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Partnerships for Sustainable Agriculture and Poverty Reduction in Africa

*A case study into the opportunities and challenges in
creating sustainable partnerships within the cocoa sector in
Cameroon to upgrade the livelihoods of small-scale farmers*



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After my first master, Communication Science at the University of Enschede, which I finished in 2001, I decided to widen my knowledge and to start a second master at the Open University. The idea behind it was to broaden my chances on the labour market. One thing was sure however, I would only do a thesis about a subject that really had my interest. I knew beforehand that otherwise it would be too hard to actually finish it besides my daily work. Having finished all my subjects around 2005 the only thing I still needed to look for was a fitting research for my thesis. In the summer of 2006 I ran into Dr. Teun Wolters, from ISCOM, who gave me the opportunity to study on a cocoa project in Cameroon. It turned out not only to be possible to do my studies within this project, but it even became my new job. “Teun, I thank you for opening the door to this interesting UPCOCOA project for me.” Besides I would like to thank my parents. Mom, dad, I am very grateful with all of your support during this study. You always believed in me, even when I thought I couldn’t do it. You always showed interest and stimulated me to continue. Your advice was ‘to climb the big mountain of graduating step by step’, then I would get there! And I did! Thank you! Rens, Marion, thank you for listening to all my study hiccups and for being proud of me. Hopefully after the studies we spend even more time, because you’re both special! My lovely friends, Masja, Mignon, Njanko, Maarten and others: I am so happy with all of you. Showing interest, sharing our thoughts, proofreading my work, offering a place to study or invite me for something nice to distract my mind. Thank you for being there, you made the difference!

Annemiek

ABSTRACT

The international cocoa sector provides an interesting case of growing social corporate responsibility that is expressed both by internationally coordinated policies and activities by individual corporations. A reason for this is the changing consumer demand.

This research is based upon information from a cocoa project in Cameroon named ‘Upcocoa project’. This is a four year project that is about upgrading the capacities of farmers and their organizations. The main goal is to improve the farmers’ capacities from an entrepreneurial point of view. The research is aimed to provide insight in ***how innovation networks within the supply chain can promote welfare amongst cocoa farmers?***

A) Which factors influence the livelihood of small scale farmers?

The liberalization of the cocoa market in 1994 caused a drop in the quality of the cocoa. Now the industry re-emphasises the significance of quality. This calls for a change of attitude of farmers. It seems that Cameroon is investment-unfriendly, what makes it difficult for farmers to develop themselves and their cooperatives. Lack of social capital (e.g. functioning cooperatives) seems to be a key factor in explaining their poverty. Besides the farmers seem to be poorly equipped with adequate equipment to run a cocoa farm and agricultural practises are underdeveloped. Existing social capital (e.g. cooperatives) and physical capital (e.g. labour) can be useful in upgrading programs if these go together with willingness to change. Other factors that influence the livelihood are low trust and the donor dependency syndrome. Many farmers don’t feel any ownership or responsibility for their farmer organisation.

B) What challenges can be seen for organizations within an innovation network?

There are four main challenges:

- 1) Management challenges- To smoothly run an innovation network it should start with well grounded agreements about the set-up, expectations, roles and contributions. After that winning the hearts and souls of the farmers is the main success factor. Many project just focus on documents and reports to keep their donors happy, but it is the end result that finally counts.
- 2) Financial challenge- A challenge for an innovation network is to help a farmer network to get formal credit. With the back up of the network – preferable with a bank guarantee and good monitoring system - farmers get a real chance in getting formal credit and showing their creditworthiness and responsibility.
- 3) The challenge of professionalization- Organized farmers have more chance to improve their likelihood. It is a real challenge to get farmers to work in a professional way since farmer organisation are at a very beginning level of development concerning good governance and enterprise orientation. Their business must be based on pure economic reasons. The direct involvement of eight farmers in an innovation network like Upcocoa at once leads to major possibilities concerning economies of scale and considerable cocoa quantities. But there are risks too; e.g. in terms of farmer loyalties and management responsibilities. There is need for lots of trainings and direct guidance, strict rules and advice on how to monitor a business to make a project a success.
- 4) Trust- There is history of corruption in Cameroon and low trust in farmer organisations. Trust is essential within networks. A network should cope with farmers that don’t see the importance of sticking to their agreement and besides often put

themselves in the first place. Commitment will grow as farmers start to realize that upgrading through concerted action in the chain is a necessary condition to increase their productivity and income. Farmer organisations exist to create common gain. To create faith examples must be set to those who don't stick with the rules, are corrupt or dishonest. Not placed in the right perspective opportunism can ruin projects and business opportunities

C) How to give support to small scale farmers?

There are three main domains on which an innovation network can give support:

- 1) Knowledge transfer- The partners in the network help the farmers in tackling their weaknesses by launching relevant learning processes and adaptive behaviour that lead to a viable organization. But with that, farmers should set themselves challenges to improve their production from cocoa and potential revenue from other crops. At this moment the farmers in the project are still too dependent on their cocoa income. The help of a network is indispensable for starting farmer organisations in upgrading themselves to exporters. It gives them possibilities to control a bigger part of the supply chain and to produce and sell high quality cocoa beans.
- 2) With financial advice and support from an innovation network farmers can write a realistic business plan. This will broaden their chance to get access to formal credit. The network can support in finding back-up and/or guarantee fund for working capital that is needed in a cocoa business. At this moment only 7 percent of the farmers have access to formal credit. Furthermore farmers can be stimulated to open a bank account. The idea of capitalisation should be stimulated as well. Enough cash-flow, some assets, own capital and a good business plan can build in more securities for a bank to provide formal credit.
- 3) Tangible support- Farmer organisations can profit from participation in innovation networks due to financial support with (huge) investments that are deemed necessary to make a professional start. Together with the advice on how to manage and monitor these assets this provides a unique chance to run a better cocoa business. The donor dependency syndrome can be avoided by actively involving farmers in decision making. By putting for example new vehicles as a pledge to the bank when farmers can't repay their debts creates more ownership and responsibility.

Conclusion

Networks that exist of public-private partnerships are mostly needed to be granted with a subsidiary. The availability of donor funds and in-kind contributions of the industry, that need not to be repaid, matches the pioneering and piloting nature of the project. The way the partnership has been set up for the Upcocoa project is a real innovation. The partners involved in the project cover the whole cocoa supply chain, from farmer to product manufacturer even including a financial institution. Moreover it is innovative that the project integrates two projects that reinforce and strengthen each other. The focus of the project has clear economic priorities and it addresses problem areas of production, logistics and sales.

The help of network partners is indispensable for farmers to change the current structure of the marketing chain. With advice and support of the network, farmer organisations can control a bigger part of the supply chain. If done efficiently, this generates extra profit, what directly influences the income of the small scale farmers. When this project within the next two years can be evaluated as a success this means that at least 1600 farmers will have upgraded their livelihoods.

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Abbreviations

- CICC: The Cocoa and Coffee Inter professional Board
CIG: Common Initiative Group
CSR: Corporate Social Responsibility
LVN: Dutch Ministry of Agriculture (Ministry of ‘Landbouw, Natuur en Voedselkwaliteit’)
MDG: Millennium Development Goals
NGO: Non Governmental Organisation
NIS: National Innovation System
NCCB: The National Cocoa and Coffee Board
ONCPB: The National Marketing Office for Primary Commodities (abbreviation in French)
3P's: People Profit Planet/ triple bottom line concept
PPP's: Public Private Partnerships
SLF: Sustainable Livelihood Framework
SRL-model: Sustainable Rural Livelihood Model
UCOPROC: ‘Union des coopératives des cacaoculteurs du centre’
UN: United Nations
USDA: United States Development Aid
UPCOCOA: 4- year project in Cameroon with small scale cocoa farmers
WCDE: World Commission on Environment and Development

1 Introduction

In 1987 the report ‘Our Common Future’ placed environmental issues firmly on the political agenda. It is also named the Brundtland report, named after the man who chaired the World Commission on Environment and Development (WCED) at that time. The report had an important conclusion that global problems, like environmental and development issues, were caused by poverty in one part of the world and non-sustainable consumption and production in other parts of the world. It addressed the vital need for the active participation of all sectors of society in consultation and decisions relating to sustainable development.

Since the year 2000 the interpretation of sustainable development is influenced by the UN’s Millennium Development Goals (MDG). The MDG give the world a common agenda and are therefore an important milestone. The MDG have a strong focus on issues like poverty, education and public health in the developing world. The goals lead to practical links between issues such as environmental sustainability, sustainable access to drinking water and sanitation. Agriculture is both a contributor to the goals - as it is a basis for living, health and income -and a culprit when it comes to soil degradation, competing use of water and deforestation. This means that balanced and transparent policy choices have to be made considering possibilities for incremental improvements as well as radical innovations. The broad scope of sustainability that the Millennium Goals entail, however, does not take away the need for focus and setting priorities in concrete projects. Especially poverty reduction at the grass roots’ level requires clear economic priorities geared at sustainable flows of incomes.

The Millennium Goals plead for a partnership between the rich and poor countries to make progress in attaining them (in 2015)¹ both by incremental improvements and innovations based on prevention. Reaching this requires not only careful management of existing resources but also real social innovation in the way the many small-scale farmers make a living and increase their wealth.

More than 50 percent of the population in developing countries lives in rural areas, where poverty is most extreme². Many of them are small-scale farmers. Despite of urbanisation, this situation is expected to hold for many years to come. Therefore, agriculture by small-scale farmers is central to rural development and rural poverty alleviation³.

Sustainability in agriculture to improve the livelihood of farmers requires a multi-level, multi-aspect and multi-actor approach.⁴ Direct relationships throughout the supply chain are important, like farmers that are in contact with the industry. These sector-supply relationships have an important impact on the sustainability of farming systems because they should involve biological, technical and social factors. That is why this thesis focuses on sector-supply chain relationships that can influence the livelihoods of farmers.

¹ See www.undp.org/mdg.

² World Bank, 2008

³ Hazell et al., 2007

⁴ Adey, 2007

This thesis is concerned with how networks can give **support** to **small-scale farmers** in their struggle to improve their lives and **welfare**. The welfare of farmers concerns aspects like income, education etc. It is important to know the livelihoods of farmers and all **factors** that can influence that. For that purpose, use has been made of the concepts of sustainable development and Sustainable Rural Livelihoods.

Furthermore, from a sector-supply perspective, this thesis aims to develop a sound judgement of the **challenges** that **corporations and other organisations** will confront when embarking on projects that intend to give support to farmers. When organisations focus on sustainability in their supply chain they are dependent upon their networks with partners, such as the farmers themselves, but also government organisations and other actors. These networks play an important role in the success of their CSR projects. In the case study in Cameroon collaboration is seen concerning the whole supply chain, from farmer to final manufacturer. This is new, therefore we call this an **innovation network**. With this thesis we can see what we can learn from these innovation networks.

The following research question is therefore formulated:

How can innovation networks within the supply chain promote welfare amongst cocoa farmers?

The research question is divided into three sub questions:

- a) Which factors, that can influence the livelihood of small scale farmers, are seen in Cameroon?
- b) What challenges can be seen for corporations and other organizations within an innovation network?
- c) How to give support to small-scale farmers in Cameroon?

These (sub) research questions will be examined by means of a case study in the **cocoa sector in Cameroon**, involving eight cooperatives within the UPCOCOA project (see 1.3).

1.1 Significance of the Research:

The closure of the gap between sustainability and actual poverty is widely recognised as an outstanding policy issue for governments, development NGOs and companies in international supply chains. This thesis explores various ways to promote small-scale farmers' business involving different partners, in particular, private corporations and NGOs.

In general, trade liberalization and globalization offer new commercial opportunities. However, beneficial use can be made of them only if trade partners find ways to be competitive by controlling larger parts of the supply chain. For small-scale farmers, meeting this requirement is far from easy. Especially in the initial phases of managing to do so, it seems that collaboration is a necessary condition.

The call for sustainability and corporate social responsibility is still being heard. The problems around the climate change and the worldwide poverty issues made them up-to-date (again). An important part of the sustainability problems concern the international agricultural chains. These agricultural chains link rich and poor countries via business conventions. A huge part of the poor are small farmers, they are suppliers of big international multinationals. First of all the goal of fair, or honest, trade is to create markets that recognize the state of smallholder farmers in developing countries. Besides that, the goal is to adjust the situation by

interfering in the process of farm income determination and changing the current structure of the marketing chain. One approach could be to make the firms further up the marketing chain responsible for the livelihoods of those that are furnishing the fundamental inputs for the firms' final product. Another reproach that may have the intended effects is project-oriented aid, paid for with profit of cocoa processors and/or chocolate manufacturers⁵. Upcocoa has this kind of approach, and could therefore serve a perfect study ground.

1.2 Contribution of this study

Shapiro (2004) did a research on 'public/private partnerships in agro forestry, with emphasis on improving sustainable cocoa. He states that in a relatively very short period of time (a little more than a decade) considerable progress has been made to recognize and develop programs to sustain the economic, environmental, and social aspects of cocoa. He ascribes the existence of these integrated, holistic programs to the unprecedented cooperation among diverse stakeholders. The programs not only attribute to ensure cocoa sustainability but they give farmers and farming communities the power to be an engine of economic development. They even can be seen as a model for other tree crops⁶. The access to data from the Upcocoa project will corroborate the research results find by Shapiro.

Shapiro further states that the cocoa public/private partnerships in place now can set the standard for other similar types of activities that combine science, public policy, finance, and business best practices. By lifting up the economic viability of cocoa producers – and ultimately other tree crop producers in some of the poorest developing countries – Shapiro states it is possible to build the kind of supply chain and institutional frameworks that engage all parties in providing any proven economic, environmental and social infrastructure.' In this research the opportunities and threats of these innovation networks are being examined.

1.3 Background of the Upcocoa project and cocoa in Cameroon

Market perspectives for cocoa are positive in light of worldwide population growth and economic expansion in emerging economies. Next to cotton and coffee the supply chain of cocoa raises lots of interest.⁷ The reason for this is that negative environmental and social impacts are most appalling in these chains. Cocoa is grown for nearly 70% in West Africa. About 40 to 50 million people worldwide depend upon cocoa for their livelihood. There are some 5 to 6 million cocoa farmers⁸. '*Conditions of some cocoa farmers are sometimes sub-humane, there is no water, electricity or roads.*' As can be seen in appendix 5 Cameroon's production covers 5% of the global production. It is the fourth largest cocoa producer in the world. The overall land used for cocoa farming in Cameroon is roughly 420,000 hectares. The Upcocoa Project in Cameroon is a four-year project that works with cocoa farmers. It started in October 2006. The project involved initially eight cooperatives and about 1600 farmers. The main goal is to improve the farmers' capacities from an entrepreneurial point of view. Improvement lies in the way the cocoa cooperatives are organized and work together. This new structure can increase their livelihood and promote welfare under the farmers involved. Figure 1 shows the project structure. More project details and the sites of the farmer cooperatives can be found in appendix 4.

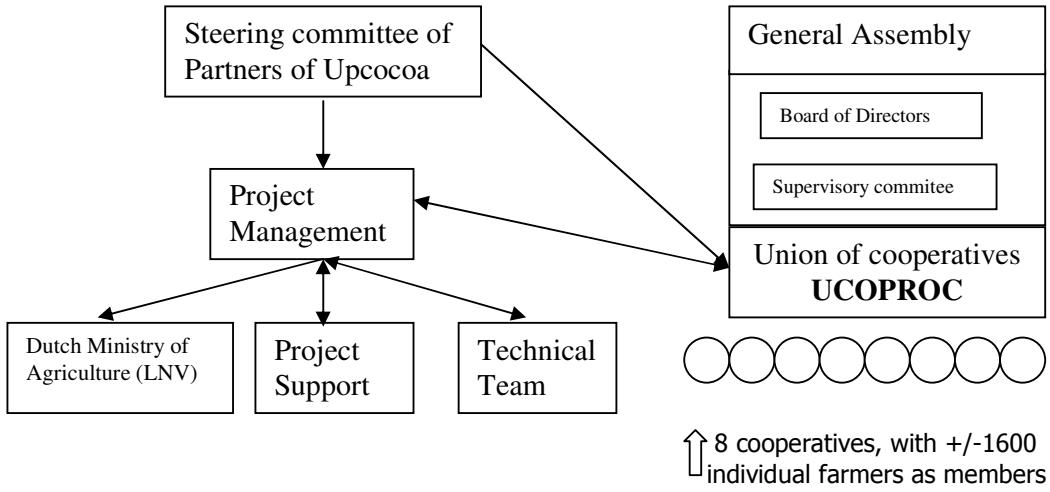
⁵ Abbott, Wilcox 2005

⁶ Shapiro, Rosenquist , 2004

⁷ Blowfield, 2003

⁸ For more cocoa facts, see appendix 5.

Figure 1 Project structure Upcocoa



1.4 Overview of this thesis

This thesis aims to investigate how innovation networks within the supply chain can promote welfare amongst cocoa farmers. Chapter two describes relevant literature that can provide a better understanding in sustainability and the aspects that influence the livelihoods of farmers. Chapter three describes which methods have been used for this research. Chapter four provides results. It shows insight in the presence and absence of factors that are important to improve the livelihood of small-scale farmers in Cameroon, based on the Focused Sustainable Livelihood Framework described in figure 3. It describes in broad outlines the challenges that organizations within innovation networks have to cope with, and the way support can be given from innovation networks to promote welfare amongst small scale farmers. In chapter five the research will be discussed. Conclusions and suggestions for further research will be given.

2 Literature

This chapter discusses some of the most important literature with respect to farmer livelihoods. It describes how this existing knowledge can contribute to my research question on how innovation networks within the supply chain can promote welfare amongst cocoa farmers.

2.1 Livelihood Models

In the course of time the well-known triple-bottom-line concept for sustainable development (Profit, People, Planet) has evolved into a five-capitals model⁹ (natural, social, human, physical, and financial). The term ‘capital’ reflects to the capacity to generate a flow of benefits which are valued by humans.¹⁰ The five types of assets are involved in the systems of food production and consumption. Therefore, moving towards sustainable supply chains requires a management of positive effects on these capitals, while deleting the negative ones.

The five capitals are:

- **Natural capital:** it represents the environment and the assets it provides. Two types of assets can be identified: the natural resources (renewable or not) and the services (the natural processes such as climate regulation, nutrient cycling and fixation, carbon sequestration etc.);
- **Social capital:** it comprises the whole set of social relationships and structures that can exist between people. Social capital is the development of people’s full potential and the enhancement of their cohesiveness, such as families, communities, schools, businesses and governments.
- **Human capital:** consists of all the knowledge, emotions, skills, culture and other capacities that any human can bring to relationships and that contribute to its well-being;
- **Physical capital:** draws together every human-made material assets such as machines, technologies, buildings, roads and other forms of infrastructure;
- **Financial capital:** is a concept representing the value of the four other capitals through any liquid assets, for example sales, shares, grants and subsidies etc.

This 5 capital model¹¹ has enhanced the knowledge on what is needed to reach sustainability in productive activities. However this model is still rather static and does not explain how to deal with dynamics that determine the failure and success of sustainable livelihoods and innovation networks. The framework below can provide more insight in this.

The Sustainable Livelihood Framework (SLF)

The Sustainable Livelihood Framework (SLF) is built around the five principal capitals. (see figure 2). A Sustainable Rural Livelihood approach focuses on a dynamic analysis of the various capital assets, and aims to discover and define strategies to support sustainable livelihoods.¹² A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable

⁹ Forum for the Future and Porritt 2005

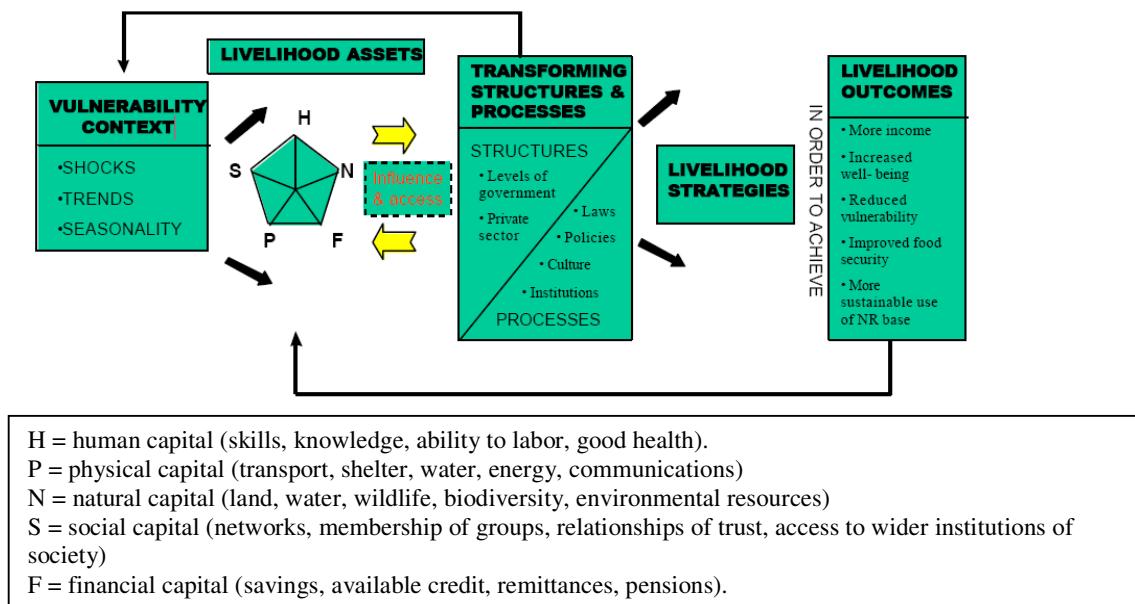
¹⁰ Porritt, 2005

¹¹ Also used by Department For International Development (DFID) UK, for their work on sustainable livelihoods, and by Water UK and a growing number of commercial and public sector organisations.

¹² Dose, 2007; Scoones, 1998.

when it can cope with and recover from stresses and shocks (like earthquakes or deceases), maintain or enhance its capabilities and assets, while not undermining the natural resource base".¹³

Figure 2 Sustainable Livelihood Framework (DFID '99)



An important part of the analysis when using this framework is to find out people's access to different types of assets and their ability to put these to productive use. The framework offers a way of assessing how organizations, policies and institutions shape livelihoods. This is done by determining who gains access to which type of asset, and by defining what range of livelihood strategies are open and attractive to people.¹⁴ It is also used to analyze ongoing programs and makes them more sensitive and responsive to conditions of the poor.

The value of using a framework like this is that it 'encourages users to take a broad and systematic view of the factors that cause poverty — whether these are shocks and adverse trends, poorly functioning institutions and policies, or a basic lack of assets — and to investigate the relations between them. The aim is to develop an accurate and dynamic picture of how different groups of people operate within their environment'.¹⁵

Besides more or less static factors - such as country, age and gender - the vulnerability context is influenced by dynamic factors such as shocks, seasonality and trends.

Although the SLF points out the importance of networks it does so in a limited way. That is, it does not address the importance of the interaction and communications between networks.

But there is much evidence internationally that a firm's competitive advantage increasingly lies outside the firm itself¹⁶. The National Innovation System (NIS) approach does address the

¹³ Chambers & Conway 1992

¹⁴ Carney, 1998

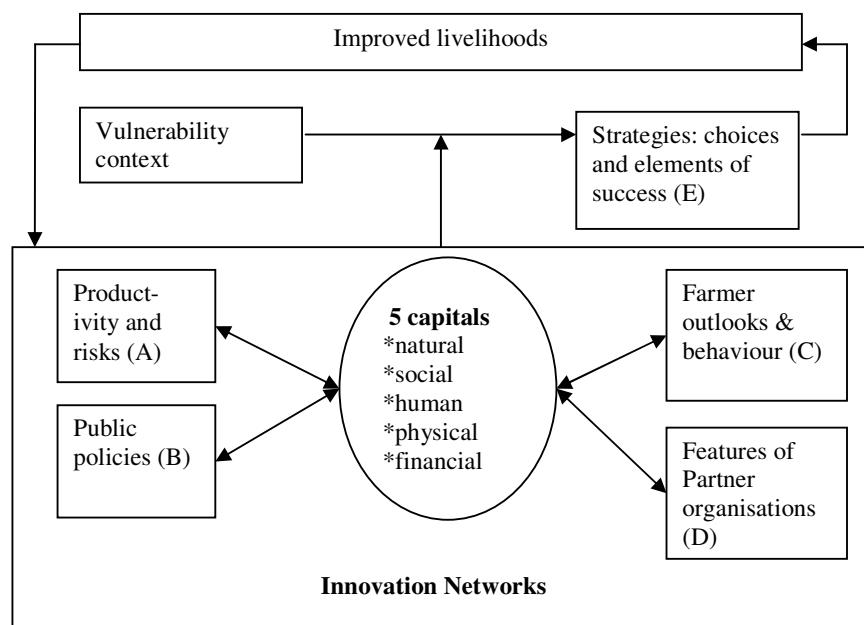
¹⁵ DFID, Department of International Development UK, 1999.

¹⁶ Farfas, 2004.

importance of networking. They claim that innovation is about collaboration and the exchange of knowledge between organizations in both the public and the private sector. A change of agenda therefore is that this thesis links the SLF with the concept of innovation networks to promote welfare amongst cocoa farmers in their livelihoods.

Two things are important in an innovation network to be successful. All technology providers should cope with a lack of contextual knowledge and there should be awareness of a limited absorptive capacity exposed by the key actors. Obstacles like insufficient awareness, little willingness to cooperate, weak mutual ties between partners or obstructive governmental regulations should also be taken into account within innovation networks¹⁷. Elements found in the literature that will influence the impact of the network are for example productivity, public policies, farmer behaviour and features of partner organizations. The elements will be discussed below. With all of this information taken into consideration a careful given consideration about the strategy to use in a project can be chosen. That will have the goal to improve the livelihoods of farmers. Figure 3 shows this focused SLF.

Figure 3 Focused Sustainable Livelihood Framework



¹⁷ Farfas, 2004

2.2 Elements influencing the impact of innovation networks

The focus of this thesis lies within innovation networks. As can be seen in figure 3, the focused sustainable livelihood model, there are several elements within an innovation network that influence and interact with the five capitals and thus indirectly the livelihood of small-scale farmers. Elements like the features of the partners within a network, farmer behaviour, and public policies shall be looked at in more detail in this paragraph.

A) Productivity and risks

Productivity is seen as the main key to growth and poverty reduction. There is a strong relationship between poverty and low productivity in agriculture¹⁸. Increased food production creates new employment and income opportunities for both the rural and urban poor. Better food increases the health condition of the farmers and their families, which adds to economic well-being through more productive labour and less health care bills. Commercial problems in African agriculture are frequently associated with an insecure world market. For a long time, lowering food prices was a general trend. This situation has changed; now food prices tend to increase (with casual fluctuations, though). Food security (daily meals) has (again) become a serious third-world issue. African farmers can only benefit from favourable food prices by increasing their sales, but this will require more determined efforts to increase productivity and boost food production.¹⁹

Working on productivity cannot be separated from a variety of risks such as biological risks (e.g. viruses, fungi and locusts), political risks (government interference; political violence) and economic risks (markets, prices). Also ecological risks (soil fertility and climatic change) and social risk like (lack of safety, HIV, civil wars) frustrate positive developments.

B) Effective public policies and strategies

Poverty reduction and economic growth require a multi-faceted approach. Effective public policies will entail large and small firms, agriculture and other sectors, domestic markets and export markets, infrastructure and education, etcetera.

Governments in many developing countries have strongly reduced their involvement in the way agriculture is organized and managed. Large schemes (e.g. in rice production) and all kinds of intervention have either been abolished or are in dire straits. Because of conditions of increased market liberalization (resulting from less government intervention), power in the supply chains has shifted towards processing and retail companies, both nationally and internationally.

Although no one will regret the disappearance of ineffective government interventions, new institutional forms have emerged which are not necessarily beneficial to small-scale farmers. Countervailing action is needed to give the small-scale farmers an equal-level playing field. First of all, governments have to play a role in creating precompetitive²⁰ conditions which enable small-scale farmers to become serious trading partners. Within such a framework of equity and growth elements like macro-economic stability, public goods (good roads, rural

¹⁸ Hartmann, 2004

¹⁹ Wiggins & Levy, 2008

²⁰ 'Precompetitive' here refers to activities aimed not at producing or selling products, but rather at providing the means (facilities, information, capacities) that enable others to effectively produce and sell

education), good governance for agriculture and rural development (resolution of land issues, good laws, and fair licensing procedures) and improving the market system (credits, facilitation formation of farmer organizations) seem relevant on the policy agenda²¹.

C) Contextual factors of farmer outlooks and behaviour

There are three contextual factors that need to be taken into account when designing and executing effective partnerships.

Structural lack of finance

Poor households in rural areas in developing countries commonly have severely limited access to financial services (credit and insurance). This has a major impact on their economic behaviour. They may decline income-generating opportunities just because they need immediate cash to keep up their daily lives. This may become visible, for instance, by leaving part of their land unused, because they cannot spare the money for buying inputs, or by preferring their children working on a nearby farm (and getting paid in cash straight away) to taking care of their own land. They also may object to cash receipts at a later date than usual even if this means letting go much higher returns. According to Barrett (2007), the consequences of no access to financial services create seemingly significant inefficiencies in resource allocation. However, such decisions need not be inefficient from the poor farmer's point of view.

Low trust

It is recognized that trust in society is a basic ingredient of successful modern economies and essential to create wealth. It is related to virtues like honesty, the keeping of commitments, reliable performance of duties, reciprocity, and the like²². However, norms of trust may create problems in the wider society if they only apply internally. Collaboration based on partnerships becomes problematic. Besides, recent histories of many developing countries show a structural lack of good governance (corruption, lack of guaranteeing human rights, lack of independence of the judiciary, marginal roles of women, inefficient policies). This situation results into a low-trust society, which is characterized by high transaction action costs (requiring difficult-to-get third-party information, detailed contracts and strong controls).

Donor-dependency syndrome

All development projects run the risk of contributing to the donor-dependency syndrome. In the past people received aid money without much commitment. Therefore, they are used to expect new initiatives to solve their problems from outsiders, while the will-power to change for the good tends to remain weak. New projects mean new short-term cash flows, irrespective of their developmental impact on the longer run. The donor-dependency syndrome is a vicious circle. Many donors and/or projects continue to hand out donations, like for example agricultural input packages. Supply-led donor programmes have also resulted in projects where detailed reports or documents, rather than results on the ground, are regarded as the ultimate products or outputs.

In general, to fight or prevent the syndrome from being active, it is deemed necessary to create a sense of 'ownership' and responsibility so that the farmers feel it is their own project

²¹ Hazell e.a. 2007

²² Fukuyama, 1999

and not primarily the beneficiaries' project. To reach that, it is imperative to actively involve the farmers in the decision-making while they must make a real contribution to a project, in money or in kind.²³ Such a bottom-up approach takes longer to implement, what may therefore withdraw donors too prematurely.²⁴

D) Features of partner organizations within an innovation network

Different organizations can be spotted as potential partners in an innovation network.

Institutional organizations are needed to overcome market failures that small-scale farmers confront. Partnerships might compensate for the weaknesses associated with lack of good governance in the public domain. Innovation networks can help building up the insufficient capacity of farmers, leading to more professional ways of operating. If done well, this will lead to forms of chain integration that are beneficial to both upstream and downstream actors in the chain. Often farmer cooperatives, NGOs and large industrial companies participate in partnership-based upgrading projects.

Cooperatives

A cooperative is a private economical enterprise, which should not have political or social goals. It should respect internal business principals like services against cost price, self-financing and allocation of revenues and costs according to the proportionality principle. Since cooperatives are democratic organizations and owned by those who use the services, they are an ideal instrument to empower the poor.²⁵ It is an instrument of farmers to integrate in the market economy. Besides they can fill market vacuums where profit oriented firms are not willing or able to develop business.

Despite failure in the past, cooperative action is frequently seen as the best way for small-scale farmers to serve their interests. In the sixties and seventies in many developing countries 'cooperatives' were most of all instruments of governments to structure the economy according to central-planning and anti-market principles (together with large state-owned schemes and central marketing boards). However, in later periods cooperatives -especially African ones- have been associated with failure as economic organizations. Van Diepenbeek (2007) points at different possible causes, such as a lack of experience in producing for the market on a structural basis, land tenure issues, a lack of credit (which may relate to unclear land titles), a lack of institutional environment needed for commercial farming, a lack of good governance and lack of a stable government.

Despite the challenges from the past, the potential benefits of cooperative action for small-scale farmers have kept them on the development agenda. Internationally there is attention to run 'cooperatives for the poor'.²⁶ The cooperatives are seen as a place to combat poverty, but the effects are easily overestimated. However a vast majority of cooperatives can't meet the requirements of the industrial organizations and inevitably will remain poorly organized. The reason for this lacking organizational capacity lies in the fact that its members lack literacy and the required capital within their membership. Therefore cooperatives can not build up equity, nor can become creditworthy, or invest, hire professional staff etc. To change this, cooperatives should create volume of production and introduce and implement farm management, which is necessary to integrate production effectively into supply chains. Being a member of a cooperative makes a farmer less vulnerable to the local private trade. To

²³ www.scn.org

²⁴ Food and Agriculture Organizations of the United Nations (FAO)

²⁵ ILO-ICA,2005

²⁶ COPAC 2007

comply with the requirements of industrial organizations and to achieve the necessary economies of scale, cooperatives should establish a two-tier, local-to-central structure. In this way the cooperatives can have a future in the globalization of markets.²⁷ Where these conditions cannot be easily fulfilled, partnerships with actors in and/or outside the chain may be a way to compensate for these weaknesses and launch relevant learning processes that eventually lead to viable organizations.

NGOs

In partnerships NGOs often play a crucial role. They can provide the services to the farmers that they need on a not-for-profit basis. Both local and overseas, NGOs are available for capacity building, training and guidance. Often NGOs also play important roles in attracting grants and subsidies. Special development aid programs exist to build up local NGOs as facilitators and advisors of farmer organizations. A limiting factor here is a strong dependence on foreign donations and subsidies. Duration and contents of a project are highly dictated by the donated budgets. Moreover, as there is a general lack of experienced senior consultancy capacity in Africa, NGOs do not always succeed in handling projects effectively.

Large companies

Since the 1990's large companies are making a difference to society.²⁸ The emergent integrated chain management shows that businesses feel also more responsible for what others in the chain do.²⁹ They try to diminish the environmental and social aspects of their products from the beginning until the end. Their activities try to positively impact the world's ecology and the lives of producers in the chain and beyond. Besides, for their self-interest, they seek a sustainable supply of commodities that their production processes are dependent on, both in terms of a "license to produce or buy" (e.g. food safety) and a sustainable use of natural resources.

The demand-side of the supply chain is important too.³⁰ The consumer now demands chocolate with a higher cocoa content that meets social, ethical, environmental, food safety and/or economic standards of sustainability. Besides the consumer wants to be sure that the cocoa has provided a better income to the farmers. These aspects are seen as matter of faith, whilst they can not really be seen by the consumer.³¹ That is why certifications and independent labels are becoming more important in the consumer market.³² One way to meet the consumer demands is to set standards in the world cocoa economy that tackle the social, environmental and food safety issues. There are two approaches, on the one hand non-competitive approach (how to improve the cocoa sector without being competitive) but on the other hand there are more competitive initiatives (certificating standards) originating. An example of competitive approaches is 'Utz certified good inside', examples of a non-competitive approach are the World Cocoa Foundation, the Round Table for Sustainable Cocoa Economy or the International Cocoa Initiative that certifies countries on child labour. (More details see app. 6).

²⁷ v. Diepenbeek, 2007

²⁸ Van der Putten, Crijns, e.a. 2004

²⁹ Holme and Watts, 2000, Wolters, 2003

³⁰ Roome 1998, Welford et al 1998

³¹ Nelson, 1970, Darby and Karni 1973

³² Belz, 2004

E) Strategic choices and dilemmas

A project that deals with partnerships will most likely encounter complex situations that require adequate problem solving aspects. For some problems there are logical answers, based on previous experiences. For instance, there are established ways to address accounting and quality management issues. For other problems there is no definitive solution. Within this context, strategies are recommended to be based on genuine consultations with stakeholders, making use of the best of their knowledge and acquiring their support for certain (perhaps ad hoc) strategies.³³ But “even in the best cases, however, one should not expect a completely smooth ride, because new roles take time to learn, old habits and mistrust persist, and some institutional experiments are more successful than others”.³⁴

Basic choices in a partnership-based project

Public-private partnerships (PPPs) are now a common strand of government policy. This means the government likes direct investments of the industry in projects. An important reason for this is that private funding of public projects promises better efficiency of the project. A second reason is that public-private partnerships transfer risks to private parties.³⁵ A project initiator should therefore think well which partners to invite in the innovation network. Two sorts of partners can be distinguished within a project. First there are partners that are paid directly by (public) funds. Second there are partners that invest themselves in a project via match funding agreements. This means they are committed to finance or contribute to the eligible costs of a project. It could be actual funding in hard cash, or in-kind funding, which refers to any service or product which is provided free of charge. It could cover the donation of equipment, materials and resources. Good detailed agreements on the actual contribution and risk management should be made before a partnership should start.

With the partners in an innovation network it should be decided what the role of the partnership involvement is toward the farmers, especially regarding critical issues like sales and financial management or defining the conditions (that the market requires). Besides that, partners should choose the right amount of time for a project to be a success. There should also be a consideration between developing new market channels based on high value-added products (such as exports) or starting with established domestic markets. And the question about what elements should be the tackled first? Should a project create a feasible economic process that takes care of a basic income and contributes to food security, or should it at the same time address sustainability issues like soil and water pollution, health and safety?

Accents of donor programs

Most donor funding programs are devoted to training, technical assistance, and capital investment. There is less money available to cover operational funds for research. Research within a project can however serve the project and serve the greater public interest. Research can help to find divers, dynamic and appropriate assistance and methods to improve farming. It is an important choice to include research in a project. Another choice can be restricting support to basic capacity building but leave the actual production and sales to the farmers. Other accents can be developing preferred-supplier arrangements, investments in equipment, extended quality assurance, planning arrangements or financing facilities.

³³ Camillus, 2008

³⁴ Hazell et al., 2007

³⁵ Prof. GA Hodge, 2004

Choosing the farmer group

The start of a partnership-based project requires preceding choices as to where to locate a project and which farmer groups to liaise with. Working with relatively successful farmers can open up new horizons (perhaps expecting a trickle-down effect), but involving the poorest of the poor may offer them new opportunities. Most development programs seem to benefit the already better-off people in a community.³⁶ The most vulnerable households may find it difficult to grasp new market opportunities. Even if they have the necessary information, they may lack the education, means and access to credit to start market-oriented activities. But in principle, poverty reduction requires reaching the vulnerable households. Besides that, to increase a project's chances of success it may be important to also include influential social individuals or groups, who are often already in the highest wealth category in a community.³⁷ To work with influential people is especially important if they are motivated not only to help themselves, but their community as well. Working with educated farmers could make sure that they will be independent after a few years working within the project. Whilst with a lower level of farmers there would probably be a need for longer support/guidance and training to keep them from falling back after the project stops. One needs to ensure however, that a farmer-based project does not become dependent on the benevolence of one or more local leaders. When a project is taking off, it is important for the project management to have direct access to the farmers, without interfering patronage of others. Where a project threatens the (perceived) economic interests of local leaders or businessmen, it may be necessary to reconsider the entire project. The size of the farmer groups can also be an important strategic choice. Do we start with a small number of beneficiaries -to keep management simple and to learn from mistakes with limited damage- and expand later or lies the choice within having economies of scale right from the start allowing to employ competent staff and buy suitable equipment.

Project success and failure

The complex nature of the kind of projects and strategies that are central to this thesis make it hard to judge whether a project is viable and eventually successful. The success of projects seems, however, dependent on factors³⁸ like the financial viability of the project and the way a project is defined. Further more the farmers' willingness to take own responsibilities and elements like sufficient management expertise in initial and operational stages play an important role. Good interpersonal relationships amongst collaborating institutions and target communities seem to be essential for project success too, just like the ability to influence people's perceptions via communication and behaviour.

Conclusion

In this chapter different significant elements of innovation networks that may influence the five capitals and the livelihood of farmers have been discussed. Elements like the features of the partners within a network, farmer behaviour, productivity and public policies. In chapter four of this thesis it will become clearer how these elements are present in the cocoa world in Cameroon. In this thesis I will map on basis of the Focused sustainable livelihood framework what challenges and support are of importance within the cocoa project in Cameroon. Based on these findings it will be noted how to upgrade the livelihoods of small scale farmers via innovation networks.

³⁶ KIT *et al.*, 2006

³⁷ KIT *et al.*, 2006

³⁸ FAO

3 Research Design

Research goal:

To find insight in how innovation networks within the supply chain can promote welfare amongst cocoa farmers. This thesis is based on both theoretical and operational triangulation.³⁹

Research method:

This research has special reference to a project with small scale farmers in Cameroon named 'Upcocoa'. The project consists of a partnership between different partners from the entire cocoa supply chain. Case studies, are designed to bring out the details from the viewpoint of the participants by using multiple sources of data.⁴⁰ The data in this research is collected on the basis of a case study.⁴¹ Case study is an ideal methodology when a holistic, in-depth investigation is needed.⁴²

Data source:

To gather information in this research, both qualitative and quantitative research methods have been used. The qualitative research was mainly with experts of the cocoa supply chain, and the quantitative research was held under farmers of the eight Upcocoa cooperatives. Talking to multiple sources adds confidence and strengthens the validity and stability of the findings.⁴³ Besides active observations and desk research have been used to gather information.

Below the qualitative and quantitative research are described in more detail.

3.1 Qualitative research method

The major reason to set up the qualitative interview method was to find in-depth expert knowledge on how innovation networks within the supply chain can promote welfare amongst cocoa farmers. The interview addressed issues like factors that can influence the livelihood of small scale farmers, challenges within organizations that are part of an innovation network, sustainability and the cocoa chain in Cameroon.

As proposed by Yin (1984) an interview protocol is used to increase internal, external, and construct validity. The finalized set-up is used in the execution phase to conduct a thorough investigation on different aspects.

Miles and Huberman (1994) recommend an iterative analysis process for qualitative data which includes data reduction, data display, and conclusion drawing. In the case at hand, data reduction is realized by analyzing each interview report, and searching for patterns and text fragments that can be coded in a meaningful way.

The number of interviews necessary for this study was determined by theoretical sampling⁴⁴ and may range between 4 to 10 interviews until theoretical saturation is reached.⁴⁵ This

³⁹ Glaser & Straus

⁴⁰ Stake, 1995.

⁴¹ Yin, 1984.

⁴² Feagin, Orum, & Sjoberg, 1991.

⁴³ Miles and Huberman (1994)

⁴⁴ Glaser & Strauss, 1967

⁴⁵ Eisenhardt (1989)

situation occurs when adding another interview makes incremental learning negligible and the companies under consideration repeat what the others have said.⁴⁶ It was important for this study to interview experts from different levels of the supply chain in Cameroon that can be involved in an innovation network.

Procedure and measurement

The main approach in this research was to conduct in-depth semi-structured interviews with key informants most closely involved with cocoa in Cameroon. The study at hand intends to investigate the opinion of a variety of companies all holding diverse positions along different supply chains (e.g. farmers, exporters, end-producer), so as to gain complementary insights which might reveal either convergent or conflicting perceptions among the participating companies.⁴⁷ In this study 15 stakeholders have been interviewed (for details see appendix 1). First of all the partners in the project were interviewed, besides that important players in the Cameroon cocoa supply chain has been asked to participate in this research. The interviews were mainly done in English. Some however have been done French, depending upon the language skills of the expert. The interviews lasted on average between one and two hours. Some of the interviewed people had double roles like exporter-cocoa processor or cocoa processor-chairman of a cocoa initiative. To have an idea of the background of the experts spoken to, it is important to know who I have spoken with. From the industry I spoke with four cocoa processors, one exporter and one manufacturer. I have spoken in depth with 3 chairmen of different cooperatives, who also have an important (management) role in the second-tier cooperative created within the project Upcocoa. I have spoken to two banks and three NGO's. Finally, I have interviewed one governmental organization and an international cocoa initiative. The reason these experts were chosen is that they are active in working directly with small scale cocoa farmers in Cameroon. The people from the industry buy or sell their cocoa. The NGO's provide them with knowledge and the banks help financing the cocoa production and marketing. This means that the experts have knowledge of the cocoa supply chain in Cameroon and the financial systems put in place for small scale farmers.

The 15 interviews with the different stakeholders in the cocoa chain in Cameroon have been held via the telephone (2), skype (1) or face-to-face. The interviews were based on a systematically determined set of questions (see appendix 2). The interview started with an introduction of the study and an introduction of the interviewed expert including the company name, function and the years of experience in the cocoa chain. All interviewed people had more than 10 years of experience working with small scale farmers and/or cocoa.

The interview started with an open question about how the expert defined sustainability, followed by a second question what the experts sees as important aspects of a sustainable organization. The expert was free to answer and talk about sustainability in cocoa and the role of small scale farmers and other partners in the chain. Depending upon the amount of information given by the expert, new questions were asked or the expert continued his view. The interviewer made sure that the main lines were followed and that at the end of the interview all items of the interview were covered.

In the interview different elements that can influence how innovation networks within the supply chain can promote welfare amongst cocoa farmers were addressed (see figure 3). The elements *productivity and risks* and *farmer outlook and behaviour* were addressed by questions as 'what are important elements to close the gap between a perfect sustainable

⁴⁶ Glaser & Strauss, 1967; Eisenhardt, 1989

⁴⁷ Eisenhardt, 1989

organisation and the present situation of many farmers?" "Can you describe the opportunities and threats of those elements?" "What is the influence of opportunism and what are the positive and negative influences of it on a sustainable organisation?" "What is to be done for farmers to gain trust and to stick to appointments within partnerships?" and "How should farmers be guided in a project?" Questions like "Can you describe the role of the government in Cameroon in regard to small scale farmers?" and "How do you see the role of the government within a project?" covered the element of *Public policies*. *Features of partner organisation* emerged with the introduction of the company and with questions like "How do you see the role of ngo's/ large companies in the project?" "What are the opportunities and threats for your partner organisation for working with a project as Upcocoa?"

The output of this information is used as input of the quantitative research. Besides the expert-quotes will be supporting quantitative data.

3.2 Quantitative research method

As a follow-up to the qualitative research I conducted a quantitative research. Based on the expert interviews and experience in the field, a questionnaire on all important farmer issues has been put together.

Procedure and measurements

The four page questionnaire was set up in French and includes questions concerning the five capitals. *Natural capital* ("How many cocoa plantations do you have? "How many hectares?" "How many trees? and "How many cocoa plantations are abandoned in your neighbourhood?") *Social capital* ("Which activities on the cocoa plantations are done by who- the farmer himself, his direct family, neighbours, immigrants and (own) children under 18-?" "Are these activities paid?"). *Human capital* (age, sex, marriage, number of children, education level, function in the cooperative). *Financial capital* ("Do you have a bank account?", "How do have access to credit?", "What was your income last year?", "What part of that was from cocoa?" "Where do you get credit if you need money?") *Physical capital* ("How close are you to a paved road?", "What assets do you own?" "What state are they in?"). Before spreading the questionnaire it was tested amongst 25 farmers from three different cooperatives. After that 400 farmers from eight different cooperatives (from each cooperative 50) have been approached for an interview on their current situation. The farmers were selected from different sections in each cooperative to have a good representation. Though the interviews results are kept anonymous, all names of the people are registered, so a future research can be deducted to compare and see possible improvements. The response was 97% (N=386). This response is so high, because it was an obligation for the cooperatives to provide this information as part of the research done within the Upcocoa project.

It should be noted that the 400 interviews have administered by different facilitators from eight different cooperatives. They were all instructed by the eight people that I instructed. This set-up might however have caused a higher non-response at some of the questions. This method was necessary how-ever to reach farmers in all sections from all cooperatives.

Furthermore it should be noted that it is difficult for farmers to make accurate estimations; they are not very high educated. Mathematics estimations, like percentages can therefore be difficult. Besides most farmers don't keep an administration on farmer level. Questions like "What was your tonnage?", "How many trees do you have on your land?" and "What was your revenue in the last year?" are therefore sometimes difficult to answer accurately. Besides the donor dependency syndrome needs to be taken into consideration. Some farmers might have

given answers that they thought could give them extra benefit from the project. For instance the small quantity and the bad quality of their possessions could be exaggerated. By looking at averages, also on cooperative level, it can be seen it didn't influence the results. By using results expressed in an index, the differences can be seen between the cooperatives as well (see appendix 8).

Excel was used for processing all information. The findings of the interviews help to provide inside into the current situation and features of the farmers and their cooperatives. In case there was no answer or an unrealistic answer (like 300% of my income derives from cocoa) a missing value sign has been used. These answers have not been used in the results. Even though not using the missing values seems doubtful in some cases. For example the question concerning the amount of subscribed and paid shares has a high non-response at some cooperatives (up to 98%) (see table 8). This might let you think a missing answer just means the farmers owns no shares at that cooperative. Only looking at the valid values might in this case give as biased view. But still it was decided not to use the missing values.

Validity of Instruments

The Upcocoa project is suitable as pilot study for cocoa farmers in Cameroon. The results obtained from this project can be well used for other multi-stakeholder projects and other commodities. The instruments used to conceptualize the findings were verified by different actors of the cocoa chain each with their own specialty. In this way it was sure that all necessary elements were taken into consideration to gather the best possible set of data. The questionnaire was tested before it was used on the experts to make sure that the questions were clear, unambiguous and not multi interpretable.

Secondary data sources

To increase the validity of the findings, I have also consulted other sources of secondary data. These include company websites, business reports, company brochures and field visits to eight cooperatives. Besides that I have spoken to three exporters that are active in Cameroon, two commercial banks, eight cooperative boards and general assemblies, eight cooperative managers and five cooperative chairmen and 25 farmers to gather information. In these conversations I talked about opportunities and threats of the project, the cooperation with the partners on the field, possibilities of cooperation with farmers and the strength and weaknesses of the farmer organizations. Besides I have 2.5 years experience in the cocoa field as project coordinator on the Upcocoa project. All this information has also been taken into consideration within this research.

4 Results

In this chapter I will present the findings of this research. They are based upon a case study in Cameroon amongst farmers, stakeholders in the Upcocoa project and other experts from the cocoa supply chain. The factors that influence the livelihood growth of the farmers and the challenges that can be seen for partners within an innovation network will be addressed. The question how to give support to small scale farmers will be answered in the next chapter with other conclusion drawn from this research. The findings are based on the elements of the focused sustainable livelihood model (figure 3).

Developments in the cocoa world

(Mainstream) certification will affect the livelihood of farmers. A lot of the advantages concerning (mainstream) certification concern the industry. According to the experts advantages like traceability (93%), better standard quality cocoa (75%) and guarantee towards final customer (53%) are important for the industry. Farmers will profit from certification with better price (80%) and better revenue due to more efficiency (53%). (Table 1) One third of the experts stressed the challenges within the aspect of mainstream certification. Being certified concerns a lot of rules (60%) and there are costs incurred in getting certified (53%). ‘*Do farmers think it is worth, to work harder and respect all kind of rules for a bit of extra money?*’ (20%) and besides ‘*Is there a guarantee for a premium when certain rules are mainstream?*’ (33%). The interviewed farmers are optimistic it gives trust in their product towards their clients.

Table 1 Mainstream certification influences the livelihood of farmers according to the expert interviews:

Industrial advantages	Farmer's advantages	Challenges
Traceability (93%)	Better price (80%)	Respect rules for extra money (60%)
Better standard quality (75%)	More revenue due to efficiency (53%)	Investing cost of certification (53%)
Guarantee to consumer (53%)	Secure social circumstances (60%)	Still premium with mainstream rules? 33%)

The role of the Cameroon Government

The liberalisation of the state cooperatives was the main factor in Cameroon to affect the livelihood of the cocoa farmers. The National Marketing Office for Primary Commodities, (ONCPB) controlled the marketing of cocoa, but when the world prices declined after 1984 the state failed to maintain producer prices, what created severe financial problems.

Therefore, in 1994 the government adopted a liberalized market system that became effective with the 1994-'95 season. This reform resulted in a significant increase in prices paid to the growers, product quality went down remarkably since the quality controls at the farm gate were abandoned. The farmers paid less attention to the processing of their cocoa, to take the opportunity to just sell quickly to local buyers. Other factors that influence the livelihood of farmers is that Cameroon is investment-unfriendly due to the slow procedures and poor good governance record.⁴⁸

The role of the government within an innovation network

The state can and must play a positive role in the development of cooperatives. One of the interviewed experts said: ‘*In Africa not much is working without the government interplay. They have means.*’ They stimulate farmers to join a cooperative with their special insecticides

⁴⁸ It takes on average 43 procedures, 800 days and 46.5% of the debt to enforce contracts in Cameroon (World Bank 2008).

programs, that only helps groups of farmers. However 80% of the experts interrogated for this research thinks the government should not be involved directly as a strategic partner with farmer organizations, but they play an important role to set rules and regulations on country level, that enables farmer organizations to work. At this moment two governmental institutes are involved with the cocoa trade: The National Cocoa and Coffee Board (NCCB), the Cocoa and Coffee Interprofessional Board (CICC). More info on NCCB and CICC in appendix 7. In spite of progress in various fields of public interest, there are major challenges for the government such as stopping corruption,⁴⁹ provision of effective rural laws for corporate and tax legislation⁵⁰. Important is for example that cooperatives can allocate their member-linked business surpluses freely to their members before they are subject to corporate taxation. Other challenges of the government could be to contribute according to capacity building, checking calibrations, a good infrastructure, subsidizing quality equipment, dryers or insecticide programs (see table 2).

Table 2 Necessary public policies and the challenges of the Cameroon government:

Country level policies	Cooperative level policies	Challenges
Re-introduce public training centres (60%)	Special cooperative programs (insecticides etc) (60%)	More attention to cooperative laws (80%)
Learn from neighbour countries (53%)	Check calibrations and evaluation systems (40%)	Better communication and planning of the cooperative programs (40%)
Investments: roads, security, no import tax, guarantee fund (93%)	Memorandum of understanding in a network but not a full partner (33%)	Stop corruption: some governmental representatives are too interested to work with middlemen (40%)

Cocoa in Cameroon: productivity and risks

Productivity

The liberalisation caused many farmers to just cut or abandon their cocoa plantations. It froze the cocoa development in Cameroon. A farmer organization, like the union UCOPROC, that was set up within the Upcocoa project, needs to sell a minimum tonnage to cover all necessary costs and to stay sustainable. Cameroon produced 187,355 tonnes in the 2007/08 season. In the first year of her existence the union UCOPROC collected around 525 tons via her farmers. Most of the farmers (87%) involved in the Upcocoa project are small scale farmers, with one or two plantation (see table 7). An efficient modern plantation is capable of producing around 1,500 kilos per hectare, but the cocoa farmers of the Upcocoa project are not capable of doing so yet. Their total average of cocoa production is 791 kg. The challenge for organisations within a innovation network is therefore to instruct and guide farmers on how to renew their plantations so they can improve their performance and yield. In 2007 36% of the farmers created new plantations (N=384). This number should go up every year.

Risks

There are some risks the cocoa farmers in Cameroon have to face. They influence their livelihood. They are discussed below:

⁴⁹ According to a survey conducted by Transparency International among domestic companies in Cameroon in 2006, corruption in the public sector precedes both the collection of taxes and the unreliability of the judiciary as being the single most important impediment to doing business. See: www.business-anti-corruption.com.

⁵⁰ Cosmas, 2005 and interviews

Ad a) Quality of the cocoa

Cameroon had one of the best cocoa beans in the world. Cameroonian cocoa has always commanded a premium because of the high fat content and the reddish colour, which are highly valued by many processors. Around 1993 over 500 exporters were active into the country. '*A farmer was in front of 10 buyers all in a rush to get cocoa. That made both the farmers and the exporters not care about the cocoa quality anymore.*' Good and bad quality were mixed resulting in a poor product quality. Because of this poor product quality the special premium practically disappeared. Soon after the 1994 reforms the number of exporters dropped dramatically. Two foreign-linked companies handled about 80 percent of all exports leaving around 15 percent for the local processing factory and around 5 percent for the remaining local exporters. Later on, the overseas cocoa industry started to re-emphasise the importance of product quality. To get back to the ancient quality level seems difficult for the farmers. The challenge for innovation networks is to change the attitude of farmers selling even a bad quality of cocoa. They challenge is to let farmers understand little by little they need to have a basic quality to get a better price for their cocoa. In Cameroon there are Farmer field schools (FFS) to give technical assistance with this. It will help providing knowledge on farmer level about good ways to harvest, dry, ferment, stock and transport their cocoa. Furthermore it is a challenge to raise awareness about the necessity for separation of high quality beans to receive a premium.

Ad b) Rainfall

Cameroon has different agro climate zones in the south west and the centre. That makes the cocoa market in Cameroon more complex. In the south west, the focus of farmers is mainly on cocoa. In the centre there is more diversity in crops and trees. This is partly caused due to the more rainy climate in the centre. The rainfall here makes it more difficult to dry cocoa. It is a challenge for the organizations working within innovation projects to think about different models of drying cocoa to help these farmers. It should be known that when no good drying methods are available farmers can choose to dry the cocoa on a fire, this method brings a risk of a smoky taste in the cocoa, what will decrease the quality and price. The Upcocoa project is therefore providing dryers on cooperative level to help them improve their cocoa humidity levels. Dryers on cooperative level can be handy, but it is also a challenge to make cooperatives aware of the cost-revenue effect of dryers. Therefore other drying methods are also regarded in the project.

Ad c) Lacking knowledge and challenge to improve

Cacao is one of the most important cash crops grown by Cameroon farmers. In all there are approximately 500,000 cacao farmers in Cameroon. Throughout Cameroon, there exists no real cacao farmer extension service although it might prove useful. The government looks at the possibilities to revive it. The problem that African farmer organizations are facing is that they mostly don't set themselves any challenges. "*They don't know it is possible to do better*", one of the experts of the industry says. Most farmers use old systems and methods and the access to improved varieties is low. 68.8 Percent of the Upcocoa farmers mainly use planting material from existing cocoa plantations (see table 7). The effect is healthy trees, that don't give a lot of cocoa. The cause of this is mainly that farmers do not have the resources or sometimes miss the expertise to successfully produce high quality cacao. The challenge is therefore within partnerships to teach the farmers methods to improve their production, like 'grafting': cutting of a young shoot of a tree and plant that in an existing bark or a tree.

Ad d) Good balance between demand and supply of cocoa

Both the industry and the farmers are profiting from a good balance in the world between the volumes of the cocoa produced and the cocoa needed. When there is too much, cocoa prices come down, and with low prices there is a chance cocoa farmers shall change to another crop to earn their money. When there is too little cocoa produced, the prices are too high, with a risk of chocolate- being a luxury good- getting too expensive for the end-consumer. And besides, a high price will encourage farmers to plant lots of cocoa again and over time there will be too much production again. The challenge is to avoid boom-bust cycles like this.

Trying to stabilize the cocoa prices has also created possibilities for launching a project like the Upcocoa Project. Its financial source is the Cocoa Buffer Fund (administered by the Netherlands Ministry of Agriculture), which is a reminiscence of the times when internationally policies were in place to stabilize cocoa prices. When the fund was no longer in use, it was decided to use the remaining money for cocoa projects.

Table 3 Factors of importance to a sustainable business based on expert interviews:

Business aspect	Human aspect	Challenge
Profit, cost management, transparency of costs (93%)	Capacity building/education (100%)	Set rules and regulations to monitor the business
Critical mass (86%)	Ownership, loyalty and trust (86%)	Don't mix politics and solidarity with business
Leadership and vision (86%)	Fair income and service to farmer (86%)	Convince farmers to join a cooperative, they are doubtful
Financial means (investments and capitalization) (86%)	Active members (80%)	Good payback plans for loans
Good structure (67%)	Communication (67%)	Set examples, show pilot plantations to farmers

Ad e) Farmer organisations: economic reasons versus solidarity and politics

In primary agriculture there is perfect competition, free entry to the market, nobody to excess profit or have economical powers. But in the rest of the chain there is no perfect competition. By creating a cooperative, farmers can have economical power, via forward integration. A business vision, transparency, a critical mass to function and a fair income for the farmers are the basic challenges to be faced in the innovation networks (table 3). '*If you are badly organized competitors will take over*'. The farmer organizations can be thought by the network partners that they should function on pure economical reasons. "*Solidarity and politics can not be a part of it*". Collecting a high volume of cocoa and creating a central collection network is important. Besides there should be a good income of the farmers. After all, "*You can't ask a hungry man to protect birds*". The necessary human aspects for a sustainable business according to the experts are good leadership, vision, training, ownership and active membership.

Farmer outlooks and behaviour

One factor influencing the success of innovation networks and thus the livelihood of the farmers, is opportunism. Today farmers will say yes, but in reality mainly the words are there, no concrete actions. Even though there are rules set with the cooperatives about delivery and the prepayment of the cocoa towards them, it seemed a challenge for the union and her members to follow the rules. If these agreements are not kept, examples should be set. By strict monitoring and leaving no space for individual gain people should be stimulated to keep to their agreement of paying back loans.

Opportunism also has influence on the possibility to become and stay bankable. An innovation network can help with writing a realistic business plan. A good business plan is based on income from realistic estimations of cocoa delivery. Farmers tend to think more is possible as long as they think they can get the best out of it for themselves. Table 4 demonstrates that compared with the business plan none of the cooperatives realised their estimated harvest. The realised harvest per cooperative varies between 95 percent and 23 percent of the estimated harvest. This has huge consequences on their business results, since costs and investments don't match with the money coming in.

Table 4 Estimated and realised harvest per cooperative in tons

Cooperatives	A	B	C	D	E	F	G	H
Realised harvest '07-'08	No activity	80	35	20	114	135	32	91
Estimated harvest '08-09 (a)	100	250	70	100	100	150	80	150
Realised harvest '08-'09 (b)	35	84	39	34	79	142	48	34
Realised in % (a)/(b) in %	35%	34%	56%	34%	79%	95%	60%	23%

Another factor that influences farmer livelihoods is ownership. Farmers need to realize that they are responsible for each decision they take within their business. And that all decisions can influence the outcome of their own revenue. This trust and ownership aspect is called the tragedy of commons. It refers to multiple individuals acting independently in their own self-interest that can ultimately destroy a shared limited resource, even when it is clear that it is not in anyone's long term interest for this to happen.

The Five capitals in farmer communities

The different capitals reflect what is needed to reach sustainability in productive activities. Below I will describe the capital of the cocoa farmers within their livelihood in Cameroon.

Social capital

Social capital in the cocoa sector lies in existing organizational structures in farmer groups and farmer federations. The existing groups are helpful in contacting farmers and rally their support for working together. However, success in building up effective economic organizations based on concerted action, especially through cooperatives, is notably small. As cooperatives or similar organizations are absent or largely ineffective, most cocoa farmers sell their product through middlemen or on individual basis. The importance of this middlemen-based capacity should not be underestimated in Cameroon as it performs various significant economic functions. On first thoughts their offer looks reasonable, but middlemen are known for their fake balances and deduction of the price based on false percentages of humidity, mould and other defaults.

Table 7 shows that on average 60 percent of the farmer's labour time is spent on cocoa. Table 5 shows that most tasks are done by the farmer (86%). But smallholder cocoa growing is typically a family business. The spouse and children help in resp. 37% and 31% of the tasks on the cocoa farm. They mostly help with cutting the pods and transporting the cocoa beans to the house. The spouse also helps a lot with the harvest. Furthermore it is common amongst farmers to help each other e.g. with cultivating the ground and cutting pods. Paid help needed mainly with cultivation and transporting the cocoa of the house. The biggest part of this extra paid manpower is done by adults (m/w) above eighteen and from the village. But some

youngsters (<18) get money for their family by helping out their neighbours from the village after school time on the cocoa field (Table 7).

Table 5 Main tasks and manpower on the cocoa farm

	Cultivation N=374	Picketing N=255	Pesticides N=255	Harvest N=359	Cutting pods N=357	Transport N=355	Drying N=355	Total
<i>Farmer</i>	90%	90%	65%	92%	89%	75%	95%	86%
<i>Wife/husband</i>	16%	18%	6%	53%	65%	55%	39%	37%
<i>Child.<18</i>	25%	23%	13%	38%	47%	43%	27%	31%
<i>Exchange Work Group</i>	43%	15%	20%	31%	62%	38%	6%	32%
<i>Paid help based On contract</i>	17%	4%	5%	6%	4%	6%	3%	7%
<i>Paid occasional help</i>	26%	13%	8%	14%	8%	18%	4%	13%

The organizations in the Upcocoa project were in the very beginning of development (table 6). Even though there is ample experience in the cocoa sector within the group they seem unable to sufficiently compete with traders who offer cash and transportation at the farm gate. The cooperatives are not sufficiently oriented towards the market and have no good governance. The lack of organizational capacities can be seen by the fact that only five of the eight farmer organizations in the project could give any oral or written information on good governance. But the entire group seems to have an average commitment to change. Furthermore positive attitudes are shown by the elected board members and other committee members towards the project. The project is seen as a great opportunity for improvement, which would not easily recur.

Table 6 Good governance and Enterprise orientation of cooperatives (UPCOCOA, 2006)

Scores range from 1 to 5. 1 is bad 5 is very good

Good Governance (N=5)	Average *
Members actively involved	2.2
Women and youth involved	2.4
General assembly functions	2.4
Board of Direction functions	2.6
Supervisory committee knows duties	2.2
Decisions are taken democratically	3.2
Decisions taken are duly implemented	2.6
External auditor does job	1

*Average based on information of 5 cooperatives.
3 others cooperative were just created and had no information and no documents.

Enterprise orientation (N=8)	Average
Market orientation	2.3
Sufficiently invested	2
Warehouse capacity	1.9
Equipped for quality management	1.8
Access to financing	1.3
Commitment to change	3
Management experience	2.5
Professional expertise	2.3
Strategic thinking by leaders	2.8
Helpful networks	2.1

Natural capital

The natural capital endowment in Cameroon is rich. The climate is favourable to cocoa cultivation. The cocoa bean coming from Cameroon is unique. It has a red-colour that used to be asked for in the cocoa manufacturing industry but nowadays the price of Cameroon cocoa is more driven by its fat content. Cocoa trees require several years before bearing fruit and remain economically viable until around 40 years of age. However, one of the factors that cocoa farmers are now facing is the aging plantations more than 50 percent of the plantations are over 30 years old. 93 percent of the farmers in the Upcocoa project inherited land or a plantation. These are mainly old plantations that need a lot of improvement to increase the

productivity. Even though 21 percent of the farmers did create one or more plantation themselves, after they inherited ground (see table 7). In Africa the last 20-30 years it seems that a lot of soil has been exhausted and all nutrition is depleted. Since the ground is than not usable anymore the farmer will like to move. Ten percent of the Upcocoa farmers face this problem and mentions to have abandoned a plantation recently. The problem for farmers is now often that there is hardly any good fertile soil available and there can be seen a trail of bad unusable land in rural areas. In addition to this problem a lot of farmers use – due to financial limitations- little fertilizers for their crop. This lack of soil nutrition of a piece of land influences negatively the return of investment. The challenge for organizations in an innovation network is to teach farmers about intensification of the cocoa trees. This technique will improve the cocoa production per tree: a farmer gets more cocoa with fewer trees. This technique is taught at the FFS within the Upcocoa project. Farmers who (plan to) create a new plantation should be familiar with these techniques. 35 Percent (N=385) of the farmers created new plantation with on average 1001 trees.

Table 7 Overview of the capitals and challenges

Capitals			Challenge																												
Natural capital	Number of plantations per farmer (N=359)	1= 50% 2= 33% 3= 12 %																													
	How did farmer get plantation(s)? (N=384)	Inherited at least one plantation= 72% Inherited land and created at least one plantation =21%	Teach about soil nutrition																												
	Number of trees (N=345) Average production per tree differs per cooperative	4000-4999 =11% 3000-3999 = 9 % 2000-2999 =12% 1000<1999 = 25% <1000 = 11%	Less trees that give more cocoa per tree with training methods																												
	Tonnage cocoa (kg) per farmer with less <10.000 trees (N=305)	791 kg per season . Ranging at the different cooperatives from average 399 kg to 1156 kg	More tonnage per hectare with training methods																												
	Newly created plantation	35% of the farmers (N=385) created in total 149 plantations with av. 1001 trees	Creating plantation with good planting material that give lots of cocoa																												
	Abandoned a cocoa plantation recently (N=385)	10%	How farmer to use land efficiently																												
	Planting material (N=381)	From existing plantations : 69% From farmer org : 14% From governmental org : 8%	Teach where and how to get good planting material																												
Human capital	(N=348) Man : 92% Woman : 8% Married : 81%	Age : <30= 4% 31-49=43% 50-59=29% 60-70=16% >70= 8%	More young people in cocoa																												
	Number of Children <18: 1-4 5-8 >8 M 43% 23% 2% F 26% 26% 6%	Highest level of Education (N=31) (N=27) (N=338) <table> <thead> <tr> <th></th> <th>M</th> <th>F</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>No School</td> <td>0%</td> <td>4%</td> <td>0%</td> </tr> <tr> <td>Primary</td> <td>51%</td> <td>4%</td> <td>52%</td> </tr> <tr> <td>Jr. Highschool</td> <td>15%</td> <td>67%</td> <td>14%</td> </tr> <tr> <td>Sr. Highschool</td> <td>29%</td> <td>26%</td> <td>29%</td> </tr> <tr> <td>Sr. Highschool Dipl.</td> <td>2%</td> <td>0%</td> <td>2%</td> </tr> <tr> <td>Higher education/ University</td> <td>5%</td> <td>0%</td> <td>5%</td> </tr> </tbody> </table>		M	F	Total	No School	0%	4%	0%	Primary	51%	4%	52%	Jr. Highschool	15%	67%	14%	Sr. Highschool	29%	26%	29%	Sr. Highschool Dipl.	2%	0%	2%	Higher education/ University	5%	0%	5%	Education is important. Children should finish their highschool to have a basic knowledge and better changes to develop a good business
	M	F	Total																												
No School	0%	4%	0%																												
Primary	51%	4%	52%																												
Jr. Highschool	15%	67%	14%																												
Sr. Highschool	29%	26%	29%																												
Sr. Highschool Dipl.	2%	0%	2%																												
Higher education/ University	5%	0%	5%																												

Capitals			Challenge
Financial capital	Year income per farmer (N=335)	€1228. Ranging at the different cooperatives from €929 to €1574	Encourage saving
	Year income from cocoa (N=335)	€694. Ranging at the different cooperatives from €456 to €1006	Encourage keeping administration
	%Weighted year income from cocoa (N=335)	55.7%. Ranging at the different cooperatives from 45.6% to 74.3%	Encourage differentiation
	% Unweighted year income from cocoa (N=335)	54.8% Ranging at the different cooperatives from 40.1% to 72%	
	Where do farmers get credit? (N=379) Family: 56.2% Informal credit: 20% Middlemen: 38% No credit: 16.4% Cocoa buyer: 29% Formal credit: 13.5%		Help with access to formal credit and stress importance of liability
	Bank account (N=383)	26%. Ranging at the different cooperatives from 8% to 53%	Encourage opening a bank account
Physical capital	Top 5 Assets (more information appendix 8) Dibble 79.2% (N=380) Canvas Sheet 34% (N=385) Wheel Barrow 56.7% (N=383) Jute Bag 33.8% (N=343) Fermentation Box 39.3% (N=382)		-Farmers should be able to buy basic working material -Beware of the donor dependency syndrome
	Work time spent on cocoa per year (N=335)	60%. Ranging at the different cooperatives from 48% to 77%	Encourage differentiation
Social capital	Labour hired from village: (N=240) Man>18= 84% Woman >18=57% Man <18=33 % Woman<18 =25 %	Labour from Immigrants: Man>18= 2% Woman >18=1%	Teach farmers how children (<18) can help in a safe way

Human capital

The project involves a largely representative population of farmers. Cocoa farming is rather heavy and is therefore mainly done by men (92%). Most of them are married (81%) and have children. One aspect of human capital is the (relatively) balanced age distribution of the farmers involved. Over 70 percent of the Upcocoa farmers is between 30 and 60 years old (N=348). The relative absence of farmer under 30 years (<4%) is not surprising given the ownership of land which is passed on to the next generation by inheritance. Besides a lot of youth is not motivated to work very hard on the field for a relatively small income, they try to find there fortune elsewhere.

Human capital can be partly based on the levels of education. The great majority of Upcocoa farmers have had an education (see table 7). For 52% the highest level of education was primary school, while 44 % had participated – at least for some time – in subsequent levels of education, with a small group having managed to finish it. Five percent of the men participated in higher education while none of the women had such a record. Thanks to education, a considerable number of farmers have a fair command of the French language and because of that have access to sources of relevant oral and written information. Besides that they have a basic knowledge of mathematics what is also important for selling cocoa and keeping an administration on farmer level. Factors that counteract building effective farmers organisations are the very short-term mindset and corruption for self-interest of many farmers.

Physical capital

A visible area of vulnerability is physical or material poverty. This includes land, climate, environment, health, housing and technologies. Around 80% of all cocoa is produced by smallholders (<5 ha land). Most Upcocoa farmers own one (50%) or two (33%) plantations (N=359). The number of cocoa trees vary, 11% has less than 1000 trees, 25% has 1000<1999

trees and 12% has 2000-2999 trees (table 7). Table 7 also demonstrates how little the farmers in the project possess in terms of adequate equipment needed to run a cocoa farm. For example a fermentation box -a necessity for cocoa processing on farmer level- is owned by 39% (N=382) and 34% seem to own jute bags to stock their cocoa or a canvas sheets to use in the drying process. Although the general level of equipment is low, there are notable differences when looked at the farmers per cooperative. A lack of adequate drying capacity, conservation, storage and equipment make the cocoa production sector inefficient and poor.

The Upcocoa project looked at the needs of the cooperatives and union and helped with buying logistics (like motors and pick-ups) and quality equipment (like humid meters, balances etc). The project, in collaboration with the farmer organisation, set some rules of usage like using the cars just for cocoa transport, keeping track of mileage and renting the car. When not keeping to rules direct measurements should be taken. Transparency for the usage of the logistics, monitoring the amortization of the logistics is important. The managers and directors of the cooperatives have no clear idea (yet) of the costs structure. They use logistics as they please while the revenue on their cocoa decreases.

Financial capital

The average annual income per farmer is €1228 per year, of which € 694 derives from the sales of cocoa (table 7). 95% of the farmers say this is not enough to finance their cocoa business. It is hard for a farmer to create a financial buffer against hard times. On average 25 % of the farmers (N=383) in the project has a bank account. Although we can see huge differences at the different cooperatives, that vary between 8% and 53%. Cash money is easier spent on futile things than money in the bank.

A way to make money with cocoa is aggregation: collecting cocoa from different farmers so there is a higher quantity of cocoa to sell. There are different aggregation systems in Cameroon. In the south-west there is an auction system, where all interested farmers put their cocoa together on an auction and based on the final volume a buyer will buy it. The pricing is transparent, competitive and immediate. The quality of the lot is at average not very high, this can influence the price. CIG's and cooperatives collect cocoa from their members and sell it together. The quality and food safety of cocoa collected can also be controlled. A cooperative is more formal -with more rules- than a CIG. Via a cooperative or CIG the farmers should get a better income, if properly managed.

A farmer should not be too financially depended upon one crop. Optimal 30-40% of the income should come from cocoa. The weighted income from cocoa within the Upcocoa project varies at the different cooperatives between 46% and 74% (see table 8). A challenge innovation networks face is teaching farmers about the necessity of diversification.

Access to finance

One of the most important factors that influence the livelihood of small scale farmers is access to finance. Most farmers borrow money from family (56%) or middle men (38%) (see table 7). The reason for this is that it is difficult for individual farmers to access formal credit. Financial institutions estimate the risks of loosing invested money too high, especially when working with uneducated farmers. One of the experts states it as follows: '*Many farmers think loans are similar to the former governmental subsidies; they don't understand they need to work for it and pay it back.*' Banks do provide money to groups of farmers that have joined a

cooperative or a union. But it is necessary that members believe in their cooperative and work together. In practice this seems difficult, due to low trust. This results in the fact that only 13.5 percent of the farmers seems to have access to formal credit (N=379).

Also at the cooperative level, the vicious circle of lack of financial means to run the business is hard to overcome. The farmer enterprise cannot obtain (enough) financing because of insufficient securities, but fact is that '*banks can't grant loans based on nothing*'. This lack of finance gives problems in buying and selling cocoa. When a farmer obtained a loan from his cooperative to buy insecticides or to pay school fees, this is based on the guarantee of future cocoa supply to the cooperative. His repayments depend on that. But in practice the farmer may refrain from delivering, because the cooperative lacks (enough) finance to buy his cocoa. Or the cooperative might face other problems, like a lack of transport facilities (either owned or leased), to come and collect the cocoa. A third problem due to lack of finance is that the paid salaries are low. This makes it difficult to employ qualified personnel against reasonable salaries at cooperative or union level. When a farmer organisation has the potential to grow strong, it is highly likely that competitors in the area temporarily raise their prices while collecting their cocoa. Farmers in need for cash money are then tempted to sell to the competitor. The direct individual gain than wins it from their long term view of building up a strong sustainable business organisation together.

One way for a farmer organisation to become financially more stable is by capitalization. The capital of the cooperative will grow via member shares and banks have more trust in the organization. 60% of the Upcocoa farmers (N=271) subscribed to one or more shares and 38% actually paid (part of) one or more shares (N=262). This seems a good start, but the differences at the cooperatives seem significant (see table 8). Due to the high non-response (up to 98% at some cooperative) to this question, a few cooperatives can not even be considered serious. Only four cooperatives seem (reasonably) serious with their memberships and capitalisation.

Table 8 Shares per cooperative

	Cooperatives								
	1 #	2#	3	4	5	6	7	8	All
N=	10	1	35	44	50	47	50	34	271*
Subscribed to min. 1 share	100%	100%	74%	36%	4%	87%	96%	71%	60%
N=	6	2	33	44	49	46	50	34	264*
Paid at least (part) of 1 share	100%	100%	30%	4.5%	2%	63%	70%	50%	38%

*Non-response +/- 30 % of all farmers (N=384).

Too much non- response at cooperative level. It gives a biased percentage at cooperative level.

When an innovation network is involved in advising farmers on getting formal credit, they should be careful when negotiations are held. Creating ownership is important since '*farmers might think it is a gift and then they don't pay their debts back*' Furthermore cooperatives can not take too many risks. A system of pre- and after delivery payment would be ideal, but in practice this seems difficult due to low trust from the members in their cooperatives.

A first financial trial to market cocoa at cooperative level was possible within the Upcocoa project due to collaboration with a financial institution in Cameroon. The financial loans were granted against a market-conform interest percentage due to a guarantee of a Dutch global commercial bank; partner in the innovation network. With strict monitoring rules, it was agreed upon that the union was granted a working capital loan to be used by her member

cooperatives to collect cocoa at farmer level. Instead of all member cooperative having a separate loans this construction will strengthen the union due to financial unity. The money was monitored on weekly bases and the cooperatives had strict delivery duty. Within the scheme of this agreement the union is first of all responsible for the loan. The feeling of ownership of the loan by the union is guaranteed by the collateral security in case of any repayment problems. The union owns eight new pick-ups (donation of the project) that will be sold first in case of any debts. The risk of remaining debts will then be shared upon a mutual agreement between the financial institution and the global commercial bank. Even with a monitor system in place, the challenge of the repayment of the loans remained in the season of 2008-2009. But due to strict monitoring the problems were noted in an early stage, what made adjustments possible. Main problems were little knowledge at management level of the cost-structure concerning cocoa collection, high competition on the field and slow availability of the working capital.

Features of the partner organizations within an innovation network

A good innovation network- like the Upcocoa project- should have partners covering the whole cocoa supply chain. The project should bring together a wide diversity of knowledge and experience that are helpful in building a comprehensive project setup.

The partners of the Upcocoa project mention multiple advantages for them to join the network. Important aspects are to build up trust relations with farmer organizations, guarantee of raw products in the future and knowledge about the origin of the product. Besides, the industry can focus and share information with the producers that they think is important in the product. Finally working in an innovation network seems also good for the organizations' reputation. For details on the Upcocoa project partners see appendix 4.

Communication between partners

The notion of real stakeholder consultation to define common perspectives and strategies that will enhance the project's chances of success seems to require adequate attention. The challenge is to have good agreements between all innovation network partners before the period starts where winning the hearts and souls of the farmers is the main success factor. First of all there should be agreements concerning reporting, communication and evaluation to monitor the results delivered. Thinking of the success or failure of a project in a developing country we tend to think of failures like lacking capacity of the farmers, unsatisfactory efforts or insufficient motivation. But management decisions made by (one of the) Western partners and the communication between the initiating project partners can also be the real challenge for the project continuation. Effective cooperation and communication especially between organizations coming from Europe and those based in Cameroon, appeared not to be self-evident. Therefore strategic dilemmas, expectations and agreements should be discussed and agreed upon before the project starts.

The strategic context

When setting up an innovation network, the strategic context should take into account the challenges the project has to encounter to become sustainable. This concerns elements like business mentality, structure, long term vision, trust relations with financial institution and final buyer, good cocoa quality and providing member satisfaction (school, health, insecticides). This first strategic choices concern the set up and functioning of the innovation network itself. When that is agreed upon, there are strategic choices and dilemma's with in the project to be made that concern the farmer organizations and livelihoods.

Strategic choices within the set up of an innovation network: success or failure

An innovation network can combine the strength of multiple projects with supplementary goals, but clear roles and responsibilities should be set about management decisions on all levels. Furthermore involvement of partners after the project is finished may be subject to a variety of opinions. Therefore there should be a mutual agreement right from the start on the exit strategy between project partners and their different roles. Basically, all stakeholders would appreciate full-fledge maturity right after the project has ended. However, it is also realized that risks are involved given the contextual weaknesses and limited experience in successful cooperative operations. The experts seem to have their opinion about the length of a project influenced by possible effects that a partner will experience after the project.

Therefore a financier may be inclined to suggest a long-term guidance so as to secure the repayment of loans. The buyer might want to continue giving quality trainings to the cooperative to insure his cocoa quality. While a third party advises longer guidance, so the new business will not fail directly after the project ends, resulting in a possible image damage. But others may opt for shorter periods of guidance. The leaders of the farmers do not seem to reject continued support but will be keen to maintain their autonomy.

Another strategic element that should be agreed upon concerns a risk management strategy on how to deal with financial responsibilities, disagreements, disturbances or mismanagement. To avoid mismanagement there should be strict agreements on the usage of project money (incl. interest). There should be openness and transparency about the accounting of the project at least two times a year by the responsible partner. To not have clear agreements upon these above strategic choices may influence the projects success or failure.

Strategic choices within the project that influence the farmers' livelihood

Within an innovation network many strategic choices are taken that (in)directly influence the farmer livelihoods. These strategic decisions are directly linked with the upgrading program that farmer enterprise should follow. Several choices of the Upcocoa project are described. *First* of all the project has not selected farmers who were already successful. This choice, however, was more or less imposed by the fact that in a great majority of farmers and their organisations were at a most beginning level of development.

Second choice is that the project is not restricted to basic capacity building. It involves a comprehensive and obliging business organization that directly uplifts the farmers to a professional, self-sufficient level. It also involves scientific research. So it can be seen as a pilot study for other similar projects.

The *third* choice concerns sustainability. Elements with a regard to 'planet' are deemed important. But at the first stages of the project a main consideration was to give priority to the organisational build-up. Decisions that helped building up a good structure were e.g. to base cooperative membership on individual cocoa farmers only. This ensures a direct link between the production of cocoa and individual responsibility. Groups can only continue to exist as social organizations (for planning, communication, controlled collection and administration) but should not have formal powers within the cooperative. Otherwise this could complicate the management decision making process. Besides a plural voting system instead of a one-man-one-vote system is a point of discussion. In this way members with more cocoa volume have more control over the decision making process in their cooperative. A good organization structure should also sufficiently harmonize the organizational rules and regulations of all her members with common statutes and bylaws. Besides it involves controlling costs aspects.

Economies of scale can be realized when good logistic agreements are made. The purchase of cocoa from the farmers is therefore done by the member cooperatives but the sales and

outbound logistics is taken care of by the second-tier union of cooperatives. Furthermore the union is responsible for the sales of the cocoa for its members and attracting financing wherever needed. The union will also lead in accounting, financial management, asset management and quality management.

A *fourth* choice the project made was to take a big jump to an integrated professional level of performance instead of operating at a small scale. This makes the project more complex due to the collaboration with more individual structures and people. But there is a wide range of training offered to the farmers and their organizations to prepare for the moment that all production and sales will be executed according to the newly implemented arrangements.

A *fifth* consideration was the donation of quite some assets like a pickup, motors and computers to the cooperatives. The question about easy handouts cannot be avoided here. The only justification is that the cooperatives themselves had no funds to buy such assets while these are necessary to make a professional start. The compelling business case these assets fit into should be a kind of guarantee that these given assets will serve their purpose.

The *final* strategic choice made within the project that can influence the livelihood of the farmers was to start as an exporter right from the beginning. This adds to the qualifications the union needs to act successfully. From this point of view, this decision creates additional risks and skills exporters need to have, whilst there are no exporters in the partnership. On the other hand, making use of existing exporters might reduce the potential profit margin for the union. The most important to keep afloat in this structure is a critical cocoa mass. The decision to be an exporter could never be made when UCOPROC had not been part of an innovation network.

Summary

The international cocoa sector provides an interesting case of growing social corporate responsibility that is expressed both by internationally coordinated policies and activities by individual corporations.

This chapter gave an overview of the factors and challenges within an innovation network that influence the livelihood of the farmers in Cameroon. All research results are based upon a cocoa project in Cameroon with different partners from the cocoa supply chain. This ‘Upcocoa project’ can be seen as a major innovation for which the partners provide a relevant network. The pioneering nature of the project is matched by the availability of donor funds and in-kind contributions of the industry that need not to be repaid. Programs like Upcocoa can be an engine to economic development and can improve the farmers’ livelihoods if implemented and appreciated by all partners in the project, including the farmers. For farmers it is hard to make a good living from cocoa. Their income is low. Joining a farmer organisation increases their chances to access credit and knowledge. Finance gives them possibilities to invest in their farm (exp. equipment and fertilizer). This might increase both their cocoa quality and their revenue. The involvement of eight cooperatives at once leads to major economies of scale which will significantly contribute to a successful sustainable business. On the other hand, major risks are involved in it both in terms of farmer loyalties and management responsibilities. Even though most cooperatives involved are underdeveloped at most levels, they all show a fair amount of commitment to change. Farmers and the present leaders of the farmer organisation see UPCOCOA as a unique opportunity to take the future in their own hands. In the next chapter the finding will be discussed in more details.

5 Conclusion & Discussion

Summary

How can innovation networks within the supply chain promote welfare amongst cocoa farmers?

1) Which factors influence livelihood of small scale farmers?

The livelihood of farmers is for a huge part influenced by the liberalisation of the cocoa market in Cameroon. The reforms caused a drop in the quality of the cocoa. Now the industry re-emphasises the significance of quality. This calls for a change of attitude of farmers. Awareness should be raised about the necessity for separation of high quality beans. An incentive to that could be to receive a premium for good quality cocoa. Such premiums are possible in the form of a bonus -for volume or quality- within preferred supplier relationships. Those can be realized within the construction of an innovation network. Certification methods are also deemed an instrument to guarantee this quality. It gets more attention within the whole supply chain whilst for the industry traceability, guarantees to the end consumer and good quality become more important. Even though it gives better revenues, are farmers willing to respect rules and invest in certification?

A second factor is that Cameroon seems investment-unfriendly what makes it difficult for farmers to develop themselves or their cooperatives. The wider political context seems hardly amenable to harnessing the farmer communities. In Cameroon the government is stimulating the cocoa farmers with special programs. However more results on cooperative laws and country wide investment could be initiated. A memorandum of understanding could show that the government recognizes a project and is willing to contribute to it.

The five capitals discussed in this research indicate what is needed to reach sustainability in productive activities. When looked at carefully, the capitals indicate poverty and underdevelopment of the farmers. The essential natural capital (e.g. plantation) is there. But many plantations are old and don't give a lot of cocoa due to usage of old methods, and lack of soil nutrition. Even though new plantations are created, this should go hand in hand with learning processes on intensification learning methods. Other capitals fall short to a considerable extent. The farmers appear to be poorly equipped with adequate equipment to run a cocoa farm and agricultural practices are underdeveloped. Their income is low by any standard, especially as family income. There is lots of unemployment among young people in Cameroon. Though only 4 percent of the farmers seems to be under 30 years old. Even though the educational level is low by European standards, education is not a negligible phenomenon since most of the farmers have followed a (basic) education. This can help to manage their farm in a better way. A correct administration at farm level creates more efficiency and thus more revenue

Existing social (e.g. cooperatives) and physical capital (e.g. labour, land) can be useful in an upgrading program, if these go together with willingness to change and commitment to contribute to that change. But farmers need to be willing to grow and invest in themselves and their farm. They need to demonstrate ownership and responsibility for the project that they are part of via their cooperatives. This underlines that a lack of social capital (e.g. functioning cooperatives) amongst the farmers is a key factor in explaining their poverty. Leadership struggles and power plays within the social network must be resolved for a business to be sustainable after the duration of the project. Within the Upcocoa project the entire group

seems to have an average commitment to change. Furthermore positive attitudes are shown by the elected board members and other committee members towards the project. Coupled with a commitment to change this experience is likely to be a valuable social capital if used as a basis for upgrading.

2) What challenges can be noted for corporations and other organizations within a innovation network?

Four main challenges can be noted in an innovation network project. These issues are challenges within the Upcocoa project, but they are equally important for other projects with other commodities.

1. Management challenges

Partners within an innovation network are expected to work together. They should be committed towards real change and to comply with the features of the network. When thinking about project success or failure the first thoughts that often come to mind are the contribution and attitude of the African farmers. Changing mentalities and trust is indeed a challenge. But we tend to oversee it can also go wrong on the Western side. The organisation, agreements and communications about expectations of roles and contributions of the western partners seems to be one of the most important things to make a project run smoothly. One of the elements is an exit strategy. The experts seem to have different opinions about the length of their involvement a project. This opinion seems to be influenced by possible effects that a partner will experience after the project. Therefore it is advisable to discuss these matters in depth and to have the agreements well grounded and clear before starting the project. After that winning the hearts and souls of the farmers is the main success factor. Activities on the field should be monitored closely. Many projects just focus on documents and reports to keep their donors happy, but it is the end result that finally counts.

2. Financial challenge

The challenge for an innovation network is to help a farmer network to get formal credit. At this moment most farmer loans are obtained from informal networks like family (56%) or middle men (38%). Banks are very careful in providing fund to individual farmers. They mainly provide credit to farmer groups. For that reason it is important for individual farmers to join a cooperative. Enough cash-flow, some assets and a good business plan can build in the securities for the bank. If there are high amounts of money involved –like working capital or investment costs- financial institutes are more willing to collaborate when there is an innovation network behind it, preferably with a guarantee from a foreign bank and a good monitoring system. With this back up farmers get a real chance in getting formal credit and showing their creditworthiness and responsibility. The challenge is to guide and monitor loans and to change the predominant day-to-day vision into a long term view. After a few years the farmer organisation should be capable of monitoring all finances itself.

Elements that should be looked at carefully:

- Working capital should be available quickly to guarantee huge cocoa volumes. Good agreements with banks and buyer to pre-finance the markets.

- Farmers want to join a project when they expect help with fungicides and schoolfees. When a lot of farmers join together they will produce a high volume of cocoa. If an enterprise like the union can't help the farmers with the inputs there is a risk that farmers start selling the cocoa to others outside the union for quick cash or repayment of a loan..
- Capitalisation is important. Farmer organisations can build up their own capital by issuing member shares. Organisations should motivate neighbouring farmers to become a member. Shares should be paid within a reasonable timeframe. Within the Upcocoa project the average number of farmers that subscribed to a share seems fair (60%), the percentage of actual paid shares is lower (38%). The difference between cooperatives seems significant. This could indicate a lack of ownership and seriousness for some of the cooperatives involved. For a farmer organisation to become sustainable it could consider only to continue with the strongest and most serious members.

3. The challenge of professionalization

Being organised in more official systems, like common initiative groups (CIG) or cooperatives, gives farmers more possibility for structurally improving their livelihood. Innovation networks are set-up to help farmers to organize themselves based on a business model. Necessary elements seem to be vision, a critical mass, transparency and a fair income for the farmers involved. Moreover leadership/vision, ownership and active membership are deemed important. Without these elements it will be difficult to keep afloat in the heavily competitive world of cocoa.

As just mentioned above it is very important to reach the critical mass that is foreseen in a business plan. The Upcocoa farmers collected 525 tons of cocoa in the season 2008-2009. This is a good start, but more cocoa is needed to pay for all costs. For example besides transport and logistic costs, there should be enough money to pay for different office costs and market-conform salaries. Many people are trained within projects, but it is difficult to keep knowledge in the cooperative. Salaries are low and people are tempted to look for a better job. Continuously loosing expertise might be an actual threat for the continued existence of the organisation.

Actively involve farmers is a prerequisite for the decision-making process of professionalization.. Farmers must make a real contribution to a project, in money or in kind. Such a bottom-up approach takes longer to implement but creates ownership. In close collaboration with the farmers, a partner in an innovation network can work out financial schemes, write a business plan that can cover all costs, or educate the cooperatives about cost management.

The project works with eight cooperatives that are in the very beginning of development. They seem not sufficiently oriented towards the market and have no good governance. Some cooperative can't provide any information on their governance. The supervisory committees function below average and the member activity is low by any standard. The low enterprise orientation is shown by insufficient investments, lack of warehouse capacity and few if any moderate equipment for quality management. The involvement of eight cooperatives at once in the project leads to major economies of scale and a considerable cocoa quantity which will significantly contribute to a successful sustainable

business. On the other hand, major risks are involved in it both in terms of farmer loyalties and management responsibilities.

It is important that farmer organisations exist on pure economic reasons, political or solidarity aspects should not be regarded. There is a fair will to change amongst the Upcocoa farmers and their organisation, but to change old habits takes time and effort from all partners. In collaboration with farmers an innovation network can determine the roles and responsibilities of cooperative members. The members need to be taught to be very transparent in their activities. They should be obedient in following certain rules and regulations. There is need for lots of training and direct guidance to make a project to be a success. The challenge is to closely monitor actions and to not leave any possibilities open for individual gain. But it should not be feared to dismiss farmers or cooperatives that seem not serious or willing to function. Even legal actions should not be feared.

4. Trust

Trust can be seen as the essence of social capital as it refers to norms that lead to cooperation in groups and between groups. Even though Cameroon has a history of corruption and low trust amongst farmers in their farmer organizations the Upcocoa project is a potential success when rules and regulations are followed by both partners and farmers/ cooperatives. The challenge is to cope with a mentality problem often seen among farmers, the so called phenomenon of opportunism. The farmers don't all see the importance to stick to their agreements. Farmers and coops often put themselves in first place. It is difficult to trust and to keep to agreements if you are not sure others will stick to it too. This is called the tragedy of commons: acting upon self-interest can destroy a shared limited resource even when it is not in anyone's long term interest. The mentality of win-lose, what as a consequence has individual gains and individual loses must be changed into a win-win situation, were there is a common gain. Not having a win-win mentality could be a threat for projects like Upcocoa. At this moment farmers must see their direct benefit or else will not take a risk with their cocoa. To created more faith examples must be set to individual members or farmer organisations that don't stick to rules, are corrupt, or dishonest.. Not placed in the right perspective opportunism can ruin projects and business opportunities. For example farmers don't realize enough that unrealistic estimations of volumes have huge consequences on their mutual business results. In the Upcocoa project the realised harvest differed 5 to 77 percent from the estimated harvest.

3) **How to give support to small-scale farmers?**

There are three main areas on which an innovation network can give support.

Knowledge transfer

The partners in the network help the farmers tackling their weaknesses by launching relevant learning processes that lead to a viable organization. With the transfer of knowledge and skills from the international partners farmers can require adaptive behaviour that is necessary to create a sustainable business. The agricultural practices of cocoa farmers seem underdeveloped. To improve their performance and revenue farmers need advice on which methods and planting material they should use. But the African farmers should also set themselves challenges. Some of them just don't know it is possible to perform better. They have been working with old methods and systems what results in

healthy trees with few cocoa pods. Farmers need to be aware of their benefits of creating an economy of scales by huge volumes and production. Furthermore farmers need to learn about the costs and revenue of the cocoa, for this management skills - also on cooperative and farm level- should be thought. Other learning areas are exp. soil nutrition, the use of fertilizer, effective land usage and a responsible deployment of children. The cocoa farmers in this project still seem too dependent on their cocoa (46%-74% per cooperative). This shows the necessity in diversification training.

Financial advice and support

The general living conditions and the low scores for access to formal credit (7%, N=688) underlines that the available financial capital is very limited. 25 percent of the farmers have a bank account. This seems to indicate some familiarity with modern banking, which is important when developing an adequate financial system within a project. An innovation network can help to stimulate more farmers to open a bank account. One incentive could be to use more bank transaction methods also concerning payments to farmers.

Financial advice and support from an innovation network will help the farmers to write a realistic business plan. Even with a financial monitoring system in place, the challenge of the repayment of loans remained in the season 2008-2009. Due to strict monitoring the problems were noted in an early stage, what made adjustments and further training possible. Main problems were little knowledge at management level of the cost-structure concerning cocoa collection, high competition on the field and slow availability of the working capital.

Tangible support

The farmers appear to be poorly equipped with adequate equipment to run a cocoa farm. But there are lots of areas that the innovation network can help farmer organization with due to the availability of finance within the project. Logistics, support with fungicides, office supplies or quality equipment are examples of this. Logistics, like good working vehicles and motorcycles, are a very important asset for farmer organization. When rented they most often break down after a short while. This costs the farmer organizations a lot of money. With advice of a project on how to monitor the cars and motors and how to manage the depreciation the farmer organization can profit and grow tremendously. Support that helps with marketing cocoa is quality equipment (humid meters, balances) and market booklets which are helpful to follow the statistics of each cooperative. This helps them to manage their cooperative in a responsible way. Moreover support like fungicides or insecticides can help in getting a higher cocoa volume. The debt of the delivered insecticides will be paid back by cocoa deliveries from these farmers. By correctly monitoring these debts the support can be revolving funds and not a one-time donation. The question of easy handouts should never be avoided. To make a professional start some huge investments are deemed necessary. The donor dependency syndrome can be avoided by involving farmers in decision making. By putting the logistics, like the vehicles, as a pledge to the bank when farmers can't repay their debts, creates more ownership and responsibility. They realize they can lose something if they don't keep to their agreements.

Discussion

In spite of all shortcomings, the cocoa trade is alive, making up a notable share of Cameroons economy. Projects within an innovation network, like the Upcocoa project in Cameroon, are important to help small-scale farmers to reach durable trade relationships and therewith promote welfare amongst cocoa farmers. Their commitment will grow as farmer groups start to realize that upgrading through concerted action in the chain is a necessary condition to increase their productivity and income. Overseeing Upcocoa's entire landscape of risks and uncertainties within a context of weak governance and underdeveloped national innovation network, the project cannot be denied some heroic features. The setup is geared towards the necessary professionalism. The project is seen as a great opportunity for improvement which would not easily recur.

Networks that exist of public-private partnerships are mostly needed to have more chance to be granted with a subsidiary. This is also the case within the Upcocoa project. Without the in-kind contribution of 30% of the budget – mainly spend on knowledge transfer – the project would have had less chance to be approved by the Dutch ministry of Agriculture (LNV).

The availability of donor funds and in-kind contributions of the industry, that need not to be repaid, matches the pioneering and piloting nature of the project.

The way the partnership has been set up for the Upcocoa project is a real innovation. The partners involved in the project cover the whole cocoa supply chain, from farmer to product manufacture. Besides, the network contains a partnership with a bank for financial support and advice. Moreover the project integrates two projects that reinforce and strengthen each other. The Upcocoa project is build on a running project sponsored by the American government (USDA) that focuses on developing cooperatives. The Upcocoa project focuses on creating a sustainable umbrella organisation for those (and a few other) cooperatives. All cooperatives are members of the union and it is necessary to all work closely together. The idea of combining two projects is innovative, although it is challenging because if two men ride on a horse, one must ride behind. For cooperatives involved it is nice that projects are combined, in this way they will not be dealing with too many different project partners.

The focus of the project has clear economic priorities. When this project within the next two years can be evaluated as a success this means that at least 1600 and probably even more farmers will have an increase of income.

The help of network partners is indispensable for farmers in realizing the role of exporter so quickly. It has positive effects like becoming a preferred supplier and special bonuses for volume and quality. In practice being an exporter means the business chain is decreased (middlemen, purchases) and that farmers are controlling a bigger part of the supply chain themselves. The extra income and profit stays at the union and her members directly influences the income of the small scale farmers.

But it is irrefutable that the one of the most important partners to get results with the network and to create a sustainable business are the farmers themselves. If they don't keep to their agreements concerning volume, usage of pick-ups, paying back loans than it is a real challenge to stay economically profitable.

Limitations

It seems that the mentality of the farmers in Cameroon is not the same in the south-west and in the centre. This difference is caused by the colonization era where one part was colonized by the British and the other part by the French. The results of this research therefore are not fully represented for the whole of Cameroon. E.g. initiatives taken on farmer level seem to be more solid in the south, this could indicate less opportunism and more feeling of ownership. Furthermore no direct questions have been asked in the questionnaire about the knowledge or implications of the Upcocoa project. The reasons for that was the limited space in the questionnaire (max 2 A4). Therefore it is not known statistically what farmer group think about the Upcocoa project. From conversations with a limited group this is known how-ever.

Further research

This research gives an indication of the situation in the beginning of the Upcocoa project. It seems therefore interesting to repeat this research in a few years. This could show the real effects of the project on the livelihoods of the cocoa farmers.

Approaches that help to become more subtle in indicating underlying factors of success and failure are welcomed. For instance, the conclusion that social capital is a crucial point of impact when striving to achieve successful commercial organizations calls for further research. It would be interesting to find out what are the major factors here: is it trust in general, is it organizational rigour or is it above all a matter of dedicated leadership?

Upcocoa integrates two projects that reinforce and strengthen each other. It is interesting to study the pros and cons concerning this new phenomenon.

Theoretical relevance

This research indicates that change within the structure of the marketing chain with cooperation of both the western counterparts as the African needs synergy, clear rules, monitoring and good management. Furthermore it shows the trend that innovating projects like Upcocoa are (in)directly paid from profit from the cocoa industry. Moreover this research shows that only through help of the innovation network the farmers could move upwards in the supply chain and gain a higher responsibility in the chain.

Finally it shows that there seems to be little focus on innovation networks in existing models like the original Sustainable Livelihood Framework (SLF)(figure 2). These networks seem however very important to promote livelihoods of small scale farmers. The focused SLF (figure 3) considers all linkages within the innovation networks like communication between the partners in a network and the behaviour of the farmers.

Implications for practice

Programs like Upcocoa can be an engine to economic development and can improve the farmers' livelihoods on economic, environmental and social aspects. For example the quality trainings - given both up country and in the laboratory- learned in practice what norms were expected from the industry and how farmers could achieve a higher quality of cocoa beans. The results were directly visible; the beans delivered by the project were amongst the best quality the processor bought from Cameroon this year. With a good market situation and systems in place a farmer business could take over competitors in the area. For farmers and their organizations this presented a unique opportunity to jump onto an entirely different level of operation. And if cocoa becomes a more profitable profession, this could stimulate a new

generation to develop an economic viable business. They would not just waiting for land to be inherited, but could also investing in developing new land although the financial possibilities for farmers to invest are difficult.

The Upcocoa project in Cameroon can be a model for other projects, both in cocoa and in other commodities. The way the innovation network around the project is set-up and the lessons learned are valuable for similar future projects. First of all involvement of the whole supply chain- from farmer to manufacturer- gives great opportunities for farmers to be aware of the quality of cocoa at each industry level.

Another example is that it seems innovative and cost-effective to integrate two different projects with supplementary goals that could reinforce and strengthen each other. This kind of project integration seems valuable and is expected to be seen more in the near future.

Liberalization of the cocoa in Cameroon has given international companies more opportunities to influence the upstream cocoa chains. At the same time this puts more pressure on them to help realize sustainable conditions for the farmers. On top of that companies need to cope with issues like food safety, traceability and corporate social responsibility. Being part of an innovation network that covers all these aspects with project-oriented contributes to achieving these issues. Therefore it is expected that participation from the industry within innovation network will gain more and more strength in the coming years.

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7 Appendices

7.1 Appendix 1 interviewed people

Industry:

Cocoa processors / exporters/ manufactures

1. ADM, Mr. Andre Coenen (Manager ADM Cameroon)
2. ADM, Nicolas Poyade (Cocoa Trade and sources Cameroon; USICAM)
3. TELCAR, Mdm, Kate Kanyi-Tometi Fotso (General Manager)
4. OLAM CAM, Mr. Bhawan (General Manager)
5. MARS, Peter van Grinsven (Cocoa sustainability team, field and research manager, expert in cocoa farmer systems)

Farmers/Chairmen from the cooperatives, active in UCOPROC

6. Mr. NKOA, president UCOPROC and chairman SOCOCAOP
7. Mr. Essongze, manager UCOPROC and chairman GROUPEX
8. Mr. Mbarga, manager UCOPROC and chairman SOCAMAK

Bankers

9. FIFFA, Mdm NDZOMO (General Manager)
10. Rabobank, RIAS, Prof. Wim. V. Diepenbeek (Cooperative specialist)

NGO:

11. ISCOM, Teun Wolters (General Manager, Economist)
12. STCP, Mr. Jonas Mva Mva (Country Manager)
13. SOCODEVI, Mr. Lazare Sema (Cooperative specialist)

Others:

14. World Cocoa foundation: Mr. Alain Frederique (Director Sustainability programs
ADM Cocoa and Director Global business development)
15. Government: National Coffee and Cocoa Board, Mr. NDOPING (General Director)

7.2 Appendix 2: Interview set up for qualitative research

- Explain goal of the research
- Explain usage of the interviews
- Explain how long this interview takes
- Explain other procedures after the interview

Introduction

Before we start could you please introduce yourself?

- Name
- Company
- Function
- Years of experience in cocoa chain
- Other important things?

I would like to continue with the interview, it is an open interview.

- 1) Nowadays everybody talks a lot about sustainability, what is in your opinion the definition of sustainability?
- 2) What are important aspects of sustainable organization?
- 3) What are the most important elements to close the gap between a perfect sustainable organization and the present situation of many farmers?
- 4) Can you describe opportunities and threats of described above?
- 5) (If not mentioned yet) What is in your opinion the significance of education?
- 6) Would it be significant for Cameroon to work on a public education centre on human capacity? And for other countries, do you know how it works there?
- 7) What problems have so far been seen within Upcocoa in creating a sustainable organization?
- 8) What is in your opinion the influence of opportunism and what are the positive and negative influences on a sustainable organization?
- 9) What is to be done for farmers to gain trust and to stick to appointments within partnerships?
- 10) Does the process of cocoa deserve more attention (both on farmer level and beyond) in Cameroon?
 - A) Should in your opinion all farmers join a union or a cooperative?
 - B) Or are there other ways for farmers to organize themselves?
 - C) What are common ways in Cameroon for farmers to organize themselves?
- 12) What is the main reason for organizational partnerships to be developed throughout the chain?
- 13) There is a dilemma in projects: on the one hand the local partners need to be independent after a few years working within a project, but on the other hand there is a need for longer support to give them more support/ training/ guidance and to keep them from falling back.
 - A) How do you see this dilemma?
 - B) Until what moment should a partner stay involved?
 - C) Do you see a role of partners after the project?
 - D) How do you see the role of NGO's within a project and after a project?
 - E) How do you see the role of large organizations within a project and after a project?
 - F) How do you see the role of the government within a project?

- G) Can you describe the role of the government in Cameroon in regard to small scale farmers ?
- 14) How should farmers be guided in a project?
- A) Should they be more bounded to rules?
 - B) Should the guidance be intensive or extensive?
- 15) In your opinion is it a good idea to start with cocoa only within the project, or should a project focus on more products at once to get a higher productivity?
- 16) In your opinion should non-cocoa products be sold via the same sales organization? Or should that be a different project, or done by farmers themselves?
- 17) A) Could exporting be a good thing for a starting cooperative?
- B) If you think exporting gives a good opportunity, at what point should they start?
- 18) In the consumer world you see a trend of certification. There are fair trade certifications, but we are leading to a mainstream certification, where significant quantities of important processors might be certificated. What do you think of this process?
- 19) Can you mention the opportunities and threats for your organization for working with the cooperatives within the Upcocoa project?
- 20) Do you have any other remarks, comments in addition to the above questions that you would like to share with me?

Thank you for your cooperation.

7.3 Appendix 3 The farmer interview

Enquête sur le producteur et la production

Nombre d'enquête: _____

Nom du facilitateur:
Nom de la personne interrogée:
Marié:
Nombre d'enfants:
Adresse postale:
Village de :

Date de remplissage:
Sexe: H F
Date de naissance:
Nombre d'enfants de <18 ans:

Avez vous un compte bancaire et/ou un compte d'épargne? Oui / Non
Nom de votre coopérative:
Fonction dans la coopérative:
Niveau d'étude:
Nombre de parts sociales souscrites:
Montant des parts sociales libérées:
Distance du village au siège de la coopérative: _____ km.

1.- ACTIVITES DE PRODUCTION

1.1.- DISPOSITIF DE PRODUCTION

Combien de plantations de cacao avez-vous ?

a. Plantations en production: _____ Nombre de pieds: _____ Tonnage en 2006: _____

	Nombre de pieds	Surface correspondante	Tonnage récolté
Plantation 1			
Plantation 2			
Plantation 3			
Plantation 4			

b. Plantations récemment créées: _____ Nombre de pieds plantés: _____

c. Plantations abandonnées: _____ Nombre de pieds: _____

d. Plantations louées à un autre: _____ Nombre de pieds: _____

1.2.- SYSTEME D'EXPLOITATION

1.2.1.- *Combien de votre temps du travail consacrez-vous en cacao par an?*

► _____ %

1.2.2.- *Quelles sont les autres cultures que vous pratiquez hors de vos cacaoyères?*

- a. Cultures pérennes : _____
- b. Cultures vivrières : _____
- c. Cultures maraîchères : _____

1.3.- PRATIQUES CULTURALES

1.3.1.- *Lesquelles de ces pratiques utilisez-vous habituellement dans vos cacaoyères ? (Cochez les sélections retenues)*

N°	RUBRIQUES
<input type="checkbox"/>	a. Plaquettage
<input type="checkbox"/>	b. Pépinière
<input type="checkbox"/>	c. Régénération
<input type="checkbox"/>	d. Sarcrage
<input type="checkbox"/>	e. Apport d'engrais
<input type="checkbox"/>	f. Réglage ombrage
<input type="checkbox"/>	g. Taille
<input type="checkbox"/>	h. Lutte phytosanitaire

1.3.2 Pépinière

A. Quand vous voulez établir une cacaoyère, plantez-vous directement :

- a. Des fèves
- b. Plants en sachet
- c. Plants de racine nue
- d. Autres ➤ précisez: _____

B. D'où provient le matériel végétal pour votre plantation ?

- a. Des cacaoyères existantes
- b. Les repousses dans la plantation (pépinière des écureuils)
- c. Service étatique
- d. Fournisseur privé
- e. Organisations paysannes
- f. Autres ➤ précisez: _____

1.3.3.- Réglage de l'ombrage

Quel est le niveau d'ombrage général dans vos plantations ?

- a. pas d'ombrage,
- b. peu d'ombrage (<30% de couverture).
- c. ombrage moyen (30 to 60%)
- d. beaucoup d'ombrage (>60% de couverture)

1.3.4.- Lutte phytosanitaire

A. Pesticides et engrais

Chez qui avez vous acheté ou reçu les pesticides et les engrais utilisés l'année dernière ?

<input type="checkbox"/> Votre coopérative	<input type="checkbox"/> Acheteur privé de cacao
<input type="checkbox"/> Votre GIC	<input type="checkbox"/> Autre planteur voisin
<input type="checkbox"/> Vendeur privé autorisé	<input type="checkbox"/> Vendeur privé non autorisé
<input type="checkbox"/> Autorité d'Etat	<input type="checkbox"/> Vous n'en avez pas utilisé

B. Indiquez les quantités des fongicides et herbicides utilisés dans les cacaoyères en 2006 :

	Quantité	Unité
Combien de fongicides utilisés?		
Vendeur privé autorisé		
Autorité d'Etat		

C. Indiquez les quantités des insecticides utilisés dans les cacaoyères en 2006 :

	Quantité	Unité
Combien de l'insecticide utilisés?		

D. Indiquez les quantités des engrais utilisés dans les cacaoyères en 2006:

	Quantité	Unité
Combien d'engrais utilisés?		

1.3.6.- Equipements de production

Parmi les équipements ci-après lesquels utilisez-vous ? Indiquez pour chacun son état de fonctionnement

Équipement (éro si il n'y a pas)	Quantité	Etats de fonctionnement			
		Bon	Passable	Mauvais	Hors d'usage
Pulvérisateur à dos		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pulvérisateur à moteur		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thermonébulisateur (projecteur de brouillard)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tronçonneuse		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Motopompe		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brouette		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pousse-poussev		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Equipement	Quantité	Etats de fonctionnement			
		Bon	Passeable	Mauvais	Hors d'usage
béco s'il n'y a pas)					
Four de séchage (type samoë)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Four de séchage (type cimenté)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Camionnette (pick-up)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Planteoir		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sécateur		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Caisse de fermentation		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sac en jute		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bâche		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ebranchoir		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Autres (à préciser)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Autres (à préciser)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

1.3.7.- Disponibilité en main d'œuvre

A. Pour chacune des tâches suivantes, indiquez le type de main-d'œuvre utilisé le plus souvent (en 2006) (Cochez la case de type de main-d'œuvre utilisée, laissez vide si pas utilisée).

	Main-d'œuvre familiale non payante		Main-d'œuvre payante (en liquide ou en nature)			
	Propriétaire	Autres membres de la famille, donc	Groupe d'échange de travail	Salariés sur contrat	Travailleurs à la tâche	Autres (à préciser)
Tâche		Femmes	Enfants < 18			
Défrichage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Récolte	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Application des pesticides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Écabossage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transport du champ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transport du champ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Séchage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Autres (à préciser)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B. Votre enfants (4 ->18) ils vont à l'école ?

- a. Oui ➤ tous: _____
- b. Oui, mais pas tous ➤ préciser la raison: _____
- c. Non ➤ préciser la raison: _____

C. Pour la main-d'œuvre à temps plein que vous employé, indiquez l'origine de cette main-d'œuvre (en 2006):

Catégorie d'âge et sexe	Origine de la main-d'œuvre (cochez si oui)		Si les travailleurs utilisés sont des migrants indiquez leur(s) pays et régions d'origines	
	Locale du village	Travailleur immigré	Pays d'origine	Région du pays d'origine (si possible)
Adulte hommes (18 ans et +)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adulte femmes (18 et +)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Garçons(<18 ans) avec parents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Filles (<18 ans) avec parents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Garçons(<18 ans) sans parents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Filles (<18 ans) sans parents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

D. Si des enfants travaillent pour vous (en 2006), donnez-nous plus de détails sur la distribution par âge et le nombre allant encore à l'école.

Combien de temps en moyenne travaillent t'ils dans vos plantations de cacao?

Catégorie d'âge et sexe	Nombre participant à cette tache	Nombre qui vont encore à l'école	Nombre d'heures par semaine de participation	Nombre de semaines de participation par an
<10 hommes				
<10 femmes				
10-14 hommes				
10-14 femmes				
15-17 hommes				
15-17 femmes				

2.- ACTIVITES DE RECOLTE ET POST RECOLTE

2.1.- Récolte Dans quelle état récoltez-vous les cabosses?

- a. Cabosses bien grosses
- b. Cabosses bien vertes
- c. Cabosses un peu mures
- d. Cabosses bien mures
- e. Cabosses très mures
- f. Cabosses rouges

3.- GENERALITES SUR L'ACCES AUX FACTEURS DE PRODUCTION

3.1.-Accès à la terre

3.1.2.-Dites-nous comment vous avez acquis vos plantations :

nombre	
	a. Plantation héritée d'un membre de la famille
	b. Plantation achetée
	c. Terre héritée et plantation créée par vous-même
	d. Plantation louée
	e. Plantation mise en gage pour un prêt
	f. Métayage
	g. Autres (précisez)

3.2.- Accès au Crédit

3.2.1.- Quel sont les revenues familiales pour l'année 2006 ?

► _____ CFA

3.2.2.- Quelle partie de ces revenus est originaire du cacao?

► _____ %

3.2.3.- Vos revenus suffisent-ils à financer toutes les activités de vos exploitations ?

Oui / Non

3.2.4.- Quelles sont les autres sources de crédits auxquelles vous vous adressez habituellement :

- a. Crédit bancaire (banque, des crédits, coopérative etc.)
- b. Crédit informel
- c. Usuriers au village
- d. Acheteur de cacao/café
- e. Prêt d'amis ou membre de la famille
- f. Autres (décrire)
- g. Aucune source

Signature et nom du facilitateur,



Signature du producteur,

7.4 Appendix 4 Background of the Upcocoa project

The Dutch ministry of Agriculture (LNV) had an open subscription for funds from 2004 to 2007. This Cocoa buffer Fund, aimed at stimulating sustainable development in the cocoa-and chocolate sector. The funds came into existence due to the liquidation of funds that was maintained for the buffer stock of cocoa. That stock grew by gains from the sales from the buffer stock of cocoa like agreed upon in International cocoa agreements followed by Holland since 1974. The idea of this buffer stock was that by combined buy up and sales the world market cocoa price could be stabilized. The effect of this joined agreement was confined, so internationally these agreements were stopped. And it was decided to put the money in sustainable cocoa projects⁵¹. The Upcocoa project also got her funds from this agreement.

The Dutch government sets a high value on projects that contribute to:

- Institutional and capacity building in the cocoa producing countries
- System, process or product innovations that lead to strengthening the economical structure of the cocoa sector or improve the quality of products in particular with regard to food safety
- A better well-being for employees and their families working in cocoa producing countries
- A smaller impact on the environment by the cocoa sector

The Upcocoa project is a project that is approved by the ministry. It aims at creating a professional and sustainable cocoa business. This involves addressing problems in the areas of production, logistics and sales. Quality management, good governance, enterprise orientation and social responsibility are leading themes which permeate the entire endeavour.

The name of the union created within the project is UCOPROC, it is the abbreviation for ‘Union des coopératives des cacaoculteurs du centre’ in English this stands for the ‘Union of cocoa cooperatives in the centre province’. The union is a central sales organisation which is owned by the eight participating cooperatives. The eight cooperatives involved from the start are SOCOOCAMA from the city Mfou, SOCOPA from the city Nyep, SOCOAP-LN from the city Okola, SOCOPLAUCCOM from the city Mengang, SOCOMAK from the city Ngoumou, GROUPEX from the city Ayos, SOCACEN from the city of Bokito, SOCOPROCAON from the city of Ngomedzap. (see map at end of this appendix for details)

The Upcocoa project is a multi-stakeholder initiative. Besides the union UCOPROC, project partner organizations are ADM Cocoa B.V., Mars Inc., IITA-STCP, RIAS (part of Rabobank) and until March 2009 ISCOM (an NGO). The project is financed by a subsidy from the Cocoa Buffer Fund of the Dutch Ministry of Agriculture (LNV) and by in-kind contributions from ADM Cocoa B.V., Mars Inc. and IITA/STCP

(see for additional information: www.iscom.nl/upcocoa).

The first two years of the projects primarily involved implementation of well-established management systems, such as application of established cooperative enterprise and management principles and accounting.

⁵¹ Minister Verburg, Dutch ministry of Agriculture (letter 1-4-2008)

Back ground of the partner organizations.

The farmers and their organizations should be the key actors who strive for better livelihoods. To have sufficient expertise available, the project brings in other partners. The initiating partners were of Dutch origin. One is a Dutch NGO that designed the project and turned it into a concrete project proposal on it, backed up by a large Dutch cocoa processing company. The initiating group was joined by a large chocolate (products making) company (with a branch in the Netherlands), a Dutch bank-related consultancy firm and a training oriented international group with a strong base in Cameroon.

Besides the Dutch NGO – for a great deal involved in project coordination and project support - a number of Cameroonian NGOs were contracted to train the farmers, mostly via training of the trainers and supervision on how the trained trainers operate. The various aspects of good governance and operating as a business are part of an ongoing training programme. The Dutch NGO has arranged the introduction of computers and accounting systems for the cooperatives. It was implemented with help of a local organisation with lots of experience in the specific software and accounting systems. The NGO was only involved in Y1 and Y2.

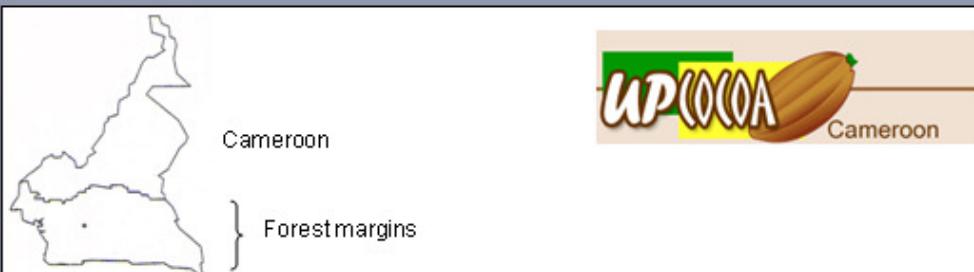
The Dutch cocoa processing company has provided direct support to farmer training sessions in post-harvest product quality control. As potential buyer, the company can offer a great deal of help to get the sales and its related logistics and procedures off the ground.

Through the project, the Cameroonian branch of the training-oriented international group could expand its farmer field schools (FFS) activities to all cooperatives in the project while also contributing to the development of the wider organization structures needed.

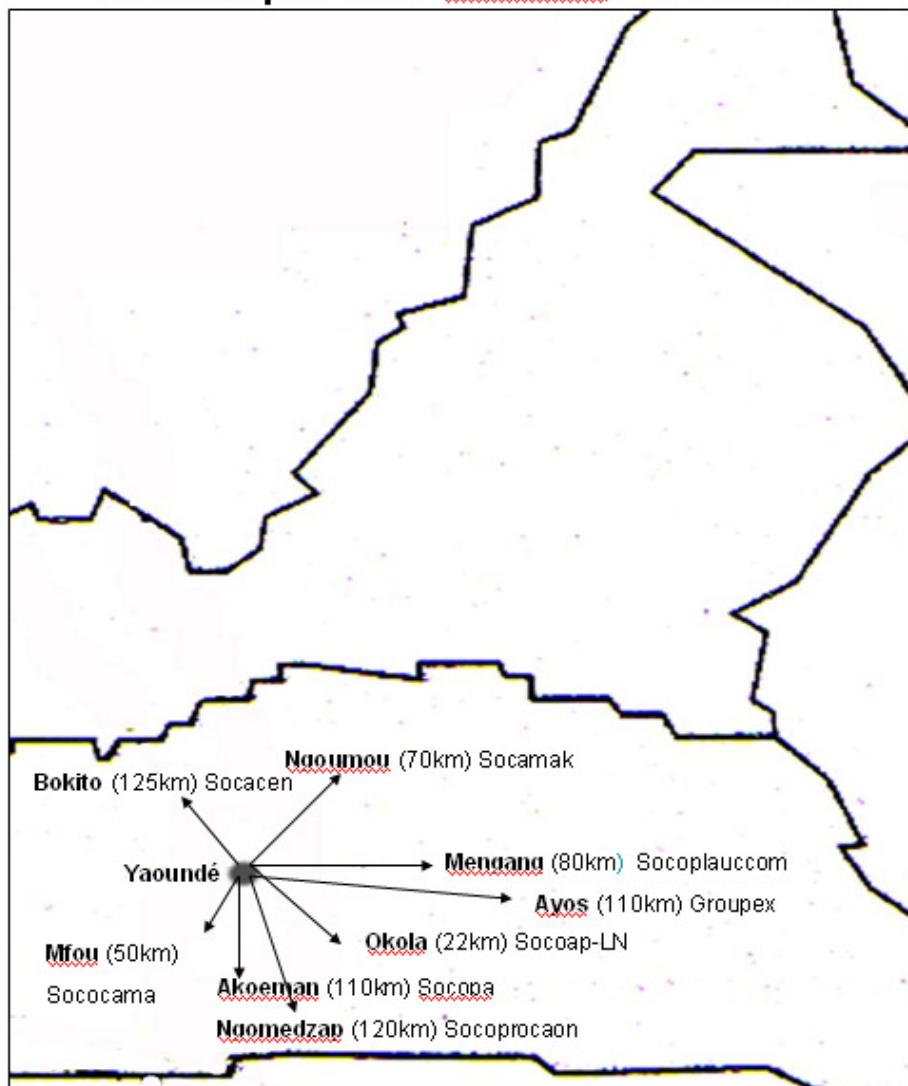
The Dutch bank-related consultancy firm has made a prominent contribution to structuring the cooperatives as professional organizations by presenting a consistent market-oriented cooperative structure. It also presented a financial business plan providing for sound financial policies (including organisation and asset management). Besides it is managing the project since the second half of the second year.

The chocolate company's organization knowledge in areas of productivity and sustainability of cocoa cultivation has already played a role in various project-related discussions. There is also an ongoing subproject of applying biological means to fight cocoa pod infections. As in the beginning of the project emphasis was laid on the organization build-up rather than on productivity issues (beyond what is implied in the FFS), this company's expertise can be expected to be more intensively called upon at a later stage.

The grant from the Dutch government's Cocoa Buffer Fund made it possible not only to bring in the necessary consultancy, but also to make basic investments like computers and vehicles.



Sites cooperatives membres de UCOPROC



7.5 Appendix 5 Cocoa information

Cocoa is a commodity. That is any product for which there is demand, but which is supplied without qualitative differentiation across a market. In other words, cocoa is cocoa. Rice is rice. Unlike stereos for example, that can come in many varieties of quality. And, the better a stereo is, the more it will cost. Whereas, the price of cocoa is universal, and fluctuates daily based on global supply and demand. The price of cocoa is universal, and fluctuates daily based on global supply and demand.⁵²

Next to cotton and coffee the supply chain of cocoa raises lots of interest⁵³. The reason for this is that negative environmental and social impacts are most appalling in these chains. In general, cocoa develops well in areas where temperature and humidity are high without much variation over the year. Rainfall should also be high and well distributed. Such conditions are found in the regions of approximately 20 degrees to the north and south of the Equator. Cocoa therefore is grown for nearly 70% in West Africa. This is led by the four major producing countries made up of Cote d'Ivoire, Ghana, Nigeria and Cameroon in their respect order production volume (WCF). Cocoa requires a well-drained deep soil. It may be a sandy loam, loam or clay provided it has a good water-holding capacity without getting water-logged. The pH of the soil should range between 5 and 7.5.

More than 80% of all cocoa produced is by smallholder farmers (on farms of less than 5 Hectares). It grows mostly under shade trees and often intercropped with other plants. The farmers have to face each year significant challenges, ranging from crop loss due to pests and diseases (on average 30 percent annually), limited access to latest farming practices and other issues⁵⁴. This situation makes it interesting for economic and technological challenges especially in light of pests and diseases that have impeded continuity of supply around the world.

Smallholder cocoa growing is a long term effort and typically a family business. Trees require several years before bearing fruit and remain economically viable until around 40 years of age.

Cocoa production per country

Country	Amount	Percentage of total production
Côte d' Ivoire	1300	37.4
Ghana	770	20.7
Indonesia	440	12.7
Cameroon	175	5.0
Nigeria	160	4.6
Brazil	155	4.5
Equador	118	3.4
Dominican Republic	47	1.4
Malaysia	30	0.9

Total production was 3.5 million tons for the season 2006/2007. Amount in 1000 tons. (ICCO)

⁵² Wikipedia

⁵³ Blowfield, 2003

⁵⁴ World Cocoa Federation

Some cocoa facts:

- Number of cocoa farmers, worldwide: 5-6 million
- More than two million farmers grow cocoa in Cameroon, Ghana, Cote d'Ivoire (Ivory Coast), Liberia, and Nigeria
- Number of people who depend upon cocoa for their livelihood, worldwide: 40- 50 million
- Annual cocoa production, worldwide: 3 million tons
- Annual increase in demand for cocoa: 3 percent per year, for the past 100 years
- Current global market value of annual cocoa crop: \$5.1 billion
- Cocoa growing regions: Africa, Asia, Central America, South America (all within 20 degrees of the equator)
- Percentage of cocoa that comes from West Africa: 70 percent
- Length of time required for a cocoa tree to produce its first beans (pods): five years
- Duration of “peak growing period” for the average cocoa tree: 10 years
- The average West African cocoa farm is approximately 3-7 hectares in size
- An average cocoa farm supports a family of eight to 10 people

7.6 Appendix 6 Competitive and non- competitive approaches

Competitive approaches

Certification is a competitive approach to gain consumers, to improve the income of farmers or to help the industry to reassure they buy sustainable cocoa. When a consumer buys a product labelled with a certification or an industry decides to work with a certification program, in a competitive way the farmer gets more value for his product. Certification programs like Fair Trade and Max Havelaar and Rainforest Alliance played an important role in creating consumer awareness about the issues in the industry. These are organizations with developmental missions: they contribute to the development of the small cocoa producers. These organization are active in a small percentage of the buyer market, they cover a ‘niche market’. A different approach, to focus on mainstream organizations that want to assure that their cocoa is produced in a sustainable way is UTZ Certified. All approaches work with different aims and goals but are all working toward sustainable cocoa and a better income for farmers.⁵⁵ The experts interviewed for this research are mainly positive concerning mainstream certification, some have their doubts however. In general it brings good things for the industry, like a guarantee that the beans delivered are in compliance with a set of criteria. Criteria that concern food safety, social issues and traceability. For the farmers it means living up to special rules for an extra premium. But besides the advantages there are also some challenges mentioned, like does the premium cover for the initial costs for the extra work and investment costs a farmer has to make to get started with a certificate ? And are the farmers willing to deliver the extra work and extra effort to follow the sometimes difficult rules for a little extra gain ?

UTZ Certified ‘Good inside’

An initiative from different parties in the cocoa world is to get to a ‘mainstream’ certification for sustainable cocoa shows the cocoa sector wants to take her responsibility. UTZ Certified Good inside is currently working on a certification project. The program is in a first phase of development. Important aspects in this certification are traceability and chain of custody requirements. A mainstream certification program for sustainably produced cocoa will allow producers to improve business practices and meet market expectations and enable brands to demonstrate their commitment to sustainability.⁵⁶ The idea behind UTZ Certified is that cocoa is produced according to a baseline standard for responsible production. Buyers that want UTZ Certified cocoa recognize this extra value by paying a price premium for UTZ certified cocoa to the producers. The extra price that is paid to the farmers is market-driven. It is not a guaranteed price. This price is a negotiation process between both the buyer and seller and based on a difference between a standard price without certification and the extra effort that has been done to deliver certified cocoa. UTZ Certified is not part of these negotiations; thought provides farmers with aggregated market information. This information strengthens them in the negotiation process and enables them to make informed contract decisions.

From the interviews held within this research is seems the experts in the cocoa chain vary in their accents with regard to mainstream certification. The accent of farmers is quality in combination with better prices where as the industry focuses more on traceability and a good quality cocoa. ‘*But only when the final product can be traced back to the producing area, otherwise it doesn’t really serve*’. Another plus-point of mainstream certification the industry

⁵⁵ Websites of UTZ Certified, Fairtrade and Rainforest Alliance.

⁵⁶ Source : www.utzcertified.org

mentions is the communication towards consumers about food safety and the origin of the cocoa. *Cooperatives should be helped in preparing themselves to live up to these rules.* But it is necessary to monitor the farmers in the continuation in this. ‘*There could be a risk of falling back to the old system if sustainable angles and adequate auto-pilots are not in place. Then the problems could even be bigger than before*’..

Both the industry and the government have some doubt on the effect of a mainstream certification due to the cost-effectiveness. “*It might even widen the gap. Lot of initial costs for the farmers are involved to live up to certain rules, normally for a certification a premium is paid, but when it is standard, and everybody needs to implement these rules, who will guarantee a better price?*” ‘*Does the premium offered for the qualities pay for the costs incurred in getting the certifications? Are farmers willing to invest more and work harder for a little extra gain?*’ On the other hand the cooperative expert foresees an augmentation in prices due to a more efficient chain when handling mainstream certification rules. ‘*Due to the direct contact between manufacturer and producer some links like middleman and whole sales are no longer needed, what will be more beneficial for the other participants in the chain.*’ ‘*If internationally the rules are set, perhaps that price effect would be visible*’. But putting it in place means investments, costs and special work too. The farmers are optimistic. They see certification as a guarantee for quality and it gives trust to the clients. But an engagement in rules can only be done with a price effect for the extra effort. It can give better revenue and will be better to the general health of farmers too.

Non competitive approaches

The non competitive approaches and initiatives are a reaction to the competitive approaches in the cocoa world. Not all international institutions can easily support and adjust to a competitive approach. Therefore within the international cocoa sector there is a discussion on how to improve the cocoa sector internationally without being competitive. There are different non competitive approaches and initiatives. A non competitive approach can be seen as decisions and/or agreements that are made together with stakeholders in the cocoa sector that are of influence of benefit to the whole cocoa sector. By opening discussions with experts throughout the sector all opinions are heard and it leads to solutions based on common ground to reach a common goal of a more sustainable cocoa sector especially focused on a better life and income for cocoa farmers. A non competitive approach does not imply direct extra costs for individual organizations.

In this research four non competitive approaches will discussed that are also on the agenda of the Dutch Government.

The four approaches are:

- The World cocoa Foundation
- The International Cocoa Organisation.
- The Roundtable for Sustainable Cocoa Economy (RSCE)
- International Cocoa Initiative

World cocoa foundation

To join forces in a non-competitive way the World Cocoa Foundation was created in 2000 to promote a sustainable cocoa economy through economic and social development and environmental conservation in cocoa growing communities⁵⁷. More than 60 international

⁵⁷ See www.wcf.com

operating members throughout the whole supply chain have joined since. The program of the WCF is based on four principles:

- Long-term solutions matter more than Quick fixes
- Partnerships drive success
- Community involvement is essential
- The Chocolate industry plays a key role

Within the WCF programs had began to role out between cocoa stakeholders. Building trust was one of the early challenges. The decision on how to handle intellectual property issues became the most unique aspect of public/private partnerships: all activities conducted on behalf of the cocoa industry are shared, so that all countries, manufacturers, and government agencies operate in an open, even environment⁵⁸. ‘*A partnership is a two-way street, what is good for you, is good for me, and what is good for me is good for you*’. Cocoa farmers in programs are seeing their income gains in between 15 and 55 percent.

International cocoa organization (ICCO)

ICCO is a global organization that is based on the principles determined in the International cocoa agreement: achieving a ‘sustainable world cocoa economy’. It focuses on discussing cocoa matters respecting the economic, environmental and the social way of producing cocoa. The 7th version of this international agreement dates from 2001. March 2007 a consultative board – consisting of different stakeholders from private sector representatives and created on ICCO’s initiative – finalized a document that led the way for discussion about a how to reach a sustainable cocoa economy. It led into discussion points for the concept of the Roundtable for a Sustainable cocoa Economy (RSCE).

Roundtable for Sustainable Cocoa Economy (RSCE)⁵⁹

The RSCE has developed from the growing requirement to face the challenges posed by sustainability and the need to adopt a holistic approach in addressing this complex topic. It was launched in 2007 by the international cocoa organization (ICCO) and it is steered by an independent group with representation of major stakeholders of the cocoa supply chain. The mission is to establish a participatory and transparent process towards sustainable cocoa. In the first meeting the end of 2007 the participants spoke about the need for a cohere and balanced approach to reach this. The first meeting brought together more than 200 stakeholders representing 25 countries, including cocoa farmers, government officials from cocoa producing and consuming countries, traders, manufactures, donor organizations and (inter)nationals NGO’s.

The aspiration is to determine in a next meeting what globally is seen as sustainable cocoa. These principles that can be determined there can be drawn up in a standard that can contain (inter)national legal obligations on areas like labour and environment⁶⁰. The experience from programs and projects in the recent years has to be used optimal to reach this stage.

This initiative has the support of the Dutch government, which helps to co-fund the program.

International cocoa initiative

The International cocoa initiative (ICI) was established in 2002 as a result of a groundswell of public opinion urging the chocolate industry to ensure child and forced labour were not used

⁵⁸ Shapiro, Rosenquist, 2004

⁵⁹ www.roundtablecocoa.org and www.icco.org

⁶⁰ See www.roundtablecocoa.org

in the production of their products.⁶¹ ICI identifies efficient and effective methods to end abusive labour practices in cocoa growing. ICI works with cocoa communities to determine which activities best support responsible labour practices and meet their needs. There isn't a "one-size-fits-all" solution however strong common themes have emerged. The whole industry can profit from the ICI initiative as they are growing. More countries can be certificated as working on child labour policies.

The programs of ICI are based on these principles:

- Works at the national level to ensure appropriate and effective policies are in place;
- Supports capacity building for local partners and institutions;
- Implements community based projects to change practices;
- Supports social protection for victims of exploitation; and
- Shares lessons learned for replication.

⁶¹ICI:www.cocoainitiative.org

7.7 Appendix 7 Good governance in Cameroon

Cameroon has a constitutional democracy with a separation of the three arms of state power (the Executive, Legislature and Judiciary). Although the president holds extensive powers in many fields Civil Society Organisations (CBO) are given room to operate freely.

National Marketing Office

Until 1990 the parastatal National Marketing Office for Primary Commodities (ONCPB, derived from its name in French) operated as a organisation on fund and controlled the marketing of cocoa. It applied fixed prices along the domestic marketing chain. Buyers were allowed to purchase cocoa within allocated geographical areas. By determining the days on which purchases could take place, the growers were provided with a planning horizon so that they could properly ferment and dry their beans. The ONCPB verified the quality and grading of the crop at the time of purchase and sometimes it also arranged transportation for crops. The ONCPB operated a fund aimed to stabilise producer prices. After the liberalization they were unable to maintain producer prices. This created severe problems.

Training centres⁶²

Before the liberalisation of cocoa in Cameroon the government had a public education centre to train cocoa farmers with a six month training programme. That disappeared with the liberalisation. The government is now lacking means to re-introduce it. The farmers were not used to take care of themselves, whilst the government was providing them all they needed for a good cocoa harvest. After the liberalisation the government pulled back and the farmers 'stayed behind like babies'. A lot of them even cut their plantations.

The National Cocoa and Coffee Board (NCCB) & the Cocoa and Coffee Inter professional Board (CICC)

The French abbreviation for the National Coffee and Cocoa Board (NCCB) is ONCC, Office National du Café et du Cacao. It monitors, supervises and regulates the cocoa sector in Cameroon and ensures the quality standards throughout the chain. They mainly contribute in the fight against poverty in rural areas by investing in capacity building of all stakeholders and by promoting sustainable cocoa. Besides that the NCCB attributes in collecting and collating div. market statistics that they disseminate to stakeholders. Furthermore they assure quality control and certification, encourage trade, marketing and local transformation. They also accrued professionalization of the sector by providing trainings and capacity building⁶³. Finally they assure follow up of international agreements on cocoa matters.

The CICC was created in 1991 and is an organization that represents the total professional cocoa chain in Cameroon. It advises organizations concerning development, commercialization, taxation and finance of cocoa. The CICC is like a window that ensures professional cautions and guarantees. To ensure that they determine and guard the rules and regulation of the organizations that operate within the commercial cocoa business in Cameroon. An example of this is the professional delivery card (la carte professionnelle

⁶² Information on the liberation the cocoa sector in Cameroon is based on Akiyama *et al.* (2003) and expert interviews.

⁶³ NCCB leaflet

délivrée) that is obligatory for all official registered cocoa buyers and exporters. This card intends to prevent informal buyers (coxeurs) from buying and selling cocoa⁶⁴.

The government helps cooperative farmers in Cameroon. They help with chemicals, equipment, seeds and plants. At this moment 22 cooperatives are in a special insecticides program.

Cameroon versus other cocoa countries

When compared to Ivory coast and Ghana, Cameroon could improve on cocoa development. In Ivory coast for example there are special cooperatives laws and the government banned the less formal farmers structures like ‘CIGS’. The results are strong cooperatives. The farmers get a better price, even though they are not mobilising a lot of cocoa nowadays.

In Ghana it took like 20-30-years to reach the level of cooperatives they have now. They have cooperative with different sections, like a sector for loans, savings, services etc. And in Benin the West-African cooperative movement is developed by a special cooperative training centre. In Cameroon it would probably take 12 years to reach the same level of cooperatives they have there.

⁶⁴ CICC presentation

7.8 Appendix 8 Equipment

Equipment available (percentage of farmers)

Equipment	Total number of farmers (sample)	% in possession of the equipment (one or more items)
Fog machine	383	0.3
Pick-up vehicle	379	1.1
Thermal fogger	383	3.1
Power driven pomp	382	3.4
Motorised sprayer	383	5.2
Drying oven type Samoa	380	6.6
Cement drying oven	383	8.4
Chain saw	382	9.1
Clippers	382	12.0
Bill hook	385	16.0
Pousse-pousse (cart)	382	23.3
Jute bags	343	33.8
Canvas sheet	385	34.0
Fermentation box	382	39.3
Wheel barrow	383	56.7
Dibble	380	79.2

Farmers' equipment weighted by quality; per cooperatives

	<i>Cooperatives</i>								All
	1	2	3	4	5	6	7	8	
Number of farmers in sample per cooperative	44	48	45	29	50	50	50	50	366
Index*	44.8	32.5	45.8	21	37.9	53.0	75.3	100	53.3

*Available items are weighted by different quality levels (3= good, 2 = OK, 1 = bad). The calculated results are expressed in an index, the score of the best scoring cooperative is 100.