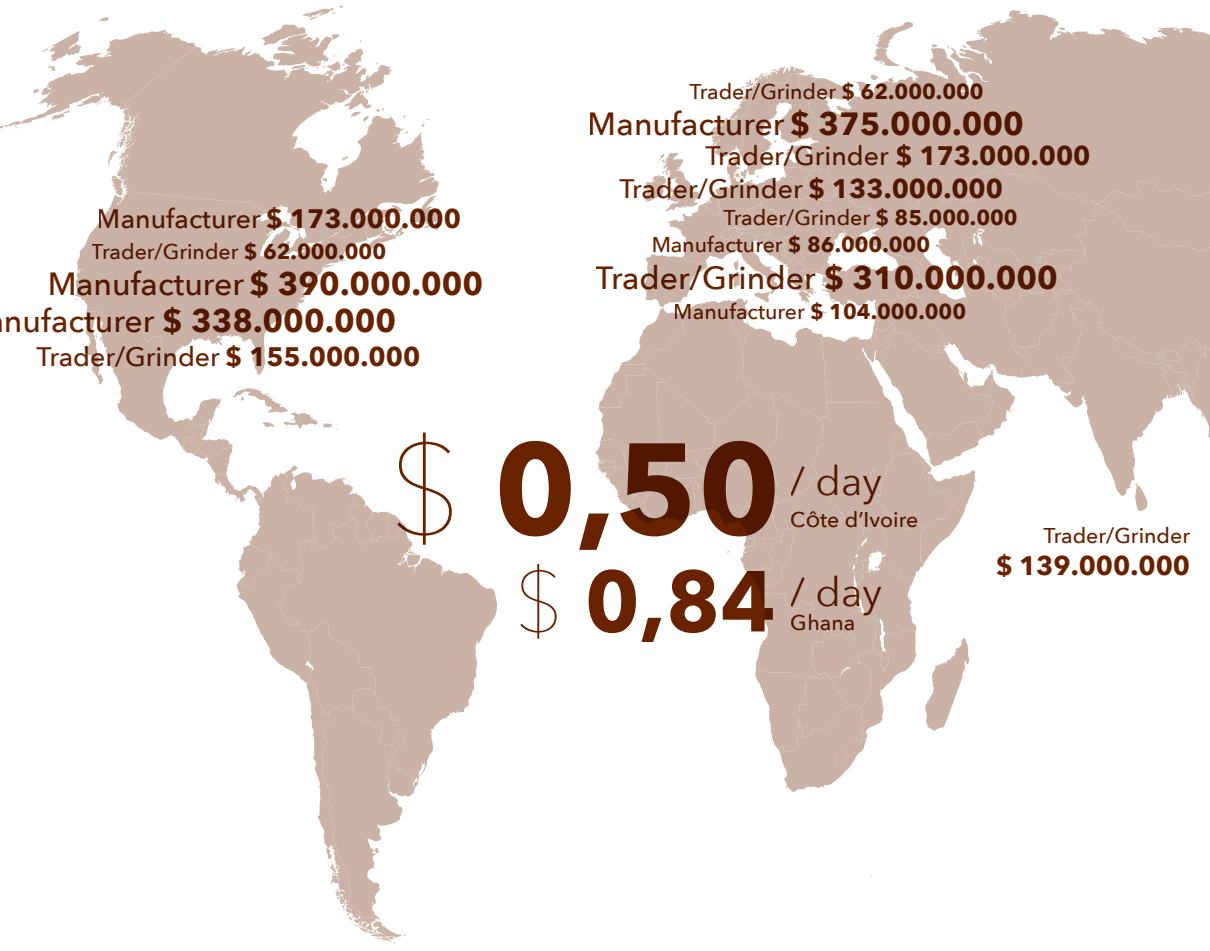
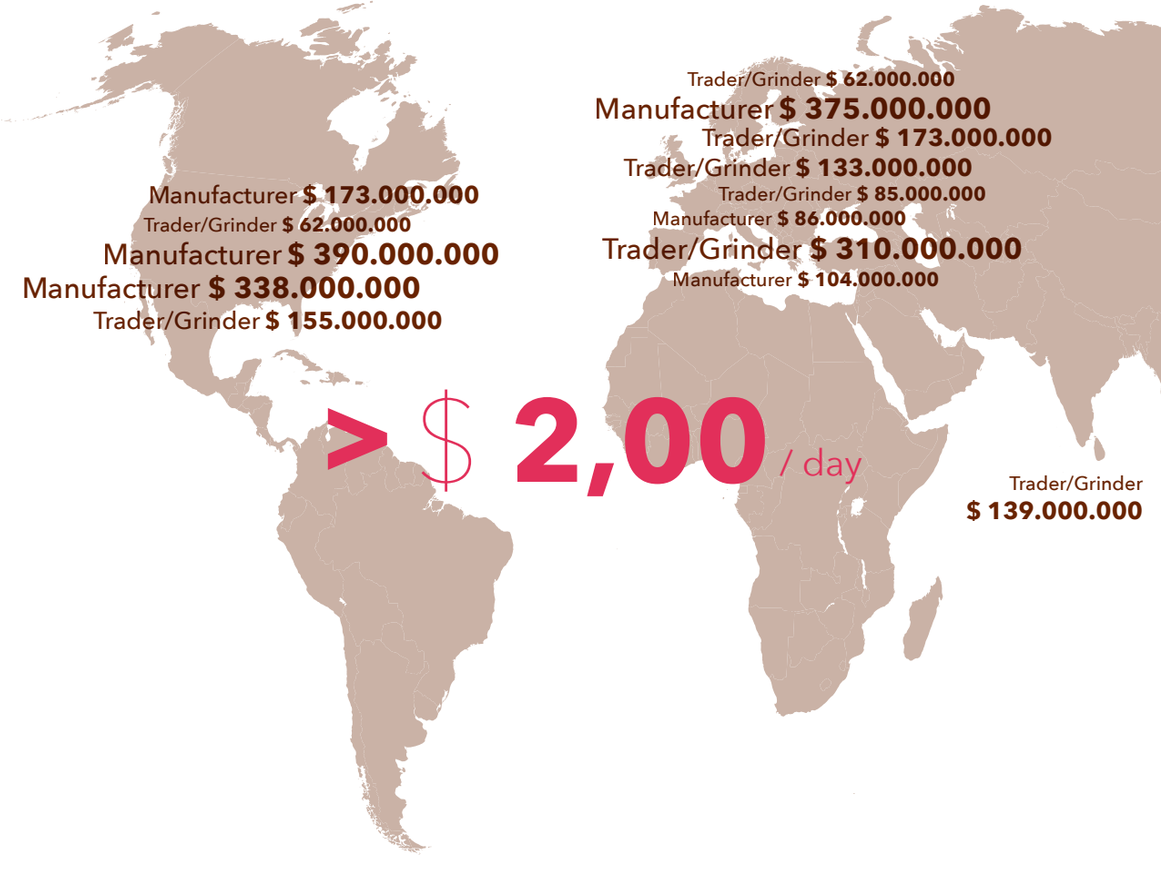
cocoa barometer

2015



Estimated annual profits of companies / Farmer income a day

looking for a living income



Estimated annual profits of companies / Farmer income a day

Contents

1. Introduction

In the last months of 2014 a media scare shocked the world's chocolate lovers, of which there are quite a few; within a few years, there might not be enough cocoa to make one of the worlds most loved and affordable luxury products. Newspaper articles, radio broadcasts and television programs, they were all asking the same question; "Is the world running out of chocolate?"

Probably not. But the world *is* running out of cocoa farmers.

Younger generations no longer want to be in cocoa. Older generations are reaching their life expectancy. Poverty is rampant in West Africa's cocoa fields. And with it come many other social, environmental and economic problems. Cocoa farmers are not receiving a living income, and the value chain is squeezed beyond levels of sustainability. The voice of farmers is often not heard, their interests too often not taken into consideration.

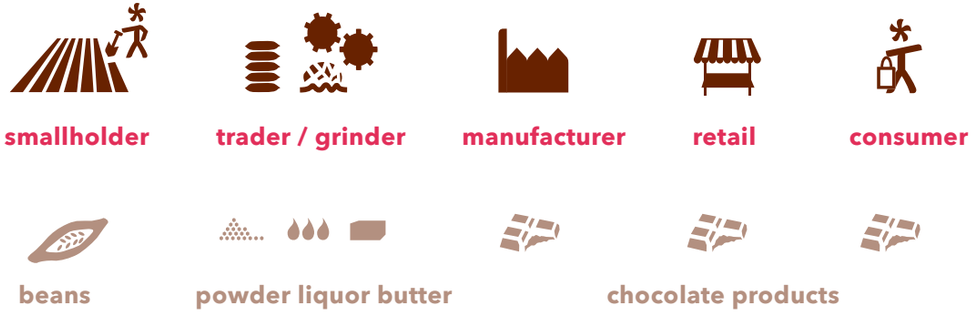
There is a huge demand for cocoa worldwide, yet it can only be grown in a very small tropical belt. One would think cocoa farmers are in an excellent position to negotiate a good price so that they can make a living income from their cocoa yield. Strangely enough, the reality is different.

The global cocoa sector is in crisis, and 'business as usual' is not going to solve it. If cocoa farming is to have a future, particularly in West Africa, other solutions are needed.

The past years have seen an increase in sector-wide approaches in sustainability. First steps are being made, but they are only the beginning. Farmers are almost universally underrepresented in these efforts.

The role of governments (both on a national as well as – in the case of the EU – regional level) in ensuring that market concentration does not reach undesirable levels is becoming increasingly important. However, few mergers seem to be effectively blocked by regulation. Surely, further market concentration will not benefit the future sustainability of cocoa. In the 2012 Cocoa Barometer we incorporated an image on

Supply chain



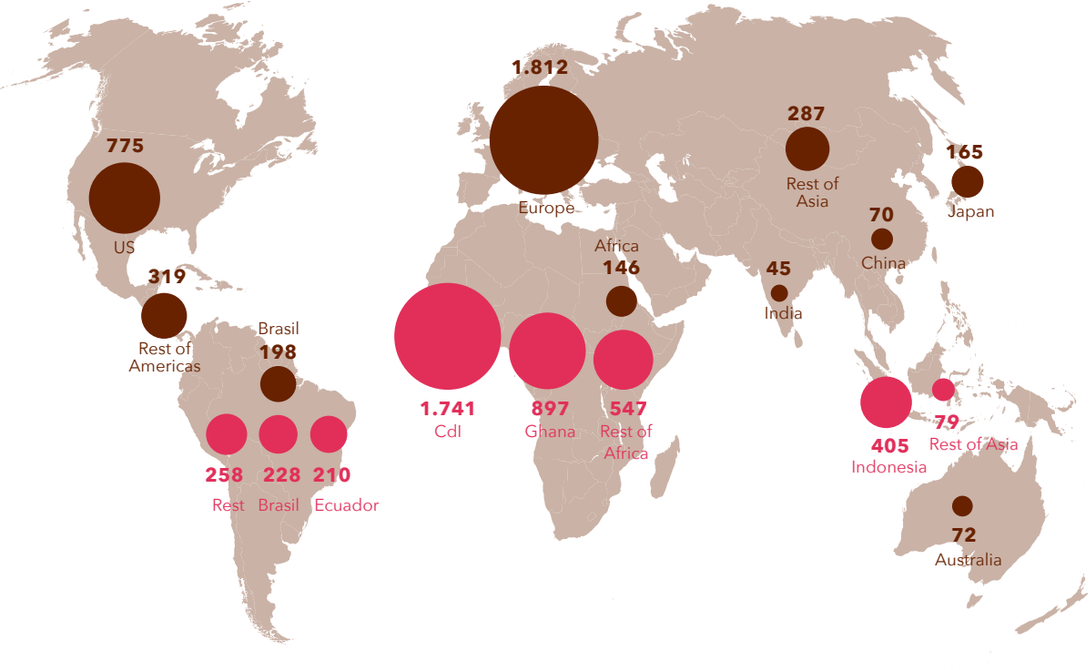
Scope and intentions of the Cocoa Barometer 2015

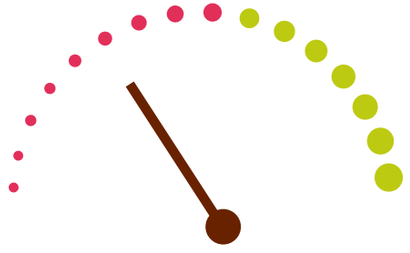
The Cocoa Barometer 2015 provides an overview of the current sustainability developments in the cocoa sector, and highlights critical issues that are not receiving sufficient attention at present. It is an endeavour to stimulate and enable stakeholders to communicate and discuss these critical issues. The authors have chosen to focus on West Africa, because of its dominance in cocoa production and the significant challenges it faces. The two special thematic focus points of this Barometer are "Value Distribution in the Cocoa Supply Chain" and "Living Income for Smallholder Farmers".

current income of cocoa farmers. This image, and its underlying message, has created significant response. As a result, this Barometer focuses on the financial aspects of the cocoa supply chain. Previous Cocoa Barometers have looked at issues such as 'Beyond Certification' and 'Beyond Productivity'. This Barometer looks at the themes "Value Distribution" and "Living Income for Smallholders".

How can farmers actually earn a decent livelihood, what would this livelihood look like, and where is the money going now? These two sections of the 2015 Cocoa Barometer build on two Consultation Papers that were released in the summer of 2014. The authors wish to thank all of the many professionals in the sector that provided feedback to these Consultation Papers.

Production / Consumption





2. Challenges

Poverty

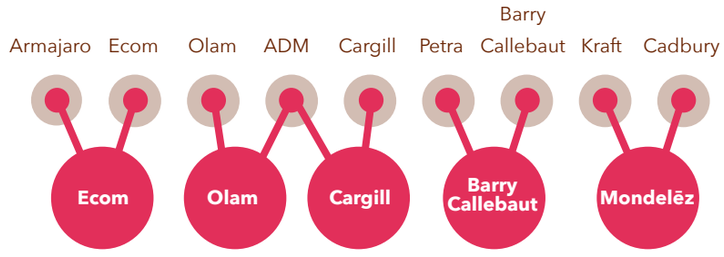
Most cocoa farmers live in destitute poverty. There are various reasons for this; low and fluctuating cocoa prices, lack of farmer organisation and market power, the small size of farms, uncertainty of land tenure, sharecropping, low productivity, lack of infrastructure and access to market and market information. This poverty is a driving cause for many related problems, including poor working conditions, (worst forms of) child labour and trafficking, illiteracy and malnutrition. It is therefore no surprise that younger generations are leaving cocoa farming all together; at present cocoa simply does not provide the possibility of a living income for farmers and their families.

Productivity

Sustainability projects at present focus mostly on increasing farm productivity. This could increase the dependency of farmers on cocoa and additionally lead to an oversupply of cocoa and to decreasing prices. It is at present unclear whether investing in higher productivity – leading to additional production costs for inputs and hired labour – is a functioning business model leading to higher net farm income.

Market concentration

There is an increasing concentration in the global cocoa supply chain. Both on vertical (between different segments) as well as on horizontal (within the same 'link' of the chain) levels many of the cocoa and chocolate companies have seen mergers and takeovers by competitors. Two processors (Barry Callebaut and

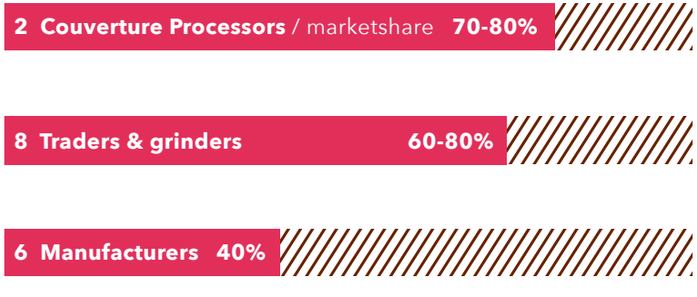


Cargill after its merger with ADM) will produce about 70-80% of the world's couverture. Only eight traders and grinders control approximately three quarters of the worldwide cocoa trade. The market power of the six biggest chocolate companies is around forty per cent. This concentration further weakens the position of farmers; this market asymmetry is in favour of the buyers and traders. At the same time, most if not all major industry players claim that the 'market' and cocoa price setting mechanisms are beyond their sphere of influence..

Unorganised farmers

Most cocoa growing communities lack basic infrastructure such as roads, education, health care, farmer organisation, and support structures to aid farmers in their efforts for sustainable cocoa production. Even when present, projects often only reach already organised farmers. These 'low hanging fruits' are now mostly part of multiple company projects or standard setting bodies. Real solutions to engage unorganised farmers remain largely absent, while they are affected the most by the challenges described in this chapter.

Market concentration
Amount of players / marketshare



Sharing lessons learned

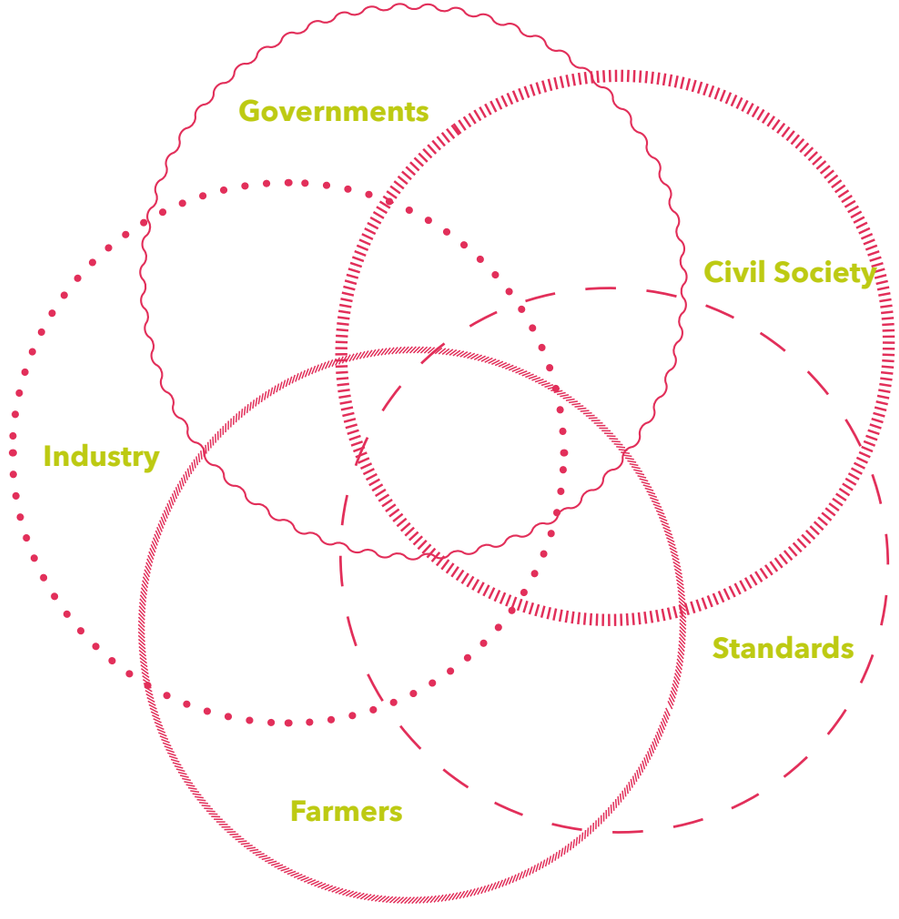
Many companies don't publish internal reviews and evaluations, partly because they experience that their projects still have many problems including poverty, gender discrimination and the worst forms of child labour. A regularly shared concern is that publication of negative outcomes will lead to criticism by non-governmental organisations and headlines in the press like "Child labour still widespread in the projects of company XX". However without exchanging best and worst practices, a lot of time and money is wasted in approaches that have already produced insufficient – and sometimes counterproductive – results in other projects. Therefore, Nestlé's publications of evaluations and corrective actions, through their partnership with the Fair Labour Association, are a major step forward, albeit only covering a small part of their cocoa supply chain. Other actors are encouraged to follow this lead.

Experiences in coffee, tea, and cotton demonstrate that supporting farmers to establish and control organisations or cooperatives requires a step-by-step approach. This needs to be combined with well-designed training, and an active role of governments (IFC 2013; IFC 2014). A common and pre-competitive approach on cooperative mechanisms, including shared learning, is a necessary ingredient for this vast challenge. The publication of best practices and cross-commodity learning on how to reach the unorganised farmers is urgently needed, including costs and lessons learned.

Issues for Smallholders

Economic	Social	Environmental
• Low income for farmers (living income, diversification of crops on income, rising costs of living as well as of agricultural inputs, taxes, price volatility, and speculation) • Land tenure • Position of sharecroppers • Hired labour costs • Limited access to markets (credit, market information, investment risks) • Farming practices (farmer training, yields, low quality cocoa beans) • Insufficient infrastructure (roads, hospitals, schools, taxes, transport costs	• Human rights violations (child labour, forced labour, trafficking) • Food security and nutrition • Working conditions (use of pesticides and fertilisers, polluted water, harassment, abuse, discrimination) • Gender inequality • Illiteracy and education • Freedom of association, collective bargaining, and farmer organisation • Ageing farmer communities • Access to social security (health insurance, pension schemes) • Power relations (corruption, tax evasion trade mispricing, political instability, smallholder famers versus multinational companies)	• Ageing and diseased cocoa trees • Monoculture • Deforestation, decreasing biodiversity and soil degradation; expansion of the cocoa frontier to the detriment of rainforest • Lack of knowledge on climate change and the consequences for cocoa • Insufficient climate change adaptation and mitigation policies • Environmental impact of use and sourcing of fertilisers and pesticides

3. Sector Developments



Global Cocoa Agenda

In 2012, the first World Cocoa Conference (WCC) was held in Abidjan. After long negotiations leading up to and during the conference, the Global Cocoa Agenda (GCA) was presented. Signatories to the Agenda now include most of the major cocoa consuming and producing nations, as well as many relevant industry and civil society actors. The GCA outlines roles, responsibilities and actions for all major stakeholder groups involved in a sustainable cocoa sector; producing governments, consuming governments, industry actors, civil society, and farmers. It is far from perfect, but the Global Cocoa Agenda and its annexes are the most comprehensive attempt up till now at defining what a 'shared responsibility' for sustainable cocoa production could look like.

The second WCC, held in Amsterdam in 2014, was going to be the first instance that significant reporting on the progress of the GCA would take place. However, at this time a decent monitoring framework was not in place, resulting in a wide variety of reporting formats. As such, it is not possible to paint a clear picture of progress achieved to date. In order to properly monitor the GCA, the Consultative Board of the International Cocoa Organisation (ICCO) was expanded to include civil society organisations and other relevant actors. A framework for monitoring will be presented to the ICCO in the spring of 2015, which should make it possible to measure the progress of various actors.

Infrastructure

A concerted series of investments in infrastructure in cocoa growing communities (such as improved roads, electricity, education, health care, and strengthening of local governance) is long overdue. Coupled to this, there is a strong need for increased transparency in taxes received from cocoa, as well as the reinvestment in the actual cocoa production or in infrastructure. Though some efforts are being made, such as the FIMR (Investment fund in Rural Areas) and the setting of the barème cost structure (both in Côte d'Ivoire) much more is needed. Part of the same equation is the lack of a thriving service sector with delivery structures reaching out to farmers to support them in their efforts of yield improvement, quality improvement, certification and in general: sustainable cocoa production.

Role of governments

The debate about the role of governments in sustainable cocoa is intensifying. Governments of producing countries should play a pivotal role to improve the situation of farmers. They should be transparent in taxes received on cocoa, and invest a significant part of this income in rural technical and social infrastructure (including roads, electricity, education, water and sanitation, and health care) or other indispensable public goods cocoa farmers rely on. They should regulate the activities of companies in their country and facilitate development aid and civil society actors.

Recommendation:
Ensure transparency in government revenue received on cocoa.

Recommendation:
Invest adequately in rural infrastructure and services.

The UN Guiding Principles on Business and Human Rights (UNGP) clearly sets forth that is the state's duty to protect against human rights abuses. As such, it the role of producing governments to ensure the social, environmental, and economic wellbeing of farmers, their families, and the cocoa growing communities.

Recommendation:
Be transparent about payments to governments and national cocoa institutions.

With their anti-trust policies, governments in consuming countries should be firm on power concentration in processing facilities under their jurisdiction. Additionally, they should support producing governments or facilitating organisations with expertise.

Recommendation:
Ensure that market concentration does not reach market-distorting levels.

Developments in producing countries

As a result of the first World Cocoa Conference and the Global Cocoa Agenda, most producer governments are setting up National Cocoa Development Plans (NCDP). The approaches of these NCDP's differ, depending on the situation in the country. Ecuador has announced it wants to pass legislation guaranteeing sustainable cocoa production, with a state-run agency controlling enforcement, and subsequently to discard the programmes run by the different foreign stakeholders. Côte d'Ivoire, Ghana and Indonesia are also planning new regulations.

The two biggest producing countries are regulating their national cocoa markets through National Marketing Boards, the Cocobod in Ghana and the Conseil du Café-Cacao (CCC) in Côte d'Ivoire.

Ghana

In recent years the Cocobod has had trouble continuing their support to the farmers. One of the reasons for this is the depreciation of the Ghanaian cedi. While the price for many inputs and consumer goods was rising, the farmers' share of the world market price decreased significantly during the harvesting season 2013/14. As a consequence many farmers and traders smuggled cocoa to Côte d'Ivoire. The Cocobod reacted with a sharp rise in farm gate prices for the 2014/15 harvesting season from 3.392 cedis to 5.520 cedis per tonne ($1.630)[1]. Additionally the Cocobod promised to continue to support farmers through seedlings and subsidised inputs, a programme that had to be partly stopped the previous year due to financial issues. However, these subsidised inputs were often only available for bigger and better accessible farms.

Côte d'Ivoire

The CCC is also continuing its programmes to improve the situation of farmers. For the new harvesting season the minimum price was raised from 750 CFA francs to 850 CFA francs per kilo ($1.487 per tonne)[2]. The Ivorian government reorganised the regulations for the cocoa sector and is trying to get more grip on the projects of the companies and NGOs, and has also carried out a reform of the cooperative system. Additionally they changed their auction and forward selling system. This led to critique from industry actors who were confronted with diminishing profits (Aboa 2014). These reforms combined with higher world market prices have lead to an increase of 40 % of the farm gate prices according to market experts. Farmers invested more time and inputs in their plantations. The higher income combined with the many programmes in the country formed the basis for the record harvest of the season 2013/14. The 2QC programme (Quantité, Qualité, Croissance, or quantity, quality and growth) is an attempt by the Ivorian government to set up a national cocoa policy, in line with the Global Cocoa Agenda.

Recommendation:
Foster independent farmer organisations.

Though concerns exist on the level of farmer representation in this process, the initial steps seem encouraging. In fact, it seems that the Ivorian government is starting to tackle the challenges facing its cocoa economy.

1. USD-GHS
Conversion date
3 Feb 2015

2. USD-XOF
Conversion date
3 Feb 2015

Child labour and trafficking

In the past years, both Ghana and Côte d'Ivoire have made steps forward in the fight to combat child labour and child trafficking, approaching the issue through a regional angle, collaborating with civil society and trade unions. The scope of the challenge, however, is still larger than the current efforts, but at the very least the issue seems to be more open for discussion at the level of policy makers. Simultaneously, the ability to discuss the issue at community level seems to have become problematic. A major reason for this is confusion between (the worst forms of) child labour – forbidden in both countries - and child work. The latter is the case when children occasional help out on the farm as long as this work does not get in the way of the child's education and development. Additionally, the current focus on yield increase in many cocoa programs entails an increased need for labour to harvest this added yield. Without specific interventions, this could lead to more child labour and child trafficking.

Developments in consuming countries

Recommendation:
Introduce mandatory human rights due diligence processes for corporations

Over the last decade, consumer awareness of issues surrounding sustainable cocoa production has increased. Fuelled by numerous campaigns, particularly focused on child labour and trafficking, media and public awareness is now a major driving force behind the move to (higher) standards and certification in the chocolate industry. At the same time, such campaigns can run the risk of overly simplifying some of the underlying reasons driving child labour and trafficking, such as poverty and lack of infrastructure. Solutions to these issues will require multi-facetted approaches.

Voluntary corporate social responsibility initiatives by companies alone cannot prevent human rights violations and environmental degradation. Some of the core challenges in the sustainable cocoa production will require legislation both at national and at regional levels (such as the EU). The goal of such legislation should be to ensure that corporations headquartered in those countries are compelled to respect human rights and the environment worldwide, not only in the company, but also for the whole supply chain. This would entail the constructions of a human rights due diligence process to identify, prevent, mitigate and account for how they address impacts on human rights. Due diligence in this context includes a risk assessment, measures to prevent and eliminate possible human rights violations and environmental damage, as well as comprehensive reporting on the policies in place and actions taken.

Another key element to take into account is policy coherence in consuming nations' foreign, development and trade policy. It is not logical to invest via cooperation for development, while trade, as a lever for development, is made difficult through trade barriers.

Europe

European countries are following different paths towards sustainable cocoa. The multi-stakeholder forum in the Netherlands, which started in 2010, is still working towards 100% sustainable cocoa consumption in the country by 2025. In 2014 about a quarter of all chocolate was sold as sustainably certified to the consumer. A first monitoring of this commitment has recently been released, and it seems that most actors are on track to reach this goal. The German Initiative on Sustainable Cocoa (GISCO) is comprised of stakeholders ranging from civil society, industry and unions to government ministries. Through this initiative, Germany has committed to at least 50% of certified cocoa consumption by 2020. Additionally, GISCO is stimulating the debate about best practices through expert meetings, dialogue with the Ivorian government, a project to train farmers in Côte d'Ivoire, and supporting the Certification Curriculum Enhancement (CCE) process.

In other countries, such as Belgium and Switzerland, the debate about the creation of similar multi-stakeholder initiatives is less developed. And there is still no significant public debate on steps forward in many other countries in Europe such as the United Kingdom, France, and Italy.

National platforms have proved to be a valuable instrument to stimulate the dialogue between the different stakeholders along the value chain. However, the chocolate industry comprises of many players of global and regional scope. Therefore a stronger focus on multi-stakeholder dialogues on a European level could be a major step forward. Organised in a transparent and efficient way, such a European initiative could facilitate the exchange of the experiences of the national platforms.

USA

Turn-of-century legislative processes in the United States catalysed the global dialogue on sustainable cocoa, specifically on child labour-related issues. At present, the only real action from the American government seems to be the Child Labour Cocoa Coordination Group (CLCCG), an initiative of the Department of Labor, working with the Ivorian and Ghanaian governments. The CLCCG is making steps, but transparency and reporting on its activities are largely absent, so monitoring on progress is lacking.

Land Tenure

There is a direct responsibility of cocoa growing nations to address the issue of land tenure, particularly with regards to women and minorities. Land-ownership is often a precondition for membership in official farmer organisations and for participation in training activities. Land is also necessary to apply for bank credit and for crop diversification

Over the past decades, the size of cocoa farms has decreased, raising the question whether there is a size below which cocoa farming is no longer economically viable. More research on this is needed. At the same time, many farmers have unsure tenancy rights on the land. To some extent, this is due to the increase in sharecroppers and subtenants on the cocoa plots. Subsequently there is an increasing group of large-scale landowners that do not directly cultivate cocoa themselves.

Additionally, in Côte d'Ivoire, land tenure is directly linked with the issue of nationality. Only nationals are allowed to own land. As such, many cocoa farmers do not have the right to own the land they till, even if their families have been in the country for generations. This creates all sorts of complexities, including obstructions to obtaining credits necessary for improving productivity, as well as the possibility of crop diversification.

Due to small farm sizes, most small cocoa farms probably cannot sufficiently support the households dependent on it. In addressing land tenure issues, it would be a good thing if general farm size could be increased to a size that ensures its economic viability. This should not go at the expense of the marginalised, however. So a solid policy is needed to ensure a just land reform and redistribution system, including an exit strategy and social services for those affected by the reforms, irrespective of gender, ethnicity or other factors.

Industry initiatives

Due to a lack of independent third-party evaluations, it is still not possible to properly assess the impact of individual company initiatives. Most companies report progress in their annual reports, but these are usually 'success stories', and true lessons learned and/or challenges the companies face are still mostly lacking.

Recommendation:
Redistribute internal costs towards more sustainable procurement

As is demonstrated in other parts of this Barometer, poverty, child labour, trafficking, dismal working conditions and other challenges are still rife in the cocoa sector. It seems that collective industry initiatives still do not have the major impact in producing countries that is necessary for a true transformation in the cocoa sector.

CocoaAction

In an attempt to improve pre-competitive collaboration, the World Cocoa Foundation (WCF) has launched CocoaAction. This collaborative strategy of eleven of the largest chocolate and cocoa companies in the world has set as its target to train approximately 300.000 farmers by the end of the decade. CocoaAction will focus on two core elements; increasing productivity of cocoa farms, and improving the situation of women and children in cocoa.

The Cocoa Barometers have been urging for more pre-competitive collaboration for several years now, and as such CocoaAction is a welcome development. At the same time, the amount of farmers that the plan is aiming to reach is just a fraction of all of the cocoa farmers in West Africa, many of whom are already being reached through current CocoaAction members in their own programmes. Considering that the core drivers of CocoaAction constitute a vast majority of the world's chocolate market, its ambitions should be commensurate to the market power of its members.

Additionally, the twin focus on productivity and 'women and children', good in and of itself, will not sufficiently alleviate cocoa farmer poverty. The members of CocoaAction and other WCF members are particularly suited to bring their influence to the table on issues such as land tenure, price mechanisms, and crop diversification.

A last point of concern is that other actors, such as governments, civil society, and smaller chocolate companies are joining in the process late in the game. Also on governance, a multi-stakeholder approach would be much more advisable.

International Cocoa Initiative

Over the past years, the ICI has seen a thorough revision of its scope, activities, and most of its staff. The ICI seems to have ceased to be the scapegoat of industry when faced with critical press, and has now picked up one of its original objectives; to be a clearinghouse for best practices in the elimination of child labour, by running a series of programmes in Côte d'Ivoire and Ghana. It has narrowed and more clearly defined its scope, and has started to more publicly consult and communicate on its activities. At the same time, it would be good for the ICI to expand its membership to truly reflect its ambitions to be a multi-stakeholder platform.

IDH (Sustainable Trade Initiative)

The last years have seen a broadening of the scope of this match-funding development agency, cooperating with other consuming nations, such as SECO in Switzerland. IDH couples industry, government and development agencies on project-

Gender and poverty

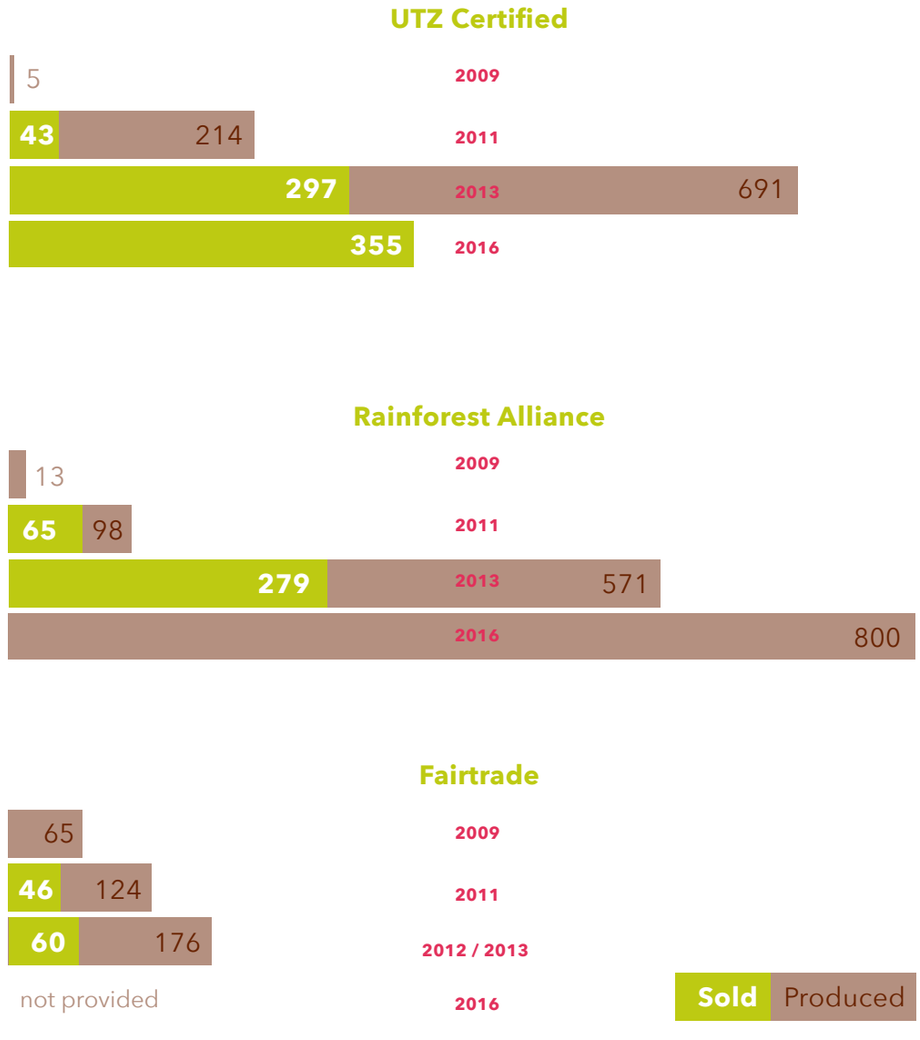
Cocoa is produced largely in traditionally structured societies, where women experience great difficulty to obtain legal land titles; even when their husband dies and they would run the farm themselves. Without land titles, they are often excluded from saving and credit systems, as well as from access to training and certification schemes. But women increasingly run cocoa farms. This is largely the result of the age differences between husbands and wives (leading to a high number of widows), HIV/aids, social conflicts and male rural-urban migration. Still, women are less addressed for interventions, are less involved in decision-making processes, are less informed about market developments and effective ways of farm management and have even less opportunity to invest in their farms than men. Women who assist their husbands on their farm are not regarded as cocoa farmers (but rather as the spouse of a cocoa farmer). Consequently, most of these women are not participating in farmer group meetings.

based initiatives to improve the sustainability within the cocoa production. Though funding is significant, and IDH's attribution claims are commensurate, evaluations of IDH are critical of the proven impact of the programmes. Additionally, most of the efforts within IDH seem to be largely focused on solving the long-term supply challenges of companies own supply chains through increasing productivity. True improvement of income for farmers and of environmental conditions is lagging behind. In a recent evaluation, concern was raised that farmers that enter these programs enter a 'more or less exclusive relationship' with cocoa traders. As such, 'public funding intervenes in the market structure and may restrict competition' IOB review page 19. The evaluation also recommended IDH would work more on pre-competitive collaboration. Additionally, the strong and unquestioning focus of the IDH on the use of agrochemicals is cause for concern. In general, further research into this topic would be strongly welcomed.

Civil Society initiatives

Collaboration is not only confined to industry actors. Over the last years, civil society has increasingly started to come together, especially in Europe. The Barometer Consortium has continued its publications of Cocoa Barometers and Think Pieces. Various individual NGO's and networks have run campaigns, such as Solidaridad's "For the Love of Chocolate", Oxfam's "Behind the Brands", Make Chocolate Fair's campaign for certified cocoa, Berne Declaration's campaigns on human rights in cocoa, and Stop The Traffik's campaigns on child labour and trafficking. The VOICE Network has collectively engaged in advocacy, as well as information sharing to farmers and civil society from the Global South. At the same time many individual NGO's implement programs in producing nations, or engage in advocacy work. Cocoa farmers are in the first stages of regional and international cooperation, with the launching of various networks of cocoa farmer organisations.

4. Certified Cocoa Production



There are various reasons for companies to move to certification of supply chains; supply security, demand from consumers, improvement of brand reputation, credibility of claims, transparency of (a part of) the supply chain, cost reduction in sustainability processes, to name some of the most common.

Recommendation: Commit to 100% sustainable independently verified cocoa purchasing.

Components

There are several major components to certification. The first component is that Standard Bodies set a standard for cocoa, outlining requirements for sustainable cocoa production. The second is that auditing organisations conduct an audit to certify that the requirements of the standard are met. The third is that cocoa companies purchase the certified cocoa. The fourth component is the marketing body, liaised to the Standard Body, who promotes the label. In the critique on certification, these components are often mistakenly used interchangeably, or seen as a single issue. This regularly leads to a lack of clarity within the discussion. The result is that responsibility for and critique of failures within the system is often attributed wrongly, usually aimed only at the Standard Bodies.

Shared responsibility

It is important to note that certification is not the same as sustainability; it is merely a subset of a broader approach. It can be an important tool to support a sustainable cocoa business, but will only cover part of the obvious problems, and only works well when all of the abovementioned components and actors take their responsibility. The impact of standards and certification is limited if it is not combined with a more holistic approach. Furthermore, the broader concept of sustainability is a shared responsibility of all stakeholders, including industry and producing governments, not just the standards bodies.

Challenges

The introduction of certification can lead to better social and environmental conditions on the farms. Nonetheless, a range of problems remains in certification; growing discontent with **premiums** and pricing, credibility of **auditing, impact** of certification, and the level and functioning of **farmer organisations**. Additionally, most standards struggle to reflect the reality of scattered smallholder cocoa farming; most of their requirements are written with larger plantations in mind. Partly, as a result of these deficiencies, although standards and certification can help a farmer in the short term, up till now the standards seem not to be succeeding in the long-term challenge of significantly improving the economic situation of cocoa farmers. Moreover, there are many aspects that standard-setting organisations have little or no influence on. These include access to training and demonstrations, land use and tenure conflicts, effects of climate change, lack of local infrastructure, volatility of world market prices, lack of access to credit and savings opportunities, availability of agricultural inputs and crop diversification. All these aspects are of vital importance to the development of the livelihoods of cocoa farmers.

Challenges: Premiums

Premiums for certified cocoa are an important farmer incentive to invest in improved agricultural and social standards. At the same time farmers often can only sell part of their cocoa as certified, thereby not getting the revenue they expected. Even if farmers receive higher revenue because of more and better cocoa, a sense of disappointment in certification can prevail. This is often blamed on the Standard Bodies, but is primarily the responsibility of the purchasing companies.

Recommendation: Develop and integrate a basic business model of living income in every standard.

This failure to meet the expectation of premiums payment means that other benefits of working with certification, such as training leading to higher yields and better quality, are often not acknowledged. Even if all the cocoa is purchased as certified, there can still be a lack of clarity on the height of the premium. Both UTZ and Rainforest do not have a fixed premium; it is up to the cooperative to negotiate a decent premium with the buyer. This premium can be lower than expected. Fairtrade does have a fixed premium price, as well as a minimum price under which Fairtrade certified cocoa cannot be sold. This minimum price has been well below the current world market price for several years, while Fairtrade certified cocoa farmers still largely do not escape poverty. This leads to the question whether the minimum price is actually set at the right level.

Though important as an incentive, the premium on its own does not seem to have a great impact on the actual income of farmers. Presently, the farmers usually receive a premium of US$150-US$200 per tonne of certified cocoa, meaning an additional 10% of revenue. However, the costs for certification have to be subtracted from this premium. These costs apply to all of the farmer's cocoa production, regardless of whether he can sell his whole crop as certified. The costs of certification further increase if the farmer is double or triple certified. As such, the net financial benefit of premiums is unclear at best.

Challenges: Auditing
Independent auditing organisations visit farms and cooperatives to certify and verify that the requirements of the standards are being met. As such, the reliability of audits is an essential element in the debate about the impact of certification. Experiences in cocoa and in other sectors prove that the audit system is often not capable of detecting all infringements on the criteria of the standards. One reason for this is that many control visits on farms are usually announced beforehand. This is often done to reduce costs: auditors need to go into remote areas and need to meet the responsible persons, who have to be available. Another reason is the quality of the auditors and the knowledge they have of the standards. Lastly, there is little incentive for auditors to be critical during audits, which can lead to certification being awarded whilst the standards are not met in reality. Auditing organisations would do well to review their internal performance systems, prevent corruption in awardings, and increase the credibility of their certification processes.

Recommendation:
Put in place systems to reduce corruption and inefficiencies in auditing.

Currently, neither buyers nor farmers seem to be properly serviced by auditing. From the farmer's perspective, auditing mainly serves the interests of cocoa buyers. From a buyer's perspective, it often doesn't provide sufficient assurance. If the purpose of audits is to function as a purchasing control system, the standard-setting organisations need to spend more money to make them more efficient and credible. But if the purpose is to serve the farmers, audits should be more geared at monitoring how efficient the training facilities, input providers, governing bodies of cooperatives and state agencies operate. Both are needed. Also, the data from the audits and evaluations should be available for farmers to give them access to information about progress and standstills.

Challenges: Impact
There is a need for more and better evaluations on long-term developments and implications of certification, especially with the rapid scaling up of the standards systems in cocoa. These evaluations will have to demonstrate clearly the positive and negative socioeconomic and/or environmental impacts of cocoa production standards on cocoa smallholders. They will need to look beyond randomized controlled trials, so as to allow for causal connections between developments in producing areas. Pure data research should be combined with an interpretation based on reasoned intuition (Basu 2013).

Recommendation:
Make impact studies fully available, especially on lessons learned, not just successes.

Additionally, crosschecks of data against other important developments such as market regulations and other political developments are vital to capture reliable results. For example, in Côte d'Ivoire in 2013, traders were surprised by an impressive improvement of the quality of cocoa beans. This was mainly the result of new quality regulations combined with a minimum price implemented by the Ivorian government, not because of expensive training programmes of traders.

Challenges: Farmer Organisation
Certification mostly works through cooperatives. However, some coops have become so large, that democratic representation is a challenge, as is the level of assurance for compliance to standards. Other coops are so small that have hardly have any bargaining power.

Improving Certification

Meanwhile there are efforts to improve certification and to expand its potential.

ISO/CEN

Since its start in 2011, the European CEN process for an overarching standard on sustainable cocoa has seen increased momentum. Producing nations are now increasingly engaging in this process. They also have an equal place at the table since it has joined with the global ISO system. However, it will take several years before the standard will be fit for use, and there still are concerns regarding participation and equality of particularly cocoa farmers within this process. There is a long process of voting to go on the standards, and while elements of the draft are promising, it remains important that a truly high bar will be included in this standard.

Revisions of standards

The three major Standard Bodies – UTZ Certified (UTZ), Rainforest Alliance/SAN (RA), and Fairtrade International (FT), set standards using similar – but different – criteria; each has its own focus areas and 'theory of change'. These criteria are regularly updated. UTZ published a new standard in spring 2014, which includes a new community-based child labour framework. RA is in the final stages of a similar process to revise its criteria, but the changes have not yet been published. FT launched a new standard for hired labour, which entered into force in mid 2014.

Traders & grinders: used cocoa / certified cocoa / commitments

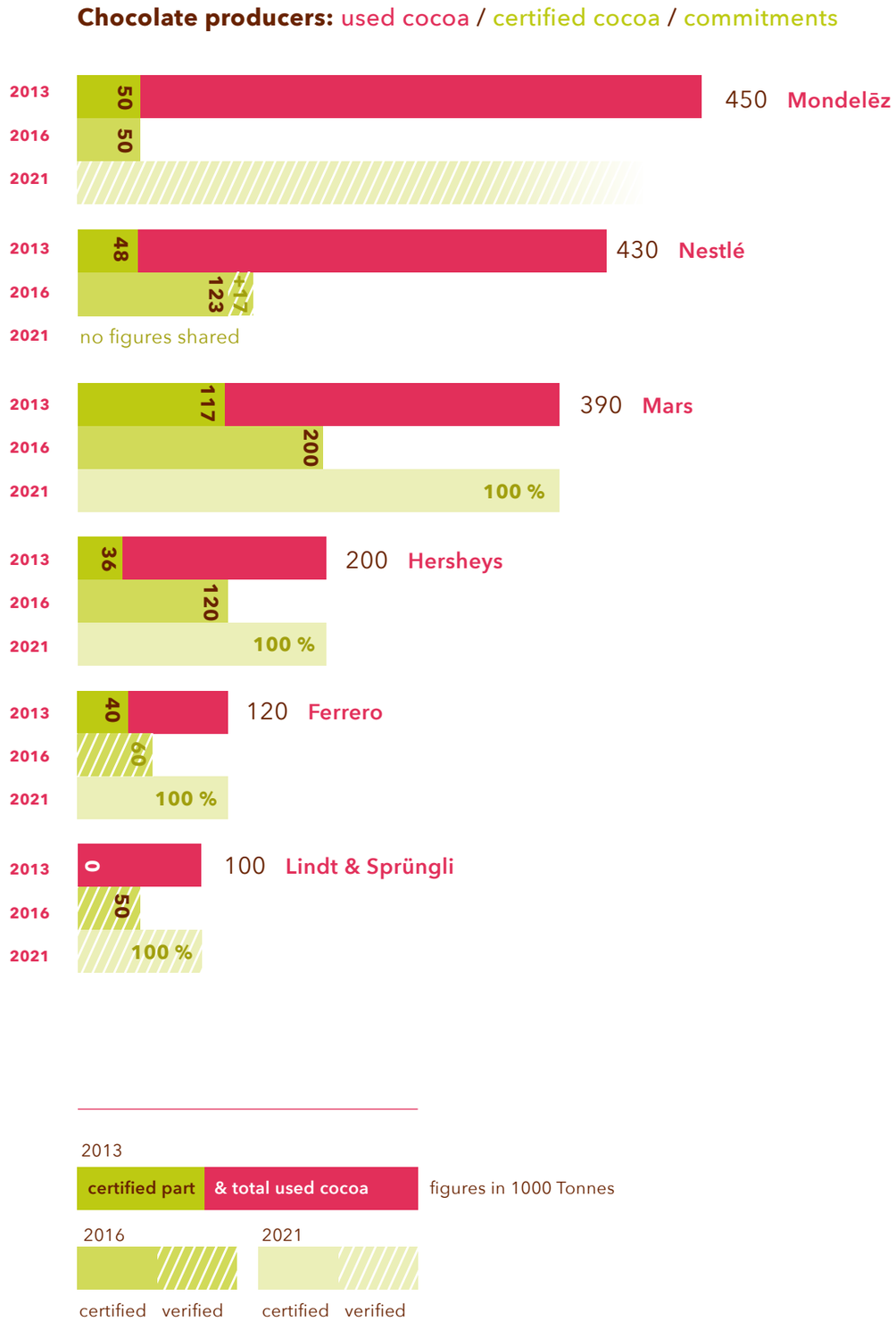
Commitments to sustainable cocoa sourcing

The tonnage of certified cocoa is still rising but progress is slowing down after a few years of remarkable growth. At the same time there continues to be confusion about the actual available amount of certified cocoa. While some companies claim that they cannot increase purchases of certified cocoa due to a lack of supply, farmers indicate that production of certified cocoa is far higher than demand. Despite the limits of standards to solve all sustainability problems in the cocoa value chain the percentage of certified cocoa and the number of farmers reached is a reference line for the progress made. As long as companies' own projects promote more sustainable cocoa production but do not publish independent third party evaluation of progress they made there is no other public indicator of progress available.

Commitments

Most of the major chocolate manufacturers, with the exception of Mondelēz and Nestlé, have committed themselves to use 100% sustainable and/or certified cocoa by 2020. The most prominent of these are Mars, Hershey's, Lindt & Sprüngli and Ferrero, all following different strategies in defining sustainability. Some will use certification of the standard bodies, some are working through their own projects, and others are combining both approaches.

It is essential for purchaser of certified cocoa to take shared responsibility, including implementing corrective action plans, access to training and demonstrations, access to credits, and long-term supplier relationships.



Private labels

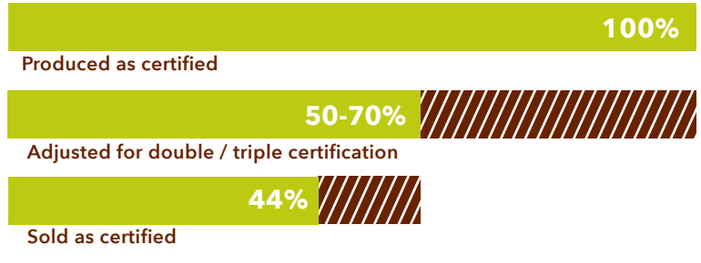
Besides these major brands, a lot of cocoa is used to produce chocolate for retailers, which is then sold under private labels. In Germany for example these retailers have a market share of 30%. Some, such as Lidl, has required their chocolate manufacturer to use only sustainable cocoa, and the Rewe Group will follow suit by the end of 2015. Clearly, it is possible to use cocoa from sustainable sources even for the production of chocolate in the lower price segments.

Farmer training

In response to the questionnaire sent out for this Barometer, we also asked companies to give the number of farmers they have trained. Adding up these numbers, we calculate about 500.000 farmers trained by the major traders and grinders (excluding ADM, who did not provide figures). The chocolate manufacturers have trained about 150.000 farmers, according to their own numbers. Most likely there will be many doubles in this total of 650.000 farmers (which is about twelve per cent of the total amount of approximately five and a half million cocoa farmers). However, if these companies are to achieve their own commitments to sustainable purchasing, they'd have to train at least a threefold of this.

Own projects

Additionally, more and more cocoa is coming from 'own projects' and sold as 'sustainable', though not certified by one of the major standard bodies. In the tables in the [previous/ following] pages, this 'own project sustainable' cocoa is coloured a lighter shade of green than the cocoa certified by the major standards.



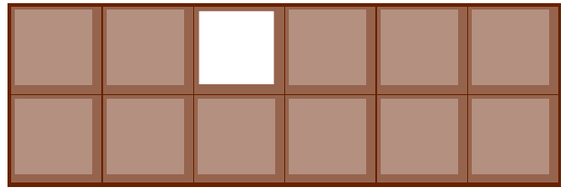
Double certification

The three standard bodies Fairtrade International, UTZ Certified, and Rainforest Alliance/SAN certified nearly 1.4 million tonnes of cocoa, roughly 30% of the world market. It is unknown how much of the cocoa that originates from farmer groups they

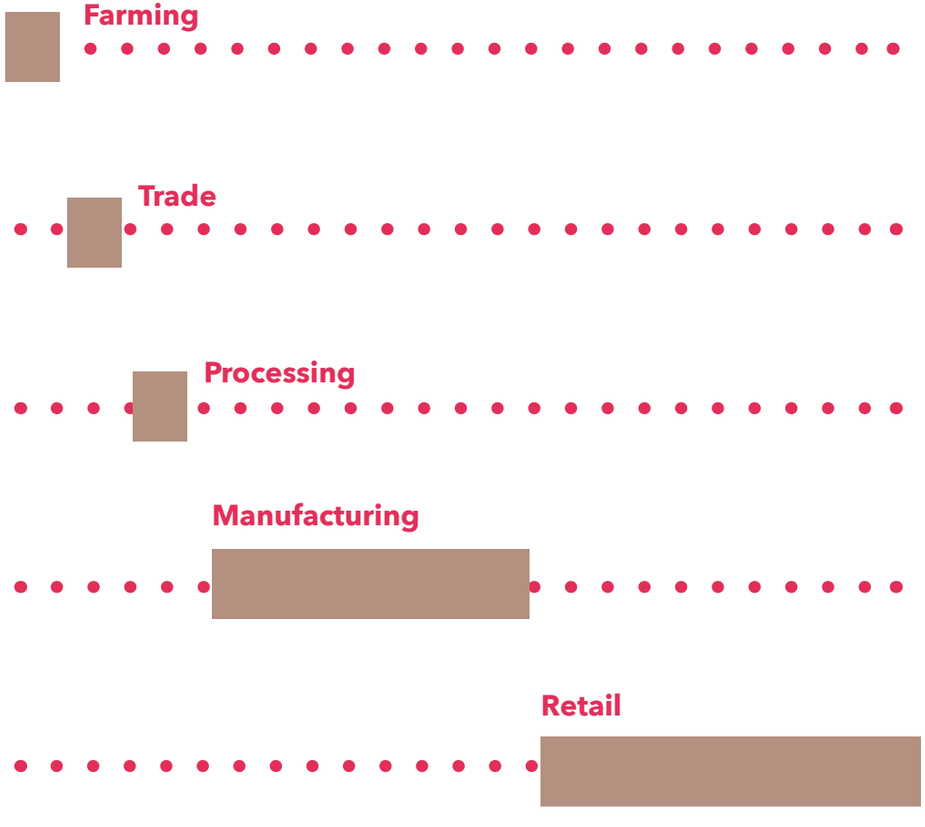
control is double or even triple certified. This means the same tonne could be counted as certified by more than one standard body. Some stakeholders in the industry and standards bodies estimate between 33 and 50% of the certified cocoa is not available in reality because it arrives from double or triple certified farmer groups. This would mean that there are 720.000 – 950.000 tons of certified cocoa available. Approximately 631.000 tonnes of cocoa were sold as certified. Half of this is not sold to the major chocolate manufacturers, but to smaller 'niche' chocolate companies and home brands.

Powder to Butter Cocoa Bean Equivalent Conversion Rate

Generally speaking, only cocoa mass and cocoa butter are needed to make chocolate. Cocoa powder is mostly a side-product. However, in some certification standards, the certificate on purchased powder can or could be exchanged for an equal amount of certified butter or mass. The net result is that the chocolate manufacturer can sell a bar of chocolate as 100% certified, while only 60-80% of the purchased volume of cocoa is actually certified. This means that a farmer effectively does not receive the entire premium that he should be. Initially put forward as a tool to kick-start the mainstreaming of sustainable cocoa, this practice is in the process of being phased out. Fairtrade has stopped this practice over the last year, but UTZ will not phase it out until 2018.



5. Value Distribution



value added

6.6%

Farming: from Tree to Bean

The first stage in the cocoa value chain is the cocoa farm. Cocoa pods are harvested during two harvest seasons. Subsequently the pods are opened, and the beans are separated from the shell and mulch. The beans are then fermented in the mulch on location for a few days, after which they are dried at farm or village level. In Latin America, farmers often sell "wet" beans, where drying and fermentation happens at regional level. Sometimes, drying happens further 'downstream' in Côte d'Ivoire as well.

Farm poverty

Farmers have the largest relative income in the value chain (an Ivorian cocoa farmer would earn a 'profit' of almost 60% on the selling price of his cocoa). But the small scale of their farms and relatively low yields mean that their total annual income remains very low. As they are mostly self-employed, this income cannot be seen as 'net profit', but has to be counted as income from labour, land, and return on investment. Even if the farmer would be able to double his yield and receive a premium for producing certified cocoa, his net income often wouldn't be able to reach the extreme poverty line. Market power plays an important role in influencing value distribution. And though the entire value chain stands or falls with the cocoa farmer, they have the weakest market power.

FOB Price

The Free on Board price, or FOB, is the price of a tonne of cocoa once it is loaded on a ship in the producing nation's port. FOB is volatile on a daily basis, and tends to be lower during the harvest season. The percentage of the FOB price that a farmer receives varies per nation. Historically, Ghana - the world's second largest producer of cocoa - has set a fixed price for farmers. In the last few years, Côte d'Ivoire - the world's largest cocoa producing nation - has similarly started setting a fixed minimum price provided farmers deliver a minimum quality. Other nations have no such fixed price settings.

Inaccurate Weights and Quality Controls

An often-underreported issue is that weights are structurally manipulated at point of sale. Due to insufficient oversight, fraudulent quality control checks often also reduce the revenue for the farmer's cocoa. In some countries, even official weighing stones weigh less than the stamped values on them, according to sources we have consulted for this Barometer. This is not unique to cocoa, but it is a reality many cocoa farmers must deal with, and which costs them between 5% - 20% revenue, while their costs stay the same.

Recommendation:
Develop price-setting mechanisms in order to increase national minimum prices of cocoa, ensuring that the price meets realistic costs of production.

Recommendation:
Foster independent farmer organisations.

Value Distribution	Sells	Costs	Value Added	Profit	final sale
Farmers income weighted	$ 1.874	$ 664	$ 1.210	$ 1.210	6,6%
Inland Transport	$ 1.971	$ 1.874	$ 97	?	0,5%
Taxes/MarketingBoard	$ 2.745	$ 1.971	$ 774	?	4,2%
International Transport	$ 2.793	$ 2.745	$ 48	?	0,3%
Costs port of arrival	$ 2.993	$ 2.793	$ 201	?	1,1%
International Traders	$ 3.038	$ 2.993	$ 45	$ 15	0,2%
Processors & Grinders	$ 4.434	$ 3.038	$ 1.395	$ 211	7,6%
Manufacturer*	$ 10.858	$ 4.434	$ 6.425	$ 870	35,2%
Retail& Taxes	$ 18.917	$ 10.858	$ 8.058	$ 473	44,2%

Per tonne of sold cocoa

value added 6.6%

value added 6.3%

Transport and Trade: from Farm to Factory

From the farm village, cocoa is transported to local collection points and cooperatives. Here it is purchased by local traders or licensed buying companies, who transport the cocoa in larger quantities to ports, where the cocoa is stored until shipping to the major processing ports, where the cocoa is often cleaned, and then warehoused.

Inland Transport

The Ghanaian and Ivorian marketing boards have stipulated a fixed amount of the FOB to be allocated for transport costs from farm to port. In other countries, there is no such a fixed amount. Additionally, there are costs for storage and handling at producing ports. In general, half the inland transportation costs go to local transport from the farm to the collection centre.

Taxes and Marketing Boards

There are major differences in taxation on cocoa per country, as well as strong variance on the role - if any - of national cocoa marketing boards. In Nigeria there are virtually no taxes; as a result the FOB percentage received by the farmers is relatively high, while in Ghana and Côte d'Ivoire approximately 20% - 30% goes to taxes and marketing boards. Nations with a significant annual income from cocoa taxes should be transparent about cocoa earnings and about expenditures, to enable an informed democratic debate.

International Transport

In order to compensate for the relatively low international transportation costs, shippers use relatively high Terminal Handling Costs (THC's) at consuming nations ports. Interestingly, Ghana charges more for the shipping of its cocoa than other West African countries. As such, they receive approximately €17 more per shipped ton than it's neighbouring countries. This amounts to almost € 12 million extra income per year for the Cocobod.

Commodity markets

Cocoa trading companies do not just buy and sell the physical cocoa. Much of their business is conducted through commodity exchange markets. Traders can protect themselves against market fluctuations, or even benefit from these fluctuations, through hedging, futures, and other market mechanisms. In the commodity markets, there is an important role played by banks and investment funds that are not involved in the cocoa industry. They have no direct interest in the physical handling of the product, and are involved in the commodity markets for the simple reason of earning money from speculation. As such, their involvement often falsifies the price setting mechanism of supply and demand.

Recommendation:
Ensure transparency in government revenue received on cocoa.

Recommendation:
Facilitate discussions on price-mechanisms and living income for smallholder farmers.

Value Distribution	Sells	Buys	Value Added	Profit	final sale
Farmers income weighted	$ 1.874	$ 664	$ 1.210	$ 1.210	6,6%
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Per tonne of sold cocoa

value added 6.6%

value added 6.3%

value added 7.6%

value added 35.2%

value added 44.2%

Manufacturing: from Cocoa to Chocolate

Cocoa mass is the main ingredient for chocolate; it is then combined with cocoa butter and powder, sugar, and milk powder (for milk chocolate) to make couverture. Later on, ingredients such as nuts and other ingredients are added. It is then poured into the moulds that shape the product into the form we would recognise as chocolate. The product is then packaged, and made ready for shipment to retail.

Processing: From Bean to Butter

Once arrived in processing facilities, beans are converted to cocoa mass through grinding and roasting. Subsequently, the mass is pressed, resulting in cocoa butter and cocoa powder. Profits for processors are achieved through traditional margins. Additional profit is realised by buying cocoa mass, cocoa butter and cocoa powder (cake) on the international market (mostly produced by Southern countries). These products are then refined, mixed with other volumes (dilution) and then sold as first quality ingredients. Processing companies can decide to stock butter, mass and/or powder as to take advantage of differences in market prices of these products.

Weight and moisture loss

Throughout the process of transporting cocoa beans, the weight of a ton of cocoa deteriorates due to moisture loss. Moisture content at farm gate is presumed to be around 9,5%. By the time cocoa reaches the port of arrival, this has dropped to 6,5%. Grinding and roasting further reduces moisture levels to around 1,5%. Additionally, processors calculate a loss on beans through bad quality, waste in the cocoa, etc.

Retail: from Chocolate to Consumer

From the factories, the chocolate is either transported directly to the retailers or to wholesalers, where it is distributed to retailers.

Cheap chocolate

Margins and profits for retailers are under pressure due to various reasons, such as price wars and the economic recession of the last years, resulting in an increasing market concentration in the retail branch. The margins and profits of manufacturers are also under pressure, since the retailers pass the pressure back into the supply chain. As a result, many manufacturers are obliged to lower their wholesale price.

Role of retail

Retailers should be incorporated into the debate on sustainable cocoa in a much more intensified manner. As they are the price-setters for final consumers, their importance cannot be overstated. However, they are largely absent in almost all of the cocoa sustainability discussions.

Recommendation:
Retailers should be incorporated into the debate on sustainable cocoa in a much more intensified manner.

Value Distribution	Sells	Buys	Value Added	Profit	final sale
Farmers income weighted	$ 1.874	$ 664	$ 1.210	$ 1.210	6,6%
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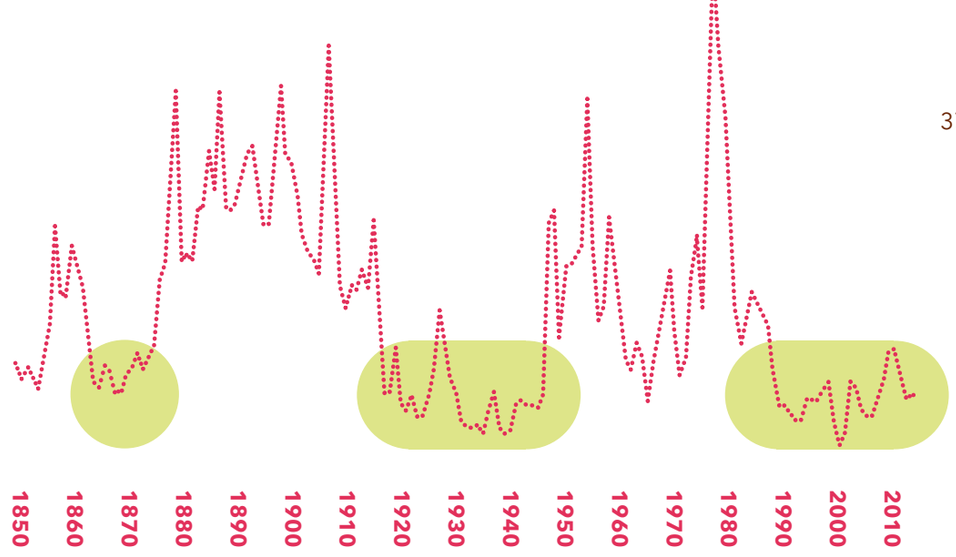
Per tonne of sold cocoa



Recommendation:
Ensure that market concentration does not reach market-distorting levels.

Recommendation:
Require corporations to execute living income calculations for cocoa in their supply chain.

A Squeezed Supply Chain

The mechanism of value and price is broken. It must be fixed. At the end of the story, the consumer is buying chocolate at prices that do not reflect the true cost of producing chocolate. The supply chain is squeezed.

Long term cocoa price

Over the last 160 years, the only times that the cocoa prices – adjusted for inflation – were as low as now, were times of major global crises. In the 1860s and 1870s, not only was America in Civil War, there was also a global recession, and several major wars in Europe. From the 1910s to the 1940s, the world was engulfed in subsequent World Wars and the Great Depression. From the early 1980's onwards, however, the price of cocoa went in a steep decline, and has stayed well under the long term average.

Economy of scale

At first reading, none of the average margins in the supply chain are exorbitant, although some companies do have large profit margins. Also, absolute profits can be significant for companies operating at scale. Inversely it can be said that the smaller the scale of the company, the harder it is to make a living. Many of the smaller actors in the supply chain are either struggling with bankruptcy or are prey to acquisitions and mergers.

Expenditure choices

Though profit margins of major manufacturers and processors do not seem extravagant, there are several choices made by major industry players that are not available to more vulnerable players such as cocoa farmers. The annual pay for the CEO's of the large chocolate manufacturers is often not much less than the financial contributions the company puts into sustainable cocoa. Also, the marketing costs of these companies are astronomical. The 2009 Cocoa Barometer calculated that just one per cent of the marketing budget of the biggest chocolate manufacturers ($86 million per year) would cover the costs to train 430.000 farmers in Côte d'Ivoire, which would be half the cocoa farmer population (Cocoa Barometer 2009). If companies would decide to invest as much money in the cocoa producers as in marketing, most of cocoa's problems could be solved overnight.

Redistribution

In a hypothetical situation, if one were to distribute half of the chocolate profits of the major manufacturers and processors among the ca. 5,5 million smallholder cocoa farmers in the world, it would raise their annual income. In Côte d'Ivoire this would increase by thirteen per cent. This looks like a significant increase, but it would still leave most of the farmers well below the extreme poverty line. One suggestion to create a framework for better value distribution is a Global Cocoa Fund, where a small surcharge at the commodity trading level be set aside in a fund that would then be reinvested in cocoa growing communities. Although it would alleviate some of the worst poverty, it would be safe to say that redistribution of profits would only be part of the answer. In order to properly find solutions to the challenges facing the cocoa sector, we must be more ambitious than this.

Recommendation:
Facilitate discussions on price-mechanisms and living income for smallholder farmers.

Internalised costs

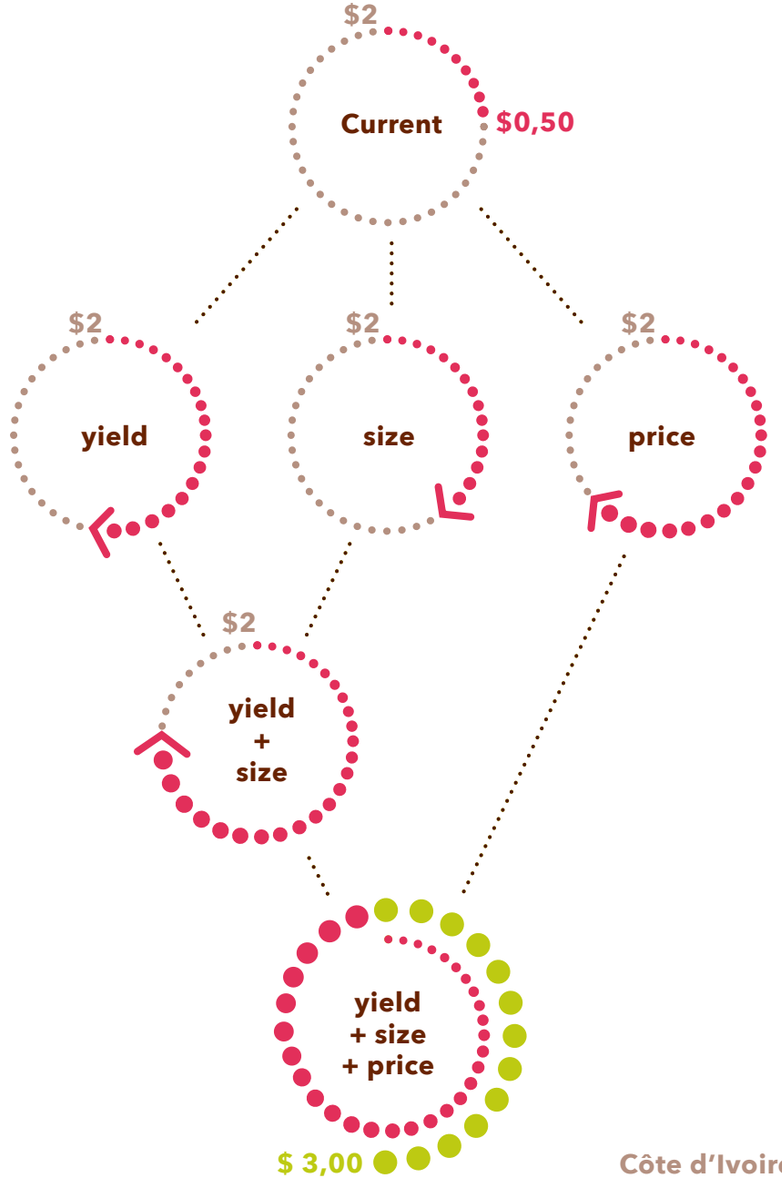
The calculations in this chapter do not take into account costs that are not covered by the value chain, the so-called 'hidden' social, environmental and economic costs. A lack of access to healthcare, education, and clean drinking water, environmental degradation, stunted growth due to malnutrition, corruption as a result of poverty; many of these issues are a result of an insufficient price received by farmers. In economic terms, these are 'externalised costs'. If the cocoa chain is to become truly sustainable and attractive to future generations, these costs are going to have to be internalised.

Increasing price at farm level

With the current choices in company expenditures and margins throughout the value chain, there is too little money in the cocoa value chain to go around. In this, the cocoa value chain is exemplary of the trend in the previous decades to squeeze a supply chain until there is little room left for squeezing. However, if cocoa is to become attractive to future generations of farmers, something must be done to increase the price as one important factor determining the income of the families at farm level significantly (details see next chapter).

The price-setting mechanism itself is a complex system. There is no single player that can raise the price of cocoa. Redefining how cocoa prices are set would only be possible through international dialogue. Though commercial actors are hesitant to discuss about price or what is the right level of income for cocoa farmers because of anti-trust laws, ways must be found to have a broad dialogue on this essential topic. In other sectors, such as the German meat market, similar approaches have been undertaken in conjunction with the relevant anti-trust bodies. There is a major role for governments and other regulating bodies in this. In any case, all stakeholder groups need to be involved in this discussion.

6. Living Income for Smallholder Cocoa Farmers



Côte d'Ivoire

There are two fundamental reasons to advocate that smallholder cocoa farmers should earn a living income; the business imperative to ensure the long-term viability of the cocoa supply chain, and the value-based imperative to ensure the fundamental human rights to a decent livelihood.[3] Both deserve more thorough discussion.

Recommendation:
Provide statistical data on cocoa farmers communities in order to calculate an accurate living income.

There is broad consensus that in order to ensure future cocoa supply, it is necessary to make cocoa farming an attractive profession again. Of the many sustainability programmes in cocoa, most integrate yield increase, and some include crop diversification. None of these programmes use a calculation of the basic needs and required net income to meet these needs as a basis for developing the project parameters.

Recommendation:
Baseline business models for living income in all sustainability programmes

A smallholder cocoa farm is no different from any other enterprise. A farmer's income is dependent on just four core metrics; cost of production, quantity of produce, farm gate price, and quality of the produce. However, there are also other aspects to a living income; living needs, amount of dependents, amount of workers or income providers, food production (which does not need to be bought) and income diversification. All these variables need to be incorporated in order to come to a living income calculation method.

Recommendation:
Redistribute internal costs towards more sustainable procurement

Living Wage and Living Income

In cocoa, self-employed smallholder farmers and their families run the majority of farms. They are not wageworkers, and therefore do not fall under the categories covered by living wage or minimum wage indicators (in most cocoa producing countries, the minimum wage level is far below a living income). Nonetheless, the living wage calculation method can partly be applied to find a definition for a living income. Currently, the three major standards (UTZ Certified, Fairtrade and Rainforest Alliance) have introduced or are introducing living wage indicators in their revised standards, as part of the joint Living Wage Project. But certification currently reaches only the minority of cocoa farmers, and as mentioned, the farmers are generally not wageworkers.

Recommendation:
Engage price-setting mechanisms in order to ensure a living income is possible

Currently, the ILO is working on an initiative towards Decent Work in a broader context, which is attempting to make this applicable to self-employed workers such as farmers as well. GISCO, ISEAL and the Sustainable Food Lab are also hosting efforts to come to definitions of Living Income for smallholder cocoa farmers. The findings of these projects should be shared publicly as much as possible, so that an informed and sector-wide debate on this essential topic can develop and appropriate actions can be taken.

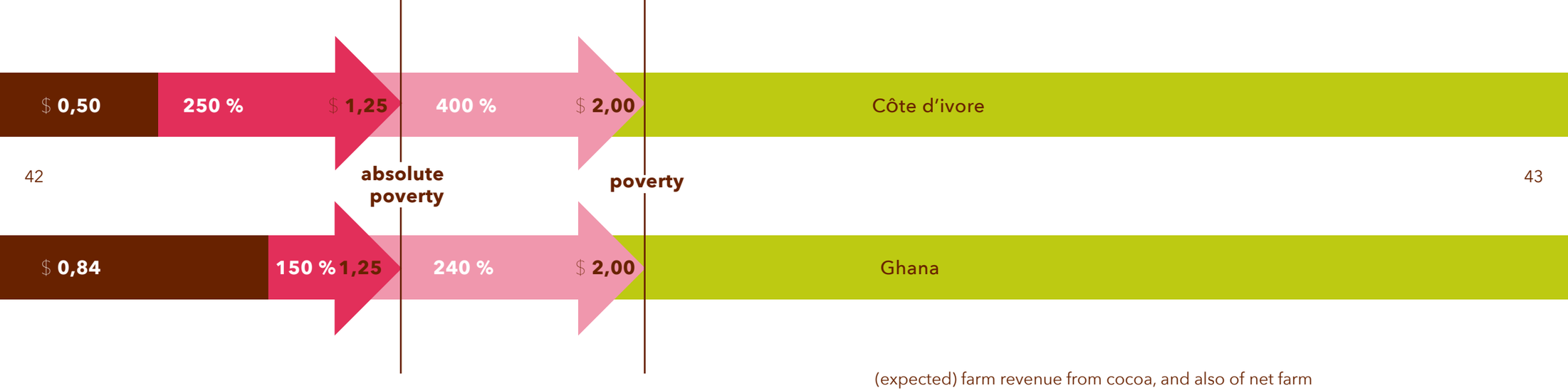
Production costs

Each harvest season, farmers have a core set of production costs that must be met; pesticide and fertiliser use, land rent, planting material, costs for training, transportation and storage, partly membership fees to a cooperative, maintenance, informal road tax etc. Some of these recurring operational costs are largely under-emphasised. Many farmers are sharecroppers or tenants of the land they till, and pay for the use of the land either in cash or with a percentage of their harvested cocoa. These costs are seldom incorporated in current calculations. Additionally to family labour, there is widespread use of (seasonal) hired labour, especially in harvest time, which is likewise regularly not applied in current calculations.

Investment costs

Much of the current debate around increasing farmer income revolves around raising the productivity of cocoa farms. A cocoa farmer would have to significantly invest in training and inputs to reach the goals of some cocoa companies of doubling or even tripling yields. However, it is not clear if the increased income of improving yields outweigh the costs of productivity increase, such as added agrochemical use, training, and labour. Cost/benefit calculations on increasing productivity should be made and clearly communicated to the farmers, prior to the roll out of these programmes. This will also reduce the frustration many farmers are currently experiencing in such programmes. These investment costs are usually upfront, requiring access to credit, which is a challenge for most farmers, especially women. Land tenure insecurity, the availability of credit, and usury, all add to this challenge. A low farm revenue could mean that farmers have to choose between investments to survive over investments in the future of the children or in providing adequate nutrition to their families.

3. The preamble to the founding document of the International Labour Organisation in 1919 declares the necessity for a "payment adequate to maintain a reasonable standard of living that is understood in their time and country". The Universal Declaration of Human Rights states that "just and favourable remuneration" is a basic right, not just for the labourer, but also for the labourer's family (UN 1948: Article 23(3)). The UN International Covenant on Economic, Social and Cultural rights is even more specific, naming a "decent living for themselves and their family" a basic right (UN 1966: Article 7). Furthermore, the 'UN Guiding Principles on Business and Human Rights' state that is it the duty of governments to protect people from human rights violations, and that it is the responsibility of companies to respect these human rights (UN 2011).



Cost of Cocoa Farming

Combining the above issues, the business costs as part of a living income calculation should cover at least the following elements:

- **Material:** harvesting tools, protective clothing (for use of pesticides), boots,
- **Knowledge:** costs for training, for some farmers certification and auditing costs
- **Labour and land:** hired seasonal labour, land use (including sharecropping), labour of the family (women, men, children)
- **Infrastructure:** local transportation, warehousing, membership of cooperative,
- **Finance:** availability and accessibility of affordable credit and insurance, taxation (if applicable)

Once these variables have been identified, it is possible to make a calculation of (expected) farm costs.

Revenue of Cocoa Farming

Revenue at farm gate is relatively straightforward to calculate; the amount of cocoa produced multiplied by the price received. However, if one is to construct a calculation method, certain core variables are best put in place. Calculating future revenue would require making an inventory of farm size (bearing in mind current overestimations of farm size, as well as the amount of arable farm plot vs. total overall farm size), current yield per hectare (or future expected yield, including yield increase through productivity programmes), and the price a farmer is expected to receive for his/her cocoa. Once these variables have been identified, it is possible to make a calculation of (expected) farm revenue from cocoa, and also of net farm income from cocoa; *Revenue minus Cost of Farming = Net Farm Income from cocoa.*

Household size and monocropping

A decent living income calculation is not just about the farm's net result from growing cocoa. It is also dependent on the household size and availability of other sources of income. For a variety of reasons, average household sizes and levels of diversification of crops vary, both between and within countries. A larger amount of dependents creates a lower per capita income. An unrealistically low amount of dependants and/or dependency on cocoa for income will result in income estimates that do not reflect the reality of poverty in cocoa growing communities. It is essential to therefore have work with regional indices of average household sizes and levels of monocropping in order to properly be able to make these calculations.

Current Poverty Levels of Cocoa Farmers

Bearing these variables in mind, it makes sense to attempt an income calculation per dependent as well. We have attempted such a calculation, based on currently available data (Infographic on previous pages). Putting these calculations within the perspective of what constitutes poverty, however, is a challenge. There are several approaches possible. One would be to follow the World Bank poverty lines; under $2 per capita per day means that a person lives in poverty, below $1.25 in extreme poverty. Another approach could be to use the national poverty lines, as defined by many cocoa-producing nations. An additional complication is that there is often a strong variance in access to basic infrastructure and social services (Anker 2011: 40). This differs not only per country, but often by region, and sometimes even by village.

Clean drinking water and sanitation

Decent housing

Adequate clothing and footwear

Infrastructure

A nutritious low-cost diet

Social security schemes and basic social services

Savings to ensure economic resilience

Needs calculation

According to the ILO, basic standards for a decent wage should include the "needs of workers and their families", "the cost of living, social security benefits, and the relative living standards of other social groups", and "economic factors, including the requirements of economic development, levels of productivity and the desirability of attaining and maintaining a high level of employment" (ILO Convention No. 131, Article 3, 1970).

As such, a more accurate – but also costly – way of calculating needs, is to make a regional inventory of what real living costs are, *shown above*.

It would be very valuable if a list of needs – as well as methodology how to assess the accompanying costs – could be embraced across the sector, so that comparable research and programme impact can become measurable. Until such calculations are in place, most of the fact-based conversation will have to revolve around current incomes of cocoa households, making it hard to accurately indicate what the gap is between current household income and desired income.

Price

To ensure a living income, farmers have a responsibility to work hard and efficiently, and to deliver a good product. However, even if one were to significantly change variables such as yield, and farm size, the possibility for a cocoa farmer to escape poverty is only marginal if the farm gate price remains at present levels. Only if the price is significantly increased in combination with these two factors can farmers hope to escape poverty.

Intersectorial exc

The cocoa sector is not alone in its search for a method to calculate a living income or a living wage. The decent wage debate has been on-going for years in the textile industry, and some pioneering data collections were made in various countries.

The producers and traders of crops like banana, tea, grapes, flowers and cotton are also trying to find ways to calculate a living wage and in some areas, where the products are grown by smallholders, to define a living income (Anker/Anker 2013, 2013a, 2014, 2014a).

Certification

Premiums paid by major standards bodies will only go a short way in solving the problem of price. On average, the financial benefits of certification before deduction of costs are calculated between $150 and $200 per tonne, at best increasing a farmer's income by 10% of which you have to deduct even the costs for memberships fees, audits etc.

7. Conclusions and Key Recommendations

Unless cocoa farming provides a **living income**, it simply isn't sustainable. It is a long-term business imperative and a basic human right. This will require improving current **farming** practices, curbing market concentration, investing in **local infrastructure** and service sectors, and reviewing the global **price-setting** mechanisms.

The term '**shared responsibility**' is being used more and more. And it should be. It is unrealistic to expect any single actor to solve the problems of the cocoa supply chain. Every major actor should take his or her share of the burden, and many of the issues should be addressed **jointly**, and **pre-competitively**.

To make this more concrete, the 2015 Cocoa Barometer offers specific recommendations to a range of stakeholders in order to:

- ***Improve the impact of certification***
- ***Increase the share of the cocoa farmers in the value chain***
- ***Develop a living income model for smallholder cocoa farming***

Key Recommendations to Governments of producing nations

- Develop price-setting mechanisms in order to increase national minimum prices of cocoa, ensuring that the price meets realistic costs of production
- Foster independent farmer organisations
- Ensure transparency in government revenue received on cocoa
- Invest adequately in rural infrastructure and services
- Provide statistical data on cocoa farmers communities in order to calculate an accurate living income

Key Recommendations to Governments of consuming nations

- Ensure that market concentration does not reach market-distorting levels
- Facilitate discussions on price-mechanisms and living income for smallholder farmers
- Set up a Global Cocoa Fund at commodity level, for reinvestment in cocoa growing communities
- Introduce mandatory human rights due diligence processes for corporations
- Require corporations to execute living income calculations for cocoa in their supply chain

Key Recommendations to industry

- Commit to 100% sustainable independently verified cocoa purchasing
- Redistribute internal costs towards more sustainable procurement
- Be transparent about payments to governments and national cocoa institutions
- Develop baseline business models for living income in all sustainability programmes
- Share collected data on cocoa
- Have in place a human rights due diligence process

Key Recommendations to civil society organizations and farmers

- Consolidate existing and create new stable networks of farmers rights organizations
- Improve the dialogue between southern and northern civil society organizations and farmers
- Foster independent farmer organisations
- Get involved in and raise awareness of the importance of living income

Key Recommendations to standard bodies

- Make impact studies fully available, especially on lessons learned, not just successes
- Put in place systems to reduce corruption and inefficiencies in auditing
- Develop and integrate a basic business model of living income in every standard

Key Recommendations for the joint sector:

✚ Develop a common strategy on:
+ living income
+ roll-out of farmer organisation to unorganised farmers.
+ price-setting mechanisms of the cocoa markets

✚ Put in place regulatory measures to ensure costs are internalised, in both consuming and producing nations, creating a level playing field

Justification of figures and tables

Literature and calculations
A complete list of literature and downloadable excel files with numbers used for the calculations in this Cocoa Barometer can be found on www.cocoabarometer.org.

In this Barometer, we are calling for more shared and transparent data. In that light, we are providing a full justification of all the sources used for both the Value Distribution and Living Income calculations available as a downloadable Excel file at www.cocoabarometer.org.
We welcome any and all critique and/or improvement of the database for future use.

Profits and margins
As the major companies do not publish the profits made specifically on cocoa, margin and profit calculations for traders, processors and manufacturers in this paper are extrapolations. These are based on average margins and volumes that resulted from interviews and research conducted for this paper.

Visual on Cover Page
Estimated annual profits of large cocoa processors and chocolate manufacturers, based on tonnages and averages margins per tonne. (See visuals 4 and 6 for justification). Estimated income of cocoa farmers, per dependent, per day. (See visual 9 for justification).

Visual 1 (page 4)
Global Production and Consumption
Source: ICCO 2014. Production Table 4 (over 2013/2014), Consumption Table 37 (over 2012/2013)

Visual 2 (page 6).
Market Concentration
Based on own calculations

Visual 3 (page 19)
Standards Tonnage
Data graciously supplied by the Standards Bodies, based on a questionnaire. Fairtrade tonnage is for harvest season 2012/2013, not for calendar year 2013

Visual 4.(page 24 & 26)
Companies Tonnage
Data graciously provided by the companies. Major traders, grinders and chocolate manufacturers were sent a questionnaire, which was (partially) returned by Barry Callebaut, Blommer, Cargill, Continaf, Ecom, Ferrero, Hersheys, Lindt und Sprüngli, Mars, Mondelēz, Nestlé, Olam and Touton. Only ADM failed to respond with numbers, the tonnages provided here are from the 2012 Cocoa Barometer.
As the data submitted in these responses were not easily comparable, and credibility issues arose regarding the real measurement programs used, this calculation provides only a coarse estimation of the current situation. Because of trade, double registration at Trader/Grinder level is not only possible it is inevitable.

Visual 5 (page 28)
Double/Triple Certification
See text on page 28

Visual 6 (page 29-35)
Value Distribution
Margin and profit calculations for traders, processors and manufacturers in this paper are extrapolations, based on average margins and volumes resulted from interviews and research conducted for the 2015 Cocoa Barometer and the „Value Distribution" Consultation Paper published in 2014. Additional figures and refinement were possible through the plentiful feedback the authors received on the Consultation Paper.

Visual 7 (page 36-38)
Long Term Cocoa Price
Based on: Real cocoa prices (2013 values) from 1950-2013, Gilbert 2014: 5
Historical interpretation and references: Barometer Consortium

Visual 8 (page 39)
Potential income increase
Potential income for cocoa farmers based on current situation, on yield increase, on increase of farm size, on a combination of both of these, on an increase of price, and on an increase of all three variables. This visual is for Côte d'Ivoire only. For Ghana and Côte d'Ivoire, the underlying calculations can be found at www.cocoabarometer.org

Visual 9 (page 42-43)
Poverty at Farm Level
UNDP and World Bank define poverty to be under $2 a day, absolute poverty at $1,25. These definitions are based on parity purchasing power instead of absolute dollars, and are certainly not undisputed (definitions could be on the very low side). As we argue in this Barometer, Living Income' calculations based on local realistic levels are necessary.

The authors have done extensive literature study into amount of dependents, yield, farm size, farm-gate price, input costs, and level of monocropping. The aggregated results can be found in the table below.

	Ghana	Côte d'Ivoire
Dependents	5,9	10
Yield (t.p.h.)	0,42	0,49
Farm Size (ha)	2,6	3,5
Farm-gate price	$ 1.630	$ 1.487
Input costs (p.h.)	$ 360	$ 513
Monocropping	78%	90%

List of abbreviations

EU:	European Union
CCC:	Conseil du Café-Cacao (Côte d'Ivoire)
CCE:	Certification Curriculum Enhancement
CEN:	Central European Normalisation Agency
CLCCG:	Child Labour Cocoa Coordination Group (United States)
FLA:	Fair Labor Association
FOB:	Free On Board price
FT:	Fairtrade Labelling Organisation International
GCA:	Global Cocoa Agenda
GICSO:	German Initiative on Sustainable Cocoa
HRDD:	Human Rights Due Diligence
ICCO:	International Cocoa Organisation
ICI:	International Cocoa Initiative
IDH:	Dutch Sustainable Trade Initiative
ILO:	International Labour Organisation
ISO:	International Standardisation Organisation
NCDP:	National Cocoa Development Plans
NGO's:	Non-governmental organisations
RA:	Rainforest Alliance/SAN
SECO:	Swiss State Secretariat for Economic Affairs
THC:	Terminal Handling Costs
TNCP:	The Nestlé Cocoa Plan
UNGP:	United Nations Guiding Principles on Business and Human Rights
UTZ:	UTZ Certified
WCC:	World Cocoa Conference
WCF:	World Cocoa Foundation
2QC:	Qualité, Quantité, Croissance program (Côte d'Ivoire)

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

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