocoa**




**Source: Fountain/Hütz-Adams 2015: 2**

Relations within the value chain of cocoa changed during the last decades as economies of scale became more and more important to reduce costs. At many levels in the cocoa chain, market concentration increased, both vertically (between different segments) as well as horizontally (within the same 'link' of the chain).

**Step 1: Cocoa producer**

The cocoa value chain starts with more than 5 million small-scale producers who grow approximately 95% of the world harvest of cocoa (Anga 2016: 4). According to the latest available figures, only roughly 20% of all farmers are organised in groups or cooperatives. Especially in West and Central Africa, efforts are made by governments, NGOs and companies to support farmers to form groups and cooperatives. Investments in large-scale cocoa plantations increased mostly in Latin America in recent years, but are forecasted to have only a small market share for the next decade.

**Step 2: Trade with cocoa**

During the last two decades many cocoa traders were squeezed out of the market. They had to fight with high operating costs which big transnational companies were able to manage more easily (Gilbert 2009: 301; Gayi/Tsowou 2015: 14). Some of them just gave up while others diversified into grinding and into the production of industrial chocolate. A more recent development is that grinders purchase more and more of the needed cocoa via subsidiaries or directly in producing areas which puts even more pressure on traditional traders (Fold/Neilson 2016: 201-202).

[5] See Annex I for a detailed description of the processes of concentration in the cocoa and chocolate markets.

### Step 3: Grinding and production of pre-products

Grinding and chocolate production nowadays mainly take place in large and capital-intensive factories which ideally run at maximum capacity 24 hours a day. Due to the high investments, a small number of big companies increased their market share during the last two decades considerably. The three largest companies, Barry Callebaut, Cargill and Olam, own approximately 65% of the global grinding capacities (see table 3). The number of smaller companies active in this sector has decreased drastically over the last years. The only relevant company still producing in Germany is Fuchs & Hofmann (Krüger-Group).

What is more, Barry Callebaut and Cargill control approximately 70-80% of the world's couverture production (Fountain/Hütz-Adams 2015: 6-7).

**Table 3: Grinding capacities**

| Cocoa processor | Grinding capacity in 1,000 MT/a | % of forecasted processing of cocoa, 2015 |
|---|---|---|
| Barry Callebaut | 1,200 | 28.48 |
| Cargill | 800 | 18.98 |
| Olam International | 730 | 17.32 |
| Blommer Chocolate Company | 290 | 6.88 |
| Guan Chong | 200 | 4.75 |
| JB Foods | 150 | 3.56 |
| BT Cocoa | 120 | 2.85 |
| Ecom Agroindustrial Corp. | 110 | 2.61 |
| **Total** | **3,600** | **85.43** |

**Source: Hawkins/Chen 2016b: 9**

### Step 4: Chocolate production

Very few chocolate producers nowadays work from the bean to the bar while most concentrate on the production of the final product and marketing. Within the chocolate sector some companies grew significantly by expanding their range of products.

**Table 4: Sales values of the largest confectionery companies**

| Company | Net sales in million USD, 2015 |
|---|---|
| Mars Inc (USA) | 18,400 |
| Mondelēz International (USA) | 16,691 |
| Nestlé SA (Switzerland) | 11,041 |
| Ferrero Group (Luxembourg / Italy) | 9,757 |
| Meiji Co Ltd (Japan) | 8,461* |
| Hershey Co (USA) | 7,422 |
| Chocoladenfabriken Lindt & Sprüngli AG (Switzerland) | 4,171 |
| Arcor (Argentina) | 3,000 |
| Ezaki Glico Co Ltd (Japan) | 2,611* |
| Yildiz Holding (Turkey) | 2,144 |

*** This includes production of non-confectionery items; Source: ICCO 2016d, based on data of Candy Industry from Jan 2016**

Some combined this with the takeover of other companies. The market share of the six biggest chocolate companies is around 60% of the global turnover of chocolate products of approximately 120 billion USD in 2015 (ICCO 2016d; KPMG 2016: 2; Table 4).

Despite this concentration process there are still many small and mid-scale producers active on the German market. Some of these like Ritter Sport, Krüger or Storck are despite being a medium-sized business also global players.

**Step 5: Retailers in Germany**

In Germany, most chocolate products are sold via retailers. Within the retail sector massive concentration processes took place. In Germany, five companies (Rewe Group, Edeka, Schwarz Group, Aldi Süd, Aldi Nord) control more than 80% of the retail market. They sell chocolate brands produced by multinational chocolate producers and their company-owned brands. On the highly competitive German market, special offers of chocolate are often used to attract customers into a shop, therefore chocolate is compared to neighbouring countries exceptionally cheap. In neighbouring countries the concentration of the retail sector is similar but chocolate is still more expensive.

Besides these big retailers, many chocolate and other products made from cocoa are sold in small shops and kiosks, canteens, pubs, bakeries and restaurants. There is an established but small market with organic cocoa products. Additionally, even if during the last years the number of small speciality shops of chocolatiers expanded, this segment still has a very low market share.

## 4.2 Price setting in the cocoa sector

Besides price, other factors, such as weather patterns, pests and diseases, cost for land tenure, transportation and input influence the income of a farmer. Although these factors were acknowledged, many interviewees named the cocoa price as one of the main issues within the cocoa value chain.

Higher prices would be an important incentive to attract especially young people to stay in the cocoa sector. Barry Parkin, Head of Global Procurement at Mars and Chairman of the World Cocoa Foundation, stated at the World Cocoa Conference 2016 with regards to ways to improve farmers' income: "*that may certainly require further productivity, it may require higher farm gate prices and it may require alternative crops or larger land. All of those things will have to happen if we are going to solve this*" (quoted in Nieburg 2016). The difficulty in such a holistic approach will be to balance increasing productivity per hectare with shrinking harvested areas as an increased productivity could lead to an oversupply of cocoa and decreasing prices.

**Harvest and stocks set price trends**

Many interview partners from farmer organisations, governments and NGOs mentioned the powerlessness of farmers in the price setting mechanism. In view of cocoa farmers and of many governments officials of the cocoa producing countries prices are set on the international cocoa market and a non-transparent system by companies. They stressed that farmers have no negotiating power and that prices are determined by an anonymous market. Furthermore, they criticised that price setting has no direct relation to the cost structures of cocoa producers (see chapter 4).

Instead, prices show a strong connection to the amount harvested and to the stocks of cocoa in the storage facilities of trading companies. Between 1961 and 2001 there was a close connection between cocoa price and stock. "*On average, each percentage point increase in the stock ratio is associated with a price decline of 3 per cent. The time trend and the stock ratio together explain some 75 per cent of the variation in price over the entire period*" (ul Haque 2004: 5).

Prices for cocoa never stayed extraordinarily high for longer periods as farmers increased plantation areas in times of high prices. For decades, the main parameter for the cocoa price was therefore the availability of land and while cocoa demand grew steadily

productivity did not increase significantly. The higher supply could only be achieved by converting rainforest areas to cocoa plantations (Fold/Neilson 2016: 199-200). Due to diminishing primary forests and increasing political effort to stop further deforestation in West Africa the situation is changing which could have a potential influence on prices.

**Growing Influence of Speculation?**

From the perspective of cocoa traders and chocolate producers, trading at the stock exchange is a good way to hedge risks against future price developments as well as to provide liquidity for the market. Companies need counterparts who are willing to buy or sell cocoa beans with a forward position. Therefore, speculators play an important role to keep the business at the stock exchange going. Potentially, this can help stabilize prices. But speculators are not connected to the farmers and have no medium- and long-term interest in the amount of physically available cocoa. This could lead to a stabilisation of prices on a very low level and with devastating consequences for farmers.

For more than a decade - and intensified since the crisis in the financial markets in 2008 - some market observers are concerned that investors who have an interest in a higher price volatility entered the market (ICCO 2007; Verein der am Rohkakaohandel beteiligten Firmen 2009: 46; ICCO 2010a: xi).

The impact of increased cocoa volumes traded by companies with no physical interest in the market is disputed. The German association of companies involved in the trade of cocoa (Verein der am Rohkakaohandel beteiligten Firmen e.V.) estimates that in 2001 twelve times the cocoa harvest of this year was traded at the stock exchange. In 2013 and 2014, this number increased to 30 respectively 25 times the annual harvest. In the meantime, the amount of physical cocoa available for trade in the stock exchange halved as more and more companies trade cocoa directly between each other and do not use the stock exchange. The organisation thinks that speculators influence prices in an unpredictable manner which makes business for companies interested in physical beans even more difficult (Verein der am Rohkakaohandel beteiligten Firmen e.V. 2015: 49). The role of speculation needs more research to identify if more rules and regulations are required.

**Long production cycles represent high barriers**

Cocoa is a product with a relatively constantly growing demand. On the supply side, extraordinary market developments caused for example by weather patterns, diseases, or environmental or political impacts may significantly change the amount of cocoa harvested. In the long run, the situation seems to be quite stable. In the short run, however, price shocks are possible. Due to long production cycles and high investments into plantations farmers are not able to react as quickly as farmers who plant annual crops. They cannot adapt quickly and "punish" the market if prices are low.

The economist Christopher Gilbert, who has conducted research on the cocoa sector for decades, argues that the cocoa sector similar to other tree crops reacts differently to price shocks than other sectors: "*These planting decisions are conditioned on the price history at the time of the investment. Cocoa trees remain productive for around four decades and hence decisions taken many years ago influence current production and hence current prices. In statistical terms, cocoa prices exhibit long memory*" (Gilbert 2016: 307).

Farmers' dependence on cocoa demand makes their investments risky. This risk is amplified by the fact that an investment in cocoa is usually a decision on the main income source for the next 25 years (Gilbert 2016: 324). Therefore, different to other crops, supply has on the short-term a strong influence on the price, however, on the long run demand is more important. Weather shocks for example can lead to an increase of prices during a particular season but the market will find a new equilibrium soon afterwards. On the contrary, changes in demand can have a much longer lasting influence on the market (Gilbert 2016: 307; 313-317).

Knowing about these production and investment cycles, some of the interview partners criticised that the industry keeps talking about the danger of a future supply shortage. Nevertheless, the cocoa price is still so low that farmers cannot make a decent living out of cocoa or gain the necessary capital to invest in their farms (for details see chapter 4).

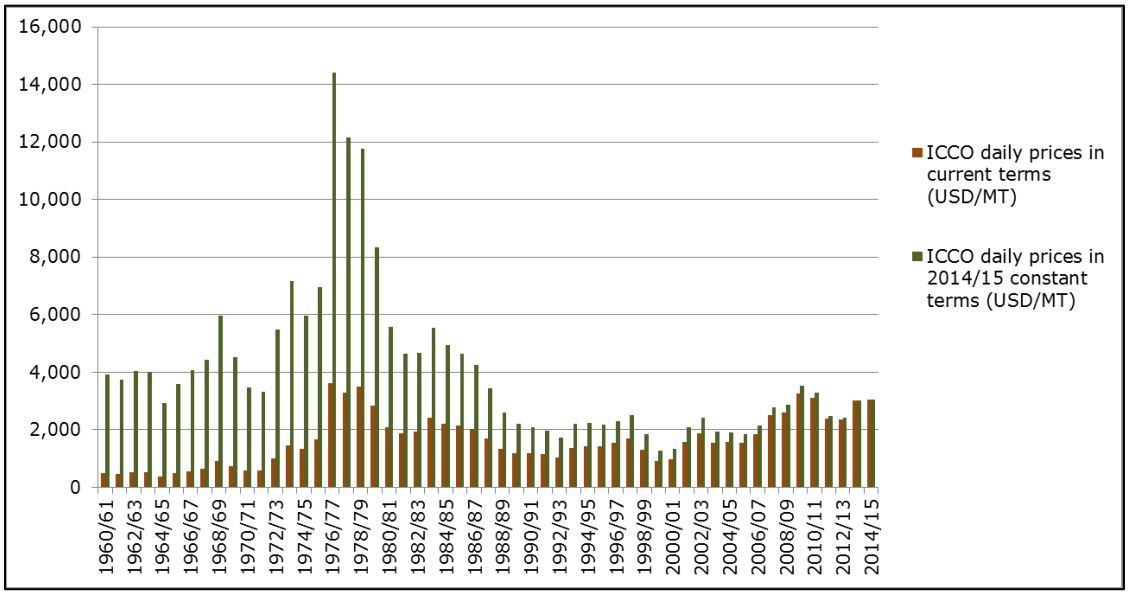
The network True Price calculated social and environmental costs of cocoa production. According to their calculation the production of cocoa in Côte d'Ivoire including all external factors costs approximately 7.10 EUR per kilo. This is nearly four times the present farm gate price. Costs could be reduced if for example ecological devastations were reduced. However, there seems to be a huge gap between price and costs which are burdened on farmers and the environment (Fobelets/de Groot 2016: 15).

**Declining Real Prices and High Volatility**

Many interview partners criticised the high volatility of cocoa prices (for details see chapter 4). Stakeholders who are closely involved with farmers stressed the great impact of this volatility on the livelihood of farmers. Stakeholders from the industry added that the high volatility makes it very difficult for all market participants to decide whether to invest into the value chain or not.

From the farmers' perspective it is indeed not easy to predict prices for the next months, let alone the next years. But there is a price trend. According to inflation-adjusted statistics by the ICCO, the cocoa price decreased significantly during the last decades. During the period from 1980/81 to 2014/5, the price dropped (in USD terms of 2014/15) from 5,585 USD/MT to 3,057 USD/MT with the lowest level in the 1999/2000 harvesting season at 1,274 USD/MT (ICCO 2016d, see figure 2). The consulting company LMC calculated that the inflation-adjusted average price for a MT of cocoa went down from 4,000 USD/MT in 1950 to less than 2,000 USD/MT in 2015 (2014 terms) with some short-term peaks of much higher or lower price levels in between (LMC 2016: 1). An analysis written for the United Nations Conference on Trade and Development (UNCTAD) came to a similar conclusion. During the period from 1961 to 2001 the author observed a "*statistically significant long-term declining trend in the price of 2 per cent per year*" (ul Haque 2004: 5).

**Fig. 2: ICCO daily prices 1960/61-2014/15**




**Source: ICCO 2016d**

From the perspective of farmers, price volatility can be high in some years. During the 2014/15 harvesting season the ICCO noted the highest daily price at a level of 3,449 USD/MT and the lowest level at 2,745 USD/MT. In the years before, the difference

between the highest and lowest price was often even larger with a peak in 2011 when prices fluctuated between 3,730 USD/MT and 2,099 USD/MT (ICCO 2016c: Table 9).

Some market stakeholders claim that Côte d'Ivoire and Ghana, as most important producer countries, occupy a very powerful position to influence prices due to the fact that they produce approximately 60% of the global cocoa supply (see table 1). A look back into history shows that even a strong market position as a producer country does not mean that the government has the power to influence prices on the world market. In 1930/31 and 1937, farmers in Ghana, the world largest producer then, went on strike but failed to achieve significantly higher prices (for details see chapter 4). In 1987, Côte d'Ivoire's government also tried to increase prices and stopped selling cocoa to grinding companies during the so-called "chocolate war" between July 1987 and October 1989. In the end, they lost the battle since buyers did not wait for Ivorian cocoa but looked for other sources. The Ivorian government was not able to influence the cocoa price and lost a lot of money which led to an implosion of the cocoa regulating system within Côte d'Ivoire. This experience shows that even with lower concentration in the sector, the world's biggest cocoa producer countries did not have enough power to influence the market price. One of the main challenges from the Ghanaian and Ivorian perspective is the difficulty to store raw beans in a tropical country (Bonjean/Brun 2016: 342; Vellema et al. 2016: 232).

## 4.3 Price relation of cocoa to chocolate

If efficiency in a sector increases through concentration processes, then all stakeholders could benefit. However, power relations are at play and determine who will be able to secure additional margins when costs are reduced.

It is debatable whether companies in increasingly concentrated cocoa markets abuse their market power. Some observers deny this (Gilbert 2009: 301), others see risks as the sector is structured as a "*bi-polar chocolate value chain*" (Barrientos 2016: 220). Farmers are a fragmented, non-organised group. The concentration process further down the value chain bears a high-risk for them (Gayi/ Tsowou 2015: 17-18; Fold/Neilson 2016: 201). Within all cocoa producing nations, farmer organisations are very weak and the governments of the major producing countries have no coordinated approach on how to support the farmers.

Therefore, it is highly disputed whether farmers benefit from cost savings through economies of scale within the cocoa value chain (Gayi/Tsowou 2015: 36). There is no evidence that the concentration process described in more detail in Annex I puts additional pressure on farm gate prices. However, what has become clear is that the long-term rise of chocolate prices did not lead to higher prices for cocoa producers. The share of cocoa producers in the value of finished cocoa products declined in the past (Barrientos 2016: 217-219).

Calculations from different countries show the development of the value share of cocoa in the price of a chocolate bar. On the French market, for example, the farmers' share of the world market price as well as the share of the farm gate price decreased significantly. The share of the world market price went down from "*23 per cent in the period 1960-70, to 10 per cent in the period 2000-11; most of the downfall took place in the 1980s. The Ivorian producers' share of the tablet price fell dramatically from approximately 12 per cent during the period 1960-70, to 5.6 per cent in the period 2000-11*" (Bonjean/Brun 2016: 356). A similar development is described in a study written by Michele Nardella, Senior Econometrician at the ICCO, on the development of the chocolate and confectionery prices compared with the cocoa price for the markets in the UK and the US between 2000 and 2015. Nardella comes to the conclusion that "*there is an asymmetric distribution of bargaining power in the global cocoa chain*" (Nardella 2015: 14, 18, 22).

In a paper written for UNCTAD the authors describe the power imbalances between the big players and farmers and advise to "*reinforce competition laws at national, regional and international level*" (Gayi/Tsowou 2015: viii).

The declining share of cocoa producers in the chocolate sector's global value addition is remarkable. Even if there is no proof that the ongoing concentration process in the cocoa and chocolate industry influences prices by illegal oligopsony practices, the power relations within the market lead to a declining inflation-adjusted cocoa price combined with declining incomes of farmers. For the farmers this is a bleak perspective.

# 5 COCOA SECTORS IN THE LEADING PRODUCER COUNTRIES

## 5.1 Introduction

Cocoa trees need a very specific climate and environment to grow and cocoa production is concentrated on a small belt near the equator (for details see chapter 3). All eight main producing cocoa countries (Brazil, Cameroon, Côte d'Ivoire, Ecuador, Ghana, Indonesia, Nigeria, Peru) have more or less extensive regions which are very suitable for the production of cocoa. The relevance of cocoa production for the economy, tax income for governments and the livelihood of farmers are very different (general country data see Table 6).

In the two main cocoa producing countries, Côte d'Ivoire and Ghana, cocoa has a central influence on the wellbeing of the nation. Of their respective populations of 23 and 26 million people approximately 1 million farmers in each of the countries manage cocoa plantations and an even much higher number of family members depends on the income from cocoa. In these two countries cocoa production is also a very important export product and the sector generates a significant part of the governments' tax income.

In Cameroon, the relevance of cocoa is lower and in Nigeria the income from cocoa production is nearly insignificant compared to the export earnings from oil, but very significant in certain regions. However, in both countries a huge number of farmers and their families depend on the income generated by the production of cocoa. In Brazil, Peru and Ecuador cocoa is not a central crop for the economy, but it has high importance in some regions. The same is true for Indonesia.

**Similar challenges in the main producing countries**

While the economic and social situation might be very different in the eight leading cocoa producing countries many challenges are quite similar. A huge number of interview partners from producing countries complain about the strong fluctuations of the cocoa world market price. Many of them also share the opinion that prices are too low to reflect the true costs of producing cocoa and that farmers should have more influence on the price setting mechanisms on the national and global levels. Many farmers don't see cocoa as a lucrative business any more. As a consequence, young people are leaving the cocoa producing areas. Combined with low investments into plantations, this leads to ageing tree stocks and declining productivity (for details see the following chapters). Another important concern is the more and more unpredictable weather patterns which have a significant impact on the productivity and on the livelihoods of farmers.

During the past 10 years, cocoa production in the eight leading countries underwent different patterns. Even if figures are unreliable in some years as cocoa was smuggled especially between Ghana and Côte d'Ivoire with changing directions there is a tendency to be seen. Comparing the annual production in the ten years from 2005/06 harvesting season to the 2014/15 harvesting season, production in Ghana strongly fluctuated but did not increase significantly. Meanwhile, production in Côte d'Ivoire rose by 24% between 2005 and 2015. Cameroon and Brazil could increase their harvest by more than 30% and 40%, respectively. During the same period, Ecuador nearly doubled and Peru even more than doubled cocoa production. On the contrary, the volume of harvested cocoa decreased slightly in Nigeria and production nearly halved in Indonesia. The 24% increase of cocoa production in Côte d'Ivoire represents nearly 400,000 MT and due to the country's strong position on the market correlates with the overall increase of world cocoa production between 2005 and 2015. The harvest in Ghana influences the market also strongly (for details see table 5). As a result, even if Peru and Ecuador significantly increased production, it is still cocoa production in Côte d'Ivoire and Ghana which have by far the highest impact on cocoa supply.

The following chapters analyse country by country the respective cocoa sectors and identify intervention points and responsible stakeholders.

**Table 5: Data on the cocoa sectors of the leading producer countries**

| | Côte d'Ivoire | Ghana | Cameroon | Nigeria | Indonesia | Ecuador | Brazil | Peru | World Total |
|---|---|---|---|---|---|---|---|---|---|
| **Production in 1,000 MT[1]** | | | | | | | | | |
| **1990/1991** | 804 | 293 | 115 | 160 | 150 | 111 | 368 | 11 | 2,506 |
| **1995/1996** | 1,200 | 404 | 135 | 158 | 285 | 103 | 231 | 15 | 2,915 |
| **2000/2001** | 1,212 | 395 | 133 | 177 | 392 | 89 | 163 | 24 | 2,865 |
| **2005/2006** | 1,408 | 741 | 171 | 210 | 585 | 118 | 162 | 31 | 3,811 |
| **2010/2011** | 1,511 | 1025 | 229 | 240 | 440 | 161 | 200 | 54 | 4,309 |
| **2011/2012** | 1,486 | 879 | 207 | 245 | 440 | 198 | 220 | 61 | 4,095 |
| **2012/2013** | 1,449 | 836 | 225 | 238 | 410 | 192 | 185 | 70 | 3,943 |
| **2013/2014** | 1,746 | 897 | 211 | 248 | 375 | 234 | 228 | 80 | 4,372 |
| **2014/2015 (preliminary)** | 1,796 | 740 | 232 | 195 | 325 | 250 | 230 | 85 | 4,230 |
| **2015/2016 (estimates)** | **1,650** | **800** | **220** | **190** | **320** | **220** | **180** | **85** | **4,154** |
| **Exports of cocoa beans in 1,000 MT [2]** | | | | | | | | | |
| **2014/2015** | 1,234 | 586 | 205 | 113 | 44 | 235 | 0.7 | 54 | 2,807 |
| **Area harvested in 1,000 ha** | | | | | | | | | |
| **2015** | 2,730[4] | 1,890[4] | 850[4] | 1,270[4] | 1,270[4] | 450[5] | NS | 90[14] | NS |
| **Average yield in MT/ha** | | | | | | | | | |
| **2015** | 0.66[7] | 0.39[7] | 0.27[7] | 0.15[7] | 0.23[7] | 0.57[5] | NS | 0.65[14] | NS |
| **Number of farmers** | | | | | | | | | |
| **2015 in 1000** | 800-1,300[8] | 800[9] | 400-600[10] | 300[11] | 800-1,700[12] | 100[13] | NS | 45[14] | 5,000[15] |

**Sources**: [1]ICCO (2010b, 2012b, 2013, 2015, 2016c, 2016h): Table 4, [2] ICCO (2010b, 2012b, 2013, 2015, 2016c): Table 13, [3]FAOStat 2016, [4] Hawkins/Chen 2016a: 13, 17, 18, 19 [Figures are estimates based on data from FAOStat], [5] USDA 2015: Table 1, [6]USDA 2014: 2, [7]Hawkins/Chen 2016a: 3, 13, 17, 18, 19, 25, 26 [Average yield is calculated as production in MT per hectare of harvested area. Data on production is taken from ICCO; data on harvested area is taken from FAOStat or from own estimations. Due to unreliable data and especially between Côte d'Ivoire and Ghana widespread smuggling, data are not always reliable].

[8] Interviews, [9] Republic of Ghana 2008: XXIV, [10] Drum 2012: 1, Int. 41; [11] Aikpokpodion 2014: 2; [12] Int. 68, VECO Indonesia 2011: 6, Machmud 2014: 9. [13] UNCTAD 2015: 11, [14] Technoserve 2015: 7, [15] Anga 2016: 4

**Table 6: Socio-economic data on the leading producer countries**

| | Population in million (2015)[1] | Area in sq km[2] | GDP in billion USD (2015)[3] | Per capita income in USD (2015)[4] | GDP in PPP in billion USD (2015)[5] | Per capita income in PPP USD (2015)[6] | HDI (rank) (2015)[7] | Life expectancy in years (2013)[8] | Ease of doing business rank (2016)[9] |
|---|---|---|---|---|---|---|---|---|---|
| **Côte d'Ivoire** | 23.3 | 325,000 | 32 | 1,400 | 79 | 3,500 | 0.462 (172) | 50.7 | 142 |
| **Ghana** | 26.3 | 240,000 | 38 | 1,380 | 115 | 4,200 | 0.579 (140) | 61.1 | 114 |
| **Cameroon** | 23.7 | 475,000 | 29 | 1,250 | 73 | 3,123 | 0.512 (153) | 55.1 | 172 |
| **Nigeria** | 181.6 | 925,000 | 481 | 2,640 | 1,092 | 5,990 | 0.514 (152) | 52.5 | 169 |
| **Indonesia** | 256.0 | 1,900,000 | 862 | 3,350 | 2,842 | 11,030 | 0.684 (110) | 70.8 | 109 |
| **Ecuador** | 15.9 | 285,000 | 101 | 6,250 | 184 | 11,390 | 0.732 (88) | 76.5 | 117 |
| **Brazil** | 204.3 | 8,500,000 | 1,775 | 8,540 | 3,192 | 15,360 | 0.755 (75) | 73.9 | 116 |
| **Peru** | 30.4 | 1,300,000 | 192 | 6,120 | 389 | 12,400 | 0.734 (84) | 74.8 | 50 |
| **Germany** | 80.9 | 355,000 | 3,356 | 41,220 | 3,848 | 47,270 | 0.916 (6) | 80.7 | 15 |

**Sources:** [1]CIA 2015b, [2]CIA 2015a, [3]World Bank 2015b, [4]World Bank 2015c, [5]World Bank 2015e, [6]World Bank 2015d, [7]UNDP 2015, [8]UNDP 2016, [9]World Bank 2015a.

## 5.2 Côte d'Ivoire[6]

### 5.2.1 Relevance of the cocoa sector

Côte d'Ivoire is the world's largest producer and exporter of cocoa beans with a market share of approximately 41% (1,650 million MT in 2015/16). In 2015 cocoa contributed an estimated 15% to the country's GDP (own calculations). With a total value of 2,400 billion XOF (3.7 billion EUR) in 2014, cocoa contributed approximately 37% to Côte d'Ivoire's exports (IMF 2015g: 24).

Between 800,000 and 1.3 million farming households are involved in cocoa production and an estimated 8 million people live off the crop (Int. 1, 5, 12). The *Conseil du Café-Cacao* (Coffee and Cocoa Board; CCC) is currently planning a cocoa production census expected to be finalized by mid-2017 (Int. 21). Cocoa farms in Côte d'Ivoire have an average size between 1.5 and 5 ha (Abbott 2013: 266). It is estimated that about 20%-30% of farmers are organised in cooperatives. Overall between 2,500 and 3,100 cooperatives are reported to exist (Int. 5, 8, 21). However, a large share of these cooperatives are not functional and do not offer services to their members (Int. 8). There is no national representation of cocoa farmers.

Certification of cocoa plays a considerable role in Côte d'Ivoire. According to standard organisations' numbers, in 2014 more than 900,000 MT of cocoa produced was certified by Fairtrade, Organic, UTZ or Rainforest Alliance/SAN (Lernoud et al. 2015: 124-126; UTZ 2016: 25). This number is most likely to include a large share of double and triple-certified cocoa and therefore needs to be taken with utmost caution. Overall, approximately 300 cooperatives are certified by at least one standard, many of them by two or more (Int. 5).

### 5.2.2 Institutional framework

After 20 years of liberalisation, the Ivorian government reformed the cocoa sector in 2012 by establishing a national cocoa board, the CCC, responsible for the management, regulation, development and price stabilisation of cocoa. Furthermore, it introduced a forward sale mechanism. The price scale published by the CCC at the beginning of each harvesting season defines margins along the value chain based on forward sales. Finally, a reserve fund at the *Banque Centrale des États de l'Afrique de l'Ouest* (Central Bank of West African States; BCEAO) was set up to protect against major drops in world market prices.

The CCC's mission is to maintain Côte d'Ivoire's position as leading cocoa producer, improve cocoa quality, pay a guaranteed farm gate price, increase processing in-country to at least 50% by 2020 and improve overall living conditions for farmers (CCC 2015: 4). Due to the reforms, the amount of grade 1 and 2 cocoa received at the port has increased from 81% to 91% and humidity decreased from over 12% to 7.8% (CCC 2015: 6).

In 2012 and with the support from the GIZ Project PROFIAB, the CCC set up a *Plateforme de Partenariat Public-Privé* (Platform for Public-Private Partnership; PPPP) to coordinate initiatives as well as mobilise resources for the implementation of the national programme for sustainable development of the coffee and cocoa sectors (*Qualité, Quantité, Croissance*; Quality, Quantity, Growth; 2QC). The PPPP has approximately 75 members from the public and private sectors, including farmers and development partners. It has 7 working groups of which not all are equally active (Int. 10). The CCC estimates that the implementation of the 2QC programme will cost approximately 700 million EUR over ten years, i.e. 70 million EUR per year of which the CCC will cover one third and partners should cover two thirds (CCC Touré-Litsé 2014: 7). The CCC currently

[6] Please refer to Annex II for more detailed information on Côte d'Ivoire and the other seven countries, including the historical development of cocoa sector policies.

develops an Ivorian sustainability standard which is planned to include a range of criteria, including social and environmental standards (Int. 10, 14, 21).

Extension services are provided by the *Agence Nationale d'Appui au Développement Rural* (ANADER), which employs about 450 coffee and cocoa extension officers working in 48 different regions of the country. Anader was founded in 1993 as part of a World Bank project and came out of a merger of three existing extension providers. Government holds 40% in Anader and provides a basic operational budget. Anader's cocoa programme encompasses five pillars: good agricultural practices (GAP), reviving coffee growing, input provision to young farmers, support to cooperatives, and fight against swollen shoot. The *Centre National de Recherche Agricole* (national agricultural research centre; CNRA) is the main research body and provides cocoa seedlings. In general, distribution of free inputs is mostly done by the CCC itself is, however, considered to be largely insufficient. At the current rate it would take 40 years to renew all plantations (Int. 4, 17, 22).

### 5.2.3 Particularities of the Ivorian cocoa sector

Due to the 2012 cocoa sector reform in Côte d'Ivoire, world market price volatility does not influence farm gate prices as strongly as this was the case during a liberalised market. The farm gate price is fixed at a minimum of 60% of CIF price which translated for the 2015/16 season into 1,000 XOF/kg (1.52 EUR) of dried beans. Prices are calculated based on the CIF price realised during forward auctions. The CCC prepares a scale (*barème*) for each harvesting season defining margins for the different actors along the value chain (e.g. producers, cooperatives, exporters), including taxes and levies.

Ivorian cocoa is produced by a large number of smallholder farmers. Fermented and dried beans are sold to cooperatives or at farm gate to so-called *pisteurs* (intermediaries or middle men). Poor roads, especially in remote areas, are an advantage to these middle men since cooperatives often do not have the means to provide transport to their members. The guaranteed fixed price has led to a consolidation of middle men (Int. 16).

In Côte d'Ivoire 12 companies process cocoa beans (Int. 13). However, the market is dominated by a handful of foreign grinders. Installed grinding capacity has increased from 585,000 MT during 2012/13 to 706,000 MT during the 2013/14 season, corresponding to about 40% of national production. Nevertheless, only about a third of cocoa produced is processed in the country, leaving some capacity idle. Incentives for companies to process in Côte d'Ivoire come from reduced export taxes for processed products (*droit unique de sortie*, DUS) which were abolished during the recent reform (Int. 20), though, recently reintroduced (Reuters 2016a).

The deforestation rate in Côte d'Ivoire is one of the highest in sub-Saharan Africa. Between 1960 and 2010, Côte d'Ivoire's forest areas decreased from 16 million ha (almost 50% of the total area) to less than 2 million ha (less than 5% of the total areas) (Ministère des Eaux et Forêts 2015; EUREDD undated). During the last decade of political unrest deforestation rates even increased as many new cocoa plantations were created in protected areas. It is estimated that ten thousands of small-scale farmers, many of them immigrants from neighbouring countries (especially Burkina Faso), illegally cleared primary forest and planted cocoa trees (Bitty et al. 2015: 99-102). The government with its "*zero deforestation policy*" has plans to evict at least part of these farmers and restore protected areas. A recent effort has been reportedly undertaken in the Mont Peko national park where at least 28,000 illegal farmers are growing cocoa (Reuters 2016b). According to human rights organisations mass evictions of farmers were accompanied by human rights abuses by the authorities (HRW 2016).

A number of international development partners is present in Côte d'Ivoire's cocoa sector, such as the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the World Cocoa Foundation with support from Bill and Melinda Gates Foundation. However, engagement by private cocoa and chocolate companies outweighs development partners' involvement by far. Many projects are structured as public private partnerships whereby development partners or donors, private companies and/or standard setters

collaborate with international NGOs which are implementing programmes for the former. There is no overview of programmes, partners or committed funding publicly available. Coordination among the World Cocoa Foundation's CocoaAction members is reported to have increased considerably. However, stakeholders who are not part of CocoaAction state that they have not been included in these coordination efforts (Int. 5, 17).

### 5.2.4 Strengths and weaknesses

**Table 7: Strengths and weaknesses of the Ivorian cocoa sector**

| Strengths | Weaknesses |
|---|---|
| High importance of the cocoa sector for the country's economy and tax income | |
| Strong position on world market for standard cocoa with a market share of approximately 40% | |
| Clear responsibility for cocoa sector policy at CCC | Implementation of sector policy (extension and input provision) only by public agencies with limited capacity |
| Guaranteed minimum farm gate price | Farm gate price lower than in unregulated countries (nominal farm gate price is at level before reform) and price only one factor of a living income |
| | Defined margins for cooperatives and cooperative unions too low (not cost covering)<br>Dependence of (certified) cooperatives on exporters |
| | Low degree of organisation of farmers and no representation of farmers at national level (CCC or PPPP) which has been legitimized by the basis |
| Improved quality of cocoa due to quality control by regulatory authority | |
| Public extension service available | Extension not equipped to reach large numbers of farmers and reported to mostly reach easier-to-reach farmers |
| Provision of (cost-free) input by government | Input provision criticised as uncoordinated and largely insufficient |
| Large number of donor and company projects to enhance sustainability | Sub-optimal coordination of different efforts, experiences and learning |
| | Unavailability of new land for cocoa plantations; many plantations too small to live off |
| | Only parts of certified cocoa can be sold with a premium |
| | Insufficient availability of labour |
| | Generally, ageing farmers, ageing trees, low productivity and high risk due to climate change |

## 5.3 Ghana

### 5.3.1 Relevance of the cocoa sector

Ghana is the world's second largest cocoa producer. During the ongoing 2015/16 harvesting season the country produced approximately 800,000 MT of cocoa, which is 20% of the total world harvest (ICCO 2016c: Table 4). In 2014, cocoa was the third largest export product with a share of 20% (2.6 billion USD) in total exports (13.2 billion USD) (IMF 2016b: 31). Cocoa was and is a major contributor to the tax income of the government. There are no consistent data available, but there are approximately 800,000 cocoa farmers in Ghana. Cocoa is grown on approximately 1.9 million ha. Most cocoa farmers are smallholders who harvest cocoa on 2-3 ha with a yield of on average 400 kg/ha (Republic of Ghana 2008: XXIV; Hainmueller/Hiscox/Tampe 2011: 14, 20; Hawkins/Chen 2016a: 17). Including families of farmers, employees of trading companies and input services, the cocoa sector provides income for millions of people.

### 5.3.2 Institutional framework

The central institution in the Ghanaian cocoa sector is the Ghana Cocoa Board (COCOBOD) which was founded in 1947. During its history of nearly 70 years, it underwent several reform processes. Presently, the COCOBOD is under the auspices of the Ministry of Finance, but formally independent. However, due to the high political relevance of the cocoa sector the government and the Parliament are important stakeholders in the sector.

Many stakeholders in Ghana think that the cocoa price on the world market fluctuates too strongly (Int. 26, 28, 29, 31, 32, 36) and that prices are generally too low (Int. 26, 27, 28, 30, 33, 36). The COCOBOD tries to cushion the price shocks by selling approximately 70% either directly to companies or via the stock exchange. This hedging gives it the means to guarantee a minimum price during the cocoa season independently of short-term price volatilities. Even when world market prices fluctuated, the COCOBOD was able to avoid a minimum price reduction year-on-year measured in absolute GHS due to the country's high inflation. However, because of this high inflation, farmers' real income stagnated or even declined in some years even if farm gate price was increased.

The minimum price is set by the Producer Price Review Committee (PPRC). Members are farmer representatives, the Ministry of Finance and the COCOBOD. The committee estimates the expected FOB price, deducts some of the costs of the COCOBOD and calculates the net FOB price. The COCOBOD tries to set a farm gate price at the level of 72% of the net FOB price (Quartey 2013: 14-18). It is disputed whether the farmers get these 72%. Figures converted into USD are misleading because of the high volatility of the GHS against the USD.

The trade with cocoa within Ghana is organised by private Licensed Buying Companies (LBC). The LBCs run combined approximately 3,000 buying stations throughout the country which usually offer nearby facilities for farmers to sell their cocoa. Buying companies work within a tight legal frame and with fixed margins as they have to pay a minimum price and they have to sell the cocoa to the COCOBOD subsidiary Cocoa Marketing Company (CMC). Only the CMC is allowed to export cocoa.

Cocoa farmers usually receive the minimum price fixed by the COCOBOD. Additionally, some traders support farmers with in-kind support or even credits to pre-finance input. Even if there are more licensed companies, a group of a dozen LBC's controls 98% of the cocoa trade (Camargo/Nhantumbo 2016: 60).

The COCOBOD has a number of subsidiaries. The already mentioned CMC is responsible for all cocoa exports. The Quality Control Company (QCC) tests the cocoa quality in the warehouses and the harbours. This guarantees that nearly all exported cocoa is of high quality and receives premiums on the world market. The Cocoa Research Institute of Ghana (CRIG) is responsible for the research about better cocoa varieties, pests and diseases and fertilisers. The CRIG cooperates closely with the Seed Production Division of COCOBOD (SPD). Another department is the Cocoa Health and Extension Division which provides technical and business skills training to cocoa producers, coordinates, for example mass spraying actions against some of the worst diseases in the cocoa sector, distribution of subsidized inputs and the rehabilitation of farms.

### 5.3.3 Particularities of the Ghanaian cocoa sector

Some stakeholders stress that the Ghanaian system supports many farmers while farmers in some neighbouring countries have even less or no access at all to support. However, the different COCOBOD programs show some challenges. Many farmers do not have access to free inputs or these are not available where and when needed, they come late or are diverted (Int. 26, 31, 32, 33, 34, 36). This is partly caused by side-selling of free agrochemicals and fertilizers. Some of the material is even smuggled to neighbouring countries like Togo, Côte d'Ivoire, and even Cameroon where inputs from Ghana became known as the trademark "Not for sale" due to imprints on the bags (Akoto 2015: 2; Int. 26, 29).

The COCOBOD has expanded the seedlings production dramatically during the past two years. According to its own figures, 50 million seedlings were grown in 2015. The target in 2016 is 60 million plants. There are complaints that many seedlings are not reaching farmers who live in remote areas as these have no access to cars or trucks to transport the seedlings to their farms. A further issue is the dry weather during the last two seasons. There are no figures available on how many seedlings survived. Meanwhile, the COCOBOD is not distributing approved pods of high yielding trees anymore from which farmers could grow their own seedlings (Int. 31).

The COCOBOD is well aware of these issues and suggested already in 2010 to phase out subsidies by 2015/16. However, Parliament and government did not want to disappoint voters and opposed changes (Int. 28, 36). Instead of reducing subsidies, inputs have even been given for free to farmers since mid-2014 (Int. 26, 29).

The extension services provided by the COCOBOD are often not operating effectively and there are not enough extension officers. Some stakeholders think that extension officers are well-qualified, but as they are used to distribute planting material, they do not have enough time to train farmers (Int. 36, 39). According to the COCOBOD it employed 480 extension officers in 2016, one per 1,600 farmers (Oppong 2016: 16).

Companies which grind cocoa in Ghana can buy cocoa beans from the light crop with a 20% discount. This leads to reduced farm gate prices and reduced margins at the COCOBOD. The capacity of the factories is at approximately 435,000 MT but in 2014 only about 50% of this was utilised. There are in total nine factories in Ghana who employ around 1,300 staff. Many of the factories operate in export free zones (EFZ) and enjoy massive tax exemptions or reductions (Mulangu/Miranda/Maiga 2015: 23). According to a recent study reduced price and the tax exemptions are not balanced by the low number of jobs created. The researchers argue that the COCOBOD's best way to reduce poverty is a higher farm gate price instead of discounting the cocoa price for local processors (Mulangu/Miranda/Maiga 2015: 23).

Insecure land ownership is strongly correlated to low productivity, the reluctance to invest and resistance against more sustainable agroforestry techniques (USAID 2015: 11). Many farmers do not own their farms but work as sharecroppers for the landowner who in exchange receives depending on the form of the contract half or even two thirds of the harvest. They cannot be sure whether they will have access to the land in the future. Sharecroppers often have very low income and there is evidence that child labour

is most widespread in areas where many cocoa farms are run by them (Kapoor 2016a: 35).

Unstable land rights favour illegal gold mining in certain regions. Miners often obtain the right to dig for gold from traditional chiefs. They destroy cocoa plantations and pollute water bodies not at least due to the use of mercury. Compensations for cocoa farmers whose land is destroyed are often either not paid at all or are insufficient (USAID 2015: 13; Int. 34, 36, 38).

In the past, non-planted forest trees were owned by the government. Ghana has already lost most of its forest coverage due to an annual deforestation rate of 2%. As there are not many trees left, logging companies approached local governments to obtain the right to cut timber. They entered cocoa plantations and cut down shadow trees. Farmers did not get compensation for destroyed cocoa tress. Only recently laws were changed. Now shade trees have to be registered at the Forestry Commission to be owned by the farmer, which is a very bureaucratic process. Some stakeholders think that the system should be changed even more radically and that trees generally should be owned by the farmers who own the land (Int. 36, 38).

Multinational cocoa and chocolate companies and LBC's run many projects in Ghana. Some focus on productivity, others on gender, youth or community development. There is not much coordination between the projects but the situation is improving. Some stakeholders think that CocoaAction plays an important role in improving the coordination of the sector (Int. 26, 27, 29, 30, 36, 37). Standard setting organisations also play an important role as they work with different companies and are able to spread good practices within the sector (Int. 32). Only very few companies invest in comprehensive impact assessments (Int. 28, 30, 31, 32, 33, 34).

A number of development organisations are active in Ghana, including the Department for International Development (DFID), the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), U.S. Agency for International Development (USAID), the Dutch Embassy, SECO, UNDP and the World Bank. They cooperate with COCOBOD and non-governmental organisations like the WCF, ACI, Solidaridad, Winrock and Care International, to name just a few. Additionally, many PPPs are set up (Int. 26, 27, 29, 30).

There is no formal coordination (Int. 28, 29, 31, 33, 34, 36, 37, 39) but the COCOBOD is trying to set up a system to improve the situation (Int. 26, 33, 36). On an informal level many stakeholders work together in different projects. Some few impact assessments are carried out, but hardly ever shared (Int. 26, 30, 33, 34, 39).

### 5.3.4 Strengths and weaknesses

**Table 8: Strengths and weaknesses of the Ghanaian cocoa sector**

| Strengths | Weaknesses |
|---|---|
| High importance of the cocoa sector for the countries' economy and tax income | Relatively low percentage of tax income invested in cocoa producing regions |
| Strong position on world market for standard cocoa with a market share of approximately 20% | Low value addition due to low processing rate and no chocolate production |
| Comprehensive governance by the experienced COCOBOD | Inefficiencies within the COCOBOD and its subsidiaries |
| Fixed minimum price reduces volatility of farm gate price on annual base | Relatively low farm gate price due to high cost for transport and input provision partly caused by shortcomings in the infrastructure; low price security for next cocoa season |

| | |
|---|---|
| Regulated LBCs and buying station system | No competition of cocoa prices paid to farmers as all buyers offer only the minimum price |
| Quality control system in place | |
| Mechanisms to support farmers with inputs and extension services in place | Structures insufficient to reach all farmers as financed on oscillating levies from export prices |
| Many projects run by COCOBOD, private sector and donors to support farmers | Low cooperation level due to lack of formal information exchange structures |
| | Insufficient availability of labour |
| | Low degree of organisation of farmers |
| | Only parts of certified cocoa can be sold with a premium |
| Excellent geographical conditions for cocoa production | Generally, ageing farmers, ageing trees, low productivity and high risk due to climate change |

## 5.4 Cameroon

### 5.4.1 Relevance of the cocoa sector

With a total production of about 220,000 MT and a total planting area of approximately 500,000 ha (Office of the Prime Minister 2014: 38), Cameroon is the fifths largest cocoa producer. It is estimated that the Southwestern and the Centre regions produce about 40% of Cameroon's cocoa each, whereas the East and South produce the remaining 20% (UNCTAD 2010: 5).

Approximately 400,000 to 600,000 families are involved in cocoa growing (Drum 2012: 1, Int. 41). 95% of these are smallholder farmers with an average plot size of 2.5 to 5 ha (Int. 41). Farmers produce around 300 to 400 kg of dried cocoa beans per ha (UNCTAD 2010: 5). Only an estimated 20-30% of farmers are members of producer organisations. Existing *groupements d'intérêt commun* (producer organisations; GIC) are reported to have been set up only as a means to receive government project funds.

Farmers sell mostly to so-called *cassiers* or *coxeurs* (intermediaries) which can either be independent or cooperate with larger buyers (Abbott 2013: 261). Over 80% of Cameroon's export market is dominated by three large multinational exporters, Telcar/Cargill, Olam (including ADM), and Sic Cacaos/Barry Callebaut. Only approximately 15% of cocoa beans are processed in Cameroon (Office of the Prime Minister 2014: 68). Out of these approximately 32,000 MT locally processed, 31 MT are processed by local artisans into cocoa powder and butter and some of it into cosmetic products. Although still embryonic, this market has tripled from 2013/14 (CICC 2015: 10).

Certification has only recently started in Cameroon (according to numbers from standards less than 10,000 MT in 2014), but is expected to increase the value of Cameroonian cocoa and is seen by a number of stakeholders as an important strategy for the future (Int. 44, 49).

### 5.4.2 Institutional framework

The cocoa sector in Cameroon was completely liberalised in the mid-1990s. The *Office National de Café et Cacao* (National Coffee and Cocoa Board; ONCC) coordinates and facilitates the sector, including control of cocoa bean quality for export, promoting

Cameroon origin cocoa, collecting statistics for commercialisation and representing the Cameroonian cocoa sector internationally (Int. 52, 54).

The different market actors are represented in the *Conseil Interprofessionnel du Cacao et du Café* (Inter-Professional Council for Cocoa and Coffee; CICC): farmers, buyers, transformers, exporters. The CICC is funded by levies on cocoa exports (10 XAF/kg). Its mission is to control quality at the farm gate. The CICC implements programmes to develop a new generation of farmers, develop strategies to adapt to climate change, support farmers in getting access to finance, promote good agricultural practices, etc. (Int. 53).

At the level of the government, several ministries are involved in the cocoa sector (ONCC 2014a): The Ministry of Agriculture and Rural Development (MINADER) is responsible for the production level and implements six different cocoa projects funded by the *Fonds de Développement des Filières Cacao et Café* (Fund for the Development *of the cocoa and coffee sectors; FODECC).* Coordination between individual projects is low (Int. 50). Under the MINADER, the *Société de Développement du Cacao* (Development Corporation of Cocoa; SODECAO) is responsible for seedlings production and originally also for the maintenance of rural roads and infrastructure. However, SODECAO is in need of reforms (Int. 46, 48, 52, 54).

The Ministry of Trade is responsible for commercialisation of cocoa and implements three cocoa projects. Whereas two projects focus on construction of warehouses and drying ovens, the third one focuses on price information. The SIF-project (*système d'information des filières cacao et café,* information system for the cocoa and coffee sectors)[7] informs farmers about daily cocoa prices by text message (Int. 47, 48, 49, 53). The Ministry of Trade fixes levies at 150 XAF/kg for exporting cocoa beans, and at 75 XAF/kg for exporting processed cocoa (Int. 49).

The FODECC under the Ministry of Finance funds projects at the different ministries. It is reported to have a budget of 50 billion XAF (approximately 76 million EUR) in 2016 coming from levies on cocoa. A coordination unit for the coffee and cocoa sectors exists at the level of the Office of the Prime Minister (Int. 47, 49). In 2014, it developed the *Plan de relance et de développement des filières cacao et café du Cameroun-Horizon 2020* (Coffee and Cocoa Recovery Plan-Horizon 2020). The objective in terms of cocoa production quantity is set at 600,000 MT by 2020 (Office of the Prime Minister 2014: 44). The recovery plan suggests a series of actions to revive research, production, processing and commercialisation of cocoa (Office of the Prime Minister 2014: 23-24, Int. 49). The plan also foresees for Cameroon to return to a stabilised system with a guaranteed minimum price, which has not been equally well received by all stakeholders. It was agreed that a study be undertaken to learn from different stabilisation efforts in other countries (Int. 49, 53).

### 5.4.3 Particularities of the Cameroonian cocoa sector

Cameroon's cocoa beans are different from other West African beans. They have a darker, more reddish colour and a specific flavour which tends to be preferred by European cocoa processing companies (UNCTAD 2001: 13). However, overall quality of Cameroonian beans is judged as low mainly due to difficult climate conditions (high rainfall) and bad post-harvest practices (defective drying ovens) (Agritrade 2013, Int. 53).

Cameroon's cocoa sector is completely liberalised which means that world market prices influence farm gate prices directly. Due to its inferior quality, Cameroonian cocoa is traded at a discount of roughly 100 GBP per MT to Ghanaian beans at world markets (UNCTAD 2010: 9). Producer price as percentage of ICCO daily price has consistently

[7] Cf. http://sifcameroun.org/index.php/fr/presentation-du-projet-sif.

been above 60% for farmers in Cameroon and even above 80% during the 2009 to 2011 seasons.

Some producer organisations organise auctions at their headquarters during harvest season to which they invite major buyers (UNCTAD 2010: 16). However, the majority of unorganised farmers negotiate prices at the farm gate. The price depends on the bargaining power of the seller relative to the buyer, a subjective check of the cocoa's quality and the world market price. In reality, farmers are mostly price takers (Fule 2013: 11).

Relatively few development partners are active in Cameroon's cocoa sector. The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) is active with two projects, the Sustainable Smallholder Agribusiness (SSAB) project and the Green Innovation Centres for the Agriculture and Food Sector of the BMZ's Special Initiative "ONEWORLD No hunger". Furthermore, the European Union supports the cocoa sector in Cameroon (Int. 53). On the level of projects by the private sector, Cameroon lacks behind other countries. The World Cocoa Foundation's CocoaAction initiative is not active in Cameroon yet.

### 5.4.4 Strengths and weaknesses

**Table 9: Strengths and weaknesses of the Cameroonian cocoa sector**

| Strengths | Weaknesses |
|---|---|
| Medium importance of the cocoa sector for the countries' economy and tax income | |
| Comparatively high farm gate price due to liberalised system | High volatility of farm gate price |
| Specific flavour and colour of beans which are used in many recipes | Uncertainty of stakeholders due to potentially changing cocoa policy |
| Existence of an "Interprofession" as interest group | Several ministries and public agencies involved (in sector policy and project implementation) and lack of functioning coordination mechanism |
| Incipient local processing of cocoa products and development of local and regional market | |
| | Low quality cocoa due to bad post-harvest practices which results in a discount for Cameroonian cocoa |
| | Insufficient agricultural extension services provided through projects by a variety of public agencies and ministries |
| | Insufficient inputs provided by a variety of public agencies and ministries |
| | Market dominated by a small number of buyers |
| | Low degree of organisation of farmers |
| | Few donor projects and very few sustainability involvements of companies (compared to other countries) |
| | No access to financial services for farmers |

| | |
|---|---|
| Cocoa is generally produced within agroforestry systems, which is more sustainable than in other countries. | Generally, ageing farmers, ageing trees, low productivity and high risk due to climate change |

## 5.5 Nigeria

### 5.5.1 Relevance of the cocoa sector

The Nigerian economy is dominated by oil exports; cocoa's share in export earnings is less than 2% and its share in GDP even lower. However, in some regions of the country, cocoa is an important crop and non-oil export commodity. Approximately 300,000 farmers work on 650,000 ha of cocoa plantations in Nigeria with average yield of less than 300 kg/ha. (Adesina 2013: 4; Aikpokpodion 2014: 2; Nzeka 2014: 23; USAID 2016: 1). Preliminary figures for the 2015/16 season predict a harvest of 190,000 MT (ICCO 2016c: Table 4).

The quality of Nigerian cocoa is low as there are no consistent quality controls. Traders usually don't pay premiums for better quality and thus there is no incentive to invest in better quality (Int. 58, 59, 60, 62, 63).

### 5.5.2 Institutional framework

Within the Federal Government of Nigeria, the Federal Ministry of Agriculture and Rural Development (FMARD) is responsible for the cocoa sector. The Ministry of Trade and Investment is in charge to control the quality of the exported cocoa. Another important stakeholder on the federal level is the Nigeria Incentive-Based-Risk-Sharing System for Agricultural Lending (NIRSAL), a division of the Central Bank. NIRSAL guarantees credits given to cocoa trading companies and farmer organisations. Through its technical assistance facility, NIRSAL supports implementation of projects run by donor organisations. Nigeria does not have a consistent and long-term cocoa sector policy or strategy as programs are often discontinued when the federal government changes after elections (Int. 62, 67).

While cocoa might not be very important for the overall Nigerian economy, it is a major breadwinner for a significant number of farmers in 3 of the 36 Nigerian states. Two thirds of the Nigerian cocoa is produced in Osun, Ondo and Cross River. Public support mechanisms differ from state to state.

While taxes on cocoa charged by the federal government are very low, the cocoa producing states charge their own taxes and levies. It is not transparent how subsidies and tax systems among the different state governments are coordinated. Some states have imposed taxes on cocoa which crosses the state borders and charge levies for the inspection of the quality of transported cocoa (Cadoni 2013: 17). Some cocoa might be taxed once in its state of origin and again once it is transported into another state in order to reach a harbour. This leads to smuggling of cocoa across state borders to avoid levies and taxes (Int. 58).

During the last decades, the Nigerian government started various programs to revitalize its agricultural sector including its cocoa production. For example, a fertilizer policy included a 25% subsidy on imported fertilizer. State governments could add further subsidized inputs. Due to mismanagement by government official and contractors only part of the support reached the farmers (Cadoni 2013: 14-15). Generally, many government projects were financed by temporary funds. Once these funds are spent, usually the project stops (Int. 60).

### 5.5.3 Particularities of the Nigerian cocoa sector

Until in 1986 the cocoa market was completely liberalised, the Nigerian cocoa sector was governed by a central Cocoa Board. Due to liberalisation, less agricultural inputs were

available and quality of cocoa beans declined due to missing control institutions and stronger fluctuations of prices (Cadoni 2013: 9; Nzeka 2014: 4).

Simultaneously, farm gate prices measured as a percentage of the world market price rose, e.g. they represented 80% of the world market price in spring 2016 (Int. 62). There seem to be regional differences in farm gate prices which are not always justified by developments of the world market price (Int. 58). Some interview partners complained that middle men misuse their market power and pay low farm gate prices (Int. 59, 61).

Many interview partners in Nigeria stated that cocoa prices are still too low to guarantee a living income for farmers (Int. 57, 58, 60, 61, 63, 64) and that it is a major problem that farmers don't have any influence on the price setting (Int. 58, 60, 63, 65). Many stakeholders think that a more stable price would be a major step ahead to achieve a more sustainable cocoa production (Int. 58, 59, 60, 64, 65).

Liberalisation has led to an increase in the number of cocoa traders. In 2011, about 123 cocoa exporting companies were registered at the Nigeria Export Promotion Council. Only three of these companies exported about 60% of the cocoa. In 2012, the Nigerian company Bolawole Enterprises (23%) was the biggest trader, followed by local subsidiaries of multinationals Olam (21%), Armajaro (18%)[8], Cargill (9%), Continaf (6%) and ADM (5%) (Cadoni 2013: 13-14; George 2012: 7).

In 2011, The Federal Ministry of Agriculture and Rural Development published the Cocoa Transformation Agenda which is part of a broader Agricultural Transformation Agenda. The government wanted to double cocoa productivity and export figures by 2015, boost local grinding and increase local chocolate consumption. The project was supported by an ongoing project for the whole Nigerian agricultural sector, called Growth Enhancement Scheme (GES). Part of this program is the so-called Electronic Wallet System which aims to register all farmers in an electronic databank and support them to get access to subsidized inputs (at a rate of 50%), credit and trainings (Adesina 2013: 2; Aikpokpodion 2014: 11).

To support a reform process in the cocoa sector, the government plans to set up the Cocoa Corporation of Nigeria (CCN). Given experiences from cocoa producing countries of the region and past experiences in Nigeria, the CCN is designed to be private sector-led and government enabled. According to the concept, the CCN's tasks will be to coordinate sharing of information, research and evaluation, technical assistance, and the implementation of the rehabilitation strategy. Additionally, the CCN will regulate the market by registering and licensing involved companies, as well as implementing quality control and grading of cocoa. To further improve the quality of cocoa the new agency will organise farmer trainings, support the availability of inputs, rehabilitation and replanting (Aikpokpodion 2014: 24) and cooperate with financial institutions.

The CCN will not have the responsibility to buy cocoa from the farmers, sell it on the world market or set prices. Many stakeholders agree that the private sector should have a majority rule within the governing board of the CCN. The government is prepared to provide funds to start the project. The CCN could then continue its work as a public-private partnership platform with a fee structure and perhaps with income from a levy on cocoa exports (Int. 60, 63).

The Cocoa Research Institute of Nigeria (CRIN) which developed high yielding and more disease resistant varieties of cocoa plants (Nzeka 2014: 3) is responsible for supporting farmers with better seedlings. However, for small-scale farmers they are often not available due to mismanagement and underfunding of research and extension services (Int. 60). Therefore, state governments and the Cocoa Association of Nigeria (CAN), an umbrella organisation of the Nigerian cocoa sector, also distribute seedlings and other

[8] Armajaro was taken over by Ecom in 2014.

inputs. However, even with their additional funds, it is not possible to reach a large number of farmers (Int. 57, 58, 61, 63, 64).

The government also plans to increase capacities to process cocoa. Despite the efforts, which included until 2012 tax refunds for companies who exported processed products, presently only approximately 10% of the local cocoa production is processed into cocoa mass, butter and powder. The 16 existing grinding facilities have a capacity of 220,000 MT but only a small share is utilized. Domestic consumption of chocolate is very low (Nzeka 2014: 5).

Nigerian cocoa grinders complain about high costs for cocoa beans combined with high production costs and a harsh depreciation of the Nigerian Naira (NGN) in 2015 and 2016. At the end of 2015, industry officials predicted that the few remaining factories could close soon (Reuters 2015a).

Some multinational chocolate and cocoa companies started their own projects to support Nigerian cocoa farmers or are engaged in public-private partnerships. Active partners are for example Ferrero, Armajaro/Ecom and Yara (Int. 61, 63, 64). Many projects focus on increasing productivity (Int. 65). Partners involved in the cocoa sector often bypass state bodies. Exporters go directly to farmers to train them as there is low involvement of the government (Int. 63, 64).

For companies, the lack of coordination and regulation in the Nigerian cocoa sector is an obstacle to invest in sustainability projects. As there are no reliable and lasting connections between farmers and traders the latter can never be sure that they really get the cocoa which was produced with the support of their investments (Int. 65).

During the last years some larger projects were started by donors and by public-private partnerships involving donors and companies. Stakeholders have the impression that there are much less projects compared to Côte d'Ivoire and Ghana and think that there is not much involvement of the international donor community in Nigeria (Int. 60, 63).

Even if they are engaged in projects, there is not much coordination and sharing of good practices between companies and their partners (Int. 58, 59, 61, 62, 63). There doesn't seem to be any systematic impact assessments of projects. The Nigerian government tried to set up a platform for all stakeholders to foster a coordinated approach but there are no regular meetings (Int. 57, 58, 59, 67).

During the last years some larger projects were started by donors and by public-private partnerships involving donors and companies. Some stakeholders have the impression that there is not much engagement (Int. 60, 63). However, other stakeholders stress that projects reached a significant share of the Nigerian cocoa farmers. This includes the World Cocoa Foundation (WCF) (Aikpokpodion 2014: 17). GIZ's Sustainable Smallholder Agribusiness in Western and Central Africa programme implements training on Good agricultural practice and Farmer Business Schools in Nigeria in collaboration with the Agricultural Development Programmes (ADP) in charge of extension at state level, NIRSAL and a cocoa company. The program –co-financed by WCF until 2013 and by EU since 2014 has already reached 65,000 cocoa Nigerian farmers since 2010 and targets 25,000 more farmers in 10 Nigerian states (Int. 67).

Besides, the U.S. Agency for International Development (USAID) and the Sustainable Trade Initiative (IDH) are active in Nigeria. They work with different partners like Solidaridad and the International Institute of Tropical Agriculture (IITA). On a formal level there is not much coordination between donor organisations (Int. 59, 62, 67).

### 5.5.4 Strengths and weaknesses

**Table 10: Strengths and weaknesses of the Nigerian cocoa sector**

| Strengths | Weaknesses |
|---|---|
| State level: High importance of cocoa in some cocoa producing states | Federal level: Low importance of the cocoa sector for the countries' economy and tax income |
| Plan and concept to set up a governance and support structure for the sector developed and waiting for implementation | No consistent governance by the federal government and/or state governments |
| | Weak quality control system |
| Some projects organised by government agencies, private sector and donors to support farmers | Low cooperation level due to lack of formal information exchange structures |
| | Not an important player on the cocoa market |
| | Structures insufficient to reach all farmers with technical assistance or inputs |
| | Low access to financial services, especially credit |
| | Low number of organised farmers |
| | Cocoa production for young people not attractive |
| Relatively high farm gate price | Highly volatile prices and low value addition due to low processing rate and no chocolate production |
| | Generally, ageing farmers, ageing trees, low productivity and high risk due to climate change |

## 5.6 Indonesia

### 5.6.1 Relevance of the cocoa sector

Indonesia is the largest cocoa producing country in Asia and the third largest in the world. According to data of the International Cocoa Organization (ICCO 2016b: Table 4), Indonesia produced 300,000 MT in 2015/16. Cocoa cultivation experienced a stark decline of 50% during the last decade. Figures on productivity and total harvested area for cocoa vary significantly. Hawkins/Chen (2016a) suggest that the total area planted is 1.27 million ha. Farmer plots range from 0.5 to 1.5 ha (Yasa 2007: 3). Productivity is estimated at 230 kg/ha on average, but ranging reportedly between 200 and 800 kg/ha (Hawkins/Chen 2016a: 26).

70% of cocoa production is concentrated on the islands of Sulawesi (VECO Indonesia 2011: 6). Cocoa is the main source of income for at least 800,000 farmers and their families. Figures on the number of farmers range from 800,000 to 1,700,000. Smallholders contribute 87% to national production, whereas state plantations contribute 8% and large private plantations 5%. State and private estates concentrate on the cultivation of fine or flavour cocoa (Yasa 2007: 1). However, only 1% of all Indonesian cocoa is classified as fine or flavour cocoa (Machmud 2014: 13).

### 5.6.2 Institutional framework

Government policies, measures and activities in Indonesia are rather limited. The federal government plans to harmonize the various ongoing cocoa projects through the Cocoa Sustainability Partnership (CSP). Established in 2006, the CSP is a multi-stakeholder initiative whose purpose is to increase communication, cooperation and coordination among its stakeholders. CSP is led by the private sector (Machmud 2014: 20). Among its members are cocoa trading and processing companies, confectionery companies, certification bodies and non-governmental organisations (NGOs). In 2007, the federal government established the Indonesian Cocoa Board (Dekaindo). It works together with the CSP on harmonizing approaches in the cocoa sector. It is associated to the Ministry of Economy.

In 2009, the federal government launched the National Cocoa Program (GERNAS). So far, 450 million USD were invested in boosting cocoa productivity. Through GERNAS, fertilizer, pesticides and high yielding cocoa varieties were distributed (Hafid/McKenzie 2012: 17; Indonesia Investments 2015: 1; Hawkins/Chen 2016a:27).

In 2010, the federal government imposed an export tariff of 15% on raw cocoa beans in order to encourage in-country processing and the export of processed cocoa. In January 2014, the tariff was lowered to 10%. Furthermore, a 5% import tariff on raw cocoa beans was imposed. In 2014 (and to be implemented in 2018), the government introduced a new regulation requiring all farmers to ferment their cocoa beans before selling them (Global Business Guide Indonesia 2014). In 2014, Dekaindo and the Indonesian Coffee and Cocoa Research Institute (ICCRI) announced that they are developing an Indonesian sustainability standard for cocoa (ISCocoa). This standard is supposed to improve farmers' access to credit, to implement training for farmers and to regulate the pricing and quality grading mechanisms (Abdoellah 2014a: 4f).

### 5.6.3 Particularities of the Indonesian cocoa sector

Although Indonesian farmers receive a large share of the world market price (75-85%), cocoa has been losing its attractiveness as a profitable crop. Currently, the farm gate price is at 38,000 IDR/kg or 2,880 USD/MT, and thus very high compared to other cocoa producing countries. Indonesian farmers realize this is a high price although they usually only sell unfermented cocoa. This lack of fermentation has been acknowledged by the federal government which in 2014 signed a regulation that all cocoa that is sold by farmers must be fermented. However, the implementation of the regulation was postponed until 2018. Once implemented, it could help to enhance the quality of Indonesian cocoa which is currently known to be very low.

The export tax of 10% introduced in 2010 led to the expansion of grinding capacities in Indonesia. Total grinding capacity is estimated to be around 900,000 MT. At the same time, a market concentration on the level of grinding and processing was to be witnessed. The number of companies active in this business decreased significantly. Only well-known multinational grinders and Indonesian BT Cocoa remained. Most of the cocoa that is processed in their factories needs to be imported as Indonesian production is too low and produces mostly low quality cocoa.

Numerous projects of the government, the private sector and development cooperation focus on strengthening the competitiveness and increasing the incomes of cocoa farmers. Most of them are multi-stakeholder projects involving confectionery companies, suppliers, NGOs, research and the district level government. They usually focus on increasing production and productivity. The scale of these projects is rather limited – it is estimated that only 10% of all cocoa farmers have been reached so far. The federal government is so far little involved in the projects. Its key program GERNAS has not been effective in terms of keeping farmers in cocoa production.

### 5.6.4 Strengths and weaknesses

**Table 11: Strengths and weaknesses of the Indonesian cocoa sector**

| Strengths | Weaknesses |
|---|---|
| | Low importance of the cocoa sector for the country's economy and tax income |
| Coordination of projects (by companies, donors and NGOs alike) is facilitated by a private platform implemented by Swisscontact | Weak national coordination platform CSP , government little integrated into existing platforms and little involved in ongoing projects in the cocoa sector |
| | |
| Grinders try to get enough supply for factories and pay high farm gate price | Large grinding capacities belong almost exclusively to multinational companies |
| | Cocoa often not properly fermented (low quality of Indonesian cocoa) |
| Farmers receive a large share of the world market price | Low degree of organisation of farmers |
| Production of other crops attractive drop-out strategy if cocoa does not earn enough income | |
| | Only parts of certified cocoa can be sold with a premium |
| | Generally, ageing farmers, ageing trees, low productivity and high risk due to climate change |

## 5.7 Ecuador

### 5.7.1 Relevance of the cocoa sector

Ecuador is the largest cocoa producer in Latin America and ranks fourth in world production. It was forecasted that Ecuador would reach 300,000 MT in 2016, however, according to recent ICCO data (ICCO 2016c: Table 4), production has gone down to 220,000 MT in 2015/16. This is attributed to adverse weather events (El Niño with excess rains). Over a longer period, annual production of cocoa beans in Ecuador has grown significantly due to new plantations, better crop management, an increasing share of the higher yielding CCN-51 variety (CEPAL undated: 2-3) as well as strong government promotion (USDA 2015: 2). Between 2007 and 2015 export value of cocoa and elaborates has increased from 239 million USD to 812 million USD. However, with petrol being dominant in the export structure, cocoa exports only account for 3-4% of total exports (Central Bank of Ecuador 2016a: Table 3.1.2).

Ecuador is the world leader for fine or flavour cocoa (FFC), producing around two thirds of the global supply (RTI 2013: 15). Cocoa production is dominated by smallholders (<5 ha). Around 100,000 individual farmers produce 80 - 90% of Ecuador's cocoa. The vast majority of these farmers are non-associated producers with little access to producer services such as technical assistance and training, or access to credit. They generally employ traditional production methods (Cepeda et al.: 2013: 44, UNCTAD 2015: 11, USDA 2015: 3). Average productivity has increased from 240 kg/ha in 2000 to 510 kg/ha in 2012 (Hawkins/Chen 2016: 34). However, productivity among smallholders remains very low, while some modern larger plantations are mechanized and reach up to 2 MT/ha

even with high quality cocoa. Private transnational players such as Mars and Nestlé are also involved in the development of these highly productive plantations aiming to reach 3 MT/ha in the nearer future (Hawkins/Chen 2016a:41).

### 5.7.2 Institutional framework

Recent policies and a new constitution in Ecuador, based on a concept deriving from the indigenous culture, the *sumak kawsay* (in Spanish *buen vivir*, good life), have strengthened the idea of sustainable development and food security and have led to a higher commitment towards strategies that promote the conservation of ecosystems and biodiversity, poverty reduction and social equity (UNCTAD 2015: 7). Due to its smallholder dominance the Ecuadorian government has defined cocoa as one of the strategic products for economic development with special regard to small-scale farmers, rural development and poverty reduction. The government has developed a cross sectoral programme with the objective to enhance production and exports in general as well as local production to achieve a higher share in the value chain. Key implementing entities of this programme are the Ministry of Agriculture, Livestock, Aquaculture and Fisheries (MAGAP) and the Ministry of Foreign Trade. In general, there is a high dynamic in the cocoa sector in Ecuador with strong government commitment.

As higher yielding bulk cocoa has gained ground, more recent programmes try to foster the production of quality cocoa and strengthen Ecuador's position on the world market. Under the guidance of the MAGAP, the National Project for the Reactivation of Fine Aroma Cocoa (2012) aims to improve profitability for all actors in the value chain, especially for small producers. This includes strategies to increase productivity of FFC (pruning, renovation of old plantations and establishing new plantations with new high quality varieties etc.) or to obtain better prices through improved quality, better traceability and post-harvest management (adequate fermentation, no mixing of varieties etc.). The project shall be implemented within 10 years with the objective to renovate 284,000 ha and newly establish 70,000 ha, replacing less profitable crops, old pastures or fallow land. Other aspects are to implement credit programs designed specifically to benefit small cocoa producers and to establish stable relationships between farmers and companies that produce semi-elaborated products and chocolates. Therefore, a competitive industry for premium semi-processed and chocolates was to be encouraged (USDA 2015: 7; CEPAL undated: 5f). International cooperation has also engaged in fostering producer cooperatives and supported direct linkages between farmers/associations and buyers, especially for the value chain of specialty cocoa, in order to achieve more beneficial value chain participation, improve the situation of cocoa farmers and their linkages to the international market.

Three national bodies support the cocoa sector: The Association of Producers of Fine and Aroma Cacao (APROCAFA), which is also associated with promoting the CCN-51 variety and with the advancement of the "High Tech Cacao Culture". The National Institute of Agricultural Research (INIAP) does scientific research and transfers knowledge and technology in agricultural production. Finally, the Association of National Cocoa Exporters (ANECACAO) analyses market trends and provides technical assistance in order to support the entire value chain (Hawkins/Chen 2016a:37).

### 5.7.3 Particularities of the Ecuadorian cocoa sector

Ecuador has a high share of FFC, which accounts for roughly 64% of the national cocoa production, although it generally has lower yields than the lower quality CCN-51 variety (USDA 2015: 3). The market for FFC is highly specialised with separate and shorter value chains and greater traceability (CORPEI 2014: 63). Moreover, there is a growing demand for dark, single origin and premium chocolate, which creates valuable conditions for involved farmers. However, mixing qualities and inadequate fermentation of the different varieties is a big problem. Due to this, a decreasing confidence in the quality of Ecuadorian cocoa has been recorded in recent years, which also influences prices (Int. 76, 78).

FFC is often produced by small-scale farmers. Most of them are highly dependent on the around 1,000 intermediaries, who often do not separate the different varieties. As many farmers have little knowledge about the value chains and marketing processes, they often do not get an adequate premium payment for the quality cocoa they produce (Cepeda et al. 2013: 55). Nevertheless, according to ICCO (2016f), they generally receive fairly high producer prices (more than 90% of daily ICCO prices). Where direct relations between farmer and manufacturer exist, such as with some foreign enterprises or smaller private initiatives for premium chocolate (Pacari, Kallari etc.), price premiums for farmers can be significant (up to 30-40%) (FAO/IICA 2008: 111, CORPEI 2014: 34). This is also due to the fact that within these trade relations, high quality cocoa is usually linked to other quality standards and certifications, both organic or fair trade.

### 5.7.4 Strengths and weaknesses

**Table 12: Strengths and weaknesses of the Ecuadorian cocoa sector**

| Strengths | Weaknesses |
|---|---|
| Medium importance of the cocoa sector for the country's economy and tax income | Lack of consensus on focusing production on FFC or CCN-51 cultivation |
| National project for the reactivation of the national production of FFC with strong government ownership | Farmers' need for technical assistance, other inputs and training is not adequately met |
| Main producer and exporter of fine or flavour cocoa | Limited access for farmers to financial resources |
| | Low degree of organisation of farmers |
| Separate value chains for FFC, partly direct relations between farmer and manufacturer, links to other quality standards (organic/fair trade) | Low capacities for appropriate post-harvest management, mixing of varieties |
| | Inefficient official quality control and traceability of cocoa |
| Private initiatives for premium chocolate and their value chains create valuable conditions for involved farmers | Foreign industry dominates the sector and establishes supply chains based on low prices |
| | Competitive disadvantages with regard to cost of labour, complex bureaucracy, difficult access to credit lines, etc. |
| | High logistics and distribution costs |
| | Generally, ageing farmers, ageing trees, low productivity and high risk due to climate change |

## 5.8 Brazil

### 5.8.1 Relevance of the cocoa sector

Cocoa cultivation in Brazil began in the seventeenth century and in the early 20th century Brazil was the largest producer in the world, with cocoa beans being the second largest export product of the country. After a dramatic setback in production due to the infestation of a fungus called Witches Broom, and due to the strong development of the economy in many other products and sectors, today the significance of cocoa production for the overall economy is very low even within the agricultural sector. According to ICCO

data, Brazil produced 230,000 MT of cocoa in 2014/15, which still makes it the sixth largest producer in the world. Cocoa contributes less than 1% to Brazil's GDP. However, in some regions of the states Bahia and Para cocoa is still a relevant crop.

For many years, production was on a decrease while local chocolate production grew. During the harvesting season 1997/98 Brazil turned from being a cocoa exporter to becoming a cocoa importer (Pekic 2015a). However, in some regions cocoa is still a relevant crop.

### 5.8.2 Institutional framework

The Ministry of Agriculture, Livestock and Supply (MAPA) is responsible for the management of public policies to stimulate agriculture, the development of agribusinesses and the regulation and standardization of services related to the sector. The federal government intervened in the sector through the creation of the Executive Committee for Planning Cocoa Farming (CEPLAC), an agency of the MAPA but with financial and administrative autonomy (Willumsen/Dutt 1991: 56). CEPLAC plays an important role in implementing government policy, and in promoting the competitiveness and sustainability of agriculture, agro-forestry and agro-industrial sectors for the development of cocoa-producing regions. The most important reference for smallholders in the cocoa sector is the Secretariat for Development of Livestock and Cooperatives (SDC). Its activities involve efforts to set up and strengthen cooperatives and stimulate sustainable farming practices.

Other important institutions with relevance for the cocoa sector are the Secretariat of Agricultural Protection (SDA) and the Secretariat of International Relations in the Agribusiness (SRI). While the SDA is responsible for implementing the state actions for prevention, control and eradication of pests and diseases, the SRI is responsible for preparing proposals for negotiations on sanitary and phytosanitary agreements with other countries.

In Bahia many small-scale farmers still grow cocoa in agroforestry systems, which are called Cabruca. In the Southeast of Bahia, this is the predominant system of cocoa cultivation (Flora Bonazzi/Hiroo 2014: 2). Cabruca was developed to become a trademark for organic cocoa and the government initiated a law to establish a regulatory framework to certify the social and environmental sustainability of Cabruca cocoa (Estival 2013: 91). Since 2015 cocoa growers which are members of the organic cocoa farmer organisation "Cooperativa dos Produtores Orgânicos do Sul da Bahia" are allowed to use the trademark. First customers are Swiss chocolate producers (Pekic 2015b).

Despite the efforts to increase production Bahia's share in the Brazilian cocoa production went down to 55% in 2015 (IBGE 2016: 38). The state government Pará was very successful in supporting farmers to increase cocoa production. Nowadays, the state produces 40% of cocoa production in Brazil. To support farmers, the government joined forces with companies like Cargill. While farmers in the state of Pará presently produce roughly 900 kg/ha, production in Bahia is still 300 kg per hectare (IBGE 2016: 38; Camargo/Nhantumbo 2016: 53; Mendes et al. 2016: 10).

### 5.8.3 Particularities of the Brazilian cocoa sector

Contrary to all other major cocoa producing nations Brazil exports nearly no unprocessed cocoa beans. In the harvesting season 2014/15 only 700 MT of beans left the country. Additionally, nearly 25,000 MT of cocoa butter, 23,500 MT of cocoa powder and cake, 7,000 MT liquor and 25,000 MT of chocolate and chocolate products were exported. In the same year the country imported 26,000 MT of chocolate (ICCO 2016c: Table 13, 15, 16, 17, 18, 23). Chocolate production increased significantly. Between 2006/7 and 2014/15 local consumption also rose from 129,000 MT to 200,000 MT and per capita consumption of cocoa products from 687 g to 1,017 g (ICCO 2016c: Table 37, 38).

In Brazil, there are small family cocoa farms as well as large plantations. The vast majority of producers sell their cocoa beans via intermediaries. Companies purchasing cocoa may be roughly characterized into large, medium-sized and small businesses. In

most cases large cocoa purchasing companies are branches of cocoa processors. They buy the cocoa beans directly from the major producers. They also establish business relationships for the indirect purchase of cocoa from the medium and small business buyers (Estival 2013: 187). Even if particularly small-scale cocoa farmers were under pressure, farm gate prices in Brazil during the last years were usually very close to 100% of ICCO daily prices (ICCO 2016f). However, smallholder farms are under threat. Due to a lack of capital, many small businesses had to sell their product to large landowners at very low prices. Labour costs in Brazil are 3.6 times higher than labour costs in African countries (Estival 2013: 83, 113).

Processing in Brazil is dominated by the five companies Cargill, Barry Callebaut, Delfi, Joannes and Indeca. The overall installed capacity is 250,000 tonnes of cocoa per year (Camargo/Nhantumbo 2016: 64). The cocoa processing plants produce cocoa mass, cocoa butter and cocoa powder.

Chocolate is produced by 57 companies. Some of the main actors are multinational like Nestlé, Mondelēz, Mars and Hershey's, others are local companies (Camargo/Nhantumbo 2016: 64). According to figures from 2010, Brazil's chocolate industry is characterized by a duopoly where Nestlé and Kraft control about 80% of the market and have achieved considerable penetration of distribution channels. The alternative strategy for other competitors is often directed toward regional or specific markets (Lafis 2012, Estival 2013: 53).

### 5.8.4 Strengths and weaknesses

**Table 13: Strengths and Weaknesses of the Brazilian cocoa sector**

| Strengths | Weaknesses |
|---|---|
| Lucrative business in two states | Low importance of the cocoa sector for the country's economy and tax income |
| Integrated agency CEPLAC responsible for research, extension and agricultural education | Split responsibilities between federal government and states |
| | |
| Integrated value chain within the country | Strong concentration of grinding and chocolate production |
| Local companies have interest in securing cocoa production to sustain a local supply of their raw material | |
| Relatively high farm gate price | High labour costs compared to West Africa |
| Ecological Cabruca system is supported by a regulatory environment | |
| | Low degree of organisation of farmers |

## 5.9 Peru

### 5.9.1 Relevance of the cocoa sector

After doubling its production since 2009/10, Peru today is the third largest cocoa producer in Latin America with 85,000 MT of cocoa in 2015/16 (ICCO 2016c: Table 4). 45,000 farmers work on plantations with an average size of 2 ha and a planted area of 90,000 ha. During the last years the average yield per hectare rose significantly to approximately 650 kg. Approximately 20% of farmers are members of producer organisations or cooperatives. Due to the small size of the plantations most of the

farmers spend about half of the working time on their cocoa plantations and produce additionally other crops or have off-farm income (Technoserve 2015: 7).

Although Peru contributes only 2% to the world cocoa production (ICCO 2016c: Table 4), the country's share in the world market is growing. Between 2006/07 and 2014/15, cocoa exports in MT increased tenfold, reaching 53,900 MT in 2014/15 (ICCO 2016c: Table 13).

In the 1980s, cocoa trees were partly substituted by coca plants for cocaine production. In addition to that, in the 1990s, cocoa plantations suffered from various pests and diseases. Traditionally, Peru has a very high share of fine or flavour cocoa (FFC), however, the spreading of lower quality varieties, namely CCN-51, leads to the erosion of the native cocoa varieties and hybrids (Eskes 2011: 102). The ICCO classifies 75% of Peru's cocoa production as FFC.

### 5.9.2 Institutional framework

The Government of Peru has fostered the growth of agricultural exports with a series of incentives, including zero export taxes and various tax exemptions or reductions for companies operating in parts of the Peruvian Amazon (CFT et al. 2011: 102). The measures focus on improving farmers' income from crops like cocoa and rendering cocoa attractive and profitable in comparison to coca. Since 1985, promoting cocoa cultivation is one of the mainstays of the alternative development programme of the Peruvian government. Through its counter narcotics commission (DEVIDA), the government has implemented a cocoa programme to sponsor activities aimed at convincing coca producers to switch to cocoa production (Int. 79-82).

The *Alianza Cacao Peru* (Peruvian Cocoa Alliance; ACP) includes cocoa traders and international investors and provides technical assistance to producers. ACP's main objective is to transfer technology to 15,000 producers and establish 28,000 new hectares of cocoa plantations as well as to provide improved seeds. In order to encourage cocoa producers to participate in their programmes, ACP awards farmers who produce the best quality cocoa with the prize called *Cacao de Oro* (Golden Cocoa) (GAIN 2014: 5).

### 5.9.3 Particularities of the Peruvian cocoa sector

Figures about the level of organisation in the cocoa sector vary over time and are generally low (Int. 79, 81). While in 2009 30% of the farming families were reported to be associated in producer organisations that organize the marketing and commercialisation of cocoa, more recent figures suggest that it is only 20% of farming families (IICA 2009: 13, Technoserve 2015: 7). Many of these producer organisations are attached to the Peruvian Association of Cocoa Producers (APPCACAO). In 2007, this organisation brought together 17 of the top 22 producer organisations that collectively gathered around 9,500 cocoa growing families (APPCACAO undated).

The prices for cocoa have increased significantly during the past 5 years because of the growing recognition for the quality of Peruvian cocoa. According to the ACP, in 2014, a ton of the Peruvian FFC was sold at more than 3,000 USD/MT. Peruvians are trying to become exporters of high quality cocoa to supply international chocolate manufacturers, who are willing to pay more for a better product. Total cocoa exports in 2014 earned 152 million USD which is 3% of total agricultural exports (Banco Mundial 2016: 5).

A broad network of small local collectors operates for large agribusinesses which process cocoa beans for the national and international markets. A criticism of the traditional collection system is that it does not differentiate the grain quality (moisture content, degree of fermentation, etc.), as it is intended only for producing lower quality butter to produce chocolate for the domestic market. Upon receiving the same price for all its production, farmers have no incentive to improve the quality of their products. Moreover, they mix varieties, which has a negative impact on quality levels and further reduces the income of farmers (Int. 79, Technoserve 2015: 16). On the other hand, producer organisations that address the problems and disadvantages of the traditional collection

system have decided to participate in the market by exploring direct ways of marketing cocoa and derivatives, mainly for the international market. This often involves organic or fair trade certification.

### 5.9.4 Strengths and weaknesses

**Table 14: Strengths and weaknesses of the Peruvian cocoa sector**

| Strengths | Weaknesses |
|---|---|
| High importance of the cocoa sector for the countries' fight against coca production | |
| "Andean Preferential Tariff" promotes the export of cocoa to the United States | Uncertainty of future public policies |
| Tax exemptions/reductions for companies who invest in Peruvian Amazon | Limited exchange between public, private and non-governmental institutions |
| Specific training programs to attract young people to become cocoa farmers | Potential risk through the competition with the illegal coca sector |
| Land and property rights fairly well regulated | Bad infrastructure in some cocoa producing regions increase costs |
| Cocoa production in agroforestry systems could protect forests | Only parts of certified cocoa can be sold with a premium |
| | High volatility of cocoa prices |
| | Intermediaries put pressure on farm gate prices and mix different qualities |
| | Low degree of organisation of farmers |
| | Limited access of farmers to financial services |
| Adequate natural conditions for agroforestry systems and increasing interest in biodiversity conservation | Encroachment into forest areas and artisanal mining limit/hamper agroforestry systems |

# 6 THE CRITICAL FACTORS FOR THE COCOA SECTORS AND RECOMMENDATIONS

The analysis in the last chapter presented the development and economic and social importance of the cocoa sectors in the eight leading producing countries. The extent to which the national sectors are regulated varies and is rooted in the history of cocoa production within the respective country and its importance for the national economies. These developments are embedded in a setting in which an increasing market concentration in trading and processing can be observed, while the majority of smallholder farmers is not organised at the required levels.

Splitting up factors into those that are beneficial for and those that impede a sustainable cocoa sector is not always clear-cut. Certain policies and interventions may improve farmers' livelihoods if well implemented, or may be a burden to farmers if not executed well. Additionally, depending on the overall development of the national economies, farmers in one region may need specific support measures which are not needed in other areas. The present chapter describes the most important parameters and factors which can have a beneficial or impeding influence on the competitiveness of the cocoa sector and thus on the livelihoods of farmers.

For each identified critical factor, recommendations for a cocoa sector that puts more emphasis on the improvement of farmers' livelihoods have been developed. However, based on the differences in the relevance of the cocoa sector for the producing countries' overall economies, the impact on export earnings and taxes and the different histories of the sectors, not all recommendations apply to all countries.

The critical factors and the recommendations are structured from a macro or policy perspective towards the micro level perspective. For each recommendation, ideas for how the different actors in the value chain could get involved are presented. The different recommendations for the sector are interconnected with each other since no recommendation alone will be able to make a significant difference. The cocoa sector needs a holistic approach to improve the livelihoods of farmers and to stay competitive against other crops.

## 6.1 Global market and international price setting

**Potential market power of producing countries**

The eight leading producer countries together grow nearly 90% of the global cocoa supply. Ghana and Côte d'Ivoire alone provide 60%. Their large share in global production provides these countries with a high potential to coordinate activities and to exercise market power.

Most countries' policy includes plans to increase cocoa production substantially. This could lead to an oversupply on the cocoa market and would subsequently have a very negative influence on prices. Increasing productivity and thus production if not managed carefully bears a risk of decreasing prices for farmers.

An organisation which tried to set up such a common agenda is the Alliance of Cocoa Producing Countries (COPAL) which was founded in 1962. Presently, the organization has 10 members, Brazil, Cameroon, Côte d'Ivoire, Dominican Republic, Gabon, Ghana, Malaysia, Nigeria, Sao Tome and Principe and Togo. But COPAL never succeeded in aligning the efforts of the main cocoa producing countries in an efficient way. Therefore, according to many interview partners, there is neither such an approach nor an institution that could facilitate a common agenda of cocoa producing countries.

Many interview partners do not expect the development of a common sustainability approach in the near future as producing countries still struggle to set up and implement strategies within their national sectors.

**Recommendation: Align broad policy goals especially concerning production**

- Investments in productivity leading to increasing production need to be carefully managed and balanced by a diversification strategy for farmers.
- To avoid an oversupply of cocoa and decreasing prices the leading cocoa producing countries should create a platform to exchange their respective plans to increase production.
- ECOWAS could host such a platform on a regional level in West Africa and invite Cameroon to join.

**International price setting**

The price for raw cocoa beans is determined by supply and demand. Price formation takes place at the stock exchanges in New York and London. Price setting on the cocoa market beyond the farm gate is relatively transparent as all actors (theoretically) have access to the stock exchanges and the available data. Additionally, the International Cocoa Organisation (ICCO) publishes prices on a daily basis. A major challenge is the cocoa price's volatility. This volatility is mainly caused by unstable weather patterns that determine supply and that ultimately influence the supply-demand equilibrium. The role of speculation in price determination is disputed.

A functioning market for cocoa and chocolate products is a precondition for a sustainable business. The ongoing concentration process in the market on the exporter, grinder, chocolate producer and retailer sides might undermine attempts to improve the situation of farmers and the competitiveness of cocoa producing nations.

Contrary to traders and chocolate manufacturers who have access to hedging mechanisms, farmers face major challenges due to price volatility as they don't have access to protection mechanisms against the fluctuations of the global cocoa price. Generally, they do not see their production costs reflected in the process of price setting and criticise that they have no influence on prices. Cocoa producing countries find fault with the price setting mechanism as well, as they feel that their power in price determination on the world market is very weak. Even countries with a fixed minimum price like Ghana and Côte d'Ivoire can only reflect in their price setting the development of the international markets, but not influence these.

**Recommendation: Carefully observe impact of market concentration and speculation**

- Due to the specific power relations within the value chain, Monopolies Commissions should carefully monitor the consequences of market concentration on world market prices for cocoa.
- Governments should stay in close contact with the Monopolies Commissions and, where necessary, support their market interventions.
- Governments of cocoa producing countries should together with governments of consuming countries and companies interested in the physical use of cocoa closely watch the developments at the stock exchange and the influence of speculation on price volatility.

## 6.2 Policy framework and sector policies

**Create a stable policy framework**

The leading cocoa producing countries have different policies for the cocoa sector. In Côte d'Ivoire the sector was reformed in 2012 and a new sector strategy developed and implemented. Ghana's last strategy ended in 2009 and the COCOBOD as a central organisation continued its role as regulatory body for the national cocoa economy. The approaches of Ghana and Côte d'Ivoire include policies on inputs, infrastructure, price stabilisation and competition on the market. Many interview partners mentioned that these regulations play an important role in improving the situation on the cocoa market.

They also mentioned that decision-making on policies concerning the cocoa sector like introduction or abolition of subsidies, the number of available extension officers, land rights et cetera should take place in a more transparent way.

In Cameroon a new strategy was developed in 2014 by the sector coordination unit at the Prime Minister's office containing a number of issues which are highly disputed by stakeholders (esp. the return to price stabilization). Initiated cocoa sector strategies in Nigeria appear to be pending after elections in 2015. Additionally, the division of responsibilities between ministries and the federal government and between federal government and state governments requires clarification.

In Ecuador government and producers focus on securing the leading role of the country as exporter of fine or flavour cocoa. The government sets a framework within which the private sector can operate freely. The Peruvian administration follows a similar strategy. This was supported massively by investments from USAID to combat the cultivation of coca. The situation in Brazil is different as most of the cocoa is processed to chocolate and consumed within the country.

The Indonesian government has a clear vision for its cocoa sector, namely to become the world's largest producing country. However, the measures employed to achieve this vision lack considerable impact so far.

**Indonesia: Public-private partnership as coordination platform**

The Sustainable Cocoa Production Program (SCPP) is one of the largest public-private partnerships in Indonesia. Established in 2010, SCPP is based on a broad coalition between trading, processing and confectionery companies (Barry Callebaut, BT Cocoa, Cargill, Ecom, Mars, Mondelēz, Nestlé), NGOs active in the sector (from Switzerland, the Netherlands, the United States, and Indonesia), IFAD and Swisscontact. Swisscontact works as an implementing organisation for the various projects of its partners in SCPP. The program ensures that its partners follow the same overall approach while allowing them the freedom to implement their own activities related to company-specific projects. Although never founded as a coordination platform, it fulfils this function in the Indonesian cocoa sector. The state-supported platform Cocoa Sustainability Partnership (CSP) brings together almost the same stakeholders as the SCPP, but is focusing more on alignment with the Government. However, comparative data on the impacts of SCPP and CSP could not be obtained. Whether SCPP significantly improved coordination among stakeholders may only be estimated by statements from interviewees.

A crucial factor for farmers is their access to land. Many farmers especially in Ghana and Côte d'Ivoire are reluctant to invest in their plantations due to insecure land rights. Therefore, land laws and the implementation of these laws are key factors for a successful cocoa sector.

**Recommendation: Ensure a stable policy and legal framework**

The government is responsible for providing an enabling environment through sound policies and regulations.

- Functioning infrastructure which is well-maintained is the back-bone for a functioning economy. This includes transport infrastructure, such as roads and ports, as well as schools and health centres. Where required, governments should intensify investments into infrastructure.
- Land laws (including ownership rights of trees) should be clearly outlined and transparent and follow a coherent strategy that provides security for farmers' planning and investment decisions.
- Ministries and administrative bodies need to work together closely to implement a long-term vision.

**Specific sector policies**

The differences in the national cocoa sector policies in the leading cocoa producing countries have major impacts on the situation of farmers. In general, a stable sector policy positively influences the competitiveness of cocoa sector. Clearly defined responsibilities between ministries and administrative bodies reduce costs for all stakeholders in the cocoa sector while blurry responsibilities or constantly changing policies frustrate stakeholders and prevent long-term improvements. Also, the access to inputs, planting material influence the investment decisions of farmers. In countries like Ghana and Côte d'Ivoire, their state agencies play an important role in the sector, the effectiveness of their policies is crucial.

There is room for different sector policies (for example stronger regulation vs. more liberalisation, subsidised input markets vs. liberalised markets, tax policies etc.); however, some overriding aspects should guide the set-up of a stable framework and are genuine government responsibilities.

**Recommendation: Ensure stable and coherent sector policies**

- Due to the dominance of smallholder production in the cocoa sector and the prevailing poverty, improving farmers' competitiveness and livelihoods should be at the heart of sector policies.
- Sector policies should be coherent and based on a clear analysis of the sector's strengths and weaknesses. They should reflect the government's long-term vision for the sector.
- Policies of different government authorities should be clearly aligned: A thorough stakeholder analysis should precede this process and be repeated regularly in order to include all stakeholders. This can include besides the Ministry of Agriculture, the Ministry of Forestry, the Ministries of Economy and Trade, and where existent the Ministry of Lands, Ministry of Mines, the Ministry of Cooperatives or others.
- Responsibilities must be clearly defined and implemented. Although a number of different ministries need to be involved, leadership within the government must be clearly anchored in one ministry; usually this is the Ministry of Agriculture.
- If existing, regulatory authorities should respond to the ministry in charge of and responsible for the sector.
- To support the development of a holistic approach, close coordination between all relevant stakeholders is essential. For this purpose, coordination mechanisms (e.g. platforms) should be set up.
- Tax policies should be transparently outlined in order to provide security for traders' and investors' planning decisions. This should be combined with transparency of investments into the infrastructure in cocoa producing regions.
- To be able to monitor the sector, the responsible ministry or the regulatory authority should regularly receive relevant information about ongoing initiatives in the sector. Such an information system should be facilitated by introducing a set of key performance indicators to which all stakeholders have to report. These need to be in line with the requirements of the Global Cocoa Agenda which demands regular reports of national governments on their progress in achieving a sustainable cocoa sector.
- Ministries and regulatory authorities should focus on defining policies, public goods (infrastructure, research results, etc.) and standards and on monitoring stakeholders' compliance with these. They should not get themselves into the implementation of programmes or projects. The responsible authority could:
  - Define indicators and quality standards for training curricula or the qualification of extension officers. Trainings, irrespective of the (public or private) provider then need to follow these standards.
  - Monitor compliance of private and public training providers, extension services or input providers with standards defined.
  - Carry out impact assessments of projects based on defined KPIs.

- Development partners should support these efforts by coordinating programmes and by improving impact through better coordination of their own efforts.
- Development partners could support exchange about sector policies between producing countries' governments. As such, regular "policy forums" could be facilitated on a regional (and maybe in a second step on a global) level.
- Current government interventions should be reviewed to clarify e.g. the impacts of free input supply compared to conducive framework conditions for private input suppliers and financial institutions.
- A comprehensive sector policy should take into account that the cocoa sector depends on functioning structures for input provision, and a structured cooperation with companies, farmer organisation, financial institutions and donors.

## 6.3 Coordination of stakeholders, data collection and research

**Pre-competitive cooperation**

Companies and certification schemes have their own interests and market strategies as competitors. Additionally, companies have to be very careful when aligning projects because this could be interpreted as a violation of competition laws. Research showed that in all eight main cocoa producing countries, the cooperation level is still very low. Many interview partners attributed this to the competition in different fields: companies compete while setting up programs to improve the sustainability of the cocoa production. They don't want competitors to get access to the cocoa produced in their projects. Implementing organisations and standards bodies also compete with each other. This competition is at the cost of farmers as good practice examples to improve overall sustainability in the sector are not shared yet by many stakeholders.

To overcome these challenges, different platforms were founded over the past years, including the World Cocoa Foundation (WCF) and its CocoaAction, International Cocoa Initiative (ICI), the German Initiative on Sustainable Cocoa (GISCO) and the Sustainable Trade Initiative (IDH). Also, the CEN/ISO process is a tool to align sustainability targets of all stakeholders.

**Recommendation: Improve cooperation of companies**

- Cooperation between the different stakeholders can be strengthened by setting up national stakeholder platforms or by strengthening existing ones.
- Companies should more actively engaged in exchange platforms wherever these are operational. Ideally, platforms are the place to exchange experiences and coordinate activities.
- Companies must coordinate their projects in order to avoid the concentration (and proliferation) of efforts on a small number of well-functioning farmer organisations.
- Pre-competitive efforts have to be increased; CocoaAction includes only a limited number of companies.
- Governments should open the space by changing competition laws to open the space for discussion and coordination of companies' efforts targeting sustainability issues.
- Companies should disclose their activities in a transparent way, exchange experiences of what works and what does not work and be open to a standardized way of evaluating the impact of different approaches.

**Coordination of stakeholders**

A large number of actors is present in the cocoa sectors of the different countries. In some countries, such as Cameroon or Nigeria, a number of ministries or public institutions at state and federal levels are involved. Additionally, especially in Côte

d'Ivoire and Ghana, private sector companies implement a number of programmes, so do donor agencies and civil society organisations.

Each and every effort is (at least to some extent) important and useful for the sector. However, in many cases, coordination of the various efforts and cooperation between stakeholders is quasi non-existing. Even though in some countries formal coordination platforms or mechanisms exist (e.g. the public-private partnership platform in Côte d'Ivoire), they are in all countries reported to work sub-optimal. Hardly ever are experiences shared and if so, mostly not in an easily understandable way. In some cases, competitive behaviour and a lack of willingness to be transparent about things that work well as well as failures might be the reason. Furthermore, there is no standard procedure on how to collect data on farmers, measure impact and share information. Responsibilities are either not clearly assigned or not taken up and implemented adequately.

While there are many projects of government institutions, private companies and donors in all cocoa producing countries there is no common strategy on how to steer the processes and measure impact. CocoaAction with its aim to coordinate the private sector might change this in the future concerning the private sector but still has to prove itself in practice. This needs as a counterpart a similar approach for governments of cocoa producing countries who should agree on a common framework for the cocoa sector.

**Recommendation: Improve coordination of stakeholders**

- Governments, companies, farmer organisations, NGOs and donors should implement a harmonized, more programmatic approach.
- Cooperation between the different stakeholders can be strengthened by setting up national stakeholder platforms as they already exist in some producing countries.
    - Such a platform needs to include all relevant stakeholders from the public and private sectors, as well as civil society and development partners and not least farmer representatives.
    - A platform is only useful to stakeholders if all members contribute regularly, attend meetings and follow up with their assigned tasks.
    - Most probably, to function properly and be of use to stakeholders, a platform needs some permanent staff to coordinate working groups and monitor compliance of stakeholders. Technical, human and financial resources of all stakeholders should be aligned to serve the national sector policy.
- Governments of cocoa producing countries should join forces by setting up international platforms. This could be started by regional efforts, such as a platform for West and Central Africa. An example could be the recently founded Latin American initiative.

**Data collection**

Specific targets can only be defined if there is an extensive database on the national cocoa sector. As such, a solid data basis is essential for designing sound sector policies. The database for cocoa production is very weak in most producing countries. With the exception of Peru, even the number of cocoa farmers mentioned in government papers or studies varies significantly. The same is true for the acreage of cocoa plantations and average yields. None of the main cocoa producing countries has a sufficient dataset. In some cases companies and organisations or research institutions which supervise the programs might have collected extensive data but these are not publicly available. This makes it very difficult to evaluate impacts of the various ongoing programs in the cocoa sector. It is also an obstacle for the development of a benchmark for a living income (see below).

**Recommendation: Collaborate on data collection**

- Governments of cocoa producing countries should define a framework for data collection including strict rules for data protection.
- All stakeholders need to collaborate to improve or create an up-to-date database with the most important sector information, including the number of cocoa farmers and dependent family members, size of farms, age of trees, varieties of cocoa, productivity etc. GPS solutions for data collection of farm sizes should be checked regarding their efficiency.
- Specific data on the livelihoods of farmers are needed including data on the current and recommended production techniques and different income sources of farmers to support the debate on how to improve the income and income diversification of cocoa farmers. Collaboration with organisations not originally rooted in the cocoa sector should be evaluated.
- Governments of cocoa producing countries should monitor data collection by companies, scientific institutions and non-governmental organisations. Additionally, they should make data sharing mandatory. To facilitate data sharing, governments should develop a set of indicators in close cooperation with stakeholders.

**Better coordinated research**

There is only a very limited coordination between the research approaches of state-controlled research institutions like the CNRA, CRIG and the CRIN in Côte d'Ivoire, Ghana and Nigeria, research institutions of companies and multinational networks like IITA and CIRAD. While most stakeholders agree that more research on more productive and more resilient cocoa varieties combined with research on more effective production techniques and the possibility of increasing income by diversification is necessary there is no process to exchange results.

**Recommendation: Substantially improve regional coordination of research and mutual recognition of approval**

- Coordination of research should be intensified through regular meetings to exchange results in specific areas. This could start on a regional level, e.g. with a West and Central African regional initiative, before extending to the international level.
- Research should not only include improved cocoa varieties with regard to productivity, pests and diseases, but also varieties and techniques that are more resilient towards climate change.
- Research institutions should develop common standards so that results e.g. on methods to reduce pests, on types of fertilizers or on how to use fertilisers are approved faster. Ideally, approval of one research institution results in a substantially shortened approval process in research institutions in other countries.
- Data gathering and research should also include data on deforestation. While deforestation rates remain high in some countries, the cocoa sector can itself contribute to forest protection, reforestation and mitigation of climate change.
- Research should include collecting information on how to improve the livelihoods of farmers by diversification of income.

**Climate change and deforestation**

Interview partners from all countries identified climate change as a major potential or already existing threat to cocoa production. Research institutions in some countries are working on more climate resilient cocoa varieties. Additionally, there are projects to stop deforestation and to promote reforestation. However, the expansion of cocoa production is one of the drivers of deforestation. Some of the countries, e.g. Nigeria, Cameroon, Ghana and Indonesia, want to increase cocoa production significantly which could be contradictory to climate and anti-deforestation policies. Countries with an existing

deforestation policy like Côte d'Ivoire face the problem that ten thousands of farmers are living in protected areas and grow cocoa.

None of the countries has a consistent national approach on how to adapt their cocoa production to climate change. There are also no cross-border initiatives on how to cope with the impacts of climate change. Such initiatives could contribute to identify best practices and to combine efforts.

**Recommendation: Mainstream climate change and fighting against deforestation**

In addition to the above-mentioned points a closer cooperation and research on possible reactions on climate change should be part of many areas of work in the cocoa sector:

- The consequences of climate change are an urgent issue for farmers and their livelihoods. Measures to improve farmers' livelihoods' resilience to climate change must be integrated in all aspects mentioned (sector policies, training, research etc.).
- Collaboration between actors of the cocoa sector and projects to stop deforestation and promote reforestation should be intensified. The promotion of agroforestry could be a good way to combine both, adaptation of the cocoa sector to climate change and greenhouse gas mitigation. These options should be explored further, as international funding is available for this kind of projects.
- Due to its crucial importance for the future of the cocoa sector, research on climate resilient plants needs to be coordinated on a regional and global level in order to combine forces and accelerate progress.
- Cross-border initiatives should be set up to work on how to cope with the impacts of climate change.

**Common approach on living income**

The ongoing discussion about a living income for farmers and a living wage for their employees should lead to a common strategy of cocoa producing countries. Presently, the discussion is dominated by standard setting organisations who are organised in ISEAL. Presently, governments of cocoa producing countries do not play a significant role in the debates about the calculation of a living income and the consequences of such an approach for cocoa farmers, cocoa prices and more diversified sources of income for farmers.

**Recommendation: Endorse the concept of a living income**

- All stakeholders in the cocoa sector should align to develop a strategy to determine a living income for farmers and a living wage for their employees.
- The process needs to be structured in a multi-stakeholder process.
- To accelerate and facilitate the process all stakeholders should endorse the concept and develop mechanisms that aim at translating it into practice.
    - This includes the collection of data on the livelihoods of farmers as well as publication of the collected data.
    - To make these data comparable all stakeholders should agree on a common framework of data collection.
- Governments, companies and donor organisations should reflect the results of discussion about a decent income and decent wage in the setup of programs and projects.
- Companies and well-trained farmer representatives should negotiate price setting mechanisms based on statistical evidence of farmers' production costs. These should guarantee a living income for farmers.

**Certification**

Certification of cocoa has increased over the past couple of years. Especially in Ghana, Côte d'Ivoire and Peru the three main standards Fairtrade, UTZ and Rainforest alliance/SAN are present. It is hard to know how much cocoa has been certified since

official numbers by standards include considerable numbers of double- and triple certification. This also shows that resources for certification do not seem to be distributed most efficiently. In Cameroon and Nigeria, certification has only recently started, but stakeholders have huge expectations.

On the positive side, trainings connected with certification have certainly helped many farmers to improve agricultural practices and thus increase productivity. Certified cooperatives report increases in production per hectare. Standards also include trainings beyond agricultural production, such as reduction of child labour, sanitary practices, and water treatment. This has improved livelihoods in communities considerably. Certification audits have increased transparency in the value chain. Additionally, a network of standard setting organisations, companies and donors set up the initiative Certification Capacity Enhancement (CCE). They agreed on a common curriculum to train trainers for cocoa farmers in Nigeria, Ghana and Côte d'Ivoire. Another approach to align forces is the increased acceptance of joint audits of competing standard bodies which reduces costs for farmers.

Certification has its price which is often pre-financed by companies for "their" cooperatives. Ongoing programs are often not transparent. As a result, companies in Côte d'Ivoire keep the certificate and thus bind a cooperative to the company. This leads to high dependency of certified cooperatives on companies. If a cooperative is only able to sell part of the certified cocoa with a premium, it will additionally run into problems with its members who counted with the additional income.

It is a challenge that companies do not guarantee buying all certified cocoa at a premium. Many farmers and their cooperatives have to cover all costs of certification but do not receive premiums for a large share or even most of the cocoa they produce. They may thus deliver their cocoa to intermediaries instead of their cooperative. At the same time, when "marketing" certification to farmers, too strong a focus has been put on the premium instead of the overall improvement in productivity and other community development issues. Also, irregularities in certification audits have been reported.

What is more, some of the larger chocolate producers are exiting certification and concentrating on their own sustainability labels.

**Recommendation: Increase the positive potential of certification and national standards**

The implementation of standards and the certification of cocoa can be a tool to improve livelihoods of farmers. However, in order to use its potential for farmers and to reach more farmers some improvements need to be implemented:

- Standard setting organisations should intensify the research on the impact of certification on the livelihood of farmers. This has to include an analysis of the costs of certification compared to the potential benefits.
- Farmers/cooperatives need reliability for planning. Purchased quantities of certified cocoa should be fixed at the beginning of the season and not modified during the season. Ideally, this should follow a medium-term growth strategy with increasing amounts of certified cocoa that is bought and for which a premium is paid.
- The results of audits should be more transparent and all standard setting bodies should publish regular assessments of the impact of their systems.
- Misuse of premiums, fraud and corruption should be combatted more consistently.
- Already existing approaches for a closer cooperation between the different standard setting organisations with regard to standard criteria, training and the recognition of audits should be strengthened as this reduces costs for cooperatives. Ideally, cocoa certified by one standard setting organisation should be accepted by the others to avoid further double or triple certification of farmer organisation which every time incurs additional costs for farmers.
- If the CEN/ISO standard comes into operation it should be the benchmark for all other standard setting organisations.

## 6.4 Determination of farm gate price

**Transparency in price setting**

Farmers generally receive only a certain share of the world market price for cocoa. This is partly due to costs for storing and transport within the producing country, low bargaining power of farmers, vis-à-vis traders and intermediaries, lop-sided power relations in the cocoa producing regions, as well as the deduction of a share of the FOB price to finance support measures for farmers and for tax income.

Ghana and Côte d'Ivoire work towards decreasing the volatility of prices by selling parts of their cocoa harvest in advance. Based on the prices of these forward sales, they guarantee minimum prices for farmers through a complete harvesting season. This guarantees farmers as well as companies some security in planning their investment decisions. However, the farm gate price in countries with a fixed minimum price is lower than in those countries which do not regulate the cocoa price. The reason is that regulatory authorities deduct a share of the difference between the minimum price and the world market price to fund support measures for farmers and as tax collections.

Tax regimes in the different cocoa producing countries vary considerably. The specific design of tax policies and their impact on production highly depend on the national context. Presently, cocoa production grows fast in countries with very low taxes on cocoa production and exports (Ecuador and Peru). However, production is still highest in countries with relatively high taxes (Côte d'Ivoire and Ghana). Tax reductions to increase farm gate prices and to thereby stir farmers' investments into the sector are not feasible in every country. Some countries' budgets depend to such a large degree on revenues from cocoa exports that a reduction in taxes would affect them strongly.

Moreover, the value chains in the eight countries researched have many things in common, but there are also major differences. Farmers are mostly not organised which gives them a very weak position within the value chain (see below). The role of intermediaries in the value chain is highly disputed. They play an important role in connecting farmers to the market. Farmers especially in remote areas have hardly other possibilities than either selling to intermediaries who often provide (expensive) pre-financing. In other contexts, direct linkages to traders or exporters without intermediaries have proved to benefit farmers, especially in terms of a higher farm gate price. Ghana has heavily regulated the role of intermediaries through its system of licensed buying companies (LBCs). Côte d'Ivoire is also trying to reduce the number and the power of intermediaries while they can work freely in unregulated economies like Nigeria and Cameroon.

**Recommendation: Improving farmers' share in world market prices**

To secure a higher share of the world market price for farmers, various measures should be considered:

- In countries without guaranteed minimum prices, well-informed, educated, trained and well-organized farmers are often able to negotiate a high farm gate price. The more governments invest in access to and quality of education, including primary and secondary education, especially in rural areas, the more they contribute to making their farmers independent of government subsidies and support. They allow them to take their own investment decisions.
- Distributing (daily) price information reduces information asymmetry and empowers farmers in negotiations with intermediaries and traders. This applies to countries where prices are liberalised as well as to countries where prices are fixed on a yearly basis. A low-cost and effective way of informing farmers is via text messages or mobile applications as practiced in Cameroon.
- In countries with a guaranteed minimum price, the use of differences between farm gate price and FOB price should be made transparent and discussed with all stakeholders in order to identify areas where cost reductions are possible.

- Governments in cocoa producing countries should collect data on infrastructure related costs of cocoa transport. This information needs to be included in price setting mechanisms.
- Further research is needed to understand the role of intermediaries in the market.
- Elected farmer representatives should have the skills and a strong position in committees which define guaranteed minimum prices in countries where the sector is regulated. Governments should support the setting-up of farmer associations from bottom-up.
- The efficiency of subsidies for inputs and trainings should be evaluated regularly. Their impact on farmers' livelihoods should be compared to the impact of increases in minimum prices.

**Reduce price volatility**

Farmers in liberalised markets often face higher price volatility. Price volatility is however not suspended in regulated markets. As forward sales are done on an annual basis, prices may still fluctuate from year to year.

**Recommendation: Introduce risk management mechanisms**

- Highly regulated sectors with guaranteed minimum prices often include stabilization funds to hedge against strong drops in world market prices. If funds (usually taxes or levies) are collected to set up a stabilisation fund, the process needs to be transparent for all stakeholders. Good practice examples from other countries or other sectors could guide the set up and management of a fund (e.g. funds collected in times of high prices for raw materials in Norway, Botswana and Chile).
- Well-organised and well-trained famer organisations can protect their members against mid-term volatility by
    - negotiating long-term business contracts with companies which include insurance systems against price fluctuations;
    - hedging at the stock exchange as companies already do to reduce marketing risks.
- Governments should set a legal framework of requirements for farmer organisations to get involved in these long-term businesses and support them in capacity development.

**Diversification of income**

Less dependency on cocoa and a diversified income structure further not only improves the bargaining situation of farmers, but also represents an important risk management mechanism. Additionally, farmers work on very small plantations and will most probably never be able to earn a living income from cocoa. Governments of producing countries will need to develop a strategy on how to support these farmers to exit the cocoa sector.

**Recommendation: Support diversification and exit strategies**

- Information on how to diversify income streams to reduce dependency on one crop (or even agriculture as a whole) should be part of all training curricula and projects for cocoa farmers.
- In case of short cycle annual products, this may even provide investment capital for cocoa farms (and needed to access related loans).
- Specific training programs are needed for farmers who want to change crops, try to become engaged in a rural service economy (technical services, information services, training services, input supply e.g. seedling of cocoa and other crops etc.) or look for a future outside farming.
- For older farmers, the setup of a pension fund could be a successful strategy to provide them with an exit strategy from cocoa production. Cocoa producing countries could start designing such a pension fund. Institutions from cocoa consuming countries could support such an effort with experiences from their own countries.

**Ecuador: The pruning initiative**

An important part of the governmental programme Great Collective National Cocoa Development Effort (Gran Minga del Cacao) is specialized pruning. The pruning service is offered to small scale cocoa farmers (< 10 ha) for young trees and trees that are more than 11 years old. Since 2013 approximately 54,000 farmers have been reached, pruning almost 62 million cocoa trees on roughly 150,000 ha. Until the year 2021 284,000 ha are planned to be pruned, which corresponds to 95 % of the FFC area. For the implementation of the programme, MAGAP works together with two organizations with long-standing experience in the cocoa industry.

The initiative is said to be a success due to the quantity of the interventions: A field-based technical team of 6,660 people was hired to work in pruning teams that are active in 17 provinces. Also, technical staff chosen have experience as cocoa producers and are employed in the regions where they come from. Finally, the teams were not only trained in pruning techniques but also in farm management, occupational health and security issues and other socio-economic aspects. Thus, the wide-spread training for farmers is combined with the gathering of information in order to facilitate monitoring and evaluation processes.

**Industrial and local processing**

To create more value and jobs in producing countries, there is a need to move from primary processing of cocoa beans to producing chocolate or other products made from cocoa. Brazil has managed to do exactly this and created a huge market for chocolate. However, these changes happened in a very specific context with a growing middle class and an existing tradition of consuming chocolate products. In West and Central Africa the context is different as there is no market for chocolate. In Cameroon, an incipient local small-scale processing industry produces chocolates and cosmetics. Ghana and Nigeria also have small markets for these products. Production is mostly on very small scale and artisanal.

Some governments (e.g. Indonesia, Ghana, Côte d'Ivoire) aim at developing a large-scale industrial in-country processing sector by introducing tax incentives and subsidies. Often, this comes at high costs which may be indirectly burdened on farmers by reducing farm gate prices or funds to support farmers. The promise of new employment opportunities in processing factories is arguable, as usually only few jobs are created in modern and highly mechanised cocoa processing plants.

**Recommendation: Balance farmers' interest with processing targets**

A balance between subsidising farmers and processing has to be sought:

- Governments should carefully calculate if the costs of subsidies and tax reductions which are often used to attract large-scale industrial investment of cocoa processing companies lead to the expected results, especially in terms of local job creation.
- Especially in countries with a fixed minimum price regulatory authorities should be very transparent about the impact of subsidies and tax reductions on farm gate prices.
- Governments should encourage small-scale artisanal production of chocolate and other cocoa products for the local and regional markets.

## 6.5 Farmer organisations

In light of increasing concentration in the downstream part of the value chain (especially at the level of grinding), set-up and support of cooperatives or other forms of farmer organisations is essential for farmers to benefit from economies of scale when

negotiating with traders. In almost all cocoa growing countries, only a small share of farmers is organised in cooperatives or producer organisations. If they are, their organisations are often weak and have not been able to form structures which represent farmers' opinion at the national level and lobby for their interests. Only in Cameroon there is a national representation of farmers at the level of the CICC.

Farmers which are organised in well-functioning groups have a better position when bargaining and are also much easier to reach for project approaches organised by governments, donors and companies. However, many farmer organisations do not function well lacking the skills to provide cost-effective services to their members, to manage and govern a producer organisation. Weak (or no) bankability of cooperatives and in the consequence lack of working capital is a major bottleneck.

Donors and some governments (Côte d'Ivoire, Ecuador) work towards strengthening farmer organisations, but efforts are often still weak and not well coordinated. But even if for example the government of Côte d'Ivoire has the intention to promote strong farmer organisations, the margin of 88 XOF/kg defined in the price structure for cooperatives does not allow cooperatives to offer sustainably quality services to their members, let alone develop their services further.[9]

In summary, none of the countries has a strong policy that guarantees constant support to farmers who want to set up a new organisation or to improve an existing one. Only very few donor programs focus on filling this gap.

**Recommendation: Support farmer organisations in independently managing their business**

All stakeholders within the value chain are in a position to support farmers:

- Stakeholders should actively support farmer organisations to be self-sufficient and not dependent on traders or exporters.
- Companies need to work with farmers at eye level and treat them as business partners and not as beneficiaries.
- Information about the benefits of joint marketing or joint buying of inputs should be included in all farmer trainings. Good examples are Farmer Business Schools supported by GIZ.
- For countries subject to OHADA[10] laws, it is important to support cooperatives in effectively and progressively implementing the requirements by the law. A realistic timeline should be set for cooperatives to comply with the law and measures taken in cases of non-compliance.
- Farmer organisations need support, especially with regard to leadership capacities, governance, accounting, financial management and organisational skills. To enhance these skills, special training tools for cooperative leaders should be set up according to standards defined by the respective authority.
- Companies and financial institutions should develop attractive business models which share the risk of investments into a more sustainable cocoa plantation. This could include long-term contracts, but also systems which have proven to be successful in other commodities like insurances or inclusive business models which directly connect farmers to chocolate producers with an approach to share price risk and develop a common agenda for a living income.
- Companies should communicate clearly the cost of any services they pre-finance for a farmer organisation, e.g. certification audit, harvest pre-finance, etc. for organisations to be able to determine if the investment is beneficial to them.

[9] The Ivorian government currently reviews the price structure with the aim to improve the margin for cooperatives.
[10] OHADA is the *Organisation pour l'harmonisation en Afrique du droit des affaires* (Organisation for the harmonisation of business law in Africa), which includes 17 member states in West and Central Africa.

- A national farmer organisation with the effective mandate to represent a large share of smallholder cocoa farmers and their interests in policy setting, cooperation platforms and in their relation to traders and companies will improve the situation of cocoa farmers. Such umbrella organisation could start from the local level within a country. In a second step set-up a national body to further strengthen the bargaining power of farmers and foster value chain linkages could be set up in a bottom-up approach.

## 6.6 Extension services and input provision

**Extension services**

Overall, extension services are extremely important for farmers in both, liberalized and regulated markets. For many farmers they are the only way of getting access to training in good agricultural practices, new research results or information on how to store and apply fertilizers and pesticides. Extension services ideally also support farmer organisations in setting up governance structures, which provide marketing support to farmers and can play an important role as service providers for members. Recently, extension services sometimes also include other topics related to socio-economic realities of cocoa production, such as issues related to gender or HIV/Aids. Additionally, extension services can support farmers in diversifying income by growing other crops and looking for off-farm income resources.

There are private and public extension services in most countries. The huge advantage of public extension services is that their mission is to reach out to all farmers, even in remote rural areas where other support projects (by companies and donors) often do not reach. Public extension is often also the only way for these farmers to learn and receive information about government policies related to cocoa production.

However, in many of the countries researched, public extension services face a number of challenges mentioned by the interviewees. Firstly, there are not enough extension officers to be able to work with all cocoa farmers. Furthermore, in many countries, extension services are underfunded or even not funded which results, for example, in insufficient means of transportation available to reach remote areas (lack of motorcycles or gas) or lack of material available to demonstrate agricultural practices, such as pruning or spraying. Some stakeholders also complain that officers are not well enough trained in new practices.

**Farmer Business Schools**

GIZ has developed so-called Farmer Business School trainings and trained in cooperation with partners over 330,000 smallholders in Ghana, Nigeria, Cameroon, Côte d'Ivoire and Togo. The approach uses a trainer pool of over 800 qualified trainers from partner organizations and companies. Achieved impacts include the adoption of good agricultural practice, a better budget/financial management at farm and household level, rising number of savings accounts, better access to loans and the creation of producer organizations. In Nigeria for example 3 Federations of farmer organisations were registered by participants of the FBS. Demand for the training continues.

If extension officers are performing well, sometimes they are reported to be poached by companies or donor agencies which usually pay higher salaries. In Côte d'Ivoire and Ghana companies and donors are asked to collaborate with public extension services when extending trainings to farmers. Whereas this seems at first sight a sustainable idea, it has also led to some extension services putting too much focus on acquiring additional funds from donor or company projects. As a consequence, services are often extended to farmers who are interesting for companies because they are already organised or in general better performing. Thus there is a risk that public extension services are channelled towards "low-hanging fruits" and not towards farmers in remote areas who most need them.

**Recommendation: Improve quality and outreach of extension services**

The availability and the quality of extension services play an essential role in the cocoa sector as many farmers need training on good agricultural practices and other topics. Regarding the set-up of public extension services and their collaboration with private training providers, the following guidelines are recommended:

- More research is needed to identify the required qualification of extension officers, necessary training materials and good didactics.
- Adoption rates of trainings are generally low. Stakeholders should engage in a coordinated effort to understand the reasons by implementing specific and targeted research. Results should be shared and solutions integrated into programs.
- To improve outreach, an approach to focus on training trainers and multipliers (i.e. by setting up meso-level training structures) would provide better and quicker results. This relates to the question whether more trainings could be provided by producer organisations and which services could be paid for by farmers.
- Even if many farmers already had access to trainings, others still express demand in many areas. To be able to respond to this demand, a variety of different public and private training providers are necessary.
- If public (government or donor) funds are involved, it should be assured that trainings are provided to farmers in more remote areas and/or those that are not organised in producer organisations. Ideally, public extension reaches farmers that are not reached by any private sector initiative.
- Standards for trainings (if available) need to be respected.
- Extension officers need to be sufficiently equipped to be able to reach farmers and conduct their trainings. An adequate number of well-trained and motivated extension officers is necessary.
- If several training providers exist, services should be coordinated to avoid duplication and proliferation of trainings to the same farmers.
- Companies and development partners should commit to not poaching well-trained government extension officers.
- Although their main focus is on agricultural training, extension officers well-known by communities are often well-placed to sensitise communities about other relevant, but often sensitive topics, not necessarily directly related to agriculture but with an indirect positive impact on the communities' livelihoods. These topics include gender-related aspects, HIV/Aids, hygiene and sanitary issues, or even simple financial literacy. However, it is important to make sure that officers are adequately prepared for this additional task.
- A specific need that has been mentioned by many stakeholders is training for farmer families in managing household finances. Cash flows of cocoa farmers are in most cases very instable, with low or no income during a large period of the year and two peaks during harvest seasons where farmers receive relatively large amounts. Training and coaching could help farmers to find mechanisms on how to stretch this income over a longer period of time, including instruments, such as informal village saving clubs and formal savings accounts. At the same time, a focus should be put on involving the whole family in the household budgeting process, especially women who in many cases are involved in cocoa during the pre-harvest and harvest work, but no longer once the cocoa beans are sold and income is received.

**Input provision**

Access to inputs for farmers is very important for farmers' productivity and competitiveness. A variety of approaches to provide farmers with inputs is currently in use reflecting differences in infrastructure, purchasing power and dependency on cocoa in producing countries.

Governments can provide inputs, such as seedlings, fertilizers or pesticides, to farmers. Input provisions by governments have been found in all countries analysed, but seem to be more prominent and structured in strongly regulated markets. These inputs are either handed out for free which is currently the case in Ghana and Côte d'Ivoire, or are available at subsidized prices for farmers or farmer organisations. Nigeria with its deregulated market has schemes to support farmers with highly subsidised inputs. Whether inputs are free or their prices are subsidized has changed in countries over time. The challenge with free inputs is that in many cases, the available quantity only covers a small percentage of farmers or plantations. For example, in Côte d'Ivoire, the number of seedlings provided only allows replanting of 2.5% of the plantations per year; Ghana only recently increased the number of free seedlings significantly, but even then they are only sufficient to replant a few percent of the plantations per year. Some stakeholders report that on average only 1 out of 2 seedlings are of good quality (Côte d'Ivoire) and that many seedlings don't survive after being planted (Ghana).

Support with seedlings should ideally be organised using a viable business approach and thus needs to be coordinated. In Ghana for example, companies and donors invested in setting up small businesses run by farmers to produce seedlings and then the Ghanaian government announced its free seedlings policy including the provision of huge numbers of seedlings by the COCOBOD. This ruined the business opportunities of young nurseries.

It is often not clear which farmers will receive inputs, if certain farmers receive inputs at all and when they will be delivered. As a consequence, sometimes farmers keep waiting for their inputs beyond a critical point in time for their crop. For example, for certain pesticides it is critical to apply them at a specific moment to be effective. Applying them later is a waste of resources. Farmers waiting for free input provision are reported to often wait until it is too late. Also, if inputs are provided for free through the public procurement system, prices for these inputs are reported to sometimes increase considerably as companies know that government officials have to buy huge volumes and that there are not many other suppliers on the market. The quality of inputs received also varies considerably. A lack of coordination between input provision and extension services is often observed. This leads to farmers receiving inputs, who don't know how to handle them. As a result, inputs might be spoilt and not used most efficiently. In some cases, this can lead to dangerous handling and storing of pesticides which puts especially children at risk. Additionally, free input provision is as well reported to be prone to corruption and politicisation since the distribution mechanisms are hardly ever transparent. In Ghana, free inputs are sold to neighbouring countries instead of using them for production.

**Recommendation: Improve access to inputs by working towards supply on a commercial basis**

Access to inputs for farmers (e.g., seedlings, fertilizers, pesticides) is very important for farmers' productivity and competitiveness. A variety of approaches to provide farmers with inputs is currently in use reflecting differences in infrastructure, purchasing power and dependency on cocoa in producing countries:

- Inputs need to be reliable, on time, at the needed location, sufficient in amount and good in quality. Distribution needs to be transparent.
- The provision of free inputs is often accompanied with inefficiencies. Therefore, policies should ideally aim at a market-based system where the income generated from cocoa allows farmers to afford non-subsidised inputs.
- In the medium-term, subsidising the price of inputs is generally a better solution than providing inputs entirely for free. Whereas distribution of free inputs has many challenges and therefore often does not reach the intended result, price subsidies provide a level playing field for all farmers. They also put some responsibility on farmers in terms of deciding when to buy and how to apply/use inputs.
- Where subsidies exist, their impact should be evaluated regularly and assessed against alternative ways of supporting farmers.

- Ideally, the government is able to assure accessibility to these inputs by improving road infrastructure to support agro dealers in remote regions.
- Information on approved inputs should be shared broadly. Agro dealers who sell counterfeit inputs should be sanctioned.
- Moreover, subsidized and/or commercial input provision must be closely linked to extension services to ensure correct and efficient application and handling.
- Producer organizations can play a role too to ensure this by providing technical training to members.
- Input supplier could link up with financial institutions and traders to partner on providing and guaranteeing credit for inputs.

**Access to finance**

Similar to smallholder farmers and farmer organizations in all sectors and regions of the world, cocoa farmers have huge difficulties in accessing finance for working capital and even more so for investments. Financial institutions are reluctant to lend to agriculture overall and to smallholder farmers in remote areas specifically due to the real and/or perceived high risk.

As a result, to access working capital, farmers have hardly other possibilities than either selling to intermediaries who often provide (expensive) pre-financing or in the case of cooperatives to recur on pre-financing provided by companies. This is in many cases very helpful to farmers, however, also creates dependency. Oftentimes, the lack of cash just before or during harvest leads to farmers' side-selling or in countries without quality controls to selling badly fermented and dried cocoa at a lower price, just to be able to care for their families' immediate needs.

As for investments, such as trucks or storage spaces, farmer organisations have hardly any opportunity to access funding. They try to build up their own funds which, however, has reportedly become more difficult in Côte d'Ivoire due to the small margin attributed to cooperatives.

Many stakeholders mentioned that the lack of access to finance also impedes farmers to apply a number of the good agricultural practices they are taught in trainings. For many of them, some funding is necessary to be able to invest in fertilizers or pesticides or in labour.

**Côte d'Ivoire: Advans Banque**

Advans Banque Côte d'Ivoire started to offer is "crédit cacao" to cooperatives in 2012. Today it has an outstanding loan portfolio of 1.6 billion CFA (2.7 million USD) and serves 12,500 farmers organized in 80 cooperatives. Repayment history has been excellent so far. The average loan to farmers is about 215 USD. Loans are disbursed in combination with input packages that include training on how to apply products. Loans to individual farmers are channelled through the cooperatives who then pass them on to farmers. Advans provides training to cooperatives on how to manage cash flows and reimbursements. Advans is currently developing loan products for asset financing as well as mobile money solutions.

**Recommendation: Improve access to financial services**

To facilitate access to finance for farmers for investments in their cocoa business, or even to continue running their cocoa production, the following recommendations are provided:

- Donors can support financial institutions in developing a strategy (and policies and procedures), products and capacities for lending to the agricultural sector in general and cocoa farmers specifically. Financial institutions' staff need support to understand the cocoa sector, its specificities, seasonality and related risks.
- Donors can support developing adequate cash-flow based savings and lending products as well as risk assessment tools for financial institutions.

- Additionally, donors could provide specific refunding lines for farmers to financial institutions, or in certain cases, provide well-thought out guarantee funds to incentivize financial institutions to enter the sector by covering part of the portfolio risk. However, this instrument should only cover part of the risk, should be time-bound and have a clear exit strategy.
- To be able to service farmers in remote and rural areas, financial institutions need to develop alternative delivery channels, such as digital financial solutions and agent banking. A variety of support to foster these developments is possible: support to financial institutions and mobile network operators in developing innovative and tailor-made products, such as market research or product development support, as well as support to the respective regulatory authorities, such as the central bank of the communications regulator in designing policies to provide an enabling environment for such solutions.

# LIST OF ABBREVIATIONS

| | |
|---|---|
| 2QC | Programme Qualité, Quantité, Croissance, Côte d'Ivoire / Programme for Quality, Quantity and Growth, Côte d'Ivoire |
| ABICAB | Associação Brasileira da Indústria de Chocolates, Cacau, Amendoim, Balas et Derivados / Brasilian Chocolate, Cocoa, Peanuts, Candies and Byproducts Industry |
| ACDI/VOCA | Agricultural Cooperative Development International / Volunteers in Overseas Cooperative Assistance, USA |
| ACI | African Cocoa Initiative |
| ACP | Alianza Cocoa Peru / Cocoa Alliance Peru |
| ANECACAO | Asociación Nacional de Exportadores de Cacao e Industrializados del Ecuador / Association of National Cocoa Exporters, Ecuador |
| ANVISA | Agência Nacional de Vigilância Sanitária, Brasil / National Health Surveillance Agency, Brazil |
| APC | Association of Cocoa Producers, Brazil |
| APCFE | Association of Fine and Special Cocoa Professionals, Brazil |
| APPCACAO | Asociación Peruana de Productores de Cacao / Peruvian Association of Cocoa Producers |
| APROCAFA | Asociación de Productores de Cacao Fino y de Aroma, Ecuador / Association of Producers of Fine and Aroma Cacao, Ecuador |
| Askindo | Asosiasi Kakao Indonesia / Indonesian Cocoa Association |
| BCEAO | Banque Centrale des États de l'Afrique de l'Ouest / Central Bank of West African States |
| BMEL | Bundesministerium für Ernährung und Landwirtschaft, Deutschland / German Federal Ministry of Food and Agriculture |
| BMZ | Bundesministerium für Wirtschaftliche Zusammenarbeit und Entwicklung, Deutschland / German Federal Ministry for Economic Cooperation and Development |
| BRL | Brazilian Real (currency) |
| CAC | Cooperativa Agraria Cafetalera, Peru |
| CAN | Cocoa Association of Nigeria |
| Caisstab | Caisse de Stabilisation, Côte d'Ivoire / Stabilization Fund, Ivory Coast |
| CCC | Conseil du Café-Cacao, Côte d'Ivoire / Coffee and Cocoa Board, Ivory Coast |
| CCN | Cocoa Corporation of Nigeria |
| CEPLAC | Comissão Executiva do Plano da Lavoura Cacaueira, Brasil / Executive Committee for Planning Cocoa Farming, Brazil |
| CGFCC | Comité de Gestion de la Filière Café Cacao, Côte d'Ivoire / Management Committee for the Coffee and Cocoa Sectors, Ivory Coast |
| CICC | Conseil Interprofessionnel du Cacao et du Café, Cameroun / Inter-Professional Council on Cocoa and Coffee, Cameroon |
| CIF | Cost, Insurance, Freight price |
| CMC | Cocoa Marketing Company, Ghana |

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|---|---|
| CNRA | Centre National de Recherche Agricole, Côte d'Ivoire / National Centre for Agricultural Research, Ivory Coast |
| COCOBOD | Cocoa Marketing Board, Ghana |
| CONAB | Companhia Nacional de Abastecimento, Brasil / National Supply Company, Brazil |
| COOPAG | Cooperativa Agrícola Gandu Ltda., Brasil / Agricultural Cooperative Gandu, Brazil |
| CORPEI | Corporación de Promoción de Exportaciones e Inversiones, Ecuador / Cooperation for the promotion of exports and investments, Ecuador |
| CRIG | Cocoa Research Institute of Ghana |
| CRIN | Cocoa Research Institute of Nigeria |
| CSR | Corporate Social Responsibility |
| CSSVDCU | Cocoa Swollen Shoot and Virus Disease Control Unit, Ghana |
| CSP | Cocoa Sustainability Partnership, Indonesia |
| Dekaindo | Dewan Kakao Indonesia / Indonesian Cocoa Board |
| DEVIDA | Comisión Nacional para el Desarrollo y Vida sin Drogas, Peru / Counter Narcotics Commission, Peru |
| DFID | Department for International Development, Great Britain |
| DUS | Droit Unique de Sortie, Côte d'Ivoire / export tax, Côte d'Ivoire |
| ECS | Ecuadorian Sucre (currency) |
| EEG | Export Expansion Grant, Nigeria |
| EFZ | Export Free Zones |
| EUR | Euro (currency) |
| FAEB | State Agriculture Federation of Bahia, Brazil |
| FBS | Farmer Business School |
| FIMR | Fonds d'Investissement en Milieu Rural, Côte d'Ivoire / Rural Areas Investment Fund, Ivory Coast |
| FIRCA | Fonds Interprofessionnel pour la Recherche et le Conseil Agricoles, Côte d'Ivoire / Interprofessional Fund for Research and Agricultural Extension Services, Ivory Coast |
| FFC | Fine or flavour cocoa |
| FMARD | Federal Ministry of Agriculture and Rural Development, Nigeria |
| FOB | Free On Board price |
| FODECC | Fonds de Développement des Filières Cacao et Café, Cameroun / Fund for the Development of the Cocoa and Coffee Sectors, Cameroon |
| Fundecau | Fundo Baiano de Defesa da Cacauicultura, Brasil / Cocoa Defense Fund, Brazil |
| GAP | Good Agricultural Practices |
| GBP | British Pound (currency) |
| GDP | Gross Domestic Product |
| GEPEX | Groupement des Exportateurs, Côte d'Ivoire / Association of Exporting Companies, Ivory Coast |

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| GERNAS | Gerakan Nasional, Indonesia / National Cocoa Program, Indonesia |
| GES | Growth Enhancement Scheme, Nigeria |
| GEX | Groupement des exportateurs, Cameroun / Association of Cocoa and Coffee Exporters, Cameroon |
| GFP | Good Financial Practices |
| GHS | Ghanaian Cedi (currency) |
| GIC | Groupements d'Intérêt Commun, Cameroun / Producer Organisations, Cameroon |
| GISCO | German Initiative for Sustainable Cocoa / Forum Nachhaltiger Kakao, Deutschland |
| GIZ | Deutsche Gesellschaft für Internationale Zusammenarbeit, Deutschland / German technical cooperation |
| GNI | Gross National Income |
| GNP | Good Nutritional Practices |
| ICCO | International Cocoa Organization |
| ICCRI | Indonesian Coffee and Cocoa Research Institute |
| IDH | Sustainable Trade Initiative (Netherlands) |
| IFAD | International Fund for Agricultural Development |
| IICA | Inter-American Institute for Cooperation on Agriculture |
| IITA | International Institute of Tropical Agriculture |
| IMF | International Monetary Fund |
| INCRA | Instituto Nacional de Colonização e Reforma Agrária, Brasil / National Institute for Colonization and Agrarian Reform, Brazil |
| INIAP | Instituto Nacional de Investigaciones Agropecuarias, Ecuador / National Institute of Agricultural Research, Ecuador |
| IPC | Instituto Pensar Cacau, Brasil |
| ISCocoa | Indonesian Standard for Cocoa Sustainability |
| LBC | Licensed Buying Company, Ghana |
| MAGAP | Ministerio de Agricultura, Ganadería, Acuacultura y Pesca, Ecuador / Ministry of Agriculture, Livestock, Aquaculture and Fisheries, Ecuador |
| MAPA | Ministério da Agricultura, Pecuária e Abastecimento, Brasil / Ministry of Agriculture, Livestock and Supply, Brazil |
| MINADER | Ministère de l'Agriculture et du Développement Rural, Cameroun / Ministry of Agriculture and Rural Development, Cameroon |
| MOF | Ministry of Finance, Ghana |
| MT | Metric Tons |
| NGN | Nigerian Naira (currency) |
| NGO | Non-Governmental Organisation |
| NIRSAL | Nigeria Incentive-Based-Risk-Sharing System for Agricultural Lending |
| OHADA | Organisation pour l'Harmonisation en Afrique du Droit des Affaires / Organisation for the Harmonisation of Business Law in Africa |

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| ONCC | Office National de Café et Cacao, Cameroun / National Coffee and Cocoa Board, Cameroon |
| ONCPB | Office National de Commercialisation des Produits de Base, Cameroun / National Office for the Commercialisation of Primary Products, Cameroon |
| PBC | Produce Buying Company, Ghana |
| PEN | Peruvian Sol (currency) |
| PPP | Public-Private Partnership |
| PPP | Purchasing Power Parity |
| PPPP | Plateforme de Partenariat Public-Privé / Platform for Public-Private Partnerships |
| PPRC | Producer Price Review Committee, Ghana |
| QCC | Quality Control Company, Ghana |
| SCPP | Sustainable Cocoa Production Program, Indonesia |
| SDA | Secretariat of Agricultural Protection, Brazil |
| SDC | Secretariat for Development of Livestock and Cooperatives, Brazil |
| SEBRAE | Serviço Brasileiro de Apoio às Micro e Pequenas Empresas / Micro and Small Business Support Service, Brazil |
| SECO | Schweizer Staatsekretariat für Wirtschaft / Swiss State Secretariat for Economy |
| SENAR | Serviço Nacional de Aprendizagem Rural, Brasil / National Rural Learning Service, Brazil |
| SENASA | Servicio Nacional de Sanidad Agraria, Peru / National Agricultural Health Service, Peru |
| SEWOH | Sonderinitiative 'Eine Welt ohne Hunger', Deutschland / Special Initiative 'One world without hunger', Germany |
| SICOOB | Sistema de Cooperativas de Crédito do Brasil / Credit Union of Bahia Ltda., Brazil |
| SIF | Système d'Information des Filières Cacao et Café, Cameroun / Information System for the Cocoa and Coffee Sectors, Cameroon |
| SODECAO | Société de Développement du Cacao, Cameroun / Development Corporation of Cocoa, Cameroon |
| SPD | Seed Production Division of COCOBOD, Ghana |
| SRI | Secretaria de Relações Internacionais, Brasil / Secretariat of International Relations in the Agribusiness, Brazil |
| SSAB | Sustainable Smallholder Agribusiness in Western and Central Africa (GIZ Programme) |
| UNCTAD | United Nations Conference on Trade and Development |
| UNDP | United Nations Development Programme |
| UNICEF | United Nations Children's Emergency Fund (UNICEF) |
| USAID | U.S. Agency for International Development |
| USD | US-Dollar (currency) |
| USDA | U.S. Department of Agriculture |
| VECO | VredesEilanden Country Offices, Belgium |

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| WCF | World Cocoa Foundation |
| XAF | Central African CFA Franc (currency) |
| XOF | West African CFA Franc (currency) |

## EXCHANGE RATES (on 1 April 2016)

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|---|---|
| BRL | Brazilian Real (currency); 1 EUR = 4.08 BRL |
| ECS | Ecuadorian Sucre (currency); 1 EUR = 27.4 ECS |
| EUR | Euro (currency) |
| GBP | British Pound (currency); 1 EUR = 0.79 GBP |
| GHS | Ghanaian Cedi (currency); 1 EUR = 4.34 GHS |
| NGN | Nigerian Naira (currency); 1 EUR = 223 NGN |
| PEN | Peruvian Sol (currency); 1 EUR = 3.72 PEN |
| USD | US-Dollar (currency); 1 EUR = 1.14 USD |
| XAF | Central African CFA Franc (currency); 1 EUR = 656 XAF |
| XOF | West African CFA Franc (currency); 1 EUR = 656 XOF |

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# "Strengthening the competitiveness of cocoa production and improving the income of cocoa producers in West and Central Africa"

## Annex

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# Annex I: Market concentration

## 1 MARKET CONCENTRATION WITHIN THE VALUE CHAIN

When invented, the expression value chain was used to describe procurement and production within companies. Nowadays, the expression describes a whole production process from raw material to processing of the final product to its consumption and/or disposal. A value chain analysis serves to capture all costs of the product. Additionally, it describes power relations between the actors in a production chain (Gereffi/Humphrey/Sturgeon 2005).

The description of the value chain can be used as a tool to detect what has to be done to improve the situation of single stakeholders. Therefore, a deeper understanding of the value chain helps to analyse the impact of measures to reduce the risk of poverty of stakeholders (Mitchell/Coles/Keane 2009).

### 1.1 The value chain of cocoa

The value chain of cocoa starts with (mainly small-scale) farmers who run their plantations, harvest cocoa pods and carry out the first processing steps, fermentation and drying of the beans. They sell the cocoa directly or via cooperatives and/or traders to exporters. These exporters sell the beans to grinders, which often also produce industrial chocolate and other upstream products. Most of the cocoa is used by specialized companies to produce chocolates. The last steps of the value chain are retailers who sell chocolate bars and other products to consumers.

Relations within the value chain of cocoa changed during the last decades as economies of scale became more and more important to reduce costs. At many levels in the cocoa chain, market concentration increased, both vertically (between different segments) as well as horizontally (within the same 'link' of the chain).

**Step 1: Farmers**

Production of cocoa nearly tripled from 1.172 million MT in 1960/61 to 4.233 million MT in 2014/15 (ICCO 2016c: Table 1). Meanwhile, the structure of cocoa production did not change significantly. Only the number of farmers increased when the areas planted with cocoa trees multiplied.

Presently, approximately 5.5 million small-scale producers grow more than 90% of the world harvest of cocoa. According to the latest available figures, only roughly 20% of all farmers are organized in groups or cooperatives. Especially in West Africa, there are currently extensive efforts taking place to support farmers to form groups and cooperatives.

Investments in large-scale cocoa plantations increased during the last years. Most of these plantations are set up in Latin America. Market experts predict that the amount of cocoa produced on large plantations will increase. As large-scale production realizes much higher yields per hectare than most smallholder plantations, the area planted with cocoa could be drastically reduced. The number of people employed per hectare would also be much lower due to modernized and partly mechanized production methods (Hawkins/Chen 2016a). The necessary investments to set up such a plantation in Latin America add up to approximately 12,500 USD/ha. The installation of irrigation systems would raise this price significantly to up to 20,000 USD/ha (Hawkins/Chen: 46, 51).

A recent development is the investment in company-owned plantations by chocolate producers. Ritter Sport started to set up a plantation in Nicaragua in 2013. In spring 2016, Mars bought a plantation in Ecuador (Hawkins/Chen 2016a: 49; Hawkins/Chen 2016b: 16).

Another possible future trend could be the reorganisation of small-scale farms into larger units. Alex Bruijnis, who works at the Ministry of Economic Affairs of the Netherlands and

who is Chairman of the International Cocoa Organization's (ICCO) Council for a Sustainable World Cocoa Economy, presented his vision for the cocoa market in 20 years' time at the Third World Cocoa Conference in 2016. He hopes that 10% of the cocoa comes from large, modern plantations while 90% comes from smallholder farmers. They would then be organized and would grow their trees from proved planting material using good agricultural practices on an average farm size of 5 ha (Bruijnis 2016: 7). If this became true, the number of farmers would decrease significantly.

**Step 2: Trade with Cocoa**

The structure of cocoa trade within producer countries underwent drastic changes. There are still huge differences between the countries (see chapter 4) but some general trends can be observed.

The liberalization of cocoa markets during the last two decades of the last century accelerated the concentration process and squeezed many small cocoa traders out of the market. They had to fight with high operating costs which big transnational companies were able to manage more easily (Gilbert 2009: 301; Gayi/Tsowou 2015: 14).

Some companies which had so far been important to the sector, vanished only a couple of years ago. The large cocoa trader Armajaro was bought by Ecom. Petra Foods' cocoa division was sold to Barry Callebaut. Continaf withdrew from trading cocoa.

During the last decades, different strategies could be monitored. Until a couple of years ago many companies kept those parts of their businesses which were their core interest and got rid of other parts. Chocolate companies sold for example grinding factories and cocoa trading arms; grinding companies sold their cocoa trading facilities. Some companies have recently been trying to regain control over different steps of the value chain. Particularly grinders are integrating cocoa traders and local exporters into their businesses to get more control over the supply chain. Many grinders purchase more and more of the needed cocoa via subsidiaries or directly in producing areas. They outsource only services like transport and storing to specialised companies. Therefore, companies who focus exclusively on trading cocoa either closed down, merged with other companies or expanded their business into grinding (Fold/Neilson 2016: 201-202).

**Step 3: Grinding and Production of Pre-Products**

Grinding and chocolate production nowadays mainly takes place in large and capital-intensive factories which ideally run at maximum capacity 24 hours a day. Only large companies with a high turnover have access to favourable credit arrangements to invest in such factories and to manage the risks of their business. Therefore, many cocoa processors "*compete on cost, not prices*" (Gilbert 2009: 301).

The concentration process "a*ccelerated at the end of the 1980s when two multinationals, Archer Daniels Midland (ADM) and Cargill, entered the cocoa industry. These large trading companies integrated upstream in the cocoa chain by buying export companies in producing countries. They also integrated downstream into the grinding of cocoa beans and manufacturing of industrial chocolate. At the same time, the major chocolate manufacturers, such as Cadbury, Suchard and Nestlé, which were involved in the entire cocoa transformation process, from cocoa grinding to the manufacture of the consumer product, outsourced the production of the semi-finished cocoa products*" (Bonjean/Brun 2016: 340).

As a reaction to the emergence of new powerful companies, Cacao Barry and Callebaut merged in 1996. Barry Callebaut became the leading cocoa processing company and owns about a quarter (as of 2014) of all cocoa processing capacities worldwide (Bonjean/Brun 2016: 348).

This process of concentration continued during the last decade. In 2013 the biggest three cocoa traders Barry Callebaut, Cargill and ADM traded 50 to 60% of the world cocoa production (Gayi/Tsowou 2015: 14) and controlled approximately 60% of the grinding capacities (Fold/Neilson 2016: 201). In 2015 ADM sold its cocoa trade divisions to Olam

and its chocolate production to Cargill. Now the three largest companies, Barry Callebaut, Cargill and Olam, own approximately 65% of the global grinding capacities (for details see Table 1). Barry Callebaut and Cargill control approximately 70-80% of the world's couverture production (Fountain/Hütz-Adams 2015: 6-7).

**Table 1: Grinding capacities**

| Cocoa processor | Grinding capacity in 1,000 MT | % of forecasted processing of cocoa, 2015 |
|---|---|---|
| Barry Callebaut | 1,200 | 28.48 |
| Cargill | 800 | 18.98 |
| Olam International | 730 | 17.32 |
| Blommer Chocolate Company | 290 | 6.88 |
| Guan Chong | 200 | 4.75 |
| JB Foods | 150 | 3.56 |
| BT Cocoa | 120 | 2.85 |
| Ecom Agroindustrial Corp. | 110 | 2.61 |
| World Total | 3,600 | 85.43 |

**Source: Hawkins/Chen 2016b: 9.**

### Step 4: Chocolate Production

Very few chocolate producers nowadays work from the bean to the bar. Companies like Lindt & Sprüngli, Ferrero and Hershey's buy cocoa beans which they then grind and transform into chocolate in their own factories. Many other companies, including Mars, Mondelēz and Nestlé rely partly or even completely on grinders who produce their required amounts of industrial chocolate.

Within the chocolate sector some companies grew significantly by expanding their range of products, partly boosted with the takeover of other companies. The most spectacular move was the acquisition of Cadbury by Kraft Foods, which then changed its name to Mondelēz. The market share of the six biggest chocolate companies is around 60% of the global turnover with chocolate products of approximately 120 billion USD in 2015 (KPMG 2016: 2; for details see Table 1). In June 2016, Mondelēz tried to buy Hershey's, a merger that could make the company the biggest chocolate producers of the world.

**Table 2: Sales values of the largest confectionery companies**

| Company | Net sales in million USD, 2015 |
|---|---|
| Mars Inc (USA) | 18,400 |
| Mondelēz International (USA) | 16,691 |
| Nestlé SA (Switzerland) | 11,041 |
| Ferrero Group (Luxembourg / Italy) | 9,757 |
| Meiji Co Ltd (Japan) | 8,461* |
| Hershey Co (USA) | 7,422 |
| Chocoladenfabriken Lindt & Sprüngli AG (Switzerland) | 4,171 |
| Arcor (Argentina) | 3,000 |
| Ezaki Glico Co Ltd (Japan) | 2,611* |
| Yildiz Holding (Turkey) | 2,144 |

*** This includes production of non-confectionery items**
**Source: ICCO 2016d, based on data of Candy Industry from Jan 2016.**

**Step 5: Retailers**

In Germany, most chocolate products are sold via retailers. Within the retail sector massive concentration processes took place. In Germany, five companies (Rewe Group, Edeka, Schwarz Group, Aldi Süd, Aldi Nord) control more than 80% of the retail market. In Switzerland, only two companies (Coop, Migros) have a similar market power. Some of the retailers which started as national players, nowadays operate as global companies.

The retailers sell a wide variety of chocolate products. Some of these are brands of multinational chocolate producers while others are private brands of retailers. A new trend could be that retailers set up their own chocolate production factories like Lidl did in Germany. Besides these big retailers, many chocolate and other products made from cocoa are sold in small shops and kiosks, canteens, pubs, bakeries and restaurants.

## 1.2 Germany: Fierce competition in the chocolate sector

The German retail market for food products is highly competitive and price levels are much lower than in most other Western European countries. The five biggest players are Rewe Group, Edeka, Schwarz Group, Aldi Süd and Aldi Nord which have a share of more than 80% of the German food market. For a long time, they tried to increase their respective market shares mostly by offering products at the lowest price. As a result, all of them developed their own low-cost brands. These products generally are sold at exactly the same price, regardless of the retailer.

For German retailers chocolate is a so-called anchor product: most customers know the price of certain products. A 100-gram bar of full milk chocolate is one of these key products with which retailers can attract customers to choose their supermarkets.

Historically, chocolate prices in Germany were much higher than nowadays. Between 1950 and 2002 the price of a common 100-gram bar of full milk chocolate was stable at around 1 Deutsche Mark (0,5 EUR) while inflation over the same period was at 322%. After the introduction of the Euro, companies tried to increase prices but the attempt failed (Freiberger 2010). Prices declined further. Particularly, retailers' own brands set reference prices for low cost chocolate. Between 2010 and 2015 these were as low as 0.35 EUR for a 100-gram bar. The decrease of prices can be partly explained by more efficient factories, lower transport costs and more efficient retailers which often calculate very low margins to secure a low price of their anchor product. Additionally, the low price segment for chocolate is only one of a large variety of chocolate products. Beside low-cost chocolate, producers offer many varieties of cocoa in the mid- and high-price range.

Only a few years ago many retailers were not aware of human rights problems within the value chain of cocoa. Replies on a questionnaire sent to the most important German retailers in 2011 show that none of the companies had a strategy to tackle sustainability issues within their chocolate supply chain (Hütz-Adams 2011: 38).

This changed dramatically within a few years. Most of them are nowadays members of the German Initiative for Sustainable Cocoa (GISCO). Members of this initiative claimed to have purchased 49% of their cocoa used in 2015 from sustainable sources, mainly certified by one of the three main standard organisations UTZ Certified, Rainforest Alliance/SAN and Fairtrade. Some retailers (with a market share of approximately 30%) went even further by producing their own brands exclusively or nearly exclusively with certified cocoa.

# Annex II: Country profiles

## 2 CÔTE D'IVOIRE

### 2.1 General framework conditions

65% of Côte d'Ivoire's total area of 322,463 sq km is agricultural land of which 14.2% is used for cultivation of permanent crops. Côte d'Ivoire counts a population of 23.3 million (estimate July 2015) of which almost 60% are younger than 24 years. 54.2% of the population lives in urban areas; urbanization has increased from 2010 to 2015 by approximately 3.7% per annum (CIA World Factbook 2016).

In 2015, 46.3% of the Ivorian people lived below the national poverty line of 1.25 USD/day, as opposed to 48.9% in 2008. Poverty is still considerably more prevalent in rural areas (56.8%) than in urban areas (35.9%) (IMF 2015g: 6).

On a political level, after a decade of civil war which ended in 2011, Côte d'Ivoire held peaceful, free and fair elections according to international observers. In October 2015, President Alassane Ouattara was confirmed in office with about 84% of votes.

Following the end of civil conflict, the country has experienced economic growth rates of 8 to 10%. GDP per capita (PPP, at current USD) for 2015 is at 3.496 USD (World Bank 2016d). The following sectors contribute to the country's GDP: agriculture with 17.4%, industry with 20.3% and services with 62.2% (2015 estimate, CIA World Factbook).

According to the IMF, "*Côte d'Ivoire's macroeconomic stability has been restored and strong growth over the last four years has lifted real per capita income by some 20%. The fiscal position has also strengthened, while needed infrastructure and pro-poor spending have increased. As a result, poverty has declined but remains high*" (IMF 2015g: 1). In June 2012, the IMF and the World Bank announced 4.4 billion USD in debt relief for Côte d'Ivoire under the Heavily Indebted Poor Countries Initiative.

### 2.2 Relevance of the cocoa sector

Côte d'Ivoire is the world's largest producer and exporter of cocoa beans with a 41% market share, as well as cashew nuts and a significant producer and exporter of coffee and palm oil (IMF 2015g: 6). Consequently, the economy is highly sensitive to fluctuations in these products' world market prices as well as to changes in climatic conditions. Agriculture engages roughly two thirds of the population.

Cocoa is Côte d'Ivoire's main crop in terms of production and export. In 2015, it contributed an estimated 15.3% to its GDP. Over the years, cocoa's share in Ivorian exports has decreased from 26.5% (2005) to 23.8% (2009) (Abbott 2013: 254). With a total value of 2.4 billion XOF (approx.3.7 billion EUR) in 2014, cocoa contributed approximately 37% to Côte d'Ivoire's exports (IMF 2015g: 24).

In 2015 the terms of trade for Côte d'Ivoire improved by almost 30% due to higher cocoa prices and the depreciation of the XOF (which is pegged to the EUR) against the USD which boosted prices in domestic currency. The country's overall exports increased by almost 14% in 2015, especially due to higher cocoa exports. Excluding cocoa, Côte d'Ivoire's export value would have remained almost the same (IMF 2015g: 7).

Numbers about the amount of households involved in cocoa production vary considerably. Numerous stakeholders referred to approximately 800,000 cocoa farming households and about 8 million people living off cocoa production. However, these numbers are reported to be outdated. There might be as many as 1.3 million cocoa farming households in the country (Int. 1, 5, 12[1]). The *Conseil du Café-Cacao* (Coffee

[1] Interview partners have been anonymised by numbering the interviews. See Annex III for a list of interviewees.

and Cocoa Board; CCC), the national cocoa board, is currently planning a cocoa production census, including cocoa producers as well as the location and size of their plantations. The census is expected to be finalized mid-2017 (Int. 21).

Farm sizes in Côte d'Ivoire are reported to be between 1.5 and 5 ha (Abbott 2013: 266). Interviews carried out with sector stakeholders in Côte d'Ivoire state an average of 2.53 ha per farmer. Moreover, it is estimated that the country has registered between 2,500 and 3,100 cooperatives under the OHADA law (Int. 5, 8, 21), representing about 25-30% of farmers[2]. However, a large share of these cooperatives are not functional and do not offer services to their members (Int. 8).

Certification of cocoa plays a considerable role in Côte d'Ivoire. According to standard organisations' numbers, in 2014 more than 900,000 MT of cocoa produced was certified (Lernoud et al. 2015: 124-126; UTZ 2016: 25). This number is most likely to include a large share of double and triple-certified cocoa and therefore needs to be taken with utmost caution. Overall, it is reported that approximately 300 cooperatives are certified by at least one standard, many of them by two or more (Int. 5).

## 2.3 External impacts on cocoa production

### 2.3.1 Influence of the world market and international prices

Due to the 2012 cocoa sector reform in Côte d'Ivoire, international prices do not influence the farm gate price on a short term base as strongly as this was the case during a liberalised market. The farm gate price is fixed at a minimum of 60% of CIF price which translated for the 2015/16 season into 1,000 CFA/kg of dried beans.

CIF prices depend on the world market price which means there still is an influence of the world market price, but it is less strong than before. Also, with the newly introduced system of forward sales, the prices for a season are fixed ahead of time and are thus not subject to potential short-term volatility on world markets.

Prices are calculated for each season based on the realised CIF price during forward auctions. The CCC prepares a scale (*barème*) for each harvesting season starting from the guaranteed minimum price at farm gate and including remunerations for the different actors along the value chain (e.g. cooperatives, exporters) and cost factors (e.g. bags, storage, taxes) involved.

Fig. 1 shows farm gate prices in Côte d'Ivoire from 2002/03. Starting from the 2012/13 season, the guaranteed minimum farm gate price was applied. The depiction shows that overall the farm gate price for Ivorian farmers has increased. Income for cocoa producer households increased from 1,041 billion CFA (1.6 billion EUR) in 2012/13 to 1,310 billion CFA (2 billion EUR) in 2013/14 and to an estimated 1,513 billion CFA (2.3 billion EUR) in 2014/15 (CCC 2015: 8).

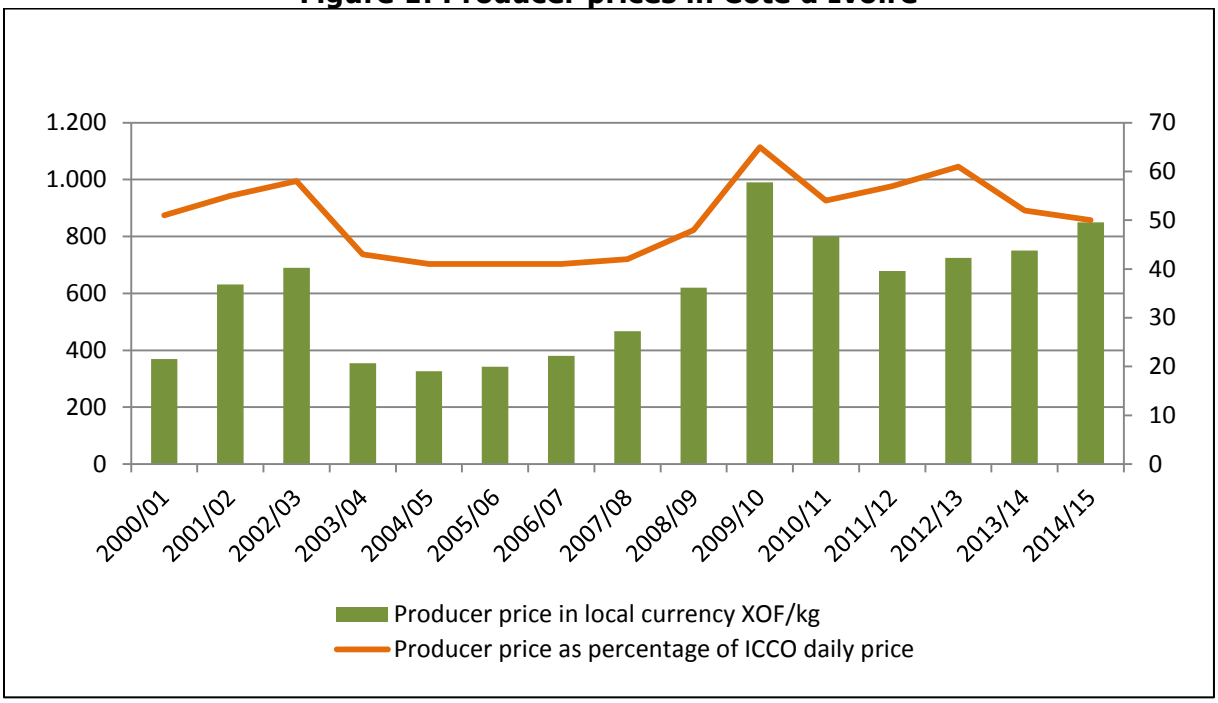
World market prices, however, influence Ivorian export taxes. Being defined as a percentage value of CIF price, they increase as world prices increase and fall with falling prices (Abbott 2013: 259). Taxes currently are at 22% of CIF price, approximately 19% flow directly into the CCC's budget, whereas the remaining 3% fund the *Fonds Interprofessionnel pour la Recherche et le Conseil Agricoles* (Interprofessional Fund for Research and Consultancy in Agriculture; FIRCA) and the *Fonds d'investissement en milieu rural* (Rural area investment fund; FIMR) (Int. 20).

Interview partners reported that, due to close follow-up and sanctions by the CCC for non-respect, the minimum price is generally respected. Farmers seem overall satisfied with the new arrangement after the reform, especially with the minimum price. Criticism comes quite strongly from cooperatives and cooperative unions since the margin of 88 XOF/kg of dried beans (5 XOF of which go to unions) does not allow them to offer their

[2] OHADA is the *Organisation pour l'harmonisation en Afrique du droit des affaires* (Organisation for the harmonisation of business law in Africa), which includes 17 member states in West and Central Africa.

services sustainably and in good quality. Additionally, the margin is the same for all cooperatives independently of their size, location or availability of infrastructure. The situation is reported worse for cooperative unions which receive now 5 XOF/kg as opposed to 10 XOF/kg before the reform (Int. 3, 4, 5, 14, 22, 25).

**Figure 1: Producer prices in Côte d'Ivoire**




**Source: ICCO 2016f**

As for exporters, they criticize the fact that their margin of 14 XOF/kg of dried beans has been defined in absolute terms as opposed to a percentage like some of the other items. This means that their margin does not increase with increasing world market prices, but has decreased in relative terms from approximately 1.4% in 2012 to approximately 0.8% during the 2015/16 season. This adds to the fact that an increasing farm gate price means increasing investments in pre-financing by exporters while their absolute margin drops (Int. 13, 14, 20).

### 2.3.2 The cocoa value chain in Côte d'Ivoire

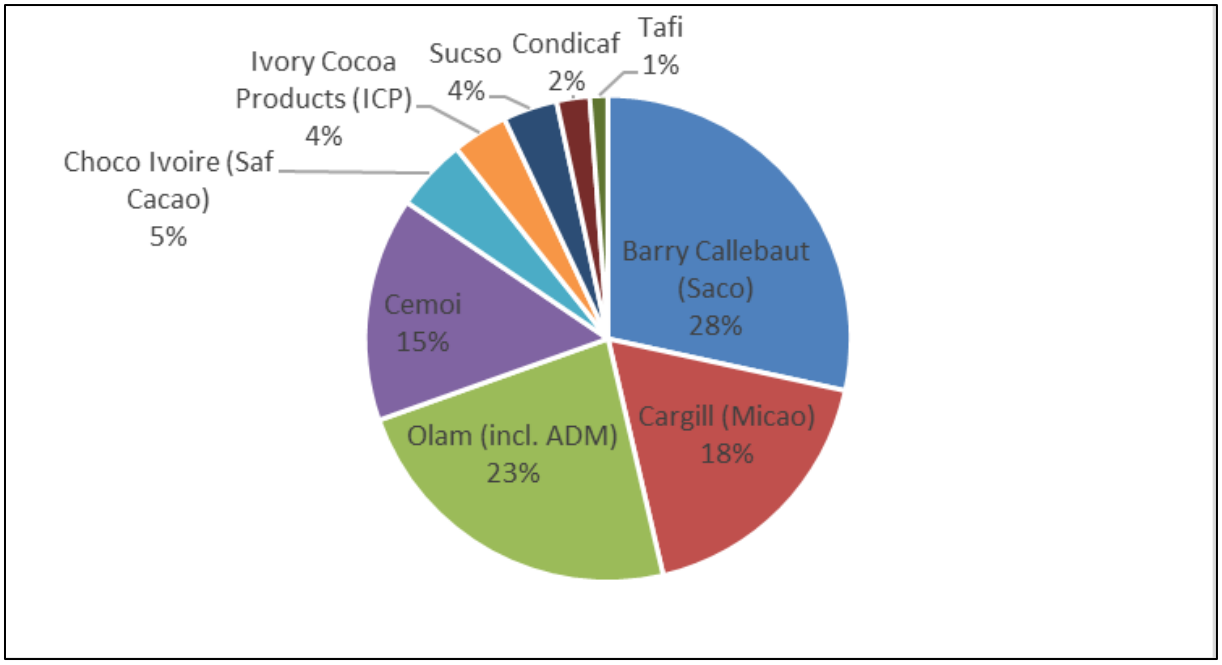
Cocoa beans in Côte d'Ivoire are produced in an extremely fragmented way by a large number of smallholder farmers on generally small plots. Cocoa beans are fermented and dried on cocoa farms. Very few farmers are organized into producer organisations and there is no organisation at the national level representing all cocoa farmers. Farmers belonging to a cooperative sell (part of) their dried beans to the cooperative. However, non-organized farmers sell their produce at farm gate to middle men (called *pisteurs*). These intermediaries are sometimes independent and sometimes employed by traders. Poor roads, especially in very remote areas, are an advantage to middle men since, if existing, cooperatives often do not have the means to provide transport to their members. The guaranteed fixed price has, however, led to a consolidation of middle men (Int. 16). Traders as well as cooperatives deliver cocoa beans to local and multinational exporters (Abbott 2013: 261).

Exporters are organized in the *Groupement des exportateurs* (Association of Exporting Companies; GEPEX) which has 22 members representing 80% of Côte d'Ivoire's cocoa export and roughly 500,000 MT of grinding (Int. 13). The GEPEX's main task is to represent members' interests at the CCC as well as with customs.

Available grinding capacity in Côte d'Ivoire has increased from the 2012/13 season to the 2013/14 season from 585,000 MT to 706,000 MT, corresponding to about 40% of national production. However, not all installed capacity is used: only less than a third of cocoa produced is transformed in the country (2011/12: 29%, 2012/13: 30%, 2013/14: 31%) (CCC 2015: 11). Whereas early in-country cocoa processing efforts reportedly produced low quality products, new processing plants of multinationals in Abidjan and San Pedro seem to produce quality equal to that produced in Europe or the United States. Production cost in Côte d'Ivoire (and overall in Africa) is however higher. Most incentives for companies to process in Côte d'Ivoire come from reduced export taxes (*droit unique de sortie;* DUS) for processed products. These which were abolished during the recent reform (Int. 20), however, recently reintroduced (Reuters 2016a).

In Côte d'Ivoire 12 companies transform cocoa beans into paste, powder, butter and liquor (Int. 13). However, the market is dominated by a handful of foreign grinders and has even become more concentrated with Olam's acquisition of ADM in late 2015 (Reuters 2015). Olam, Saco/Barry Callebaut and Micao/Cargill based on 2014 data dominate 69% of the market (Ecobank 2014b: 4, adjusted for ADM acquisition; see Fig. 2).

**Figure 2: Grinding sector in Côte d'Ivoire, 2014**




**Source: Ecobank 2014b, adjusted for ADM acquisition.**

Manufacturing and consumption of chocolate and the use of cocoa in processed foods still occur primarily in countries of the Global North (Abbott 2013: 260).

## 2.4 Overview and impact of development partners and private sector projects

A number of international development partners is present in Côte d'Ivoire's cocoa sector, such as the German technical cooperation (*Deutsche Gesellschaft für Internationale Zusammenarbeit;* GIZ) and the Bill and Melinda Gates Foundation. However, engagement by private cocoa and chocolate companies outweighs development partners' involvement by far. Many projects are structured as public-private partnerships whereby development partners or donors, private companies and/or standard setters collaborate with international non-governmental organisations (NGOs) which are implementing programmes for the former. There is no overview of programmes, partners

or committed funding publicly available. At the same time, some of the exporters implement programmes on their own, as well as on behalf of chocolate producing companies. As such, Mondelēz implements Cocoa Life together with three of their suppliers (Olam, Ecom, Barry Callebaut). These, however, in some cases implement their own programmes as well as collaborate with other clients. Many of the projects are finally implemented by the same few international NGOs present in Côte d'Ivoire (Solidaridad, Socodevi, Care, etc.).

Most projects aim at improving farmers' productivity. However, especially with the World Cocoa Foundation's recently launched programme CocoaAction[3], community development has become a more important component of projects. Coordination among CocoaAction members is reported to have increased considerably. However, stakeholders who are not part of CocoaAction state that they have not been included in these coordination efforts (Int. 5, 17).

Many projects only reach farmers who are organized in producer organisations or cooperatives. Since less than a fifth of farmers are organized (probably even much less), there is a tendency for projects to work with the same farmers and cooperatives. This is especially the case when private sector partners are involved, since most companies work with farmers who supply cocoa to them. In general, this means that these farmers are in some way organised, since otherwise it would be very expensive for companies to work with them. The same is also true for certification: Many of the cooperatives that are certified are double- or triple-certified (UTZ, Rainforest Alliance/SAN and/or Fairtrade) (Int. 5, 10).

Interview partners criticise that subsequent programmes do not take achievements of former projects sufficiently into account, nor do they build on them (Int. 6, 22).

## 2.5 Impact of public policies on the cocoa sector and its competitiveness

After inauguration in 2011, the by this time new president Ouattara put in place his programme *Vivre ensemble* (living together) with the objective of improving Côte d'Ivoire's development indicators (CCC 2015: 4).

With regards to the cocoa sector, his reform incorporates three pillars (Agritrade 2012):

The establishment in January 2012 of a national coffee and cocoa board, CCC, with representatives of all stakeholders, responsible for the management, regulation, development and price stabilisation;

The establishment of a new marketing mechanism involving the forward sale of 70 - 80% of the following year's crop through two daily auctions. The guaranteed minimum price is based on these forward sales auctions. Although initially boycotted by a number of exporters, the system is currently reported to work well which was confirmed by an independent audit.

Setting up of a reserve fund at the *Banque Centrale des États de l'Afrique de l'Ouest* (Central Bank of West African States; BCEAO) to cover risks beyond the normal operations of the price guarantee scheme to support the new marketing arrangements. The fund is thought to protect against a potential major drop in world cocoa prices.

The CCC's mission regarding cocoa is to:

- maintain Côte d'Ivoire's position as the world's leading cocoa production country;
- improve the quality of cocoa and coffee;
- guarantee a farm gate price for cocoa of 60% of CIF;
- improve the living conditions for farmers;

[3] CocoaAction is an industry-wide strategy that aims at aligning ten of the world's largest cocoa and chocolate companies, as well as origin governments, and key stakeholders on regional priority issues in cocoa sustainability (http://www.worldcocoafoundation.org/about-wcf/cocoaaction/).

- process at least 50% of cocoa production in-country by 2020; (CCC 2015: 4)

In Mai 2012, the CCC put in place the *Plateforme de Partenariat Public-Privé* (Platform for Public-Private Partnerships; PPPP). The PPPP's purpose is to ensure coordination of initiatives as well as the mobilisation and optimization of technical, human and financial resources for the implementation of the national programme for sustainable development of the coffee and cocoa sectors, *Qualité, Quantité, Croissance* (Quality, Quantity, Growth; 2QC). The PPPP has approximately 75 members from the public and private sectors, including farmers and development partners. It has 7 working groups of which not all are equally active (Int. 10).

The CCC estimates that the implementation of the 2QC programme will cost approximately 700 million EUR over ten years, i.e. 70 million EUR per year. The CCC will cover one third and partners should cover two thirds. Approximately 75% of the funds will be invested in productivity of plantations and 25% in community development (CCC Touré-Litsé 2014: 7).

Extension services and research are provided by three individual structures. They are implementing the CCC's policy (Int. 17):

Anader is the public extension service and was set up in 1993/94 by merging several then existing sector structures. Anader employs about 450 extension officers working in 48 different regions in the coffee and cocoa sector. Anader has a three-year contract with the CCC, coming to an end in 2017 and encompassing a programme with five pillars: good agricultural practices (GAP), reviving coffee growing, input provision to young farmers, support to cooperatives, and fight against swollen shoot.

The *Centre National de Recherche Agricole* (National Agricultural Research Centre; CNRA) is under the auspices of the *Ministère de l'Enseignement Supérieur et de la Recherche Scientifique* (Ministry of Higher Education and Research) and is responsible for agricultural research, including the cocoa sector. The CNRA provides cocoa seedlings distributed by the CCC.

The *Fonds Interprofessionnel pour la Recherche et le Conseil Agricoles* (Interprofessional Fund for Research and Agricultural Extension Services; FIRCA) is under the auspices of the *Ministère de l'Economie et des Finances* (Ministry of Finance) and manages the funds available for development programmes of the coffee and cocoa sectors.

The provision of inputs is mostly implemented by the CCC itself.

## 2.6 Political historical developments of the cocoa sector

Cocoa cultivation in Côte d'Ivoire started around 1880. Vellema et al. (2016) split up the development of the cocoa sector policy in Côte d'Ivoire in four periods (Vellema et al. 2016: 232): the period from 1960 to 1990 is characterised by institutional stability and state governance. The private sector took care of production, collection, storage and shipping. Whereas collection and storage was dominated by Lebanese, marketing and shipping was in the hands of French companies. A centrally and publicly managed stabilization system, the *Caisse de Stabilisation* (Stabilization Fund; Caisstab), licensed private buying agents and export firms and regulated trading through buying quotas and annually fixed cocoa prices for each of the different actors along the value chain. This system of state control over the market via the Caisstab benefitted political protégés. It also allowed for high tax revenues for the government. Nevertheless, it was able to provide some price certainty to farmers.

Moreover, planting areas increased significantly and hundreds of thousands of labourers from neighbouring countries migrated into Côte d'Ivoire to work on plantations as day labourers or to put up their own plantations (Hütz-Adams 2010: 22). This helped Côte d'Ivoire to increase cocoa production in the 1980s and 1990s, whereas it led to political tensions in the 2000s (Abbott 2013: 266). About one quarter of households in cocoa

growing regions are migrant households, most of which come from Burkina Faso, some from Mali and other countries (Republic of Côte d'Ivoire 2008: 37).

Towards the end of the 1980s, cocoa prices fell. Between July 1987 and October 1989 the Ivorian government blocked its cocoa bean exports in what is known as the "cocoa strike". However, the market looked for other cocoa sources which led to the collapse of the Ivorian cocoa system (Vellema et al. 2016: 232).

From 1990 to 2000, the Ivorian government started liberalizing the cocoa sector based on negotiations with the IMF. The Caisstab was dissolved in 1999. As a result, Ivorian prices became volatile and quality deteriorated. With World Bank support, the *Autorité de Régulation du Café et du Cacao* (Coffee and Cocoa Regulation Authority) was set up to manage quality and price risk, as well as export credits. At the same time, the grinding and export market concentrated and was largely split up between half a dozen multinationals. Small local exporters were no longer able to secure financing without a state guarantee (Vellema et al. 2016: 232).

Between 2000 and 2007, Côte d'Ivoire was characterized by high political instability due to a military coup in 1999, an army rebellion in 2002 and several postponements of presidential elections. The conflict divided the country in a government-controlled Southern and a rebel-controlled Northern area. Most cocoa was produced in the South, and cocoa produced in the Northern part was exported via Ghana and Burkina Faso. Civil society raised concerns about income from cocoa being used to fund the war (Vellema et al. 2016: 233). Due to soil depletion increasingly arable land was used for cocoa plantations. With land becoming scarce and unclear land rights, conflicts between locals and foreign and internal migrants arose which led to unrest with hundreds of casualties in 2002. Cocoa has ever since been an important source of funding of armed conflict in Côte d'Ivoire, not least during the civil war from 1999 to 2011 (Hütz-Adams 2012: 12). In 2008, President Gbagbo set up the provisional *Comité de Gestion de la Filière Café Cacao* (Management Committee for the Coffee and Cocoa Sectors; CGFCC) (Vellema et al. 2016: 234).

# 3 GHANA

## 3.1 Framework of the cocoa sector

**Background of cocoa production**

On 6 March 1957, as one of the first of the former British colonies, Ghana became independent. A few years later, political disputes and military coups shook the country. In 1981 the young officer Jerry J. Rawlings took over power after a coup d'état. He stabilized the country and reintroduced democratic elections which he won in 1992 and 1996. Since then, the parties in power changed regularly after democratic elections. The economy of Ghana has grown fast since 1998 and growth accelerated strongly with the beginning oil production in 2011.

The IMF projects for the next years an average yearly growth rate of about 6% for non-oil products and a declining oil production after 2018 (IMF 2015a: 7). In 2010, the government corrected their statistical economic data. Based on new data, the Statistical Office estimated that the GNI was 60% higher than previously calculated. This was partly due to the fact that older data acquisitions had not assessed the service sector properly. According to the new data, this sector alone generates 51.1% of the GDP followed by agriculture with 30.2% and industry with 18.6% (GSS 2010: 1-2). Based on these figures, Ghana is now classified by the World Bank as a Lower Middle Income Country.

The economic growth was accompanied by a reduction of poverty. According to the Ghanaian government the percentage of people living below the poverty line decreased from 52% in 1991 to 28.5% in 2006 (Republic of Ghana 2010: 96). Poverty rates differ within the country. In the Southern part, especially in urban areas, poverty is much lower than in the Northern regions (Coulombe/Wodon 2007: 9).

**History and relevance of cocoa production**

Farmers in Ghana started growing cocoa in 1879. The first documented export to Germany was in 1893. In the following decades cocoa plantations expanded massively. Between 1922 and 1978, Ghana was the biggest exporter of cocoa worldwide. After independence cocoa export was the main source for foreign exchange. But low farm gate prices in the 1970s, a drought in 1982 and devastating bushfires in 1984 combined with increasing problems with pests and diseases led to a shrinking cocoa harvest (Boas/Huser 2006: 33-34; Ton et al. 2008: 7; Anthonio/Aikins 2009: 1-3).

This was exacerbated by massive problems in the marketing of cocoa (see below). At the end of the 1980s, the situation improved slowly and exports started to rise again and reach former levels. The situation further improved in the beginning of the 2000s and cocoa production went back to levels even higher than in the 1960s. During the last years the average harvest was around 850,000 MT annually (Quartey undated: 2; Republic of Ghana 2008: 3; Anthonio/Aikins 2009: 1-3; ICCO 2016c: Table 4).

Until a couple of years ago cocoa generated around a third of Ghana's export earnings. This share decreased due to the start of oil production. In 2014 cocoa was the third largest export product with a share of 20% (2.6 billion USD) in total exports (13.2 billion USD) (IMF 2016b: 31). Cocoa was and is a major contributor to the tax income of the government; the even more important export sectors, gold and oil, do not generate high amounts of taxes as they profit from many tax exemptions.

Additionally, cocoa is an important tool to guarantee the liquidity of the Ghanaian government. The government issues every year a bond which is secured by the predicted income from selling the cocoa of the next harvest. Potential investors know that due to the forward cocoa selling system (see below) the bond is a low risk investment. The Ghanaian government pays for the bond much lower interest rate than it would have to pay for a bank loan.

## 3.2 Present Situation

**Production, productivity and the number of farmers**

Nowadays, Ghana is the world's second biggest cocoa producer and well known for the quality of its beans. Depending on the source, between 700,000 to 1,000,000 farmers can be counted in Ghana. Most of the farmers are smallholders who on average plant 2-3 ha with cocoa trees and harvest approximately 400 kg/ha (Republic of Ghana 2008: XXIV; Hainmueller/Hiscox/Tampe 2011: 14, 20; Hawkins/Chen 2016a: 17).

The COCOBOD estimates that 2.7 million ha are planted with cocoa trees of which only approximately 1.9 million ha are productive (Hawkins/Chen 2016a: 17).

Including families of the farmers, employees of trading companies and workers in production and trade of agricultural inputs, the cocoa sector provides income for millions of people. Improvements in the cocoa sector would have a massive impact on the reduction of Ghana's poverty.

In the 2010/11 season Ghana had a record harvest of approximately 1 million MT. This was achieved by a combination of favourable factors which included good weather conditions, increased pest and disease control, more fertiliser application and improved agronomic practices combined with an increased farm gate price (Ashitey 2012: 4). Additionally, cocoa originating from Côte d'Ivoire was smuggled across the border due to the higher cocoa price in Ghana and the civil war in the neighbouring country (ICCO 2011: vii).

But in the following years production fluctuated strongly. The exceptional significant production decline down to 740,000 MT in the 2014/15 harvesting season can only partly be explained by climate influences. The macroeconomic situation with its high inflation and interest rates led to decreasing real prices for cocoa on farm gate level of approximately 15% since the absolute farm gate price remained stable. Additionally, input distribution subsidised by the COCOBOD was reduced due to financial constraints. The farm gate price on a level of only about 50% of the world market price encouraged farmers to smuggle cocoa to neighbouring countries (Verein der am Rohkakaohandel beteiligten Firmen e.V. (Ed.) 2015: 16-18).

**Legal framework and governance structure**

According to one interview partner "*the COCOBOD is the mother of cocoa*" (Int. 33). To understand this remark and similar comments from other interview partners requires looking into the development of cocoa production in Ghana.

The COCOBOD has a history of nearly 70 years. During the 1930s, when Ghana was still part of the British colony Gold Coast, the British company Cadbury & Fry controlled the cocoa business. It paid premium prices for good quality and supported the extension of the cocoa production. Other companies entered the market and refused to pay premiums. Ghanaian farmers went on strike in 1930/31 and again in 1937. They wanted to enforce higher farm gate prices. As they had no warehouses available to store the cocoa they burned part of the harvest. Additionally, the farmers and their organisation tried to set up their own cocoa exporting business. In 1937, after eight months of strike, the British government intervened and appointed the "Nowell-Commission" which developed a plan to regulate the market. In 1940 the British government established the West African Produce Control Board which was responsible to buy the cocoa and to set a price for all West African producer countries under British rule (Ton et al. 2008: 8; CMC undated).

This organisation was transformed into the Cocoa Marketing Board (COCOBOD) in 1947. The COCOBOD licensed cocoa traders, regulated the market - which was mainly controlled by private companies - and set a minimum price (CMC undated; Ton et al. 2008: 8-9; Anthonio/Aikins 2009: 2).

The power struggle within the cocoa sector was part of a general power struggle within the country. British authorities started to regulate the sector to prevent the emergence of

strong farmer organization. In the first years of independence the cocoa sector became politicized again as there were conflicts between the governing party and the authorities in the main cocoa growing area, the Ashanti region (Müller 2007: 23, 29-30).

After independence the system stayed in place but underwent reforms. The Cocoa Marketing Company (CMC) was established as a subsidiary of the COCOBOD to control and organise the trade with cocoa. During the next years the government charged high taxes and marketing costs on the cocoa sector. These were used to provide subsidized inputs and extension services and to finance the development of the country. From the cocoa farmers' position not much of the cocoa taxes was invested in the cocoa producing regions. Additionally, the cocoa farmers like all Ghanaian citizens, suffered from a high inflation rate. During the 1970s, corruption, mismanagement and instability led to declining farm gate prices and, combined with that, a steeply declining production. The COCOBOD tried to get even more control over the trade and founded the Produce Buying Company (PBC) in 1977. The PBC had a monopoly to buy cocoa from farmers and their organizations (Vellema et al. 2016: 235-236).

At the beginning of the 1980s the number of employees of the COCOBOD increased to more than 100,000 people. An increasing number of subsidiaries and companies were connected to the COCOBOD. Many of these were known for mismanagement, corruption and a lack of interest in the well-being of the farmers. This, combined with droughts and the spreading of pests and diseases, led to the massive crisis in the cocoa producing regions. Farmers could not make a living off cocoa anymore and cocoa production nearly collapsed (Ton et al. 2008: 9-10; Williams 2009: 12-14).

While the governments in Côte d'Ivoire, Cameroon and Nigeria after similar experiences abolished their cocoa marketing platforms, the Ghanaian government started a reform process in 1982. This was combined with a general structural adjustment program supervised by World Bank and the IMF.

Some subsidiaries of the COCOBOD were closed; other divisions, such as for transport, the maintenance of roads and the distribution of fertilizers and pesticides were privatized. The number of people employed by the COCOBOD went down to approximately 5,000 (Anthonio/Aikins 2009: 18; Williams 2009: 14).

Since 2000, the world market price for cocoa increased significantly. The COCOBOD used this combined with the reduction of the value chain participants' margins to increase farm gate prices significantly (Breisinger et al. 2008: 3).

Farmers reacted on increasing prices and intensified production. They invested more labour, used more inputs and opened new plantations. The COCOBOD supported these efforts by mass spraying activities. This has a huge influence, as on average one third of the harvest is destroyed by pests and diseases (Teal/Zeitlin/Maamah 2006: 3; Breisinger et al. 2008: 3; Hainmueller/Hiscox/Tampe 2011: 20).

Nowadays, cocoa still has a huge importance for the Ghanaian economy and the sector is therefore under intensive supervision of the government. The COCOBOD sets a minimum farm gate price, regulates the cocoa trade and quality issues, controls the export of all harvested cocoa and supports farmers.

While there seem to be no discussion about abolishing the COCOBOD there is a permanent debate about improvements within the existing system. The framework for the changes in the regulation of the sector was the "Cocoa Sector Development Strategy" which was executed between 1999 and 2009. Since 2009 there is an extensive debate about a new holistic strategy. Meetings have taken place and drafts were formulated. Presently, the development of the new cocoa strategy for Ghana is on hold (Int. 26, 29).

Many interview partners are of the opinion that the COCOBOD is trying to do its best (Int. 26, 33, 34) while others complain about shortcomings (Int. 27, 28) and the lack of a strategy for the future of the sector (Int. 36).

**Licensed Buying Companies**

During the reform process, the monopoly of the COCOBOD to trade cocoa within Ghana was abolished in 1982. Cocoa trading companies are allowed to enter the Ghanaian market. The so-called Licensed Buying Companies (LBC) are only allowed to trade cocoa if they apply at the COCOBOD for a license. To get this license they have to prove that they can trade at least 10,000 MT/year, have the financial means to do this and have set up a system of buying stations within the cocoa producing regions (Ghana Cocoa Board undated: 1).

The LBCs run combined approximately 3,000 buying stations throughout the country. This means that most farmers have a so-called "purchasing clerk" in a nearby village and sell the cocoa at the guaranteed minimum price. They are not dependent on travelling buying agents like farmers in neighbouring countries. The biggest trader is still the Produce Buying Company (PBC), a subsidiary of the COCOBOD. This company even operates in many remote areas where most private competitors are not active. The PBC is partly privatised and listed at the stock exchange (Santos/Vigneri 2008: 10; Anthonio/Aikins 2009: 4; Hainmueller/Hiscox/Tampe 2011: 24).

Purchasing clerks play a crucial role within the cocoa value chain of Ghana as they are in direct contact with the farmers. Some of them tried to attract farmers with in-kind support or even informal credits in cases of emergencies. But they are also sometimes accused of using manipulated scales when they weigh the beans (Glin et al. 2015: 60).

The LBCs work within a very tight frame as the COCOBOD sets a minimum price and controls the export price. Additionally, many of the LBCs need credits from the COCOBOD to start buying cocoa due to a lack of own financial assets.

Despite the competition on the markets, cocoa farmers usually only get the minimum price fixed by the COCOBOD. But for the farmers the price is not the only factor in the decision-making process to whom they sell their cocoa. Many farmers need immediate cash for their cocoa. Additionally, some traders support farmers with credits to pre-finance inputs (Santos/Vigneri 2008: 17-21; Vellema et al. 2016: 238; Int. 26).

Presently, 35 LBCs are registered with the COCOBOD (USAID 2015: 3) of which 17 are active (Int. 30). Even if there are more licensed companies the group of a dozen LBC's controls 98% of the cocoa trade (Camargo/Nhantumbo 2016: 60). The most important LBC is the PBC with a market share of approximately 33%. Privately owned domestic local companies control nearly 45% of the market. The third stakeholder is the cooperative Kuapa Kokoo with a market share of 6%. The two international companies Olam and Armajaro buy approximately 16% of the cocoa beans produced in Ghana (Mulangu/Miranda/Maiga 2015: 10).

**Quality and price regulations**

The COCOBOD has established two steps of quality control. At the buying stations, the purchasing clerks have an interest not to buy low quality cocoa since it would not be accepted at the collecting points for cocoa. There, the Quality Control Company (QCC), another subsidiary of the COCOBOD, controls the quality of the delivered cocoa beans. The cocoa is then transported to big warehouses in towns like Takoradi, Tema or Kumasi. Before the Cocoa Marketing Company (CMC), another subsidiary of the COCOBOD, takes over the cocoa at these warehouses, they control the quality once more. As only the CMC can export cocoa, good quality of the beans is always assured (Anthonio/Aikins 2009: 4-5).

Companies from the cocoa and chocolate sector usually accept the strong regulatory influence of the Ghanaian government on the market. This is partly due to the fact that Ghanaian cocoa is still known for its high quality for standard cocoa, while cocoa quality in neighbouring countries decreased after liberalization. Companies mix these higher quality beans with lower qualities from other regions to achieve the flavour needed for standard chocolate (Fold 2008: 105; Abbott 2013: 267; Int. 26, 27, 29, 32, 33, 34, 36).

Only one interview partner was of the opinion that similar services could be achieved in a liberalized system (Int. 27).

For a long time, Ghanaian cocoa was traded with a premium of 7 to 10% above the average world market price. Additionally, trading partners know that they can rely on delivery contracts with the COCOBOD (Ton et al. 2008: 11; Afari-Sefa et al. 2010: 3).

But this quality advantage is shrinking since Côte d'Ivoire introduced its cocoa reforms in 2012 which led to an increasing supply of better quality standard cocoa.

Challenges for farmers are cocoa traders using manipulated scales for weighing cocoa. Several interviewees suggested that it would be better if farmers had more scales of their own to check the real volume of the harvest (Int. 30, 34).

Many stakeholders in Ghana think that the cocoa price on the world market fluctuates too strongly (Int. 26, 28, 32) and that prices are generally too low (Int. 26, 27, 36). Another issue is that producers have no influence on the price (Int. 29, 30, 33, 34) and therefore struggle to get a price which covers their costs.

The COCOBOD tries to cushion the price shocks by selling part of the harvest before the cocoa season starts. Usually, it sells approximately 70% either directly to companies or via the terminal market at the stock exchange. This hedging gives them the means to guarantee a minimum price during the cocoa season independent of short-term price volatilities (Afari-Sefa et al. 2010: 3).

Even if this is a certain security for farmers against price volatility, the COCOBOD still has to set a minimum price in relation to the world market price (Int. 33, 34).

Thus, if the world market price decreases, in real terms the farm gate price will also decrease. Until now the COCOBOD has been able to avoid a minimum price reduction year-on-year measured in GHS due to the high inflation in the country. However, due to high inflation farmers' real income stagnates or even declines even if it increases in GHS.

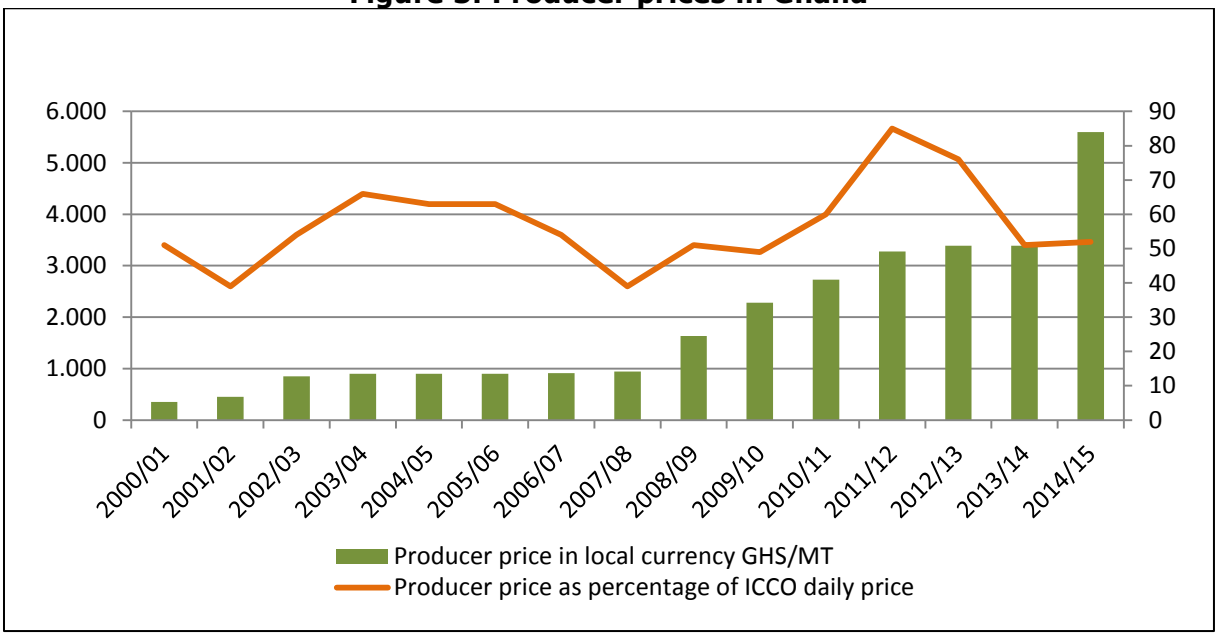
Before the year 2000, farmers often received only between 30 and 50% of the world market price (ul Haque 2004: 9; Williams 2008: 12). Nowadays, the COCOBOD tries to set a minimum price at 72% of the FOB price. The difference of 28% is used to cover costs for quality control, transport, warehousing, research, extension services and subsidised inputs for farmers. If the world market price increases significantly during the harvesting season and the COCOBOD makes some extra profits, they either increase prices or distribute a bonus to all farmers after the harvesting season (Ton et al. 2008: 12).

The minimum price is set by the Producer Price Review Committee (PPRC). Members are farmers, the Ministry of Finance (MOF) and the COCOBOD. The committee is chaired by the Minister for Finance and Economic Planning and under the supervision of the COCOBOD. The committee calculates the projected crop size and the FOB price. In addition, the gross FOB value of the crop is calculated in GHS. From this figure fixed costs like these for disease and pest control and some programs to support farmers are deducted to calculate a net FOB price. The COCOBOD tries to set a farm gate price at the level of 72% of the net FOB (Quartey 2013: 14-18). Against falling prices on world market the minimum farm gate price is secured by a stabilisation fund (Mulangu/Miranda/Maiga 2015: 14).

The opinions on the success of the pricing system differ as the evaluation of the real price level is difficult. Due to the high volatility of the GHS against the USD, all USD figures can be misleading and farmers often get far less than 70% of the FOB price. During the 2013/14 harvesting season, for example, high inflation combined with the depreciation of the GHS led to a sharp decrease in farm gate prices measured in USD. The COCOBOD reacted with a massive increase of the minimum price from 3,392 GHS/MT to 5,600 GHS/MT at the beginning of the harvesting season 2014/15. At the beginning of the harvesting season this was worth approximately 1,630 USD but due to the further depreciation of the GHS this rate declined again significantly. Some interview

partners suggested that the additional profits for the COCOBOD should be given to farmers as bonuses (Int. 33, 34; Fig. 3).

**Figure 3: Producer prices in Ghana**




**Source: ICCO 2016f**

### Free input provision

In addition to the guaranteed minimum price farmers get free inputs and extension services which should reduce their production costs. This support is financed with the difference between the minimum price and the FOB price. To deliver this support to the farmers the COCOBOD has a number of subsidiaries.

The Cocoa Research Institute of Ghana (CRIG) plays a central role within the Ghanaian cocoa sector as it develops new varieties of cocoa, tests fertilizers and pesticides and is responsible for coordinating measures against pests and diseases. The CRIG cooperates closely with the Seed Production Division (SPD).

For many years, the SPD distributed beans from high yielding trees to farmers who could produce their own seedlings. Additionally, they run seed gardens where huge amounts of seedlings were produced.

The COCOBOD changed this policy in 2014 and now seedlings are produced in dozens of big seed gardens. The aim of the government is to provide 60 million seedlings to farmers in 2016; in 2015 50 million were provided.

Another department is the Cocoa Health and Extension Division which coordinates mass spraying actions against some of the worst diseases in the cocoa sector. Additionally, it is responsible for the extension services.

At the beginning of the 2000s, the COCOBOD started their mass spraying actions which had an immediate effect on the sector. Cocoa production within the country doubled within a few years. Additionally, the government distributed subsidized inputs to the farmers. In mid-2014 the COCOBOD and its subsidiaries started with the proliferation of completely free fertilisers and pesticides. In the end of 2014 the distribution of free seedlings began (Int. 26, 29).

The government and the COCOBOD expected the cocoa production to go up which did not happen in 2015 and 2016. This could be due to drought and difficult weather patterns, but still the impact of the free input system is disputed. There are different explanations for the limited success of the program, but many stakeholders agree that

many of the farmers have no access to them. Often inputs are not available where and when needed, they come late or are diverted (Int. 26, 31, 32, 34, 36).

This is partly caused by the side-selling of the free agrochemicals and fertilizers. Part of the material is even traded to neighbouring countries like Togo, the Côte d'Ivoire, and even Cameroon. Inputs from Ghana became known as "Not for sale" (Akoto 2015: 2; Int. 26, 29). Some interview partners criticized that the distribution of subsidies partly is politicised as regions which support the government get more support than others (Int. 27, 28).

Other stakeholders stress that even regarding these shortcomings the system is supporting many farmers while farmers in neighbouring countries have even less or no access at all to support (Int. 33).

A similar dispute concerns the distribution of free seedlings. The COCOBOD has expanded the seedlings production dramatically during the past two years. According to its own figures, 50 million seedlings were grown in 2015 and distributed to farmers. But due to the unstable weather (El Niño), it is not sure how many of these seedlings have survived. Irrigation for nurseries or new plantations could help but is not always available (Int. 26).

There are complaints that many seedlings are not reaching farmers who live in remote areas as these have no access to cars or trucks to transport the seedlings to their farms. Meanwhile, the COCOBOD is not distributing pods of high yielding trees anymore from which farmers could extract the beans and could grow their own seedlings (Int. 31).

Some interview partners stressed that farmers who get inputs for free do not see cocoa as a business. If they are confronted with problems concerning pests and diseases or the availability of seedlings they wait for an intervention of the government instead of becoming active by themselves. This could be disastrous for the farmers if pests and diseases are spreading in their plantations and pesticides either arrive too late or not at all (Int. 27, 28, 36).

Some stakeholders expect that the system of free inputs could be suspended soon as it is not sufficient to support farmers (Int. 26, 27). The market for fertilizers could be the first area where the private sector takes over again (Int. 32).

The COCOBOD is well aware of these problems and suggested already in 2010 to phase out subsidies until 2015/16. But nothing has happened. In 2010 the new government decided on a new policy and there is fierce opposition against changes as political parties are against abolishing or reducing subsidies. For them, cocoa farmers are voters which they do not want to disappoint (Int. 28, 36).

**Extension services**

According to some stakeholders the extension services provided by the COCOBOD are often not operating effectively and there are not enough trainers. They think that the performance of extension services is better if they collaborate with other players like companies, donor organizations or organizations which support certification (Int. 27, 30).

Some stakeholders think that the extension officers are well-qualified, but as they are used to distribute planting material, they do not have enough time for training farmers (Int. 36, 39). According to the COCOBOD it employed 480 extension officers in 2016, one per 1,600 farmers (Oppong 2016: 16).

There are ongoing discussions on what are the most effective extension methods, e.g. Farmer Field Schools, training through lead farmers, demonstration plots etc. (Int. 34).

**Impact assessment**

It is not much known about the impact of the programs of the COCOBOD and its subsidiaries. While some observers think that there is no proper impact measurement (Int. 28, 30), others say that there are internal documents on the efficiencies of the different projects of the COCOBOD. However, they have not been published (Int. 26, 29, 34, 39).

**Local grinding**

The cocoa processing in Ghana faces a wide range of problems starting from "*a poor local market demand for cocoa-based products, high overall manufacturing costs, and increasing tariff rates for intermediate cocoa products imported to Europe"* (Mulangu/Miranda/Maiga 2015: 5).

To attract companies, the COCOBOD sells beans from the light crop with a 20% discount to companies who grind these beans in Ghana. This leads to reduced farm gate prices and reduced margins at the COCOBOD (Mulangu/Miranda/Maiga 2015: 5).

The capacity of these factories is at approximately 435,000 MT but in 2014 only about 50% of this capacity was utilised (Verein der am Rohkakaohandel beteiligten Firmen e.V. (Ed.) 2015: 32).

The three biggest processing factories owned by foreign companies ADM/Olam, Barry Callebaut and Cargill control 47% of the market, the government owned CPC controls another 17% of the entailed capacity. The rest is divided between local players. The nine factories employ 1,293 workers. The low number of created jobs is an often used argument not to further subsidise local processing discount beans (Mulangu/Miranda/Maiga 2015: 12).

Another critical point is the low tax income from cocoa processing. The three multinationals active on the market produce in export free zones (EFZ)."*EFZ advantages include a 100 percent exemption from the payment of direct and indirect duties and levies on all imports for production and exports from free zones; a 100 percent exemption from the payment of income tax on profits for their first 10 years (after 10 years, these companies pay no more than 8 percent income tax, compared to 25 percent from non-EFZ companies); exemption from value-added tax (VAT) on purchases, including utilities; and no restrictions on fund repatriation"* (Mulangu/Miranda/Maiga 2015: 13).

As there are not many jobs created it is disputed whether the policy should be continued. The strongest link controlled by the COCOBOD to reduce poverty is a higher farm gate price which is decreased by discount cocoa selling to local processors (Mulangu/Miranda/Maiga 2015: 23).

In years with the low light crop like in 2015 and 2016 local processors have problems to get hold of enough beans. Ghanaian processors had to import beans from Côte d'Ivoire in 2015 and in 2016 they had to reduce the capacity of the factories massively as not enough light crop beans were available (Aboa/Kpodo 2016).

**Ownership of land**

There are different ways for cocoa farmers to obtain land. Most of the farmers cultivate land given to them according to traditional law. Usually the land is owned by the traditional communities and it was given to the farmers after a decision of traditional leaders. Technically the land is still owned by the communities and their authorities. This form of access to land is reserved to indigenes. Another widespread way to achieve access the land is the sharecropping systems. In so-called *Abunu* arrangements the sharecropper clears the land and plants the cocoa trees. When the trees are mature there are two approaches. Traditionally, the annual crop is split between the landowner and the sharecropper. Nowadays, sometimes the sharecropper are allowed to take over half of the plantation after the trees are mature and operates the farm as own business while the other half of the plantation is managed by the landowner. Under *Abusa* arrangements the sharecropper starts to work on an established farm. He is responsible for all work on the farm. The harvest is split between the sharecropper and the landlord who each get one third. The remaining third is used to purchase inputs. Farmers in the *Abusa* system often complain that landowners don't provide the necessary inputs and don't listen to their ideas to improve agricultural practices. Another system is run by the so-called caretakers who get paid for maintaining the farm but have no ownership (USAID 2015: 5-6, 14).

Additionally, farmers hire daily labourers, especially during harvesting time. The average wage level ranges from 12 to 25 GHS with an average of 17 GHS per day depending on the task of the labourers (Selten 2015: 38).

Insecure land ownership is strongly correlated to low productivity and the reluctance to invest in resistance against more sustainable agroforestry techniques (USAID 2015: 11). Sharecroppers and caretakers often have very low income and there is evidence that child labour is most widespread in areas there many cocoa farm run by them (Kapoor 2016b: 35).

Another problem connected with the unstable land rights is illegal gold mining. Miners often enter cocoa plantations and destroy cocoa trees. They use mercury which ruins the water bodies. Many of these miners got the right to dig for gold from traditional chiefs. Compensations for cocoa farmers whose land is destroyed are often either not paid at all or are insufficient (USAID 2015: 13: Int. 33, 34, 36).

**Who owns the trees?**

Ghana has already lost most of its forest coverage due to a deforestation rate of 2%, one of the highest rates globally. Agriculture is responsible for half of the loss of forests and within the sector the expansion of cocoa plantations is a main driver (Camargo/Nhantumbo 2016: 37-38).

Not least to avoid such a development natural growing trees are owned by the government. But this combined with the described traditional land rights leads to insecurity for farmers. Farmers often do not invest into their plantations as they have to fear that they lose the farmland. "*If the sharecropper cuts or replants a tree without obtaining consent, the land reverts to the owner. This dynamic acts as a disincentive for the replanting when trees are old, or rehabilitating diseased trees*." (USAID 2015: 17).

The legal process is non-transparent as the decision was taken by chiefs according to traditional laws (Int. 36).

The situation for farmers was even aggravated by regulations on timber. Administrations - often on a local level - responsible for logging rights often allowed logging companies to harvest trees in a certain region. These companies entered cocoa plantations and cut down shadow trees. They destroyed a lot of cocoa trees but farmers got no compensation for that. Only recently laws were changed. Now shade trees have to be registered at the Forestry Commission to be owned by the farmer. This is a very bureaucratic process and farmers are reluctant to do this. Therefore, there is not much investment to tackle it ecological and climatic problems by planting more non-cocoa trees. Some stakeholders think that the system should be changed even more radically and that trees should be owned by the farmers who own the land (Int. 36, 38).

## 3.3 Private sector activities

According to the interview partners, there are many projects run by multinationals like Mondelēz, Cargill, Ecom, Lindt & Sprüngli and Olam and additionally some of the LBCs are active on the ground (Int. 33, 39). Many of these projects are PPPs (Int. 28, 29, 34).

There are many ongoing projects and even if they are all well planned some players have questionable capacities to really improve the situation of farmers. According to one stakeholder with a long experience in the sector, it would perhaps be better to give money to experienced agencies and afterwards control what is delivered than to set up own projects (Int. 34).

For a couple of years, many projects strongly focused on increasing productivity (Int. 29). Now, more and more of these projects adopt a broader approach which includes diversification. These projects include sustainable livelihoods and cooperation with the COCOBOD has increased. One important aim of the projects is to motivate more young farmers to stay in the cocoa business (Int. 26, 36).

There are many different approaches. Some focus on productivity, others on gender, youth or communities. Presently, there is according to one stakeholder a focus on training. Many farmers cannot implement the activities they have been trained for, as they have no access to the respective services (Int. 36). There are more and more projects connected to certification. These are usually run by the LBCs (Int. 27).

There is not much coordination between the projects but the situation is improving. Some stakeholders say that CocoaAction plays an important role in improving the coordination of the sector (Int. 26, 27, 29, 30, 36, 37), while others think that CocoaAction has not changed the game yet (Int. 28, 36), but has the potential to do it.

Standard setting organisations also play an important role as they work with different companies and are able to spread best practices within the sector (Int. 32).

The COCOBOD wants to set up a Ghana Cocoa Platform to facilitate the exchange between the different stakeholders (Int. 26, 36).

There are no reports about impacts except for some Corporate Social Responsibility (CSR) reports which do not contain much information (Int. 26, 27, 29, 39). Only very few companies invest in comprehensive impact assessments (Int. 28, 30, 31, 32, 33, 34).

According to interview partners, the cooperation of the private sector with the government could be improved significantly (Int. 26) and should be more focused on successful models like the Farmer Business Schools (Int. 27)

For many companies the community approach is a real stretch as it is not part of the work in the core value chain (Int. 37).

## 3.4 Donor activities

A number of organisations of the official development cooperation are active in Ghana. This includes the Department for International Development (DFID), the German technical cooperation (*Deutsche Gesellschaft für Internationale Zusammenarbeit*; GIZ), U.S. Agency for International Development (USAID), the Dutch Embassy, SECO, UNDP and the World Bank. They cooperate with non-governmental organisations like the WCF/ACI, Solidaridad, Winrock and Care International, to name just a few. Additionally, many PPPs are set up (Int. 26, 27, 29, 30).

There is no formal coordination (Int. 28, 29, 31, 33, 34, 36, 37, 39) but the COCOBOD is trying to set up a system to improve the situation (Int. 33). On an informal level many stakeholders work together in different projects.

The Cocoa Rehabilitation and Intensification Programme (CORIP) is such an effort. The programme organised by Solidaridad West Africa supports the setup of Rural Service Centres. These provide services for farmers out of one hand, e.g. training, inputs, spraying gangs. The project is supported by the Dutch Ministry for Foreign Trade and Development Cooperation, Cargill, Olam, Mondelez, Armajaro, Touton, the International Fertilizer Development Center (IFDC), Ghana Cocobod/Cocoa Research Institute of Ghana (CRIG) and The Dutch Sustainable Trade Initiative (IDH). CORIP could become a focus point for cooperation and a successful model (Int. 26, 28). There were some ongoing studies from different institutions (KPMG, LEI, Wageningen, COSA) about the situation in the cocoa sector and the impact of projects but more is necessary (Int. 28).

# 4 CAMEROON

## 4.1 General framework conditions

About a fifth of Cameroon's total land area of 475,440 sq km is used for agriculture and about 40% are forests. 60% of the country's population of 23.8 million people are younger than 24 years. About half of Cameroon's population lives in urban areas (CIA World Factbook 2016).

In 2014, 37.5% of the population lived below the poverty line, down from 53.5% in 1996 (World Bank). 55% of the country's poor people live in rural areas. Whereas in urban areas poverty is declining (by 5% between 2001 and 2007), it has in the same time span increased by 3% in rural areas (IFAD undated, Agritrade 2013).

Against the oil price shock as well as increased security issues at the border with Nigeria (Boko Haram), Cameroon's economy has shown robust growth between 5 and 6% over the last three years (IMF 2015). Oil remains Cameroon's main export commodity despite falling global prices accounting for nearly 40% of export earnings (CIA World Factbook 2015). GNI per capita amounted to 3,123 USD (PPP, at current USD) in 2015 (World Bank). Agriculture contributes 22.3% to GDP, industry 29.9% and services 47.9% (2015 estimates). Approximately 70% of the country's labour force is active in agriculture (CIA World Factbook 2016).

During the 2015/2016 season, Cameroon produced 230,000 MT of cocoa. With approximately 6% of the world's production, Cameroon is the fifth largest producer of cocoa (ICCO 2016c: Table 4). However, doubt exists regarding these statistics since some of Cameroon's cocoa might be exported without being officially declared. This is a practice that has probably begun during the congestion at the Douala port in 2013/2014 where exporters had to renegotiate shipments or find alternative means to export their cocoa (Ecobank 2014a: 3, Int. 53).

Coffee and cocoa together account for 15% of primary production (Office of the Prime Minister 2014: 7). Cocoa's share in Cameroon's exports declined consistently over the last decades from around 30% between 1970-1980 to 10% in 1996/97 (UNCTAD 2001: 23). In 2008 cocoa contributed 11.4% to the country's export and 20% to its non-petroleum exports (UNCTAD 2010: 2).

Total area planted with cocoa in Cameroon is estimated at 500,000 ha (Office of the Prime Minister 2014: 38). No updated regional statistics are available. However, it is estimated that both, the Southwestern and the Centre regions produce about 40% of Cameroon's cocoa each, whereas the East and South produce the remaining 20% (UNCTAD 2010: 5).

Approximately 400,000 to 600,000 families are involved in cocoa growing (Drum 2012: 1, Int. 41). 95% of these are smallholder farmers who plant between 2.5 to 5 ha (Int. 41). According to ICCO data, farmers produce around 300 to 400 kg dried cocoa beans per hectare, whereas the application of GAP could take them to produce as much as 1 to 2 MT/ha (UNCTAD 2010: 5, Int. 41). Several interview partners stated only an estimated 20-30% of farmers are organized in cooperatives. Mainly, cooperatives ceased to exist during liberalisation when lack of funding at the level of the *Office National de commercialisation des produits de base* (National Office for the Commercialisation of Primary Products; ONCPB) did not allow them to pay the cocoa delivered by their members. Many *groupements d'intérêt commun* (producer organizations; GIC) are reported to have been set up only as a means to receive government project funds. The *Organisation pour l'harmonisation en Afrique du droit des affaires* (Organisation for the Harmonisation of Business Law in Africa; OHADA) law for cooperatives is implemented timidly in Cameroon according to a interviewee (Int. 53).

Cameroon's cocoa beans are different from other West African beans. They have a darker, more reddish colour and a specific flavour which tends to be preferred by European cocoa processing companies (UNCTAD 2001: 13). However, overall quality of

Cameroonian beans is low mainly due to bad post-harvest practices coupled with difficult climate conditions. Especially the South-West region has high rainfall and thus little opportunity to dry beans in the sun. Drying ovens are often defective and produce polycyclic aromatic hydrocarbons which are a food safety concern for the EU (Agritrade 2013, Int. 53). Agents and traders buy low-quality cocoa beans and mix them with better quality beans which allows them to sell beans at "fair fermented" grade.

Certification has only recently started in Cameroon, but is expected to increase the value of Cameroonian cocoa and is seen by some stakeholders as a strategy for the future (Int. 44, 49).

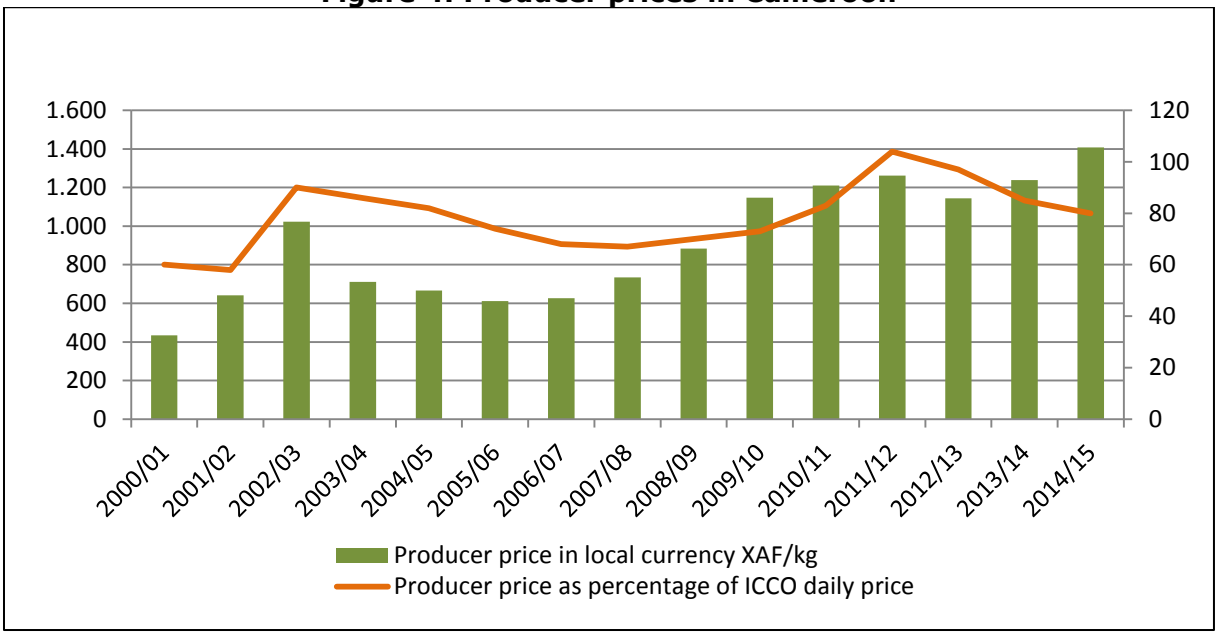
## 4.2 External impacts of the cocoa production

### 4.2.1 Influence of the world market and international prices

Cameroon's cocoa sector is completely liberalised which means that world market prices influence farm gate prices directly. Due to its inferior quality, Cameroonian cocoa is traded at a discount of roughly 100 GBP to Ghanaian beans at world markets. With an improvement in quality and a reduction of its discount by 50%, Cameroon could earn an additional 7.9 billion XAF (12 million EUR) per year if production remains at 200,000 MT (UNCTAD 2010: 9).

Producer price as percentage of ICCO daily price has consistently been above 60% for farmers in Cameroon and even above 80% during the 2009 to 2011 seasons (Fig. 4). Farmers' total revenue has increased between 2005 and 2010 from 77 billion XAF (117 million EUR) to 228 billion XAF (348 million EUR), representing an increase of 196.4% (Office of the Prime Minister 2014: 7).

**Figure 4: Producer prices in Cameroon**




**Source: ICCO 2016f**

Some stakeholders suggest that better organized GICs (producer organisations) organise auctions at their headquarters once a week or every two weeks during harvest season to which they invite major buyers. Quantities sold vary between 5-20 MT during off-season and up to 250 MT during the main season (UNCTAD 2010: 16). This procedure was confirmed by the president of a smaller GIC (Int. 43). However, the majority of unorganized farmers negotiate prices at the farm gate. The price depends on the bargaining power of the seller relative to the buyer, a subjective check of cocoa's quality and the world market price. In reality, farmers are mostly price takers (Fule 2013: 11).

Through the SIF-project (*système d'information des filières cacao et café,* information system for the cocoa and coffee sectors)[4], the Ministry of Trade informs farmers daily via text message about the current world market price for cocoa. The text message contains CIF price London and FOB price Douala (both quoted in XAF), as well as a price range (minimum and maximum) for farm gate prices (Int. 47, 48, 49, 53).

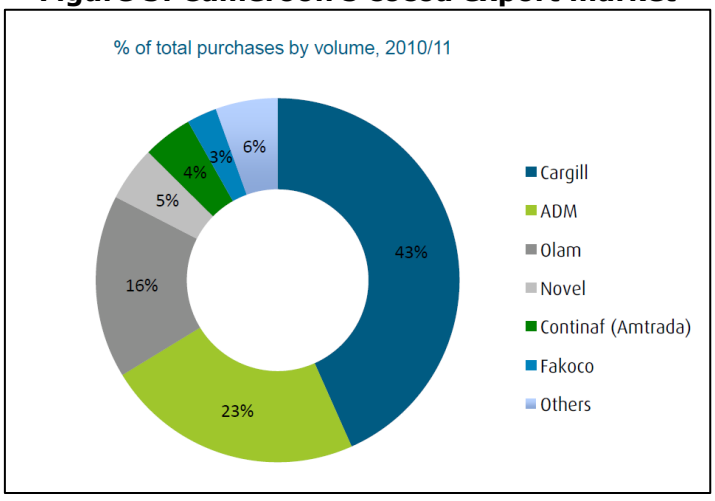
### 4.2.2 The cocoa value chain in Cameroon

Cocoa beans in Cameroon are produced by smallholder farmers and fermented and dried on the farm. In most cases they are sold at the farm gate to agents (called *cassiers* or *coxeurs*). Some of them are independent, but some are also employed or cooperate with larger buyers. Some farmers sell directly to a GIC, some agents do as well. Producer organizations as well as traders sell cocoa beans to local and multinational exporters who then ship them to foreign processors (Abbott 2013: 261).

During the 2014/2015 season, the *Conseil Interprofessionnel du Cacao et du Café* (Cocoa and Coffee Inter-Professional Council; CICC) registered 8 buyers, 25 exporters and one grinder (CICC 2014/15: 4). Cameroon's export market is dominated by three large multinational exporters, Telcar/Cargill, Olam (including ADM), and Sic Cacaos/Barry Callebaut. With the acquisition of ADM by Olam, approximately 82% of cocoa beans are bought by only two multinationals (see Fig. 5). During the 2015/16 season, Cargill exported 90,000 MT. Local buyers account for only a small portion of cocoa beans, 8.2% or 17,000 MT in 2010/11 (Ecobank 2012). 70% of local exporters end up selling their beans to one of the three large multinationals (Int. 55).

Cameroon's exporters are organised in an association which has the character of a union. Membership is free and the *Groupement des exportateurs* (Association of Cocoa and Coffee Exporters; GEX) has more than 50 members, which represent approximately 95% of exporters. The GEX constitutes the exporters representation (*collège*) at the CICC (Int. 55).

**Figure 5: Cameroon's cocoa export market**




**Source: Ecobank 2012.**

Only approximately 15% of cocoa beans are processed in Cameroon (Office of the Prime Minister 2014: 68). Most of the processing is undertaken by Sic Cacaos, Barry Callebaut's Cameroonian subsidiary. Sic Cacaos grinds all cocoa beans it buys in Cameroon, approximately 30,000 MT per year (Int. 51). Chococam, a local processor transforms about 5,000 MT per year, representing less than 3% of the total cocoa production. Chococam is said to produce predominantly for the local and regional markets (Int. 54).

[4] Cf. http://sifcameroun.org/index.php/fr/presentation-du-projet-sif.

Processing in Cameroon is very expensive (as in most West and Central African countries). In-country processing is tax exempt, thus providing some incentive to transform in Cameroon (Int. 52).

## 4.3 Overview and impact of development partners

Relatively few development partners are active in Cameroon's cocoa sector. The German technical cooperation (*Deutsche Gesellschaft für Internationale Zusammenarbeit;* GIZ) is active with the Sustainable smallholder agribusiness (SSAB) project, which is part of a larger regional programme in five Western and Central African countries. It supports smallholder farmers with trainings in GAP and most importantly in managing their agribusiness applying the so-called farmer business school approach. Cameroon is also one of the 13 implementing countries for the Green innovation centres for the agriculture and food sector, a pillar of the "One World, No Hunger" initiative by the German Federal Ministry for Economic Cooperation and Development (BMZ). Furthermore, the European Union is supporting the cocoa sector in Cameroon (Int. 53).

On the level of projects by the private sector, Cameroon lags behind other countries. The World Cocoa Foundation's CocoaAction initiative is not active in Cameroon yet. However, WCF has recently made a first attempt to launch a public-private partnership platform (PPPP) in Cameroon.

## 4.4 Impact of public policies on the cocoa sector and its competitiveness

The cocoa sector in Cameroon was completely liberalised in the mid-1990s. Several public and private institutions are involved in managing the sector:

The *Office National de Café et Cacao* (National Coffee and Cocoa Board, ONCC), the National Coffee and Cocoa Board, works under the auspices of the Ministry of Commerce (Int. 52). Its main objectives are to coordinate and facilitate both sectors. This includes control of cocoa bean quality for export, promoting Cameroon origin cocoa, collecting statistics for commercialisation and representing the Cameroonian cocoa sector internationally. Oversight over certification issues has been added to its objectives (Int. 52, 54).

The *Conseil Interprofessionnel du Cacao et du Café* (Cocoa and Coffee Inter-Professional Council; CICC) is based on decree no. 91/007 (1991) and is a non-profit association that functions according to the principle of collective responsibility (*collège*). Different market actors are represented in the CICC: farmers, buyers, transformers, exporters. The CICC is funded by levies on cocoa exports (10 XAF/kg). Its mission is to control quality at the farm gate. The CICC implements 9 programmes, most of which aim at supporting farmers. Programmes' objectives are to develop a new generation of farmers, develop strategies to adapt to climate change, support farmers in getting access to finance, promote good agricultural practices, etc. (Int. 53).

At the level of the government, four different ministries are involved in the cocoa sector (ONCC 2014a):

- The *Ministère de l'agriculture et du développement rural* (Ministry of Agriculture and Rural Development, MINADER) is responsible for the production level. Within the MINADER, there are six different cocoa projects which are funded by the *Fonds de Développement des Filières Cacao et Café* (Fund for the Development of the cocoa and coffee sectors; FODECC). Projects focus on issues such as insecticides, fungicides, fertilizer usage, etc. and are implemented by a decentralised delegation of the ministry. Coordination between individual projects is low (Int. 50). Under the Ministry of Agriculture, the *Société de Développement du Cacao* (Development Corporation of Cocoa; SODECAO) is responsible for seedlings production and originally also for the maintenance of rural roads and

infrastructure. However, SODECAO has reportedly received fewer funds from FODECC and is unable to fulfil its initial mission (Int. 48, 52). Some actors suggest a reform of SODECAO (Int. 46, 48, 54).

- The Ministry of Trade is responsible for commercialisation. Three cocoa sector projects are implemented within the ministry and funded by the FODECC. Whereas two of the projects focus on construction of warehouses and drying ovens, the third one focuses on price information. The SIF-project informs farmers about daily cocoa prices by text message. The ministry is also developing a project to introduce a virtual cocoa market with the aim of cutting out intermediaries. The Ministry of Trade fixes levies for cocoa at 150 XAF/kg for exporting cocoa beans, and at 75 XAF/kg for exporting processed cocoa (Int. 49).
- The Ministry of Scientific Research and Innovations oversees the Institute for Agricultural Research (*Institut de Recherche Agricole pour le Développement*, IRAD).
- The FODECC is under the oversight of the Ministry of Finance. It funds projects at the different ministries. It is reported to have a budget of 50 billion XAF (approximately 76 million EUR) in 2016 coming from levies on cocoa. 75% of its budget is attributed to the MINADER for support at the production level (four ongoing projects), 23% is attributed to the Ministry of Trade for projects at the processing and commercialisation levels (three ongoing projects) and the remaining 4% is attributed to the Ministry of Scientific Research and Innovations (one ongoing project). Available funding is considered insufficient (Int. 47, 49, 52).

In 2002, based on its discontent with the liberalisation progress, the government launched the Re-Launch Programme for the Coffee and Cocoa Sub-Sectors including a series of activities by all stakeholders (UNCTAD 2010: 20).

At the level of the Prime Minister's office, there is a coordination unit for the coffee and cocoa sectors (Int. 47, 49). In 2014, the *Plan de relance et de développement des filières cacao et café du Cameroun-Horizon 2020* (Coffee and Cocoa Recovery Plan) was developed. The objective in terms of cocoa production quantity is set at 600,000 MT by 2020 (Office of the Prime Minister 2014: 44).

The recovery plan suggests a series of actions to revive research, production, processing and commercialisation of cocoa (Office of the Prime Minister 2014: 23-24; Int. 49):

At the production/farming level:

- Guarantee a fair remuneration;
- Improve farmers' income and livelihoods;
- Improve farmer and farmer organisations' representation within the CICC;
- Build the foundation for a sustainable production.

At the level of the government:

- Increase revenue from coffee and cocoa via forward sales guaranteeing a stable price for farmers;
- Improve thebean quality "Cameroonian origin" and reposition it on international markets with a premium;
- Exploit as much as possible opportunities in niche markets;
- Certify seeds and products;
- Reduce poverty in rural areas.

At the level of other stakeholders:

- Create a healthy and fair competition;
- Build a permanent framework for concertation;
- Increase private sector confidence in order to secure and increase profitable investments in the sector.

Funding needs to implement the recovery plan amount to 600 billion XAF (917 million EUR) which are suggested to be covered at a level of 25% by the government, 65% by the cocoa sector and external financing, 7% by development partners and 3% by other investors (Office of the Prime Minister 2014: 87).

The plan foresees for the country to return to a stabilised system which has not been equally well received by all stakeholders. It was agreed that a study be undertaken to learn from different stabilisation efforts in other countries (Int. 49, 53).

## 4.5 Historical developments of the cocoa sector

Until the early 1990s, the Cameroonian cocoa sector had a state-controlled marketing board (*Caisse de Stabilisation*), the National Commodity Marketing Board (ONCPB). Prices were officially fixed with defined margins for each player in the value chain. The difference between the world market price and the fixed price was funded by the ONCPB. Whereas the idea was that positive differences should be kept at the ONCPB to top-up prices when the world market prices were low, in practice, funds attributed to ONCPB were absorbed into government finances. ONCPB was highly indebted to cooperatives during the period of 1989-1990 and many farmers could not be paid (UNCTAD 2010: 7-10).

Against this background, in 1991 a first set of reforms was implemented with a view towards liberalising the sector. Exporters were allowed to export directly, however, ONCPB continued to fix prices. An official stabilization fund created within a new institution, the ONCC, was however bankrupt after a few years only. Finally, in 1994/95 with a second round of reforms, the system was completely liberalised and fixed prices and the stabilisation system were abolished. The objective of the reform was to professionalise stakeholders along the value chain by providing training and support. Two new institutions are now responsible for governing the sector, the CICC and the ONCC (UNCTAD 2010: 7-10).

As a result, farmers received a larger share of the world market price and were again paid on time. However, they are now entirely exposed to the volatility of world market prices. With an increasing number of buyers and thus competition in the system, quality deteriorated since many buyers bought badly fermented and dried beans. Buyers then mix different qualities and sell them as medium quality. At the same time, cooperatives lost a considerable market share to new market players (UNCTAD 2010: 7-10).

According to some of the stakeholders, the Bretton Woods institutions were substantially involved in the liberalisation of the coffee and cocoa sectors in Cameroon in the framework of their structural adjustment programmes (Abbott 2013: 258, Int. 41, 50, 54). Due to the difficult situation within the sector, many cocoa farmers abandoned their plantations and started diversifying into other crops resulting in decreasing cocoa production (Int. 41, 49).

# 5 NIGERIA

## 5.1 Background of cocoa production

**Economic development**

Nigeria has approximately 181 million inhabitants, the highest population in Africa. The country has a history of decades of political instability and military coups. Since 1999, it is governed by freely elected governments. While most of the country is stable, there is still political unrest in some of the Northern states where the group Boko Haram is responsible for mass killings and terrorist attacks. Additionally, there are massive conflicts revolving around oil production in the Niger Delta.

Between 2005 and 2013 the Gross Domestic product (GDP) rose on average at a rate of 7.5% per year. According to preliminary figures of the IMF, the economic growth declined to 2.7% in 2015 and will rise as with a rate of less than 4% in the next years (IMF 2016a: 31).

According to the GDP of 481 billion USD and the purchasing power parity (PPP) adjusted the annual capita income of 5,992 USD, Nigeria is a middle income country. The biggest part of its GDP is generated by the production and export of crude oil. But the income is unequally spread. According to the United Nations Development Programme (UNDP), 62% of the population still lives in poverty. The average life expectancy is 52.5 years and the educational level is low. Therefore, the UNDP ranks the country in their Human Development Index on place 152 of 188 nations surveyed (UNDP 2015: 229).

**History and relevance of cocoa production**

The first cocoa tree was planted in Nigeria around the year 1875 and export of cocoa started in 1895. During the next decades, the area planted with cocoa trees grew. 1962 approximately 20% of world harvest of cocoa was produced in Nigeria. Before the oil production in the country started, cocoa was the most important source of foreign exchange (Enete/Amusa 2010: 1; Iyama 2013: 1).

In the years around 1970, Nigerian farmers produced approximately 300,000 MT of cocoa per year. Afterwards, production figures went down and the cocoa sector was in a crisis. This was partly due to the tax policy and market regulation system. Due to declining incomes farmers reduced their activities in the cocoa sector and until 1986 production dropped to approximately 100,000 MT. Thereafter, market reforms led again to an increase in cocoa production (Iyama 2013: 2).

Until 1986, the Nigerian cocoa sector was organised in a similar way as it is currently in Ghana. A central Marketing Board was responsible for setting producer and export prices, for delivering extension services and for supporting farmers to get inputs. Non-transparent management systems, mismanagement, declining farm gate prices and a low level of support of the sector combined with declining cocoa prices on the world market led to a massive crisis of the Cocoa Board. This took place in a situation with general economic problems and a debt crisis. Not at least due to the pressure of donor institutions like the World Bank and the International Monetary Fund, the Nigerian government decided to liberalise the market. In 1986 the Nigerian Cocoa Board was dissolved and since then the cocoa sector has operated as an unregulated market (Gilbert 2009: 297; Abbot 2013: 258).

Due to the high volatility of the oil price Nigeria's export earnings are fluctuating strongly (IMF 2016a: 33). Therefore, the share of cocoa in export earnings has not been stable during the last years but is on average approximately low, in some years even far lower than 2% of the export earnings.

Due to the overwhelming position of oil, cocoa and the whole agricultural sector were neglected for a long time. Meanwhile, rural societies are still very important in Nigeria. Cocoa is the most important cash crop followed by cashew, sesame and palm oil. In 2011, agriculture earned 30% of the Nigerian Gross Domestic Product. Investments that

involve value-addition of agricultural products could have a huge impact on the Nigerian society (Int. 62).

## 5.2 History and present situation

**Production, productivity and the number of farmers**

As there is no consistent database available, there are different figures on the number of farmers, the harvested areas and the average yields. The Food and Agriculture Organisation (FAO) published much higher figures[5] but according to cocoa sector experts currently roughly 650,000 ha of cocoa plantations are under production (Faturoti et al. 2012: 435; Adesina 2013: 4; Nzeka 2014: 23).

Figures on production are also disputed. According to government sources, cocoa production in Nigeria was between 350,000 and 370,000 MT in the cocoa year 2013/14 (Verein der am Rohkakaohandel beteiligten Firmen e.V. (Ed.) 2015: 20). The U.S. Department of Agriculture (USDA) estimated the cocoa production in 2013/14 at a level of 300,000 MT (Nzeka 2014: 3).

The International Cocoa Organization (ICCO) cross-checks export figures from cocoa producing countries with import figures from cocoa consuming countries. The organisation published much lower figures and estimates that in the harvesting season 2013/14 Nigeria produced 248,000 MT and 195,000 MT the following year. Preliminary figures for the season 2015/16 predict a harvest of 190,000 MT (ICCO 2016c: Table 4).

If the ICCO figures are correct, roughly 200,000 MT were produced on more than 600,000 ha and the average yield is lower than 300 kg/ha. It is estimated that 300,000 farmers and their families are working on cocoa plantations (Aikpokpodion 2014: 2). Most of the figures published on the Nigerian cocoa production as well as export data are inconsistent. Moreover, many farmers are not aware of the size of their farms themselves (Int. 67).

Within the smallholder community, a broad variety in farming and business models exists. In some areas, farmers source 90% of their income from cocoa sales and live far below the poverty line (Matthess 2013). In other regions, the dependency on the income from cocoa is much lower as farmers have additional income from other crops or off-farm sources (Kuklinski/Adhuze 2013: 81, 83; WCF 2013: 4).

**Quality and Prices**

The liberalisation of the cocoa market led to a decreasing availability of agricultural inputs and to a declining quality of cocoa beans due to missing control institutions (Cadoni 2013: 9; Nzeka 2014: 4). Farmers had no incentive to produce better quality cocoa as the buyers of cocoa did not reward cocoa farmers who invested in producing better quality cocoa with better prices. Because of its low quality Nigerian cocoa does not receive premiums on the world market. Although there were improvements in some cocoa producing regions, these cover only small parts of the market (Int. 58, 59, 60, 62, 63).

The liberalisation also influenced the cost structure of farmers. On the one hand, it led to a decline in the availability of agricultural inputs, a lack of market coordination and higher fluctuations of prices (Cadoni 2013: 9).

On the other hand, the liberalisation led to higher farm gate prices measured as a percentage of the world market price. It is not easy to measure the effects of the liberalisation on farm gate prices as there were an official and an unofficial exchange rate of the Nigerian Naira (NGN) against the US-Dollar (USD) until the year 2000. Producer prices in NGN converted to USD according to the official exchange rate were in some

[5] According to FAO data, the area planted with cocoa trees increased significantly to 1.2 million ha during the last decade. This was accompanied by a reduction of the harvested tonnages from a peak of 485,000 MT in 2006 to 367,000 MT in 2013 (FAOStat 2016).

years as high as 220% of the world market price of cocoa while benchmarked to the exchange rate on the parallel market the share was 85% (Gilbert 2009: 305).

Nowadays, there is no clear trend in farm gate prices. There seem to be regional differences. Some interview partners complained that middlemen misused their market power and extract money out of the value chain (Int. 59, 61) and that there are strong fluctuations of farm gate prices which are not always justified by developments of the world market price (Int. 58). In spring 2016 the farm gate price was at a level of 80% of the world market price (Int. 62) which is much higher than in Ghana and Côte d'Ivoire were a regulated cocoa market is in effect.

There are indicators on illegal practices in cocoa trading. Some traders buy cocoa beans even at a price above the regular market price and perhaps use the cocoa business to cover money laundering (Int. 58, 65).

According to several interview partners, even the high share of the world market price is not sufficient to make cocoa a lucrative business. Many think that the cocoa prices are still too low to guarantee a decent income for farmers (Int. 57, 58, 60, 61, 63, 64) and that it is a major problem that farmers have no influence on the price setting (Int. 58, 60, 63, 65). Many of the stakeholders think that a more stable price would be a major step ahead (Int. 58, 59, 60, 64, 65). As one interview partner put it: "*farmers want value for what they are doing*" (Int. 59).

The liberalisation has led to an increase in the number of cocoa traders. In 2011 about 123 cocoa exporting companies were registered at the Nigeria Export Promotion Council. Only three of these companies exported about 60% of the cocoa (Cadoni 2013: 13-14).

The following companies dominated cocoa trading as of 2012: The Nigerian company Bolawole Enterprises (23%), the local subsidiaries of Olam (21%) and Armajaro (18%), followed by subsidiaries of Cargill (9%), Continaf (6%) and ADM (5%) (George 2012: 7).

**Problems of the sector**

The Nigerian cocoa production is confronted with many problems on its way to a more sustainable sector. The average age of the cocoa farmers in Nigeria is, depending on the source, between 50 and 60 years and most of the trees on the farms are more than 40 years old (Faturoti et al. 2012: 437; Ogunjimi/Farinde 2012: 189; USAID 2016: 1). To improve productivity farmers need to invest labour and money. It is an open question whether older farmers will be open for new agricultural practices to increase yields (Nzeka 2014: 2).

Many of the older farmers are not working on the plantations by themselves any more but let sharecroppers maintain them. The sharecroppers often have not much knowledge about the management of a plantation because they worked with other fruits before. Additionally, they are not in a position to invest in the farm. This leads to worse farming practices and low yields (Iyama 2013: 6).

Another problem is that women have often no access to legal land titles and they are rarely integrated into ongoing projects. Simultaneously, they are engaged in most of the production steps of cocoa (Enete/Amusa 2010: 2-5; Oxfam Canada 2013: 5).

Even if cocoa farmers look for support, there is a massive lack of extension services. Presently, there is approximately one extension worker per 1,000 farmers. Many of these extension officers do not have the necessary equipment to reach the farmers (Int. 58, 64).

Moreover, the existence of programs to support farmers does not mean that e.g. the subsidized fertilizers reach the cocoa farmers. However, there were some improvements during the last year (Nzeka 2014: 4, Int. 58).

Some of the obstacles to improve this situation in the cocoa sector go beyond the availability of support. Many stakeholders stress that a more stable price system is necessary to encourage farmers to invest (Int. 58, 59, 60, 64, 65). This is also an important factor to attract young farmers to take over plantations. Presently, young

people are not interested in cocoa due to the unreliable income. Other businesses are much more stable and therefore attractive for young farmers (Int. 57).

Interview partners are of the opinion that a better database of farmers is needed to plan measures to improve the situation. This should include the collection of statistical data on cocoa production on state-level and a database of the number of farmers including figures on women farmers. Next step could be to measure the size of the farms, a count how many trees farmers have on each hectare and then to calculate what really can be achieved in the sector (Int. 58, 59, 62).

## 5.3 Governance structure

### 5.3.1 Federal Government

Many players are involved in the governance of the cocoa market as responsibilities are split among different institutions and governance levels. Legally the Federal Government is responsible for the cocoa sector. Within this government, the Nigerian Federal Ministry of Agriculture and Rural Development (FMARD) is the institution who sets the frame. The Ministry of Trade and Investment is also very powerful because it controls the quality of the cocoa which is exported. Its interest is to export as much cocoa as possible and the Ministry is not that much concerned about quality as the FMARD (Int. 65).

Another important stakeholder is a division of the Central Bank, the Nigeria Incentive-Based-Risk-Sharing System for Agricultural Lending (NIRSAL). This institution guarantees credits given to trading companies which buy cocoa from farmers and farmer organisations. To get these guarantees companies have to support farmers via training, distribution of seedlings etc. NIRSAL also co-finances projects run by donor organisations like the Farmer Business School (FBS) project of the German technical cooperation (*Deutsche Gesellschaft für Internationale Zusammenarbeit*; GIZ) (Int. 67).

There is no consistent policy as programs are often stopped or interrupted after elections when the federal government changes. Even projects, which had positive effects on the situation of farmers, can then be abolished (Int. 62, 67).

### 5.3.2 State Government

Nigeria consists of 36 states and the Federal Capital Territory. Cocoa production is concentrated in the South of Nigeria. Approximately two thirds of the production is located in the three states Osun, Ondo and Cross River. These three states are more active when it comes to support programs for cocoa farmers than other states (Int. 62). Some states organize training programs, distribute free seedlings and subsidize inputs. These support mechanisms differ from state to state (Int. 58).

While cocoa might not be very important for the overall Nigerian economy, cocoa is a major breadwinner for a significant number of farmers in the three states mentioned above. Additionally, the taxes that the federal government levies on cocoa are very low. On the contrary, the states levy a higher amount of taxes and fees from the cocoa trade. They depend on these taxes to secure their income. Therefore, governments of cocoa producing states are engaged in the cocoa sector and have a strong interest in the business. Some of them even rate beans before they leave the state (Int. 63).

It is not transparent how subsidies and tax systems among the state governments are coordinated. The situation becomes even more complicated as the states impose their taxes on cocoa which is crossing the state borders and charge levies for the inspection of the quality of transported cocoa (Cadoni 2013: 17). This leads to smuggling of cocoa across state borders to avoid levies and taxes (Int. 58).

### 5.3.3 Mixed responsibilities

While setting up projects to support the cocoa sector the federal government often takes the lead and asks state governments to join. But not all state governments want to take

part or even set up their own projects. Some of the projects may be organized jointly by federal and state governments. Some interview partners reported that, after an election and a change in administration, the federal government often has phased out its support and funding for such collaborations (Int. 57, 58).

The shared responsibilities between the federal government and state governments make it complicated to set up projects especially if these are funded by both sides. Therefore, funding for projects comes years too late (Int. 57).

During the last decades, the Nigerian government started various programs to revitalize its agricultural sector including its cocoa production. In 2000 the National Cocoa Development Committee was founded to coordinate a Cocoa Development Programme in 14 states of Nigeria. The National Agricultural Policy was revised in 2005 into a new policy with sub-programmes for the cocoa sector. One of these sub-programmes was the fertilizer policy which included the payment of a 25% subsidy on imported fertilizer. State governments could further subsidize inputs. Only a part of the money reached the farmers as the "*arrangement led to abuse by government official and contractors who hoard or divert the product*" (Cadoni 2013: 14-15). Additionally, Nigerian states started regional programmes to support the cocoa sector (Cadoni 2013: 16).

Many of the projects are financed by temporary funds. If these funds are spent, usually the project stops and everything goes back to business as usual (Int. 60).

### 5.3.4 Impact of government programs

Many programs are not successful. If for example different state governments give land for farmers to grow more cocoa - as it currently happens in some areas - there is no coordination between the states. State governments give for example land to cocoa farmers without testing if it is really suitable for cocoa. Many plots with soil suitable for cocoa are in private possession and state governments have no access to them. Additionally, the size of land given to farmers is often too small to guarantee a good livelihood. Interview partners estimate that plots given to farmers should be larger than 5 ha which is often not the case (Int. 57, 66).

The government tried to support farmers by cost-free seedlings and by a 50% subsidy on agrochemicals. Many of the promised inputs do not reach the farms due to insufficient resources for administration, corruption, bad infrastructure and a lack of financial facilities for farmers (Verein der am Rohkakaohandel beteiligten Firmen e.V. (Ed.) 2015: 20).

## 5.4 Sector reform

**Cocoa Transformation Agenda**

The Nigerian government wants to make cocoa farming again as attractive as it was in the 1970s when - according to Akinwumi Adesina, Minister of Agriculture in 2013 - farmers could make a good living from growing cocoa. The minister stressed that, in order to attract young farmers to cocoa, living conditions need to be ameliorated and incomes need to be raised above the poverty line (Adesina 2013: 3).

As part of its Agricultural Transformation Agenda the Nigerian Federal Ministry of Agriculture and Rural Development published the Cocoa Transformation Agenda in 2011. In addition, it announced the doubling of cocoa output until 2015 to 500,000 MT. The government tried to promote investments by the private sector by introducing new programs to support cocoa production. The government aimed at expanding area under cocoa production, raising yields to 600 kg/ha and producing high yielding seedlings. The government wanted to support farmers through a Cocoa Development Fund. Livelihoods and incomes of more than 250,000 cocoa farming households should be improved and 390,000 additional jobs should be created. Also part of the programme was to expand in-country grinding, a value addition of 25% of the annual yield by grinding, and to significantly increase domestic consumption of chocolate. The government estimates that

less than a third of the 3 million ha of land suitable for cocoa production is presently planted with cocoa trees. Therefore, it wants to establish at least 100,000 ha of new plantations and additionally rehabilitate 200,000 ha of old plantations. (Federal Ministry of Agriculture and Rural Development 2011: 45-47; Adesina 2013: 4-5; Cadoni 2013: 16).

Connected to this project is a cooperation with NIRSAL that is targeted to encourage private banks to give credits to farmers and agribusinesses by setting up guarantee schemes for risk-sharing facilities. These schemes try to make credits available at low interest rates (Adesina 2013: 3).

The project is supported by an ongoing project for the whole Nigerian agricultural sector, called Growth Enhancement Scheme (GES). Part of this program is the so-called Electronic Wallet System which aims to register all farmers in an electronic databank and support them to get access to subsidized inputs (at a rate of 50%), credit systems and trainings (Adesina 2013: 2; Aikpokpodion 2014: 11).

**Cocoa Corporation of Nigeria**

Most of the stakeholders agreed that the cocoa production in Nigeria needs better coordination and an institution backed by the government that sets a frame and regulates the sector (Int. 57, 58, 60, 62, 65, 66, 67). Since 1986 there was no institution that regulated the market, stabilized prices, invested in infrastructure or tested the quality of cocoa. One interview partner stated referring to the Ghanaian COCOBOD that "*Ghana was wiser*" (Int. 60). Many stakeholders call for a common policy of all different government institutions on the federal and state level: "*Policy should be one building*" (Int. 58).

The missing structure in the cocoa market makes it very difficult for all stakeholders to invest. Farmers bear the high price risk. If companies are willing to invest they cannot be sure if they will receive the cocoa produced by the supported farmers in the end. If these get an offer from a competitor, that is a little bit higher, the cocoa will go there even if the company has made all the investments (Int. 65, 66).

To support a reform process in the cocoa sector the government planned to set up the Cocoa Corporation of Nigeria (CCN). This new government structure was planned in a series of meetings during the years 2011 and 2012 in Nigeria. Additionally, the government looked for support from donor organisations like the Sustainable Trade Initiative (IDH), the World Cocoa Foundation/African Cocoa Initiative (WCF/ACI), the World Bank and from companies (Aikpokpodion 2014: 8-9).

The government developed a detailed plan and defined strategic activities of the CCN including the coordination of the sharing of information, research and evaluation, technical assistance, the rehabilitation strategy. Additionally, the CCN should regulate the market by registration and licensing of involved companies combined with quality control and grading of cocoa. To further improve the quality of cocoa the new agency should organise farmer trainings, support the availability of inputs, rehabilitation and replanting (Aikpokpodion 2014: 24).

The government does not want to set up the CCN as a central marketing body like the COCOBOD or the Nigerian Cocoa Board before liberalisation in 1986.

The Nigerian government believes that the "*government should provide the enabling environment, through sound policies, research and extension services, infrastructure and regulations to allow the private sector to do what it does best - create, manage and grow competitive businesses*" (Adesina 2013: 2).

According to the plans, the CCN will not have the responsibility to buy cocoa from the farmers, sell it on the world market or set prices. Many stakeholders agree that the private sector should have a majority rule within the governing board of the CCN (Int. 60, 63).

To get the project started the government is prepared to provide funds as a start-up capital. Afterwards, the CCN could continue its work as a public-private partnership platform with a fee structure and perhaps with income from a levy on cocoa exports (Int. 60).

**Support mechanisms**

The federal and state governments need strong supporting agencies if they want to transform the Nigerian cocoa production into a sustainable business. Farmers need access to high yielding seedlings, inputs, training, credit, and savings systems.

It is essential for the Nigerian cocoa sector to get access to high yielding seedlings. Responsible for this is the Cocoa Research Institute of Nigeria (CRIN) which developed high yielding and more disease resistant varieties of cocoa plants (Nzeka 2014: 3).

A big problem for the small-scale farmers is that, due to massive underfunding of research and extension services, these seedlings are often not available. Many of the programs including the production of high producing seedlings were stopped due to a lack of funding (Int. 60).

A central role to improve the situation of farmers could be adopted by the CRIN (Aikpokpodion 2014: 12-13). But the CRIN is not sufficiently funded to be able to meet all the demands of different stakeholders including the delivery of seedlings (Int. 65, 67).

In November 2015 employees of the CRIN went on a 6-week strike. They accused the executive director of the institution of mismanagement, wage payment arrears and urged him to reverse the dismissal of more than 90 workers (NAN 2015; Oladele 2015).

According to newspaper reports, the strike had devastating effects on the Nigerian cocoa sector. Employees of the CRIN stated that "*virtually all research activities at CRIN had been grounded since 2013*" (quoted in Oladele 2015). In December the institution was assigned a new leadership.

To further support the local cocoa production, local processors receive subsidies regulated by the Export Processing Factory Status Policy. The export of cocoa beans is promoted through an Export Expansion Grant (EEG) of 5% and the export of processed cocoa products even gets the support of 30% of the FOB price. However, local cocoa processing is still not very attractive for the industry due to high costs (Nzeka 2014: 5).

In 2012 the government of Nigeria stopped the EEG "*following prevalent abuse through over-declarations/other corrupt practices by exporters and local cocoa processing dropped significantly*" (Nzeka 2014: 5).

Approximately 10% of the local cocoa production is processed into cocoa mass, butter and powder. Domestic consumption is very low. Most factories in the cocoa sector are running far below their capacities. The 16 grinding facilities could process up to 220,000 MT of beans but only a small part of them is operating (Nzeka 2014: 5).

Nigerian cocoa grinders complain about high cost for cocoa beans combined with high production costs and the depreciation of the NGN. In the end of 2015 industry officials predicted that the few remaining factories could close soon (Reuters 2015a).

## 5.5 Private sector activities

Some companies of the global chocolate and cocoa business are running projects to support Nigerian cocoa farmers or are engaged in public-private partnerships to do this. Active partners are for example Ferrero, Armajaro and Yara (Int. 61, 63, 64**).** According to the interviewees, the chocolate industry is not that interested in the Nigerian cocoa sector because it is much smaller than the production in Ghana and Côte d'Ivoire. Compared to these countries there are very few projects with limited outreach in Nigeria (Int. 57, 58, 62). Many ongoing projects focus on increasing productivity (Int. 65). Partners involved in the cocoa sector often bypass the state bodies. Exporters go directly to farmers to train them and there is a low involvement of the government (Int. 63, 64).

For companies, the lack of coordination and regulation in the Nigerian Cocoa sector is an obstacle to invest in projects. They can never be sure that they really get the produced cocoa that was supported by their investments (Int. 65).

Even if they are engaged in projects, there is not much coordination and sharing of best practices between the different partners (Int. 58, 59, 61, 62, 63).

Companies prefer to work with farmer groups and cooperatives. Most of the farmers are not organised. Even those who are members of organizations face a lot of problems. Many cooperatives need support to set up transparent business practices and cooperative members need training to become cooperative leaders. Such an approach needs long-term engagement. Many companies are not able or not willing to invest in things where the returns can only be seen in a long-term perspective (Int. 65).

There seems to be no systematic impact assessments of most of the projects. According to stakeholders who are familiar with the development of the last years, many of the single projects are very successful. But they are not community-based. The companies work with farmers who are somehow connected to them. They do not feel responsible for other farmers in the communities. In general terms, the impact is low due to the limited outreach of the programmes. Another problem is that some farmers do not honour the costs of the services companies are providing. When they harvest they sell cocoa to competitors if these offer a higher price for the cocoa (Int. 65).

The cocoa traders see their projects as part of the competition and there is not much cooperation. The officially existing Nigerian platform never meets (Int. 57, 58, 59, 67).

## 5.6 Donor activities

During the last years some larger projects were started by donors and by public-private partnerships involving donors and companies. Some stakeholders have the impression that there are much less projects compared to Côte d'Ivoire and Ghana and think that there is not much involvement of the international donor community in Nigeria (Int. 60, 63).

However, other stakeholders stress that projects reached a significant percentage of the Nigerian cocoa farmers. The WCF set up a contract with the FMARD to train 70,000 farmers. Other programs like Farmer Field Schools and Farmer Business Schools were planned to be organised together with other partners like the GIZ and SOCCODEVI. The program has already reached 65,000 cocoa farmers and recently the programme targets 25,000 more farmers in 10 Nigerian states (Aikpokpodion 2014: 17; Int. 67).

Besides, the U.S. Agency for International Development (USAID) and IDH are active in the Nigeria. These institutions work with different partners in the country like Solidaridad and the International Institute of Tropical Agriculture (IITA). On a formal level there is not much coordination between these organisations (Int. 59, 62).

# 6 INDONESIA

## 6.1 Framework of the cocoa sector

Indonesia is the largest cocoa producing country in Asia and the third largest in the world. According to data of the International Cocoa Organization ICCO (ICCO 2016c: Table 4), its production of 300,000 MT in 2015/16 ranges behind Côte d'Ivoire and Ghana. Cocoa cultivation experienced a stark decline during the last decade. Since 2005/06, production decreased by almost 50%. Indonesia's share of world cocoa production dropped from 15% in 2005/06 to 7% in 2015/16 (ICCO 2010b: Table 4, 2016c: Table 4). ICCO data on production differ from those cited by the Indonesian government and other databases such as FAOStat. In 2013/14 for example, ICCO data suggest that Indonesia produced 375,000 MT of cocoa (ICCO 2016c: Table 4). Government representatives speak of at least 450,000 MT (Machmud 2014: 9). FAOStat lists 777,500 MT (FAOStat 2016). The share of cocoa production in the Gross Domestic Product (GDP) of Indonesia is less than 1% (own calculations based on IMF 2015f: Table 3; ICCO 2016c: Table 4). However, the Government of Indonesia seems to take cocoa seriously. Even though production declined immensely during the last 10 years, it aspires that Indonesia produce 1,700,000 MT of cocoa in 2025 (Machmud 2014: 13).

Like production figures, productivity and total harvested area for cocoa are difficult to pin down. Hawkins/Chen (2016a: 25) analysed data from FAOStat which counted 1.77 million ha planted with cocoa. However, they suggest that this calculation is overstated by 500,000 ha, making it 1.27 million ha in total. Farmers' plots range from 0.5 to 1.5 ha (Yasa 2007: 3). Productivity, calculated as yield/ha, is estimated at 230 kg/ha on average, but ranging reportedly between 200 and 800 kg/ha (Hawkins/Chen 2016a: 26). Data from FAOStat suggest an average yield of almost 440 kg/ha in 2013 (FAOStat 2016). All of our interview partners confirmed the low productivity of Indonesian cocoa. Among other reasons, low productivity is due to agroforestry systems with fewer cocoa trees per hectare (Int. 70, 71).

Cocoa production is concentrated on the islands of Sulawesi (71% or 410,000 ha in 2014), West Java, Bali and Papua (Yasa 2007: 1; VECO Indonesia 2011: 6; Hawkins/Chen 2016a: 26). It is the main source of income for at least 800,000 farmers and their families. Figures on the number of farmers range from 800,000 (Int. 68) to 1,000,000 (Jakarta Post 2015: 1, Int. 71) to 1,400,000 (VECO Indonesia 2011: 6) to 1,700,000 (Machmud 2014: 9).

Smallholders contribute 87%, whereas state plantations contribute 8% and large private plantations 5% to national production. State and private estates concentrate on the cultivation of fine or flavour cocoa (Yasa 2007: 1). However, only 1% of all Indonesian cocoa is classified as fine or flavour cocoa (Machmud 2014: 13).

The government acknowledges the big challenges in the cocoa sector and has introduced several policies in order to make improvements. Generally speaking, it is the government's objective to increase production and productivity (up to 1,000 kg/ha) to become the world's leading cocoa producing country, to boost the production of fine cocoa, to raise on-farm fermentation and to process more cocoa in Indonesia (Machmud 2014: 13). Making cocoa competitive for producers against palm oil and other crops is also an essential topic (Indonesia Investments 2015: 1). Important government policies and partnerships are the following: The Cocoa Sustainability Partnership (CSP), the Indonesian Cocoa Board (Dekaindo), the National Cocoa Program (GERNAS) since 2009, the export and import tariffs imposed in 2010 and in 2014 and the new regulation on fermentation (signed in 2014, implementation postponed to 2018). These government measures are further explained in the following chapters.

The Indonesian cocoa sector faces several challenges: Although Indonesian climate is advantageous for cocoa cultivation, yields are mostly low. Since the 1990s, pests and diseases, for instance the cocoa pod borer, pose a severe problem, leading to a loss in productivity and quality. Indonesian cocoa is known for its low quality and therefore often

used as "filler" in processing. All of our interview partners addressed the issue of low quality as well. The further decrease of quality is due to the lack of (proper) drying and fermentation of cocoa beans on farms. Lack of quality and fermentation result in a relatively low cocoa price on farm level (Hafid/McKenzie 2012: 5; Saxbøl 2014: 46ff). As well as in many other cocoa producing countries, problems associated with ageing plantations and a lack of infrastructure and extension services arise. Another major concern for cocoa cultivation in Indonesia is its competition with palm oil that has been quite profitable in recent years (Indonesia Investments 2015: 1).

## 6.2 External effects on cocoa production

**Effects of world market and world market pricing**

According to one of our interviewees, the farm gate price is currently at 38,000 IDR/kg or 2,880 USD/MT (Int. 73). Farmers receive around 75 to 85% of the world market price as farm gate price (Yasa 2007: 6; VECO Indonesia 2011: 17) which is a large share compared to other cocoa producing countries. Nevertheless, this price varies significantly across regions (Int. 72). Market signals concerning quality of cocoa are not properly transmitted to farmers. World market pricing has only an indirect effect on production as it is mediated through warehouses and local buyers (Saxbøl l 2014: 46). Other market information than the one received from buyers or warehouses is rarely available to farmers (Int. 71, 72). This partly explains why cocoa producers usually sell unfermented beans, although they could achieve higher prices by selling fermented beans. Warehouses pay much higher prices for fully fermented and dried beans to the local buyers (Saxbøl 2014: 46f). However, buyers do not pay much more for fermented than for non-fermented beans. Usually, they collect cocoa beans at the farm gate and mix all sorts of beans in order to make transport easier. Even if producers could offer high quality or properly dried/fermented beans, they would hardly receive a better price for it. Producers rarely sell to warehouses directly because they would have to transport their cocoa to the warehouse's location and because quality requirements are stricter than those of buyers (Saxbøl 2014: 47). Those conditions offer an incentive for farmers to improperly dry and ferment their beans.

**Effects of globalized value chains**

The dominance of a few traders and processors in the global value chain of cocoa becomes apparent on national level.

In short, the Indonesian cocoa value chain is structured as follows: Producers, usually smallholders, sell to local buyers who in turn sell to warehouses. These warehouses can be public or private; some belong to large exporting companies. This is where the cocoa quality is graded. Then, the cocoa is exported unprocessed or processed (Syahruddin/Kalchschmidt 2012: Figure 2). The structure of the value chain as well as the powerful dominance of transnational companies was confirmed by several interview partners (Int. 68, 71, 72).

A concentration in the Indonesian processing industry as well as in exports has been witnessed – compared to the concentration on global level. Before the export tariff was imposed in 2010, there were 60 exporters and 13 processing factories in Indonesia. In 2015, only 10 processing plants (8 of whom are foreign) and 3 exporters remained: Cargill, Olam and Ecom/Armajaro Indonesia. Asia Cocoa Indonesia, Barry Comextra (a joint venture of Barry Callebaut and Indonesian trader Comextra), Cargill, Jebe Koko, Mars and Olam are among the multinational companies who own a processing factory in Indonesia (VECO Indonesia 2011: 7, 12; Saxbøl 2014: 10; Jakarta Post 2015: 1; Hawkins/Chen 2016a: 27f). However, the Indonesian company BT Cocoa has the largest grinding capacity installed (Int. 73). After having been traded, processed and exported, Indonesian cocoa is made into confectionery by the well-known multinationals Mars, Nestlé, Blommer and Hershey's and sold throughout the world (VECO Indonesia 2011: 7).

During the last years, old and newly built processing plants have had problems to utilize their capacity to the full. The total grinding capacity in Indonesia is currently at 900,000 MTs (Int. 73). The decreasing cocoa production in Indonesia is no longer able to produce sufficiently (Abdoellah 2014b). Companies import more and more cocoa from other countries in order to run their plants at full capacity and to avoid financial losses. Imports mainly come from Côte d'Ivoire and Ghana whose countries offer better quality cocoa than Indonesia (Saxbøl 2014: 10). Consequently, demand for foreign cocoa increased in Indonesia since 2010 (ICCO 2013: Table 19; ICCO 2016c: Table 19).

**Effects of international cooperation**

There are numerous projects active in Indonesia – mostly on the island of Sulawesi – to strengthen cocoa framers' competitiveness and to increase their incomes. Various stakeholders such as producer organizations, multinational trading, processing and confectionery companies, local and international non-governmental organizations (NGOs), development organizations and Indonesian public institutions engage in this cluster of cocoa projects. Most projects are implemented in cooperation of several of these stakeholders (Int. 68, 70). The following multi-stakeholder approaches are shortly presented with a focus on their promised and current impact on smallholders' competitiveness and incomes: The Sustainable Cocoa Production Program (SCPP), a project led by VredesEilanden (VECO), the Cocoa Innovations project and FORCLIME, Nestlé's Cocoa Plan, Mondelēz' Cocoa Life, Blommer's SAFOB and Mars' Cocoa Clinics. In most cases, data evaluating the projects is incomplete or not publicly available.

One of the largest projects in Indonesia is the SCPP. It is implemented by Swisscontact, a Switzerland-based international development organization. Established in 2010, SCPP is based on a broad coalition between trading, processing and confectionery companies (Barry Callebaut, BT Cocoa, Cargill, Ecom, Mars, Mondelēz, Nestlé, Olam), state institutions (from Switzerland, the Netherlands and Indonesia), IFAD and Swisscontact. SCPP makes sure that its partners follow the same overall approach while allowing them the freedom to implement their own activities (Int. 68). SCPP focuses on training farmers in good agricultural practices (GAP), good nutritional practices (GNP) and good financial practices (GFP). According to SCPP's own data (Swisscontact 2015: 18), they have trained 54,000 farmers in GAP so far, mostly on Sulawesi.

The Belgian development organisation VECO runs a project with the farmers' organisation AMANAH and the NGO Wasiat on Sulawesi. Ecom/Armajaro Indonesia is also involved as buyer for the project's cocoa. The aim of the project is to increase productivity and quality of cocoa among 1,500 farmers. Farmers are informed by Ecom/Armajaro about cocoa prices via phone (VECO Indonesia 2011: 8, 12). Suryatin et al. (2013: 9) give positive feedback concerning the level of organisation of farmers and their collective bargaining in the VECO project. Hafid et al. (2013: 50f) find that it has improved the farmers' access to credit and has established a direct exporter linkage (to Ecom/Armajaro), that the farmers have received higher prices (although unclear whether due to direct trading or increased quality) and the role of producer organizations has been strengthened.

Mondelēz works in Indonesia through its Cocoa Life programme since 2013. It focuses on Sulawesi where it implements the project in cooperation with CARE International, Save the Children, Swisscontact and Cargill. So far, 8,100 farmers have been reached (Mondelēz International 2015: 51-56). Whether these farmers have also been trained is not mentioned in the programme report. Cocoa Life is aligned with the SCPP (Cargill 2015). Two of our interview partners praised Mondelēz for its community approach and said that this project was very different from others (Int. 70, 73).

The American development organisation ACDI/VOCA (Agricultural Cooperative Development International/Volunteers in Overseas Development Assistance) and the World Cocoa Foundation (WCF) launched the Cocoa Innovations project in 2013. It continues efforts started by USAID and focuses on farmers' access to microfinance and

agricultural information and on community-based fermentation (WCF/ACDI/VOCA 2013; ACDI/VOCA 2015).

The German technical cooperation (*Deutsche Gesellschaft für Internationale Zusammenarbeit;* GIZ) implements the bilateral programme FORCLIME on Borneo. Established in 2009, it aims at promoting cocoa cultivation in agroforestry systems (GIZ 2012: 1, 2013: 1f). The programme is very small as it only reaches a few hundred farmers.

Nestlé's Cocoa Plan is active on Sulawesi since 2013. Nestlé states to have trained 3,000 farmers in GAP, GNP and GFP and to have created 100 farmer groups ( Hawkins/Chen 2016a: 28). According to one of our interview partners, Nestlé funded research of the Indonesian Coffee and Cocoa Research Institute (ICCRI) to develop high yielding cocoa varieties (Int. 74).

Since 2005, Blommer runs its SAFOB project together with Olam and the Sulawesi Alliance of Farmers, an Indonesian farmer organization. According to their own data, they have reached 12,000 farmers and established 11 buying stations where Olam directly buys from farmers. Farmers received a premium for the improved quality of their beans (Blommer 2011: 21f).

Mars is engaged in Indonesia since 2003. It has established 5 Cocoa Development Centres which train farmers in GAP. In turn, these farmers disseminate their knowledge through Cocoa Village Clinics to other farmers. Hafid and McKenzie (2012: 11, 14f) favour this farmer-to-farmer training approach over other approaches and attest Mars a well-managed project.

Various efforts to improve the conditions of Indonesian cocoa farmers have been presented and discussed. The effects of these multi-stakeholder initiatives on farmers' competitiveness and incomes are difficult to discern due to the lack of data. Several interview partners criticised that companies as well as development organizations focus foremost on increasing production and that the projects serve their own needs in the first place – the securing of cocoa supply (Int. 69, 70, 71, 74). One interviewee is alarmed that most projects do not acknowledge the reality of smallholders (Int. 70). They receive trainings but lack the financial resources to apply their knowledge on their farms. Furthermore, it was stated that the projects need to be scaled up as only 100,000 farmers have been reached so far and especially farmers in remote areas have not been reached at all (Int. 68, 71, 72). The need for long-term projects was expressed by one of the interviewees (Int. 72).

## 6.3 Effects of government measures in the cocoa sector on the competitiveness of cocoa production

### 6.3.1 Government measures and activities

Government policies, measures and activities in Indonesia are rather limited. Among them are the joining of the CSP in 2006, the establishment of the Dekaindo in 2007, the launch of the National Cocoa Program (GERNAS) in 2009, the introduction of an export and import tariff in 2010 and 2014 and the adoption of a new regulation on fermentation in 2014 (to be implemented in 2018). Moreover, Dekaindo and ICCRI are currently developing their own sustainability standard, the 'Indonesian Standard for Cocoa Sustainability' (ISCocoa).

The Indonesian government plans to harmonize the various ongoing cocoa projects, among others through the CSP. Established in 2006, the CSP is a multi-stakeholder initiative whose purpose is to increase communication, cooperation and coordination between its stakeholders. CSP is led by the private sector (Machmud 2014: 20; Int. 73). Among its members are: Cocoa trading and processing companies (Barry Callebaut, BT Cocoa, Cargill, Ecom/Armajaro Indonesia, Olam), confectionery companies (Mars, Mondelēz, Nestlé, Petra Foods), certification bodies (Rainforest Alliance, UTZ Certified) and NGOs (IDH, Swisscontact, VECO). Unfortunately, there is no data available on

whether the CSP has improved coordination between cocoa projects in Indonesia. In 2007, the government established the Dekaindo. It works together with the CSP on a harmonization of approaches in the cocoa sector. It is associated to the Ministry of Economy. In 2009, the government launched the National Cocoa Program (GERNAS). It invested 350 million USD (until 2015) and 100 million USD (in 2015) to boost cocoa productivity on 450,000 ha. According to one interviewee, the programme has recently been extended (Int. 71). Among others, seedlings were distributed to farmers (Hafid/McKenzie 2012: 17; Indonesia Investments 2015: 1; Hawkins/Chen 2016a: 2016: 27). In 2010, the government imposed an export tariff of 15% on raw cocoa beans in order to encourage processing in the country and export of processed cocoa. In January 2014, the tariff was lowered to 10%. Furthermore, a 5% import tariff on raw cocoa beans was imposed. In 2014, the government signed a new regulation requiring all farmers to ferment their cocoa beans before selling them. Its implementation was postponed several times and is now bound to happen in 2018 (Int. 73). In the same year, Dekaindo and ICCRI announced that they are developing an Indonesian sustainability standard for cocoa, ISCocoa. This standard is supposed to improve farmers' access to credit, to implement training for farmers and to regulate the pricing and quality grading mechanisms (Abdoellah 2014a: 4f).

### 6.3.2 Effects on competitiveness

In the following chapter the effects of government measures on the competitiveness of Indonesian cocoa production are discussed. Often, a lack of adequate data makes it difficult to discern effects. In general, government's as well as other actors' measures do not seem to have the desired positive effect as cocoa production is steadily declining and quality has not improved during recent years.

There is no data available evaluating the effects of the CSP or the Dekaindo on competitiveness. An evaluation of the effects of the fermentation regulation cannot be given yet as its introduction was postponed to 2018.

The National Cocoa Program GERNAS (since 2009) has not yet been scientifically evaluated, but there are some perspectives on it. The Indonesian Cocoa Association (Askindo) criticises the missing results of the programme as production and productivity have further decreased since 2009 (Indonesia Investments 2015). Through GERNAS, fertilizers, pesticides and high yielding cocoa varieties were distributed among farmers (Int. 74). Furthermore, Hafid and McKenzie (2012: 17) find that the seedlings that were distributed through the programme were of bad quality. Therefore, it can be suggested that GERNAS did not (yet) have a positive effect on the competitiveness of Indonesian cocoa.

In 2010, the government introduced an export tariff of 15% on raw cocoa beans. It was lowered to 10% in 2014. Saxbøl (2014: 9f) finds that this was an incentive for domestic as well as foreign companies to build factories in Indonesia. Among these companies were the multinationals Barry Callebaut (in a joint venture with Comextra), Cargill and Mars (Saxbøl 2014: 10). According to the Jakarta Post (2015: 1), a process of concentration has been witnessed in the processing industry after 2010. Only 10 processors (8 of whom are foreign) remained in 2015. In order to run processing plants at full capacities and due to the inferior quality of Indonesian cocoa, companies import cocoa, mainly from Côte d'Ivoire and Ghana (Saxbøl 2014: 10). This may have been a reason why the Indonesian government imposed an import tariff of 5% on raw cocoa beans in 2014. Export and import figures show that the export and import tariffs had the effect intended by the government. After 2010, exports of cocoa beans declined by 80%. Exports of processed products, e.g. of cocoa butter, increased by 130%. Imports of cocoa beans tripled between 2010 and 2014, probably supplying newly built factories (ICCO 2012b: Tables 13, 15, 19; ICCO 2013: Table 13, 15, 19; ICCO 2016c: Table 13, 15, 19). Several domestic processing companies were not competitive compared to multinationals and were driven out of the market. Due to the tariffs, processors used

Indonesian cocoa in production, even though it is of lower quality and less competitive compared to e.g. Ghanaian cocoa.

Our interview partners are mostly critical of government cocoa policies. Critique ranges from statements that the government is corrupt and the money for cocoa does not reach the farmers (Int. 71) to estimations that government policies are counteracting the market trends (Int. 68). Our partners judged the export tax to have a mostly low impact on value added in Indonesia and to disfavour local processing companies (Int. 68, 70, 71). Furthermore, it was stated that the government has enough financial resources but lacks the technical capacity to implement projects or extensions services and that it needs support from other stakeholders like universities, NGOs or the private sector (Int. 70, 73). One of our interviewees stated that the government needs to be more strongly involved in ongoing projects (Int. 73).

### 6.3.3 Effects on smallholders

As to the effects of government measures on smallholders – there is, again, a lack of data. There are, however, three broad topics that shall be mentioned here. First, the introduction of the export tariff in 2010 led to a decline in cocoa prices for farmers. According to the Jakarta Post (2015: 1), many of them dropped out of cocoa farming at that time. The harvested area of cocoa decreased as well. Secondly, other crops seem more profitable for famers. Many switch to palm oil, corn, clove or rubber (Indonesia Investments 2015: 1). Thirdly, the expansion of extension services for farmers in terms of training, credit facilities, market information and farming inputs is tackled by most of the cocoa projects. It can be assumed that some improvements have already arrived. However, one interviewee stated that most projects do not acknowledge the reality of smallholders and are not adapted to their capacities (Int. 70).

# 7 ECUADOR

## 7.1 General framework conditions

The cultivation of cocoa involves around 100.000 individual farmers and creates around 560,000 direct and indirect jobs for Ecuador's 16 million inhabitants. It is the third largest agricultural export product in Ecuador, surpassed only by bananas and flowers (UNCTAD 2015: 11), and the fifth most important export product of all (Central Bank of Ecuador, 2016a). Between 2007 and 2015 export value of cocoa and elaborates has increased from 239 million USD to 812 million USD, an increase of more than 300%. However, with petrol being dominant in the export structure, cocoa exports only account for 3-4% of total exports value (Central Bank of Ecuador, 2016a).

It's not the volume that makes Ecuador a major player in the world cocoa economy, but its leadership in the production and export of high quality beans. Generally, the international demand for fine or flavour cocoa outweighs the supply; this creates a favourable framework condition for cocoa production in Ecuador and value chain development. The cocoa sector has also a high relevance for poverty reduction ambitions due to its smallholder dominance.

Ecuador has favourable geographical conditions and offers good biological resources, which constitutes a comparative advantage in the production of high quality cocoa. Currently, Ecuador is the biggest producer of cocoa in Latin America and the fourth largest in the world. The annual production of cocoa beans in Ecuador has grown significantly in recent years, due to new harvested areas and better crop management in both primary production and further processing. Moreover, the higher yielding CCN-51 variety has been spreading rapidly. A lot of the area that was replanted in the last decades was planted with this variety (CEPAL undated: 2-3). Cocoa is the third most important agricultural product which corresponds to 18% of the GDP in the agricultural sector, but only to 0.4% of overall GDP. It is also one of the five top export products of the country (CORPEI 2014: 19). Production is concentrated in coastal areas (Manabí, Los Ríos, and Guayas provinces) with only smaller amounts coming from the Amazon region (7%) and the highlands (13%) (UNCTAD 2015: 14).

The country is known for its high quality speciality (National or Arriba), which is classified as fine or flavour cocoa (FFC). Ecuador is by far the largest producer of FFC and produces around 60% of the global supply, giving sustenance to around 100,000 families who practice this culture but generally maintain very low levels of productivity (RTI 2013: 15). FFC accounts for roughly 64% of the national cocoa production although it generally has lower yields than the lower quality CCN-51 variety. The CCN-51 variety has become very popular recently because it is attractive to producers both for its productivity and its resistance to diseases (USDA 2015: 3; CEPAL undated: 2-3).

Today, small farmers produce 80 to 90% of Ecuador's cocoa. The vast majority of these farmers are individual, not associated producers, who own their land (often not possessing an official title) but have little access to producer services such as credit, technical assistance and training. They generally employ traditional production methods and have no or little access to modern fertilizers, insecticides or fungicides, which limits their outputs (Cepeda et al.: 2013: 44; UNCTAD 2015: 11; USDA 2015: 3). Average productivity has increased from 240 kg/ha in 2000 to 510 kg/ha in 2012 (Hawkins/Chen 2016a: 34). However, the productivity among smallholders remains remarkably low, while some modern larger plantations are mechanized and reach up to 2 MT/ha even with high quality cocoa (Hawkins/Chen 2016a: 41).

Depending on the author, it is estimated that between 5% and 19% of the farmers are associated, which results in a strong presence of intermediaries. Many of these farmers have diversified their farm outputs or are also engaged in contracted labour. This also makes them more independent from price volatility. Especially the FFC is often grown in agroforestry systems (Cepeda et al. 2013: 4, 44; Troya Rocha 2013: 50).

Ecuador has maintained a sustained economic growth, with a per capita income passing from 2,130 USD in 2003 to 5,190 USD in 2012. Consequently, the World Bank has graduated Ecuador from being a lower middle income country to the group of countries with upper middle income. This has implications for Ecuador's export sector, as the country is dropping out of the scheme of generalised tariff preferences of the EU, which mainly affects the export of semi-elaborated cocoa products to the EU (USDA 2015: 5).

Another important framework condition is the new constitution, which came into force in 2008, and follows a concept deriving from the indigenous culture, the *sumak kawsay* (span: *buen vivir*, eng: good life). This has led to a higher commitment towards developing strategies that promote a number of social and ecological principles related to the conservation of ecosystems and biodiversity, to poverty reduction, solidarity, and social equity (UNCTAD 2015: 7). As cocoa production is dominated by smallholders the government has shown high interest in improving conditions for cocoa farmers in line with the new constitution (Int. 76).

In this context, from 2009 onwards, a series of instruments was initiated by several public players in order to improve productivity and value chains by means of technical assistance, credit, productive infrastructure, marketing and fostering the level of farmers' organisation. Among them are the Organic Law on Food Sovereignty (2010), which promotes and strengthens associativity in rural development and agro-industrial production and gives supremacy to collective interests and collective action (Troya Rocha 2013: 29ff). Others are the Organic Code of Production (2010) *and the* Organic Law for the solidary economy of the People (2011) that both try to fill the spirit of *buen vivir* in the small holder productive sector. Under the guidance of the Ministry of Agriculture, Livestock, Aquaculture and Fisheries (MAGAP) the National Project for the Reactivation of Fine Aroma Cocoa (2012) is directly targeted towards the cocoa sector and aims to improve profitability (both through productivity and differentiation in price) for all players in the value chain, but especially for small producers.

## 7.2 External impacts on the cocoa production

### 7.2.1 Influence of the world market and international prices

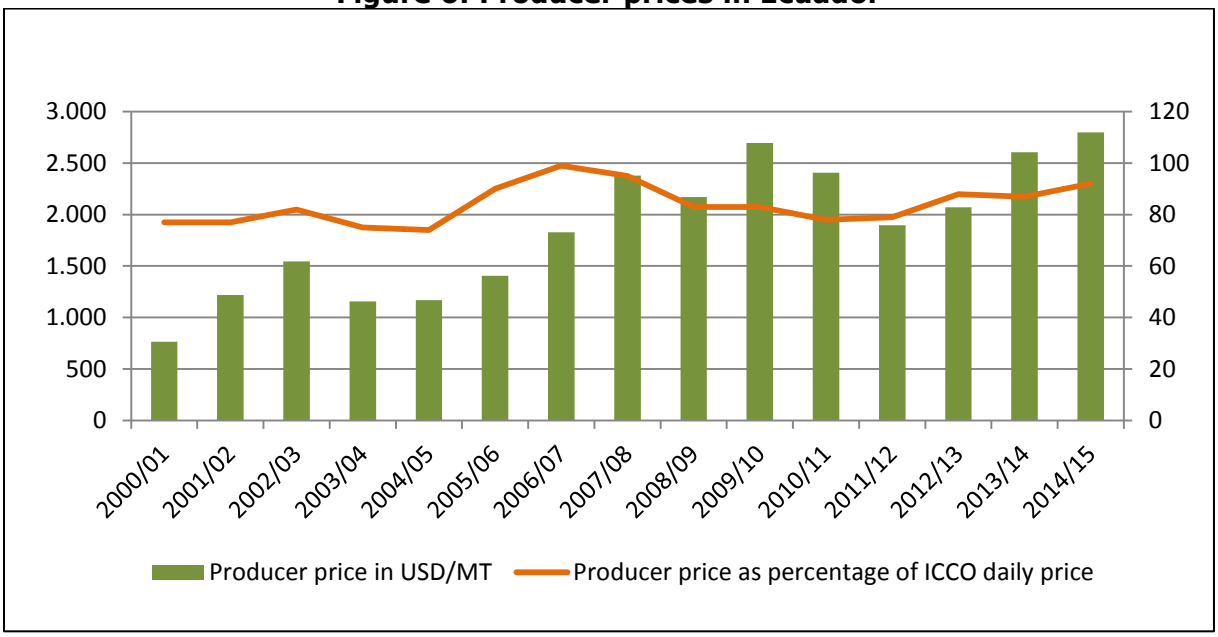
Ecuador exported 236,000 MT (775 million USD) in 2014, the most important trade partners being the USA (42% of total exports) and the EU (27%). However, emerging markets like Malaysia, Mexico and China are gaining important shares. Exports have increased steadily in recent years, up from 100,000 MT in 2003. They were projected to reach 300,000 MT by 2016, but adverse weather events (El Niño with excessive rains) seem to hinder current production growth. Still, cocoa beans are by far the main export product, with varying shares accounting for 87% of export volumes (in MT in 2015); however, some semi-processed (cocoa paste and butter, 12% of exports) as well as final products (finished chocolates, 1% of exports) are exported (CORPEI 2014: 44; ANECACAO 2015: 5; USDA 2015: 4f).

The FFC, which has a high share in Ecuador's range of exports, generally generates higher prices than the bulk cocoa. In July 2013, the price differences ranged from 2,050 USD/MT for Ecuador's CCN51 variety to 2,358 USD/MT for the best Arriba variety (Pro Ecuador 2013: 19). Sometimes, high quality cocoa is also linked to other quality standards and certifications, both organic or fair trade. Thus, premium payments of 30 to 40% have been reported if these standards and improved fermentation processes were applied or in cases of direct sourcing between the chocolate company and producer cooperatives (FAO/IICA 2008: 111; CORPEI 2014: 34).

The market for FFC is a small but highly specialized market, which has its own supply chains with specialized agents buying directly from producing countries. Although prices are referenced against the stock price, they are ultimately determined by the supply and demand characteristics for a particular type of cocoa (CORPEI 2014: 63). Nevertheless, although many farmers generally receive fairly high producer prices of more than 90% of daily ICCO prices (Fig. 6), often they do not get an adequate premium payment for the

quality cocoa they produce. This is due to the fact that especially individual farmers often have little knowledge about the value chains and marketing processes (Cepeda et al. 2013: 55). Considering low productivity, the lack of adequate financial services and the high dependency on intermediaries, prices are still a problem for most farmers (Int. 75, 76).

**Figure 6: Producer prices in Ecuador**




**Source: ICCO 2016f**

The increasing demand for higher quality cocoa and organic or fair trade cocoa in recent years has helped especially small farmers in Ecuador to increase their income. However, the total amount of organic cocoa exports at present only accounts for about 3 to 4% of total production, occupying around 12,000 ha planted (Jano/Mainville 2007: 15; UNCTAD 2015: 2; USDA 2015: 5). Several interview partners stated that due to the special value chains for the FFC the framework conditions of the international market are decent. However, decreasing confidence in the quality of Ecuadorian cocoa due to mixing of qualities in recent years constitutes a problem. The prices for fine or flavour cocoa are still not good enough in order to compensate for the lower productivity of the fine aroma cocoa as compared to the CCN51.

### 7.2.2 Effects of globalized value chains

Around 100,000 mainly non-associated producers are at the beginning of a value chain for cocoa that in many cases is relatively long. This represents 12% of the rural economically active population and those families generate around 70 to 80% of their income through cocoa (CORPEI 2014: 23). The producers bring their harvest mainly to one of the 635 small or 363 medium and large warehouses to channel production to a group of 30 active exporters and 20 processing companies (CORPEI 2014: 9). In some remote areas the dependency on these intermediaries is very high (Cepeda et al. 2013: 4). If accessible, farmers approach associations in their surroundings. The level of organizations has increased in recent years, with some estimates going up to 19% of associated farmers (CORPEI 2014: 23). However, only a few of them organize the collecting and marketing of the cocoa for their members (RTI 2013: 16). Where these farmer associations are involved, value chains seem to be shorter through the exclusion of intermediaries. Moreover, for certified products quality improved through better crop maintenance, monitoring and post-harvest processing (Cepeda et al. 2013: 52f.).

The intermediaries are fundamental players, who negotiate and ultimately determine farm gate prices for the producers. Their strong presence also affects prices because they

frequently mix the different varieties of cocoa, affecting its overall quality (UNCTAD 2015: 15). Thus, the economic advantage of producing a high quality niche product does not frequently reach the individual farmer due to his or her lack of knowledge of world market price developments and their dependency on the intermediaries, but also due to inadequate post-harvest management (both, post-harvest processing and mixing of qualities).

In recent years, there has been a tendency towards more vertical integration of the value chain as it becomes more important for the industry to secure its access to differentiated primary products and the demand for FFC has increased. In this respect, the level of associativity has also increased in importance, as this allows for better standards in the postharvest process, for the implementation of certification schemes and more efficiency due to larger acquisition from collection points (CORPEI 2014: 71).

There is also a small processing industry in Ecuador, consisting of both, industry for semi-elaborated products (liquor, paste, butter and powder) and industry for final chocolate products. The former consists of many medium and small businesses that produce semi-processed products mostly for domestic consumption and Latin-American markets (UNCTAD 2015: 12). However, some foreign based enterprises such as Nestlé and Transmar are active here as well and exports to the USA and the EU remain dominant for most semi-processed products (CORPEI 2014: 44ff; ANECACAO 2015). Meanwhile, the chocolate manufacturers consist of mainly large and medium industries that drive most of the cocoa processing to foreign markets. Only five companies (Ferrero Ecuador, Productos Sksfarms, Confites Ecuatorianos (CONFITECA), Tulicorp and Nestlé Ecuador) comprise 95% of total exports (UNCTAD 2015: 12). However, there is also a handful of smaller businesses that produce high premium chocolate (often dark, organic, and/or single-origin), such as Pacari, Kallari and Caoni that have also produced price-winning chocolate (RTI 2013: 16).

While international buyers still dominate the cocoa value chain, there is also evidence that value chains especially for FFC are often shorter, more direct and transparent. Many companies that buy FFC employ technicians or supervisors in order to interact directly with the small producers (or their associations) and guarantee the quality (CORPEI 2014: 75). And although the market is highly concentrated, this is not seen as a problem especially for the value chains of FFC, which are more dispersed and serve specific markets in Germany or Switzerland (Int. 77, 78). Increased demand of artisanal high quality chocolate and the 'bean to bar' principle, where the entire production and manufacturing process is controlled by only one (often smaller) manufacturer and sourced from a unique origin has also been identified (Pro Ecuador 2013: 20f; RTI 2013: 11).

### 7.2.3 Effects of international cooperation

International cooperation has engaged especially in fostering producer cooperatives and direct linkages between farmers/associations and buyers, especially for the value chain of specialty cocoa. This should achieve more beneficial value chain participation and improve the situation of cocoa farmers and their linkages to the international market (Int. 76). There was also support for participation in national and international fairs and exhibitions (Int. 77, 78). Among the donors are the German technical cooperation (*Deutsche Gesellschaft für Internationale Zusammenarbeit;* GIZ), the Inter-American Institute for Cooperation on Agriculture (IICA), the U.S. Department of Agriculture (USDA in cooperation with the Washington based non-governmental organisation ACDI/VOCA, the U.S. Agency for International Development (USAID) and the World Cocoa Foundation (WCF) within the SUCCESS Alliance) and the Belgian Cooperation. At the micro level, technical training for farmers (for example through farmer field schools / farming as a business) for improved productivity and disease control, as well as better post-harvest management are part of these programmes. As cocoa is very much suitable for agroforestry systems and cocoa farmers often practice diverse agricultural systems,

programmes may also include conservation agriculture, aspects of biodiversity and certification initiatives (both organic and/or fair trade).

International cooperation in alliance with Ecuadorian institutes (mainly the National Agricultural Research Institute, INIAP) is also engaged in research with regard to the efficacy of biocontrol agents and the development of varieties. Here, the USDA has a longer standing cooperation with Ecuador, trying to create productive varieties with a taste equivalent to the Nacional native variety (Lanaud et al. 2015: 39; Int. 76). In 2014, USDA included the development of sustainable growing techniques to benefit Ecuadorian farmers in their collaboration with Ecuador (USDA 2015: 7). In general, activities with regard to improved varieties are regarded important for further improvement (Int. 76, 78).

International cooperation has also supported government attempts to defend Ecuador's position as a main producer and exporter of fine or flavour cocoa on the world market. The European Union and the GIZ (former GTZ) have funded the Consultative Council of the Agroindustrial Chain of Cocoa and Derivates (*Consejo Consultivo de la Cadena Agroindustrial Cacao y Elaborados*), which defined in 2005 that the Arriba cocoa has to be marketed separately form the new CCN51 variety (Ton et al. 2008: 28). Continuous international cooperation with the Ecuadorian government and policy advice have been systematic. The cocoa policy as well as some regional cocoa fora is still in place after the cooperation pulled out (Int. 75, 77).

Nestlé is following a similar plan, the Cocoa Plan, which – next to the improvement of environmental, social, and economic conditions for cocoa growing families – has the objective to ensure the responsible supply of cocoa beans to the Nestlé Group. This programme also focusses on enhancing technical and organizational capacity, encouraging the planting of high quality cocoa (Arriba) and certification in cooperation with UTZ Certified. The direct trading relationship with Nestlé and the avoidance of intermediaries increases the income of the farmers[6]. Nestlé is also engaged in the development of improved varieties (Int. 75). The chocolate industry in Ecuador is also trying to develop a concept to create a more unique identity for "Andean chocolate" (Int. 75). Creating more direct trade relations and improving traceability seem to be a more widespread strategy among the private sector. One reason for this is that competition for the FFC exists, as the demand surpasses the supply. The private sector has an interest in securing its production through the establishment of direct supply chains, often connected to aspects of organic production or single origin, for which they also offer extension services and technical assistance (Int. 76, 77). This, however, concerns mainly the value chain of FFC. The presence of large transnational enterprises has also had negative impact on some aspects, especially when focused not on quality but on low prices. Their export agencies and collection points have displaced local structures and production chains for high quality cocoa have been destroyed (Int. 76). More recently, some multinationals have also shown interest in sourcing high-quality FFC from the high yielding large scale plantations at the coast and are also involved in the development of these highly productive plantations aiming to reach 3 MT/ha in the nearer future (Hawkins/Chen 2016a: 41).

In general, the focus of government programmes to improve the cocoa quality (or separation of qualities), increase the productivity, establish more direct linkages between the value chain actors and improve management capacities has shown a good impact on both the competitiveness and the income of beneficiaries (USAID - Ecuador 2012: 9). However, the situation of farmers has improved in general over recent years also due to other government policies but a contribution gap remains (Int. 76, 78). Moreover, price premiums, especially for the FFC, are still too small and only sufficient if combined with other premiums (such as organic, single origin or fair trade). Fixing a better producer price is still on the agenda to improve farmers' livelihoods (Int. 77).

[6] http://www.nestle.com/csv/case-studies/allcasestudies/sustainable-fine-cocoa-growing-ecuador

## 7.3 Effects of government measures in the cocoa sector

### 7.3.1 Government measures and activities

In line with the new constitution, that strengthens public action towards active social and economic politics and links economic growth and poverty reduction, a series of instruments have been established to improve the productivity and value chains by means of technical assistance, credit, productive infrastructure, marketing, and fostering the level of farmers' organisation. This is seen as a mechanism to distribute the benefits of production, for example through training for associations, increased access to scientific research, technical assistance, technology and seeds (Troya Rocha 2013: 29ff).

In recent years, Ecuador has defined cocoa as one of the strategic products for economic development with special regard to small-scale farmers, rural development and poverty reduction. In this sense, the Ecuadorian government has also gained much interest in promoting cocoa, and especially the FFC and chocolate with an "Andean identity", along with other agricultural initiatives. As these initiatives are embedded in the wider political context, they are consistent and authentic (Int. 75). The government has developed a cross sectoral programme with the main objective to enhance production and exports, and as a secondary objective the enhancement of local production to achieve a higher share in the value chain. Key implementing entities of this programme are the MAGAP and the Ministry of Foreign Trade. Three national bodies support the cocoa sector: The Association of Producers of Fine and Aroma Cacao (APROCAFA), which is also associated with promoting the CCN-51 variety and with the advancement of the "High Tech Cacao Culture"; the National Institute of Agricultural Research (INIAP), which does scientific research and transfers knowledge and technology in agricultural production; and the Association of National Cocoa Exporters (ANECACAO), which analyses market trends and provides technical assistance in order to support the entire value chain (Hawkins/Chen 2016a: 37).

MAGAP launched a National Cocoa Programme in 2012 with the objective to revitalize production of FFC among small producers. Main components are the increase of productivity of FFC and the improvement of its quality, mainly through improved traceability, post-harvest management and separation of varieties. The project shall be implemented within 10 years with the objective to renovate 284,000 ha and newly establish 70,000 ha, replacing less profitable crops, old pastures or fallow land. New premium varieties that are more productive are to be developed. The project also aims at promoting and implementing credit programs designed specifically to benefit small cocoa producers. Moreover, it plans to establish a system of training, improved pruning and technical assistance serving 60,000 producers and at least 50 producer associations. Additionally, a competitive industry for premium semi-processed and chocolates was to be encouraged (USDA 2015: 7; CEPAL undated: 5f)[7]. This last point is seen as one of the big challenges for better value addition, however, conditions are still not very advanced and the strategy seems to have lost momentum (Int. 75, 77).

Government efforts also include programs for technology transfer, innovation and research (UNCTAD 2015: 17). Within the research programme INIAP has developed certified Nacional-type hybrids with a considerably higher productivity. So far, eight clones have been identified with a productivity of more than 30qq/ha (1,380 kg/ha) (CEPAL undated: 4). In general, policies are considered to be consistent and adequately institutionalized with more and more suitable personnel (Int. 77, 78). However, some aspects, such as the pruning initiative would have needed more follow up in order to sustain the impact (Int. 77).

[7] See also: http://www.agricultura.gob.ec/magap-impulsa-proyecto-de-reactivacion-del-cacao-fino-y-de-aroma/, retrieved 07 March 2016.

### 7.3.2 Effects on competitiveness and on small producers

The country is forecasted to become the world's fourth largest cocoa producer by 2016, which could only be achieved by the strong government incentives (USDA 2015: 2). So far, around 20,000 families have benefitted from the government's Cocoa programme, they have improved pruning or received assistance in the form of cocoa seeds and plants. The national government, in some cases supported by local autonomous governments, is also constructing new infrastructure to improve the possibilities for post-harvest processing, such as storage facilities and collection points for the sale of cocoa beans, which will improve quality and management opportunities for medium and small-scale producers (USDA 2015: 7; CEPAL undated: 5f).

There are improvements especially with regard to productivity (doubling) and post-harvest management for improved quality. However, in some areas, very low productivity especially with regard to the fine or flavour cocoa are still predominant and convincing farmers of the necessity to apply adequate pruning techniques is still a challenge to overcome (Int. 78). Low producer prices still constitute a problem, due to the high dependency on the intermediaries (Int. 75) and low productivity (Int. 76). To overcome this, the cooperation with smaller (mostly European) enterprises (in form of a public-private partnership (PPP)), which have an interest in fine aroma or single origin chocolate and include additional aspects of production, such as organic or fair trade has been successful (Int. 78).

In general, services, personnel and quality of the beans have improved which also helps the producers to raise their income, but impacts are still too much concentrated in selected areas. Increased income is most significant for those producers that engage in the production of high quality chocolate (Callari, Pacari etc.) but the scope of this is very small (Int. 77). Moreover, the objective to build up a competitive industry for premium semi-processed and chocolates has proved to be very costly and risky. The competitiveness of these industries is still low especially as the big foreign industries are dominant, highly concentrated and very competitive (Int. 75).

## 7.4 Political-economic characteristics, strengths and weaknesses

Among the enabling factors is the strong linkage of smallholder production and the production of FFC, which follows specialised value chains. As Ecuadorian cocoa enjoys a high prestige and there is an increasing demand for premium products, often linked to other quality standards (organic/fair trade), there are good opportunities for raising farmers' income. The involvement of small private initiatives for premium chocolate (Pacari, Kallari etc.) creates valuable conditions for involved farmers and fosters the efforts to develop a processing industry for FFC semi-elaborated and final products in Ecuador. The strong government commitment does not only focus on smallholders' productivity and better crop and post-harvest management, but also includes programs for technology transfer, innovation and scientific research (UNCTAD 2015: 17).

One of the main problems is related to low productivity (especially on small farms) and the loss of product quality by mixing of qualities and inadequate fermentation in the post-harvest process. This is in great part attributed to the small size of production units, low economies of scale, poor crop management and the age of the plantations (UNCTAD 2015: 15). Moreover, a low level of organisation of farmers, weak leadership capacities, little access to input and services, and generally a high dependency on intermediaries constitute disabling factors for smallholders. The development of an industry for semi-elaborated products is hindered by the strong presence of highly competitive big foreign industries. Moreover, the success of the government's strategy depends on the capacity of the market to further absorb a growing amount of high quality cocoa, as the production of FFC is also growing in other parts of the world.

# 8 BRAZIL

## 8.1 Background

Brazil is a fast-growing economy with a rapidly expanding middle class. The country's population of 204 million people has an annual per capita income of 8,540 USD. But within the country there are huge social imbalances. While a small part of the population lives on a similar level as people in industrialised countries many people still live in extreme poverty. Additionally, Brazil exhibits extreme regional differences regarding income, social indicators such as health, infant mortality and nutrition between the wealthier South and Southeast regions and the North and Northeast.

GDP growth slowed down from an average of 4.5 % in 2006-2010 to 2.1 % over 2011-14 and 0.1 % in 2014. Presently, consumer prices grow at a year-on-year rate of more than 10 %. In 2015, the recession in the Brazilian economy intensified and GDP is estimated to have decreased by around 3.5 % (CEPAL, 2015: 1). In terms of exchange-rate policy, the Real depreciated massively against the US-Dollar.

## 8.2 History and relevance of the cocoa sector

Cocoa cultivation began in Brazil in the seventeenth century. Between 1896 and 1930 cocoa production grew by 400% making Brazil the largest producer in the world. The cocoa production started off in the hands of mainly smallholder farmers. Many of these planted cocoa in agroforestry systems. Cocoa beans were the second largest export in the early twentieth century and contributed 0.6% to Brazil's GDP (Willumsen/Dutt 1991: 56; Valla 1976: 465). In the following decades, Brazil lost part of its strong position on the cocoa world market. As a reaction the federal government intervened in the sector and created the Executive Committee for Planning Cocoa Farming (CEPLAC) on 20 February 1957. CEPLAC is an agency with financial and administrative autonomy, designed to conduct research, promote technical and credit assistance to farmers and facilitate the acquisition of agricultural inputs. The CEPLAC intended to place Brazil again in the global lead position for cocoa production. Therefore, they mapped approximately 100,000 ha of soil suitable for cocoa. To support the programme, the availability of hybrid seeds with high productivity and resistance to certain pests and diseases combined with the delivery of extension services were improved (Camargo/Nhantumbo 2016: 46; Valla 1976: 465; Willumsen/Dutt 1991: 56).

As a result of these projects cocoa production systems partly changed. Large-scale plantations were developed which planted cocoa without shadow trees and used more fertilisers and pesticides. CEPLAC tested different varieties of cocoa trees. According to the results of the research annual yields could be more than doubled to annually 1,700 kg/ha. However, many small-scale farmers were reluctant to adopt the new varieties and invest into inputs (Camargo/Nhantumbo 2016: 46-47).

The outbreak of Witches Broom, a fungus which has potential to spread very fast on cocoa plantations, ended the growth of production. Particularly the large-scale plantations were devastated and approximately 200,000 workers lost their jobs until the mid-1990s. Additionally, many farmers gave up their cocoa plantations due to low income levels or they diversified their production to other crops (Camargo/Nhantumbo 2016: 49).

Cocoa production decreased from 350,000 MT in 1989/90 to 123,500 MT in 1999/2000. Meanwhile, the local chocolate production grew (details see below). During the harvesting season 1997/98 Brazil turned from being a cocoa exporter to becoming a cocoa importer (Pekic 2014).

It took Brazilian cocoa producers a decade to recover at least partly. During the last decade cocoa production fluctuated between 200,000 and 230,000 MT. Despite hopes of Brazilian organisations to further increase cocoa production the current harvest is

disappointing. According to ICCO data, Brazil's production in 2015/16 is going down considerably, from 230,000 MT in the previous season to 180,000 MT not at least due to adverse weather conditions which facilitated the spread of pests and diseases including Witches Broom (ICCO 2016c: viii and Table 4).

Nowadays, the significance of cocoa production for the overall economy is very low even within the agricultural sector. However, in some regions cocoa is still a relevant crop. While Brazil is one of the three largest producers and exporters of sugar, coffee, orange juice, soybean, beef, tobacco, ethanol, and broiler chicken in the world, the countries farmers produce less than 5% of the global cocoa supply. Nevertheless, cocoa plantations produce the raw material for a growing local chocolate industry.

## 8.3 Legal, economic and socio-cultural framework of the cocoa sector

The Ministry of Agriculture, Livestock and Supply (MAPA) is responsible for the management of public policies to stimulate agriculture, the development of agribusinesses and the regulation and standardization of services related to the sector. The federal government intervened in the sector as mentioned above through the creation of the CEPLAC, an agency of the MAPA but with financial and administrative autonomy (Willumsen/Dutt 1991: 56).

The most important reference for smallholders in the cocoa sector is the Secretariat for Development of Livestock and Cooperatives (SDC). Its performance involves efforts for the strengthening and set up of cooperatives, the promotion of sustainable farming practices, development and application of new technologies, intellectual property rights, infrastructure and logistics of production, transport and storage of crops.

The first regulation of the cocoa-based products in Brazil was based on the Resolution No. 13 from 1970, aiming to adopt quality and identity standards for cocoa products and chocolate, with general guidance on product characteristics and labelling. In 2005, the resolution of the National Health Surveillance Agency of Brazil (ANVISA) presented the technical regulation for chocolate and cocoa products. The beans are classified by the minimum criteria set by the Normative Instruction number 38 of the MAPA from 2008. Aspects of environmental and social sustainability in cocoa production are regulated by the New Brazilian Forest Code that, according to the vision of cocoa farmers, could constitute a limiting factor to the expansion of cocoa farming in Brazil. Regarding the fulfilment of the social aspects, the producers are generally in accordance with Brazilian law. Labour costs in Brazil are relatively high, representing 65 to 80% of the production costs. They are 3.6 times higher than labour costs in African countries (Estival 2013: 83, 113).

As a central institution the CEPLAC plays an important role in implementing government measures in the cocoa sector. The mission of CEPLAC is to promote the competitiveness and sustainability of agriculture, agro-forestry and agro-industrial sectors for the development of cocoa-producing regions. CEPLAC operates in six states of Brazil: Bahia, Espírito Santo, Pará, Amazonas, Rondonia and Mato Grosso. Its current priority is the recovery of the regional economy, with emphasis on the fight against Witches Broom. Another priority is to promote vertical and horizontal diversification of agricultural activities.[8]

Other important institutions with relevance for the cocoa sector are the Secretariat of Agricultural Protection (SDA) and the Secretariat of International Relations in the Agribusiness (SRI). The SDA is responsible for implementing the state actions for prevention, control and eradication of pests and diseases. It aims to ensure the origin, compliance and safety of products of plant and animal origin intended for human consumption and also the suitability of inputs for use in agriculture and livestock. Built in 2005, the SRI promotes the interface with the external market. The secretariat is

[8] For details see: http://www.ceplac.gov.br/

responsible for preparing proposals for negotiations on sanitary and phytosanitary agreements with other countries and also by analysing deliberations on the phytosanitary requirements that involve interests of the Brazilian productive sector.

Additionally, there are specific regional developments within the cocoa sector. The Witches Broom had drastic consequences in Southern Bahia, where at that time most of the Brazilian cocoa was grown. To meet the challenge and curtail the impact of this disease, CEPLAC began a vigorous research programme financed by the State Government of Bahia, through the Cocoa Defense Fund (Fundecau). Cocoa producers are represented by the State Agriculture Federation of Bahia (FAEB), and the Trade Union of Rural Producers locations. These entities guarantee the active presence of the National Rural Learning Service (SENAR) in the region, maintaining a training centre that played an important role in a certain phase of the regional crisis. Today the role of this centre is to provide training for young cocoa farmers.

In Bahia many small-scale farmers still grow cocoa in agroforestry systems. This way of production is called Cabruca. They didn't want to follow the full-sun plantation system promoted by CEPLAC. In 2010, the MAPA approved a plan to promote this type of cocoa production to protect forests. They allocated 70 million USD for the state of Bahia to finance 100,000 ha of cocoa planted in the Cabruca system and another 265,000 ha for conventional cocoa production (Camargo/Nhantumbo 2016: 50-51).

Cabruca was developed to become a trademark for organic cocoa and the products made from it. The government initiated a law to support this form of production. The purpose of the law (BILL No. 3665, DE 2012) is to establish a regulatory framework to certify the social and environmental sustainability of Cabruca cocoa. It is expected that with the adoption and application of this law a refined chocolate with regional recognition will be associated with the cabruca system and appreciated, as it is the case for fine wines and quality coffees (Estival 2013: 91). In December 2010, on the initiative of cocoa producers' organizations in the region the proposal of the Bill No. 4995/09 was approved, establishing the conservation policy in the areas of cocoa cultivation in the traditional system cabruca. With this law, the government was able to develop these areas through economic incentives and allocate them to the property or possessions that have legal reserve. In 2011, a Good Practice Guide was launched in order to help establish and maintain Cabruca systems.

Since 2015 cocoa growers which are members of the organic cocoa farmer organisation "Cooperativa dos Produtores Orgânicos do Sul da Bahia" are allowed to use the trademark. First customers are Swiss chocolate producers (Pekic 2015b).

Despite the efforts to increase production Bahia's share in the Brazilian cocoa production went down to 55% in 2015 (IBGE 2016: 38). Meanwhile non-typical cocoa producing states tried to attract investment into new cocoa plantation. The state government Pará was very successful in supporting farmers to increase cocoa production. Nowadays, the state produces 40% of cocoa production in Brazil. To support farmers, the government joined forces with companies like Cargill. While farmers in the state of Pará nowadays produce roughly 900 kg/ha, production in Bahia is still 300 kg per hectare (IBGE 2016: 38; Camargo/Nhantumbo 2016: 53; Mendes et al. 2016: 10).

However, even with the support of federal or state government agencies cocoa farmers still face many problems when they need technical assistance or extension services. Other problems are labour shortage and the missing coordination between the different projects and programmes (Camargo/Nhantumbo 2016: 53-54).

## 8.4 Particularities in the Brazilian value chain

Contrary to all other major cocoa producing nations Brazil exports nearly no unprocessed cocoa beans. In the harvesting season 2014/15 only 700 MT of beans left the country. Additionally, nearly 25,000 MT of cocoa butter, 23,500 MT of cocoa powder and cake,

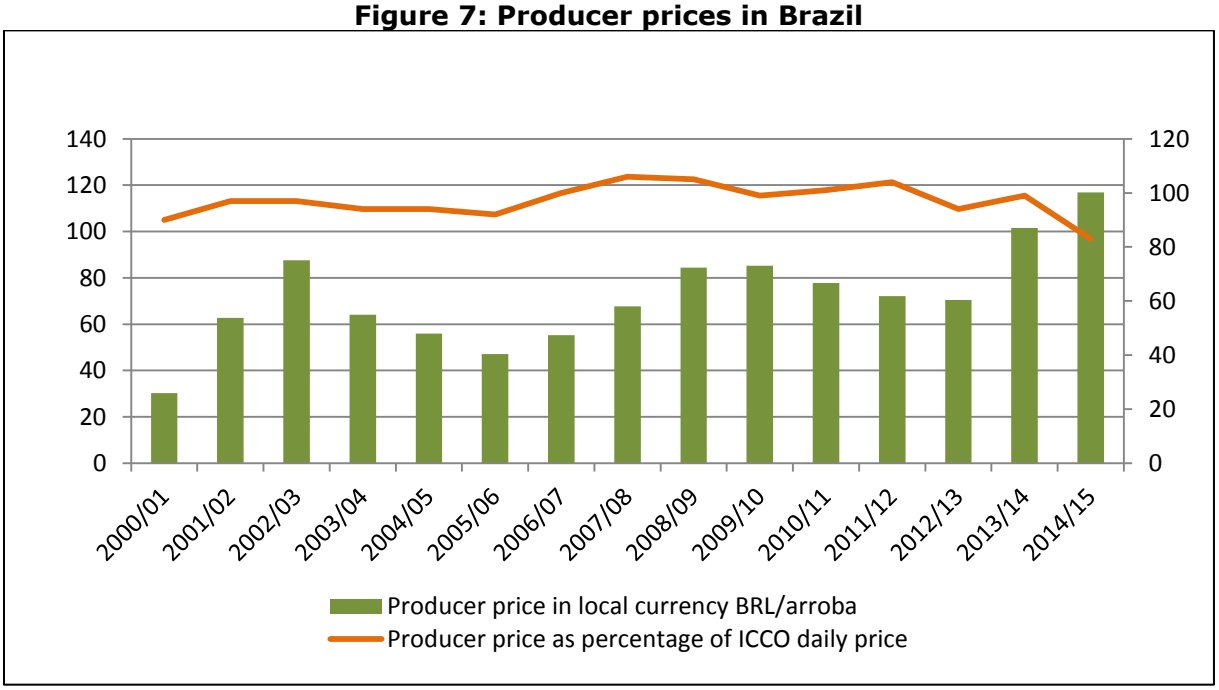
7,000 MT liquor and 25,000 MT of chocolate and chocolate products were exported. In the same year the country imported 26,000 MT of chocolate (ICCO 2016c: Table 13, 15, 16, 17, 18, 23).

The import of cocoa beans and much lower amounts of cocoa products fluctuate strongly depending on the harvest within Brazil. In the year 2008 the country imported a record amount of nearly 109,000 MT of cocoa beans, but due to an increase of in country cocoa production imports went down to 11,000 MT in the harvesting year 2014/15 (ICCO 2012b, Table 19; ICCO 2016c: Table 19).

Chocolate production increased significantly. Between 2006/7 and 2014/15 local consumption also rose from 129,000 MT to 200,000 MT and per capita consumption of cocoa products from 687 g to 1017 g (ICCO 2016c: Table 37, 38).

In Brazil, there are small family cocoa farms as well as large plantations. Smallholder farms are under threat. Due to a lack of capital, many small businesses had to sell their product to large landowners at very low prices. The vast majority of producers sell their cocoa beans via intermediaries. Companies purchasing cocoa may be roughly characterized into large, medium-sized and small businesses. In most cases large cocoa purchasing companies are branches of cocoa processors. They buy the cocoa beans directly from the major producers. They also establish business relationships for the indirect purchase of cocoa from the medium and small business buyers. The medium-sized purchasing companies buy the product directly from producers that take the cocoa beans to the so-called "sheds" for marketing. They also buy from small purchasing companies, also known as middlemen, who go to rural areas to small producers for direct purchase and resale of cocoa to the medium-sized companies (Estival 2013: 187). Even if particularly small-scale cocoa farmers were under pressure farm gate prices in Brazil during the last years were usually very close to 100% of ICCO daily prices (Fig. 7).

**Figure 7: Producer prices in Brazil**




**Source: ICCO 2016f**

The large and medium-sized producers have formed associations and collective structures for the discussion and development of proposals to solve problems in the sector. An example of collective action is the Institute Pensar Cacau (IPC), co-created in 2011 by a group of cocoa farmers in Southern Bahia, the Association of Cocoa Producers (APC) (Estival 2013: 93-95).

Since 2000, Brazilian cocoa producers in Bahia have engaged in the production of FFC and/or organic cocoa. This was the result of the engagement of a French chocolate producer who was supported by the Académie Française du Chocolat. The Associação dos Profissionais do Cacau Fino e Especial (Association of Fine and Special Cocoa Professionals), a cooperation between the French chocolate company and Bahian cocoa growers, was established shortly afterwards. Unfortunately, the association has stopped its work after a few years. The APCFE has been dissolved after seven years of successful work and their members began to work individually again. Important achievements of the organisations' work were the training of producers for the production of FFC, the coordination with the business partnerships in the Brazilian and European market, the dissemination techniques and standards for improvement and standardization of the production process as well as participation and recognition of Brazil as a producer country for FFC (Estival 2013: 97).

Processing in Brazil is dominated by the five companies Cargill, Barry Callebaut, Delfi, Joannes and Indeca. The overall installed capacity is 250,000 tonnes of cocoa per year (Camargo/Nhantumbo 2016: 64). The cocoa processing plants produce cocoa mass, cocoa butter and cocoa powder. These by-products are marketed in large scales to the chocolate industry. Sales of cocoa products on a medium and small scale exist, but they are limited to restaurants and medium-sized chocolatiers.

Chocolate is produced by 57 companies. Some of the main actors are multinational like Nestlé, Mondelez, Mars and Hershey's, others are local companies (Camargo/Nhantumbo 2016: 64). Similar to the situation on the global chocolate market multinational companies dominate production. According to figures from 2010 Brazil's chocolate industry is characterized by a duopoly where Nestlé and Kraft control about 80% of the market and have achieved considerable penetration of distribution channels. The alternative strategy for other competitors is often directed toward regional or specific markets (Lafis 2012, Estival 2013: 53).

# 9 PERU

## 9.1 General framework conditions

Peru is classified as upper middle income country by the World Bank. Over the past decade, Peru has been one of the region's fastest-growing economies. Between 2005 and 2014, the average growth rate was at 6.1% in a context of low inflation (2.9% on average). The country has now entered a more challenging period since growth slowed down in 2014 as a result of adverse external conditions, a corresponding decline in domestic confidence and fewer investments (CEPAL, 2015: 2). Along with the strong economic growth in recent years, the poverty rate decreased considerably from 42.4% to 22.7% between 2007 and 2014 (INEI, 2015: 14). However, extreme poverty is still prevalent in rural areas in the regions of Cajamarca, Piura, La Libertad and Apurímac.

## 9.2 Relevance of the cocoa sector

In Peru, cocoa and coffee cultivation were both introduced in the 1930s. This was associated with the process of colonisation of the jungle, during which large numbers of Andean people and some groups of European immigrants moved to the Amazon and started the cultivation of traditional products such as bananas, cassava, corn, rice, citrus, coffee and cocoa. Since 1980, the traditional cocoa growing areas were affected by the sudden increase in coca cultivation for cocaine production. Due to its high profitability, the coca leaf monopolized the market and replaced areas of cocoa plantation. To add up, political violence turned the Amazon region into an operation centre and shelter for armed groups which made cocoa production very difficult.

From 1990 onwards, the cocoa activity began to suffer also from the outbreak of two diseases, the moniliasis and the "witches' broom", which affected productivity and production quality. International cooperation programmes to rescue cocoa production were developed and included capacity training activities and technical assistance.

45,000 farmers work on plantations with an average size of 2 ha and a planted area of 90,000 ha. Due to the small size of the plantations most of the farmers spend about half of the working time on their cocoa plantations and produce additionally other crops or have off-farm income (Technoserve 2015: 7).

Today, Peru is the third largest cocoa producer in Latin America. Not at least due to external support (see below) production figures have doubled since 2009/10. Cocoa exports grew significantly and there is a growing national market. According to the data of the ICCO Peru produced 85,000 MT of cocoa in 2014/15 and exported 53,900 MT (ICCO 2016c: Table 13). Although this constitutes an increase of 1,000% as compared to the season 2006/07, cocoa exports still represent a low share of only 2% of Peru's agrarian exports (Banco Mundial 2016: 5).

Peru's main cocoa buyers are the Netherlands (35.8% of total exports in 2015), USA (12.4%) and Belgium (11.6%). Other important markets are Italy, United Kingdom, Mexico and Spain (INEI 2016: 1). The "Andean Preferential Tariff" facilitates the export of cocoa to the United States and thus promotes cocoa as an important substitute for illicit coca planting. Peru has a high share of FFC and is trying to further improve the quality of the cocoa in order to become a preferred source of quality cocoa and supply international chocolate manufacturers with a high quality product. Total cocoa exports in 2015 earned 238.6 million USD which is an increase of 11.4% compared to 2014 (INEI, 2016: 1).

Presently, Peru contributes only 2% of world cocoa production (ICCO 2016: Table 4). The country's share in the world market is growing rapidly as new plantations are coming into production and productivity is growing. Even if production will never reach the levels obtained in West Africa the country could increase its exports significantly. Cocoa producer organisations hope that they can quintuple production to 482,000 MT in 2024, three quarters of which is aimed to be FFC (Pekic 2015a). This seems to be a very

optimistic scenario which would afford high investments in land, seedlings, extension services, and labour.

Three large productive clusters can be identified: i) the Northern Area, which accounts for more than 58% of the national production and is composed of the regions of St Martin, the Amazon and Cajamarca; ii) the centre, composed principally of the regions of Huánuco and Junín, which represent 18% of the national production, the main participation here is the province of Satipo (Junín); and iii) the South, composed of the regions of Cusco and Ayacucho, which as a whole produce more than 25% of the national total (Banco Mundial 2016: 11).

With regard to harvested area, the San Martín region is the most important (35.50% of total harvested areas), followed by the regions of Cuzco (22.37%), Junín (13.01%), Ayacucho (8.99%) and the Amazon (6.94%).[9]

In recent years, the average yield per hectare rose significantly to approximately 650 kg (Technoserve 2015: 7). Yields vary by region. The highest yields are obtained in the region of San Martin, where an average of 927 kg/ha is obtained. While also in the Junín region higher yields than the national average area obtained, the second largest producing region, the Cusco region, has a yield of only 474 kg/ha (Int. 81).

The productivity of cocoa not only varies among different regions but also among different farms, ranging from 250 kg/ha to 2500 kg/ha per year. Productivity differences depend on several factors like the variety used, disease incidence and the climatic conditions of the cocoa-producing regions. The spreading of the high yielding CCN 51 cocoa variety leads to the erosion of the native cocoa varieties and of the traditional hybrid varieties known for their superior cocoa quality traits (Garcia et al. 2011: 102). Nevertheless, the ICCO still classifies Peru as a country with a share of 75% of FFC.

## 9.3 External impacts on cocoa production

### 9.3.1 The cocoa value chain in Peru

Like other cocoa producers around the world farmers in Peru have problems to cope with the highly volatile nature and instability of international cocoa prices. The poor quality of road infrastructure in the main centres of cocoa production leads to high costs for transport and other logistics (Banco Mundial 2016). Additionally, in many regions the trade of cocoa beans is dominated by intermediaries working highly informally and sometimes paying low prices to the small producers. Moreover, they mix varieties and qualities, which has a negative impact on quality levels and further reduces the income of farmers (Int. 79, Technoserve 2015: 16). The volatility of cocoa prices combined with low farm gate prices still make coca attractive for the farmers in some regions.

Many farmers live in poverty and are also engaged in the production of other crops and subsistence activities. In the countryside, there are several levels of farmers' organizations with different intensity. More than 80% of the farming families belong to a community-based organisation with social or productive purposes not necessarily related to cocoa. Figures about the level of organization for the marketing and commercialisation of cocoa vary: While in 2009 30% of the farming families were reported to be associated in entrepreneurial producer organisations, more recent figures suggest that it is only 20% of farming families (IICA 2009: 13, Technoserve 2015: 7).

Many of these producer organizations are attached to the Peruvian Association of Cocoa Producers (APPCACAO), an organisation that was founded in 2004 on the initiative of small organized producers who longed for specialized services to foster their production systems and institutional development. Since then the association claims to have brought together 25 producer organizations which together gather approximately 30,000 cocoa growing families. This would result in an even much higher level of organization than the

[9] Source: http://www.proyectosperuanos.com/cacao.html

other sources suggest (APPCACAO undated). However, interview partners stated that the level of organisation in the cocoa sector is still low (Int. 79, 81).

Since the cocoa producing regions mostly coincide with the coffee producing areas, some cooperatives or associations work on both crops, for instance the Coffee Agrarian Cooperatives (CAC). Even national strategic alliances exist between the cooperatives. A membership in one of these cooperatives is essential for small farmers because they also provide several kinds of governmental support (Int. 79).

The cooperatives provide centres of gathering for their members, which is the easiest way for them to get their product to reach the final consumers. This is the most common gathering facility and cooperatives' gathering centres are operative in all producing regions in Peru. However, other types of gathering facilities also exist: A few trade and export companies, such as AGROPESA or Exporter Romex, for example, provide centres of gathering in several provinces. Finally, there are also public centres of gathering on the municipal and regional level (Banco Mundial 2016: 15).

There is also a broad network of small local collectors operating for large agribusinesses who connect cocoa producers to the national and international markets. A criticism of this traditional collection system is that it does not differentiate the grain quality (moisture content, degree of fermentation, etc.) as it is intended only for producing lower quality butter to produce chocolate for the domestic market (IICA 2009: 14). Upon receiving the same price independent from quality, the farmers have no incentive to improve the quality of their products. The frequent mixing of varieties in this system further lowers the quality of the grains (Int. 79). However, several producer organizations aimed to address the problems and disadvantages of the traditional collection system and decided to explore direct ways of marketing cocoa and derivatives, mainly for the international market. Often, this involves organic or fair trade certification (IICA 2009: 15).

Certification of organic cocoa is an important and increasing factor in Peru. The country is the second largest producer of certified organic cocoa. This cocoa follows a different and specialized value chain. Fairtrade and UTZ are also active in the country. Many cooperatives are double or even triple certified. Presently, approximately 25% of production is certified (Banco Mundial 2016: 9; Technoserve 2015: 7).

Different programmes were set up to improve the situation of small-scale farmers. One approach was to support farmers to cluster into groups and strengthen their position within the value chain. Some of the producer organisations are not working well because they were set up in a top-down approach, not well-managed and lack support of the members. Therefore, development organisations supported farmers' organisation to improve their services and train farmers, set up business plans and improve the internal organisation (Technoserve 2015: 16).

The farm gate price for cocoa has grown significantly during the last five years because of the growing recognition of the quality of Peruvian cocoa. According to the Cocoa Alliance Peru (Alianza Cacao Peru, ACP), Peruvian cocoa reaches relatively high prices at the international markets: in 2014 a MT of the Peruvian FFC was sold at more than 3,000 USD/MT. However, volatility is high due to world market effects (INEI 2016: 2). During the past years farmers received on average 80 to 85% of the export price (Technoserve 2015:7).

At the level of export, the four top export companies combine more than 50% of total exports. In 2013, the Amazonas Trading Peru S.A.C. was the largest exporter of cocoa and its derivatives with a share of 17.3%. Other leading companies in the export market are the Cooperative Acopagro (14.5%), Sumaqao (10.3%) and Exportadora Romex (10.2%) (Banco Mundial 2016: 7).

### 9.3.2 Effects of international cooperation

The government of Peru, through its National Commission for Development and Life without Drugs (DEVIDA), has implemented a programme to combat drug trafficking in

the Peruvian Amazon, promoting cocoa as an alternative crop to coca. This programme was heavily supported by USAID and the United Nations and sponsored activities aimed at convincing coca producers to switch to cocoa production. Due to this extensive programme over the last 20 years, there is an abundant supply of field technicians trained in search of permanent and stable employment. This makes the country attractive for investors who want to invest in big plantations. Because of the availability of a skilled workforce, Peru is favourably positioned compared to the countries which are most commonly associated with companies of large-scale plantations (Int. 79-82).

The USAID funds the ACP, a public-private partnership, that focusses on FFC and links cocoa traders, investors, technology providers, and Peruvian government partners to their cocoa farmers. ACP provides technical assistance to producers aimed to increase yields and improve post-harvest practices to assure better prices and more profitability for farmers. As of June 2015, ACP worked with 16,500 cocoa farmers of San Martin, Ucayali and Huánuco regions and installed over 20,500 hectares of cocoa. Moreover, over 10,000 hectares of farms have been geo-referenced and incorporated into the traceability system. ACP's goal is to integrate 23,000 households into international value chains and establish 28,000 new hectares of cocoa. ACP provides improved seeds (it has six highly productive cloned varieties), facilitates access to credit, transfers technology through field extension agents and strengthens producers' cooperatives (Carana 2013; Int. 79-82).

As part of the strategy to encourage cocoa producers to participate in their programmes, ACP has instituted the Cocoa de Oro (Golden Cocoa) award for farmers that produce the best quality cocoa. The ACP, along with the Ministry of Agriculture and Irrigation, DEVIDA and USAID, has also established the "Salon del Cocoa y Chocolate", an exhibition to promote cocoa production and consumption. Winners of this event participate in the "Salon du Chocolat" in Paris. In 2009, a Peruvian sample won the first prize for aromatic cocoa, and in 2011, Peruvian cocoa samples were selected among the best in the world. In 2014, 35 small producers have been selected to participate in the Paris show (GAIN 2014: 5).

Since April 2014, the German cooperation supports the government programme ProAmbiente which is run by the Ministry of Agriculture. Several players are involved in the establishment of a platform. An important step in this programme was the organisation of a workshop to agree on guidelines for priority research in the cocoa value chain. Moreover, the National Network of Research and Innovation of Cocoa and Chocolate (Red Nacional de Investigación e Innovación de Cacao y Chocolate) was initiated which includes national entities such as APPCACAO, the Institute of Tropical Crops (ICT), the National Institute of Agricultural Research (INIA), the National Commission for Development and Life without Drugs (DEVIDA), as well as universities (Int. 82).

The German cooperation works in several projects closely with these institutions, for example with regard to improving technological innovation, a project has been implemented involving six cocoa cooperatives and two chocolate companies. Other projects involve universities, both in Peru and Germany, and aim at improving the quality of cocoa and cocoa-based products (Int. 82).

## 9.4 Effects of government measures in the cocoa sector

The Government of Peru has fostered the growth of agricultural exports with a series of incentives that have been launched, including zero export taxes and Law No. 27037 (offering various tax exemptions or tax reductions for companies operating in parts of the Peruvian Amazon). The activities concerning farmers aim to improve the revenue of competitive crops such as cocoa, in order to make them more attractive to farmers compared to coca. Therefore, since 1985, promoting its cultivation is one of the mainstays of the alternative development programme.

For a long time, there was no national programme for cocoa. In the last 10 years there have been positive developments in government policy towards the agricultural sector. It has given strong support to cocoa production chains. However, the allocation of resources was given often without clear guidelines for investment. It lacked qualified staff to support development processes (Int. 81).

In 2011, an instrument called PROCOMPITE was introduced. PROCOMPITE is a government programme to support the provision of equipment, machinery, and other asset-based grants to local businesses with the objective to improve the competitiveness. In order to benefit from this programme, the cocoa farmers associated to the initiative present their business plans in which they outline the type of support they require and the improvements they expect from this innovation. A jury evaluates the proposals and awards the amount of investment in goods and services. It is planned to replenish this fund with around 2.9 million USD. The big advantage of this instrument is its decentralised character. The funds are transferred through the provincial and district regional governments. This has overcome highly bureaucratic processes which the centralised instruments of the past had brought with them (Int. 79, 81).

Another instrument was the Compensation Programme for competitiveness (AGROIDEAS) launched by the Ministry of Agriculture (Minagri), which supports the implementation of the business plans from association and cooperatives with non-reimbursable funds and supervision during implementation. AGROIDEAS is an instrument at national level, providing resources in support of management and adoption of technology for sustainable businesses involving small and medium agricultural producers, livestock or forestry organised in order to raise their competitiveness and consolidate their participation in the market (Int. 79, 80).

These instruments provided support to cooperatives and private companies in infrastructure. However, no comprehensive analysis of the value chain for cocoa existed. So in many cases there was no adequate technical support. Thus, it was not as successful as planned because of lack of technical and managerial capacity by many aid recipients (Int. 81).

Commercial banks finance production. The credit they offer is paid in advance and calculated on the basis of current prices (Int. 81). With regard to the quality of production and its phytosanitary management, the work of the National Agricultural Health Service (SENASA) is being accompanied by various efforts of different NGOs providing programmes for technical assistance and capacity training in order to increase crop yields and improve on farm processing. This work is verified by certifying companies like Biolatina and Control Union, which guarantee quality, provenance and condition of organic cocoa export (Int. 79-82). Nevertheless, the efforts to obtain productive varieties with good quality traits remain limited and insufficient. The lack of improved varieties with high yield is a major limiting factor in the efforts to increase cocoa productivity (Garcia et al. 2011: 102).

# Annex III: LIST OF INTERVIEWEES

| Country | Name | Organisation | Function/Position |
|---|---|---|---|
| Côte d'Ivoire | Alain Rousseau | PROFIAB/GIZ | Component Manager, Value Chains |
| | Alexandre Kablan | Anader | National Coordinator, Programme Coffee-Cocoa |
| | Allatin Ernest Brou | International Cocoa Initiative (ICI) | Deputy National Coordinator |
| | Anne-Marie Yao | Fairtrade | Country Manager |
| | Ata Brou Noel | Conseil du Café-Cacao/Coffee and cocoa board | Director Statistics, Monitoring and Evaluation |
| | Audrey Joubert | Advans Banque Côte d'Ivoire | Head of the Cocoa Project |
| | Bema Coulibaly | Conseil du Café-Cacao/Coffee and cocoa board | Monitoring and Evaluation Officer |
| | Danièle Kouassi | OLAM/Outspan Ivoire S.A. | Director Sustainability |
| | Diby Félicien | Conseil du Café-Cacao/Coffee and cocoa board | Monitoring and Evaluation Assistant |
| | Frank von Glasenapp | PROFIAB GIZ | Programme Manager |
| | Hemodu Coulibaly | Conseil du Café-Cacao/Coffee and cocoa board | Research Officer |
| | Jean Maxime Lorou Bi | International Cocoa Initiative (ICI) | Monitoring and Evaluation Officer |
| | Jean-Yves Couloud | World Cocoa Foundation | Country Manager |
| | Korotoum Doumbia | K'Origins | Managing Director |
| | Loic Biardeau | SACO/Barry Callebaut | Managing Director |
| | Mamadou Gbongue | Conseil du Café-Cacao/Coffee and cocoa board | Director Research |
| | Mathieu Faujas | Consultant | |
| | Mbalo Ndiaya | Mondelēz | Country Director, Cocoa Life Lead |
| | Mian Amoakon | Geotraceability | Country Manager |
| | Moctar Sangaré | Mars | Field Research Manager West Africa |
| | Pelelefanga Jean-Marie Coulibaly | PROFIAB/GIZ | Adviser Cocoa Sector |
| | Pokou Yao | EDE Consulting/Neumann | Country Manager |
| | Sabina Vigani | TRECC/Jacobs Foundation | Country Manager |
| | Siriki Diakité | UTZ Certified | Regional Representative for West Africa |
| | Solange N'Guessan | Union des Coopératives Agricoles de San Pedro (UCAS)/Union of cooperatives in San Pedro | Director |
| | Soumaila Bredoumy | Ministère de l'Agriculture et du Développement Rural (MINADER)/Ministry of Agriculture and Rural Development | Director |
| | Vera Morisse | PROFIAB/GIZ | Adviser |
| | Victoria Crandall | Consultant | |
| | Youssouf Kone | Groupement des exportateurs (GEPEX)/Association of exporting companies | Assistant to General Secretary |
| | Youssouf N'Djore | CARE International | Cocoa and Private Sector Programme Coordinator |
| | Management of | Cooperative CANN, N'Douzi | 4 staff |

| | | | |
|---|---|---|---|
| | the cooperative | | |
| | Management of the cooperative | Cooperative CAYAT, Adzopé | 6 staff |
| Ghana | Alex Asiedu | Department of Geography & Resource Development, University of Ghana | Professor |
| | Ben Asare | GIZ Ghana | Technical Advisor |
| | Bernard Awaitey | Barry Callebaut | Pod Counter |
| | Cathy Pieters | Mondelēz | Director Cocoa Life Program |
| | Christian Mensah | Rainforest Alliance | Manager West Africa |
| | Emanuel Opoku | COCOBOD | Deputy Director, Research & Development at Ghana Cocoa Board |
| | Isaac Gyamfi | Solidaridad | Managing Director |
| | Meri Buama | GIZ Ghana | Technical Adviser |
| | Nene Akwetey-Kodjoe | World Cocoa Foundation | Project Coordinator |
| | Peter Tawiah | Olam | Executive Assistant-Operations |
| | Reuben Kwesi Domeh | Olam | Transport Manager - Cocoa |
| | Samuel Adimado | Africa Cocoa Coalition (ACC) | Independent Consultant |
| | Solomon Boateng | Kuapa Kokoo | Risk Manager |
| | Sona Ebai | World Cocoa Foundation | Chief of Party |
| | Tei Quartey | COCOBOD | Director of research, monitoring and evaluation |
| | Theophilus Nkansah | Care International | Project Manager |
| | Wahab Suleman | Ministry of Finance | Cocoa Policy Adviser |
| | Public Relations Officer and Researchers | Cocoa research Institute of Ghana | Several staff members |
| Cameroon | André Marie Mathias Lema | Conseil Interprofessionnel du Cacao et du Café (CICC)/Interprofessional council for cocoa and coffee | Head, Operation Department |
| | Angèle Célestine Yao | Fonds de Développement des Filières Cacao et Café (FODECC)/Fund for the development of the cocoa and coffee sectors | Head of Department, Research and Projects |
| | Aurelia Dakpogan | Advans Banque Cameroun / Advans Bank Cameroon | Head of Project Financing Agricultural Value Chains |
| | Essiane Efa | Cooperative SOCOOPCAOMEN | Local chocolate producer and President of a cooperative |
| | Jean Dikoumé | Groupement des exportateurs cacao & café (GEX)/Association of cocoa and coffee exporters | Permanent Secretary |
| | Jonas Mbwangue | World Bank | Rural Development Specialist |
| | Jean Kuaté | Institut de recherche agricole et de développement (IRAD)/Institute of agricultural research and development | Scientific Coordinator for Perennial Crops |
| | Michael Ndoping | Office National du Cacao et du Cafe (ONCC)/National cocoa and coffee board | Director General |
| | Mme. Chantal | PAT Productions | Local chocolate producer |
| | Narcisse Ghislain Olinga | Ministère du Commerce/Trade Ministry | Sub-Director Commercial Exchange |

| | | | |
|---|---|---|---|
| | Nyassé Salomon | Institut de recherche agricole et de développement (IRAD)/ Institute of agricultural research and development | Research Director |
| | Pierre Etoa Abena | Office National du Cacao et du Cafe (ONCC)/National cocoa and coffee board | Principal Adviser |
| | Pierluigi Passera | SIC CACAOS/Barry Callebaut | General Director |
| | Raymond Konlack | Groupement des exportateurs cacao & café (GEX)/ Association of cocoa and coffee exporters | GIC Proba (local exporter) and President of GEX |
| | Roger Monbono | Conseil Interprofessionnel du Cacao et du Café (CICC)/Interprofessional council for cocoa and coffee | |
| | Song Minyen | COSADER | |
| | Tobie Ondoa Manga | Ministère de l'Agriculture et du Développement Rural/Ministry of Agriculture and Rural Development | Head of Section |
| | Valentin Foketchian | SIC CACAOS/Barry Callebaut | General Secretary and Vice-President of CICC |
| Nigeria | Abiodun Gbadamosi | Oyo State - Tree Crops Development | Staff |
| | Alonge Adenike | Cocoa Association of Nigeria (CAN) | Staff |
| | Annemarie Matthess | GIZ | Sustainable Smallholder Agri-Business Programme (SSAB) |
| | Fabunmi Mopelola | Tulip Cocoa Processing Ltd | Cocoa Sustainability |
| | O. Adekunle Quadri | Federal Ministry of Agriculture and Natural Resources | Deputy Director Tree Crops |
| | O. Idris Ohatubosun | Osun State - Ministry of agriculture and food security | Tree crop project, Osogbo |
| | O.B. Adeniyan | ONDO State Government | Program Manager Cocoa |
| | Olayiwola Olubamiwa | Cocoa Research Institute of Nigeria (CRIN) | Interim Director |
| | 8 staff people | Cocoa Research Institute of Nigeria (CRIN) | Staff |
| | Peter Aikpokpodion | Lecturer at the University of Calabar | Lecturer, former Adviser on cocoa to the Ministry of Agriculture |
| | Raphael Adebayo | Federal Ministry of Agriculture and Natural Resources | Cocoa Desk Officer |
| | Stephen Babajide | Solidaridad | Country Representative |
| | Victor Olowe | Farmers‘ Development Union (FADU) | Managing Director |
| Indonesia | Andras Totmihaly | University of Göttingen, Germany | PhD Student |
| | Chandra Panjiwibowo | UTZ Certified | Country Representative |
| | Hasrun Hafid | Rainforest Alliance | Project Manager |
| | Heinrich Terhorst | GIZ FORCLIME | Team Leader |
| | James Roshetko | World Agroforestry Centre (ICRAF) | Unit Leader Trees and Markets |
| | Manfred Borer | Swisscontact | Country Director |
| | Rini Indrayanti | Cocoa Sustainability Partnership (CSP) | Executive Director |
| Ecuador | Jaime Freire | EMPRENDE CACAO Consultor Internacional / International Consultant | (formerly) Adviser at MAGAP for the formulation of the National Project for the Reactivation of Fine Aroma Cocoa |

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|---|---|---|---|
| | Juan Rodríguez | Consultor Internacional (MAGAP, GIZ) / International Consultant | Consultant |
| | Liggia Estrella | Corporación de Promoción de Exportaciones e Inversiones (CORPEI) | Consultancy and Project Director |
| | Pedro Ramires Torres | GIZ ProCamBío | Formerly value chain advisor to the Programme Susaianable Management of Natural Resources |
| Peru | Carmen Rosa Chavez Hurtado | Ministry of Agriculture and Irrigation | Team Leader Cocoa |
| | Luis Rosa Pérez | Programa "Contribución a las metas ambientales del Perú" (ProAmbiente) / Programme "Contribution to environmental goals of Peru" | Key consultant |
| | Marcelo Gutierrez Seijas | Centro para la promoción de importación de los países en desarrollo (CBI) / Centre for the promotion of import of the developing countries | Consultant |
| | Mariana Solis | Centro de Innovación del Cacao (CIC) / Centre for the innovation of cocoa | Consultant |
| Miscellaneous | Aarti Kapoor | Embode | Managing Director |
| | Andres Tschannen | Barry Callebaut | Operations Manager - Global Cocoa Sustainability |
| | Antonie Fountain | VOICE | Executive director |
| | Darrell High | Nestlé | Cocoa Manager |
| | Fabio Segura | Jacobs Foundation | Head of International Programs |
| | Matthias Lange | ICI | Programme Manager |
| | Nicko Debenham | Barry Callebaut | VP Global Cocoa Sustainability |
| | Piera Waibel | Lindt Foundation | Managing Director |
| | Torben Erbrath | BDSI | Managing Director in the field of chocolate |

# Annex IV: Questionaire

International framework conditions

Where do you see the main (international) challenges in the cocoa sector for your country?
What are the impacts of the structure of the international cocoa market on the cocoa sector in your country?
What can be done to cope with the instability of world market prices of cocoa?
To what extent do these framework conditions influence your policies in the sector?

National framework conditions / Government policies

Where do you see the main challenges regarding the national market conditions in the cocoa sector in your country?
How is the cocoa market structured in your country? Who are the main actors in the value chain?
To what extent do these framework conditions influence your/the policies in the sector?
How do you judge the government policies towards the challenges in the cocoa sector?
Do you think they are sufficient?
What impacts does the government sector policy have on the competitiveness of the cocoa sector in the country?
What impacts do the programmes and activities have on the situation of the (small holder) producers?

Role of the private sector

What kind of projects does the private sector focus on?
To what extent are these activities coordinated among each other, with state institutions or with international cooperation?
What impacts do the programmes and activities have on the situation of the (small holder) producers?
How could they be further enhanced to improve the framework conditions / to show more impact?

Development cooperation

In what way does the international cooperation coordinate its activities among each other and with state institutions / ministries / regulatory institutions?
What are the impacts of the programmes / facilities of international cooperation on the government policies in the sector?
What are the impacts of the programmes / facilities of international cooperation on the cocoa production / small holders?
How could they be further enhanced to improve the framework conditions / to show more impact?
In which areas would a cross-national sector policy on cocoa yield the best results?

# Annex V: Accra-Workshop - Agenda

INSTITUT FÜR ÖKONOMIE UND ÖKUMENE

## Cocoa Stakeholder Workshop
## 12-13 April 2016 in Accra, Ghana

Best Western Premier Hotel, 17 White Avenue, Accra

## "Strengthening the competitiveness of cocoa production and improving the income of cocoa producers in West and Central Africa"

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**Agenda**

| Day 1, 12 April 2016 (Tuesday) | |
|---|---|
| **from 11.30** | Arrival, registration and coffee/cocoa |
| **12.15 - 12.30** | **Overview of the research objectives**<br>Friedel Hütz-Adams, Südwind Institut |
| **12.30 - 13.30** | Lunch |
| **13.30 - 14.00** | **Welcome**<br>Kwadwo Kissiedu Kwapong, Cocobod |
| **14.00 - 14.30** | Presentation of participants |
| **14.30 - 16.30** | **Major changes in the cocoa sector in last 5-10 years**<br>Introduction: Issac Gyamti<br>Working groups followed by plenary discussion |
| **16.30 - 17.00** | Coffee/Cocoa break |
| **17.00 - 18.30** | **Presentation of the preliminary findings of the research project**<br>Introduction: Friedel Hütz-Adams and Claudia Huber, Südwind Institut<br>Plenary discussion |
| **19.00** | Dinner |
| **Day 2, 13 April 2016 (Wednesday)** | |
| **09.00 - 10.30** | **Challenges for a sustainable cocoa sector**<br>Working groups followed by plenary discussion |
| **10.30 - 11.00** | Coffee/Cocoa break |
| **11.00 - 12.30** | **Potential solutions for identified challenges**<br>Working groups followed by plenary discussion |
| **12.30 - 14.00** | Lunch |
| **14.00 - 16.00** | **Recommendations for research results**<br>Working groups followed by plenary discussion |
| **16.00** | Departure |

# Annex VI: Accra-Workshop - LIST OF PARTICIPANTS

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# Annex VII: Abidjan-Workshop - Agenda

INSTITUT FÜR ÖKONOMIE UND ÖKUMENE

## 24 - 25 October 2016
## Abidjan, Côte d'Ivoire
**Grand Hotel, Rue Léon Montigny, Plateau, Abidjan**

***"Strengthening the competitiveness of cocoa production and improving the income of cocoa producers in West and Central Africa"***

**Presentation of findings and working meeting to discuss next potential steps**

### 24 October 2016 (Monday)

| | |
|---|---|
| 08.00 - 09.00 | Coffee/Cocoa<br>Arrival and registration |
| 09.00 – 09.10 | **Welcome**<br>**Atta Brou**, Dir des Statistiques, du Suivi- Evaluation et de la Prospective, Le Conseil du Café-Cacao, Côte d'Ivoire |
| 09.10 - 09.20 | **Welcome and overview of research objectives**<br>**Alexandre Callegaro,** Deputy Head of Mission of the Embassy of the Federal Republic of Germany to Côte d'Ivoire |
| 09.20 – 09.30 | **Welcome by Südwind Institute**<br>**Friedel Hütz-Adams,** Südwind Institute |
| 09.30 – 10.00 | **Introduction of participants** |
| 10.00 – 10.10 | **Working methods, Key logistics information** |
| 10.10 - 10.20 | **Presentation of results from Accra workshop**<br>Fabunmi Mopelola, Olakoko/Sucden Cocoa, Nigeria |
| 10.20 - 10.45 | **Coffee/Cocoa** |
| 10.45 – 12.30 | **Presentation of research findings –**<br>**Friedel Hütz-Adams, Claudia Huber**, Südwind Institute<br>Plenary discussion (Q&A session) |
| 12.30 - 14.00 | **Lunch** |
| 14.00 - 14.15 | **Introduction into working groups** |
| 14.15 - 15.45 | **Working groups**<br>**Policy and regulation**<br>▸ Brief introduction on regulation of cocoa sector in different countries<br><br>**Access to finance**<br>▸ Audrey Joubert, Advans Banque, Côte d'Ivoire<br>▸ Victor Olowe, FADU, Nigeria<br>▸ Agnes Yao Amenan, CANN COOP-CA, Côte d'Ivoire |

| | |
|---|---|
| | ▸ Sam Komissa, UNACOOPEC, Côte d'Ivoire<br><br>**Coordination and organisation of farmers**<br>▸ Solomon Boateng, Kuapa Kokoo, Ghana<br>▸ Valentin Foketchian, Conseil Interprofessionnel du Cacao et du Café (CICC), Cameroon (à confirmer)<br>▸ Solange N'Guessan, Fédération des Femmes Productrices de Café Cacao de Côte d'Ivoire<br>▸ Pokou Yao, EDE Consulting & Neumann Foundation, Côte d'Ivoire |
| 15.45 - 16.15 | **Coffee/Cocoa break** |
| 16.15 - 17.45 | **Working groups (continued)**<br>▸ Policy and regulation<br>▸ Access to finance<br>▸ Coordination and organisation of farmers |
| 19.00 | **Dinner** |

### 25 October 2016, 9.00 – 14.00 h (Tuesday)

| | |
|---|---|
| 09.00 - 09.30 | Recap of Day 1<br>Introduction to Day 2 |
| 9.30 – 11.00 | Presentation of working group results<br>**Plenary discussion** |
| 11.00 - 11.15 | **Coffee/Cocoa break** |
| 11.15 - 12.30 | **Next steps** |
| 12.30 – 13.00 | **Evaluation of the workshop**<br>**Closing remarks** |
| 13.00 - 14.00 | **Lunch** |
| 14.00 | **Departure** |

# Annex VIII: Abidjan-Workshop - LIST OF PARTICIPANTS

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