

The African export industry: What happened and how can it be revived?

**Case study on the
Cameroonian cocoa sector**



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by Ladé A. Dada



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Preface

The African export industry has undergone a cycle of rapid growth and decline in the years following national independence and the structural adjustment programmes. Certain sectors are faring better than others, while many are fighting a losing battle to remain competitive. This study will seek to identify those factors that influenced select industries, Coffee in Kenya, Oil Palm in Nigeria and Cocoa in Cameroon, paying particular attention to the elements of the management and industry structure that contributed to the demise of these important export commodities. Africa's policy process cannot be generalized, since there are as many similarities as there are differences in individual country experiences. Moreover, there is a broad set of factors that have shaped policy implementation, but the extent of each differs from country to country. Each case study will therefore seek to capture specific domestic elements drawing upon the vast literature available and primary research with local actors.

Following a preliminary literature review of the Cameroonian cocoa industry, a series of meetings were organized (with the help of FAO Cameroon) with the Ministry of Agriculture (MOA), the Ministry of Commerce (MOC), Société de Développement du Cacao (SODECAO), the Sustainable Tree Crops Programme (STCP) of the International Institute for Tropical Agriculture (IITA), the Institut de Recherche Agricole pour le Développement (IRAD) (Institute of Agricultural Research for Development) and with various small-scale producers and producer associations.

This paper will examine the impact of macroeconomic forces, as well as the role of internal elements that precipitated the decline in cocoa quality and production. It will additionally offer recommendations on measures that could be adopted to help reverse this downward trend and help producers regain export competitiveness.

This working document is aimed at those working at ministries of agriculture and extension services, Non-Governmental Organizations (NGOs) and related projects concerned with agricultural development .

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Acronyms

BPD	Black Berry Disease
CFAF	French Francophone African Currency
CFC	Chlorofluorocarbon
CIF	Cost Insurance Freight
COPAL	Cocoa Producers' Alliance
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FDI	Foreign Direct Investment
FFS	Farmer Field School
FIMAC	Fond d' Investissement des Microréalisations Agricoles et Communautaires
FOB	Free On Board
FUPROCAM	Fédération des Unions de Productores de Cacao du Mbam et Inoubou
GDP	Gross Domestic Product
GICs	Groupe d' Initiatives Communes
ICCO	International Cocoa Organization
IITA	International Institute for Tropical Agriculture
IMF	International Monetary Fund
IPM	Integrated Pest Management
IRAD	Institut de Recherche Agricole pour le Développement
MOA	Ministry of Agriculture
MOC	Ministry of Commerce
NGO	Non-Governmental Organization
OCQ	Observatoire Camerounais de Qualité
ONCC	Office National du Café et du Cacao
ONCPB	Office National de Commercialisation des Produits de Base
OPCC	Organisation des Producteurs de Coton du Cameroun
QC	Quality Control
SAL	Structural Adjustment Loan
SAP	Structural Adjustment Programme
SIMARC	Système d'information sur le Marchés de l'Arabica, du Robusta et du Cacao
SMS	Short Message Service
SODECAO	Société de Développement de Cacao
SODECOTON	Société de Développement du Coton
STCP	Sustainable Tree Crops Programme
WB	World Bank

Summary

With the dramatic decline in the prices of a number of agricultural commodities, producers of primary agricultural products in various developing countries found themselves at the mercy of the vagaries in the world market. Many of them depended on single export commodities as their sole livelihood source and as such were heavily affected. Cameroon was hit badly by the price decline, particularly since its economy was dependent on four primary export commodities; cocoa, coffee, tea and timber, all of which suffered considerable price declines in the world market.

Coupled with the fall of world prices, the government's drastic liberalization measures contributed to the demise of the cocoa industry. Responding to market-driven reforms, imposed by the Structural Adjustment Loans (SALs) of the World Bank (WB), as a means to stimulate export-led growth, the government was forced to reduce its involvement in the domestic and external marketing of agricultural commodities, while simultaneously opening up the internal market to competition. In essence, the government pulled out from the cocoa industry and removed the various support mechanisms that had helped propel the primarily smallholder-based sector to a leading position in the world market. Accordingly, the 'Caisse de Stabilisation' which was responsible for stabilizing prices and ensuring that producers received a guaranteed fair price was dismantled, the marketing board was dissolved, credit facilities vanished, input subsidies were abolished, information and extension services diminished and rural infrastructure crumbled.

However, producers, the intended beneficiaries, were unprepared to absorb the price risk that was involved with such changes. Moreover, without adequate safety nets, many lost their sole livelihood source. As a result, the overall quality and production of Cameroonian cocoa plummeted.

Producers therefore paid less attention to cocoa cultivation and processing and lowered their fermentation standards. Without the regulatory function being performed by government and owing to the lack of effective quality control (QC) at the farm gate, low grades of cocoa were produced and were transported in bulk (which also facilitated the mixing of varying quality levels). In addition, the use of traditional drying ovens further reduced quality levels since these tainted the cocoa with an undesirable smoky flavour. Furthermore, the poor rural infrastructure ensured that cocoa would rot while producers waited for buyers to transport the produce to port. (This often proved impossible during the rainy season when it was virtually impossible for trucks to be on the road). Moreover, higher rainfalls meant that the poorly dried cocoa contained elevated humidity levels (often as high as 8 percent) which translated into additional costs for drying and lower grades because of higher incidences of mould.

In addition to the price risk, producers were faced with a number of other sources of vulnerability. For instance, Black Pod Disease (BPD) can result in an 80 percent loss of crop

if not properly treated. As such, the International Institute for Tropical Agriculture (IITA) is training smallholders on Integrated Pest Management (IPM) in response to BPD. Another issue that requires attention is the poor management of the producers' cooperative societies. Owing to nepotism, corruption, and an overall lack of business management skills, the societies lack the operating requisites for assisting their members. In addition, the issue of land tenure continues to prove daunting, especially for a perennial crop like cocoa. There is an innate reluctance to clear land for cocoa cultivation because of the considerable time lag required for producing a harvest and receiving returns, and also derived from the fear that the ownership of the land will be transferred to the producer during the long waiting period.

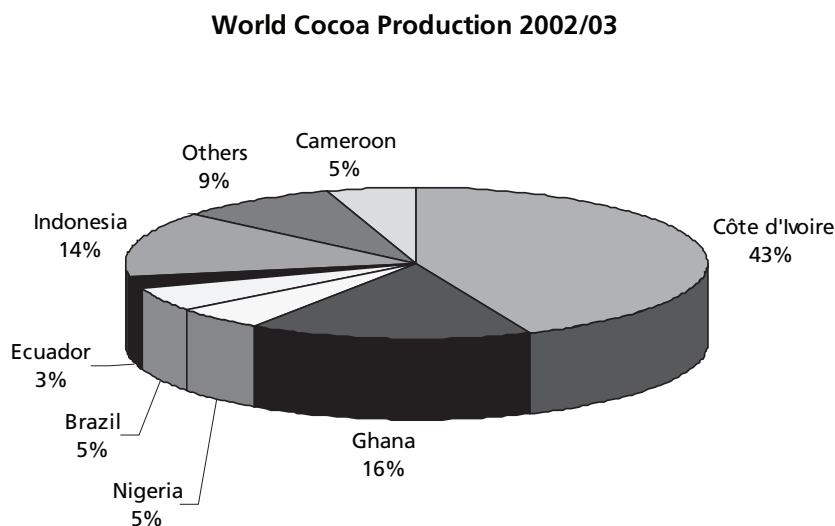
Producers also lack adequate access to information on prices, new technologies and good crop husbandry practices and so on. Measures to improve information dissemination have not always worked and have failed to produce the desired impact. Moreover, with the ageing population of producers and without a concurrent rise in the number of youths undertaking cocoa cultivation, the industry faces a considerable challenge in the area of ensuring continuity in production.

As such, a number of interventions are required by the government to help reverse the downward trend and stimulate the industry so as to regain export competitiveness. To that end, appropriate actions are needed to create a strong national cocoa policy and a robust institutional framework, enhance the producers' technical expertise so as to improve quality, provide credit facilities to encourage the affordability (and subsequently the use) of inputs, expand the area under cultivation as a means to increase production outputs, promote cocoa agroforests as a tool for diversification to avoid dependence on one commodity and to reduce the shocks produced by the vagaries in the world market.

1 Introduction

Cocoa is a tropical tree crop that is mainly produced in West Africa and Pacific Asia. Côte d'Ivoire is the largest producer of cocoa beans, accounting for approximately one third of world production and over 40 percent of world exports. In West Africa, Ghana, Nigeria, and Cameroon are also major producers, together providing over 50 percent of world production and nearly 70 percent of world exports (CIA, 2006). Figure 1 illustrates the market share of the world's leading cocoa producers.

Figure 1. World cocoa production (2002/03)



Source: Created by Author using data from ED & F Man Cocoa Ltd.

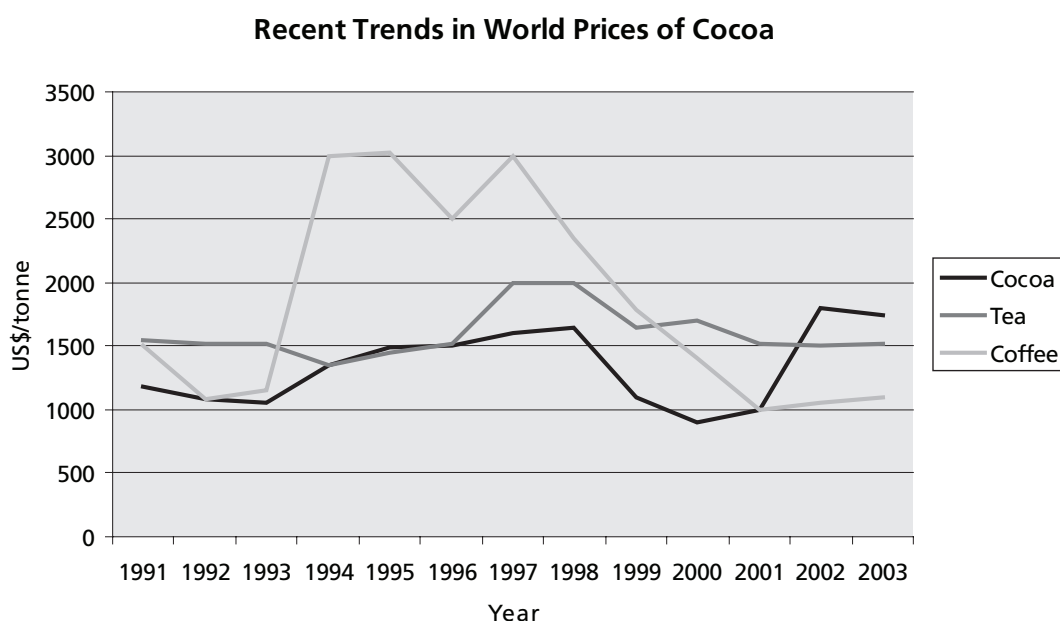
The prices of many agricultural commodities fell dramatically from the late 1990s through 2001, but in recent years, some have rebounded. Cocoa was no exception, experiencing a sharp decline between 1999 and 2000. Although cocoa prices have begun to rise, the market has been weakened by competition from 'cocoa butter equivalent,' since the European Union (EU) relaxed its regulations on the use of fats derived from other sources to replace some of the cocoa butter in chocolates (FAO, 2004).

In general, some common factors contributing to the overall decline of primary agricultural commodity prices include:

- Technological advances reduce costs, permitting an expansion in production, hence the prices of agricultural commodities decline relative to industrial products.
- Intense global competition often drives an oversupply, which reduces prices.
- New technologies also introduce synthetic alternatives.
- The emergence of major new producers affects market balance.

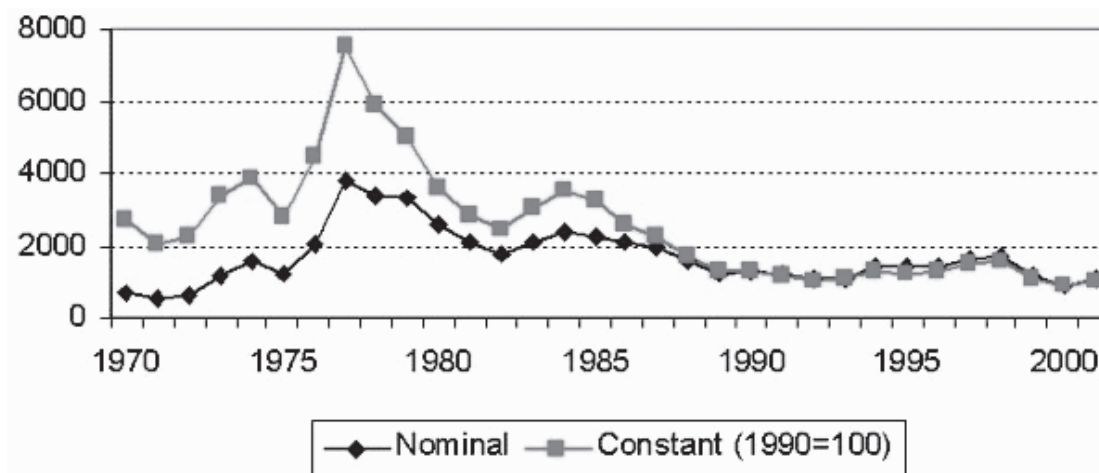
- Export subsidies and subsidies to producers in some developed countries have pushed world prices down for products grown in temperate zones, thereby reducing earnings for developing countries.
- Climate changes often impact world prices, causing short-lived ‘booms’ and lingering slumps. For instance, drought reduces available stocks and raises prices, however for perennial crops (such as cocoa), new plantings take years to ripen for harvest. By the time production increases, prices fall as supplies outgrow the demand in importing countries.

Figure 2. Recent trends in world prices of cocoa, tea, coffee, 1991-2003



Source: FAO, 2004

Figure 3. World cocoa prices; ICCO composite prices



Source: FAO, 2002

The impact of declining world prices, coupled with the effects of rapid liberalization and the concurrent withdrawal of key government support, have contributed to the decline in important African export commodities. In Cameroon, the effect has been significant in the largely smallholder dominated cocoa sector.

CHARACTERIZATION AND BACKGROUND

OVERVIEW OF THE MACROECONOMIC ENVIRONMENT

Cameroon boasts one of the best endowed primary commodity economies in Sub-Saharan Africa, because of its oil resources and favourable agricultural conditions. The country produces a variety of food and tropical crops, including cocoa, coffee, cotton, tea, latex and bananas. While tea, latex and bananas are grown on large plantations, the other commodities are primarily smallholder based (Baye and Douya, 2004).

Previously, Cameroon operated successful plantations that benefited from various support mechanisms implemented by the government to facilitate production, processing, and exporting. In recent years, plantation owners have been left to fend for themselves, following the government's recession from performing these functions. Moreover, most of the plantations include ageing tree crops that have effectively reached the end of their productive lives with most of the trees being over 35 years old and most of the farmers being over 60 (Baye and Douya, 2004).

Cameroon had a Gross Domestic Product (GDP) of US\$31.77 billion in 2005, comprised of agriculture at 44.8 percent, industry at 17.3 percent and services at 37.9 percent. The nation's largely agricultural labour force, about 60 percent of the 15 million population, retains a per capita GDP of \$2 400. However, the top-heavy civil service and adverse business environment, among other factors, encumber the country's economic performance (CIA, 2006).

Table 1. Trends in Cameroonian cocoa exports (1961—2000)

Year	Cocoa
1961-70	30.85
1971-80	27.45
1981-85	16.08
1986-93	12.21
1994-00	8.9

Source: 1961—1980: Calculated from Bulletins by DSCN and Jean Assoumou (1977) p. 331. 1981—1991: Compiled from Cameroonian Government Figures. 1992—2000: Compiled from data provided by Customs—MINEFI (Baye and Douya, 2004).

Between 1986 and 1993 the Cameroonian government entered a new phase of agricultural sector reforms. This was primarily in response to the economic and social crises in 1986 that followed the period of sustained GDP growth of 7 percent over a ten-year period. The crises stemmed from a series of poor macroeconomic trends arising from the fall of world prices of key export commodities, particularly oil, cocoa, coffee and cotton. In addition, the over-

priced US\$, to which most Cameroonian exports are tied, also contributed to these challenges. The government consequently abandoned its long-term planning strategy and the Structural Adjustment Programme(SAP), as well as other medium-term International Monetary Fund (IMF) and WB programmes (Baye and Douya, 2004).

The ensuing drop in economic indicators and the fall in revenues caused a 40 percent decrease in per capita consumption between 1985/86 and 1992/93 with a simultaneous increase in outstanding external debt up to three quarters of GDP between 1984/85 and 1992/93.

Additionally, Foreign Direct Investment (FDI) inflows dropped by 27 percent to less than 11 percent of GDP during the same period. The government's response to the crises was to reduce public spending with a double reduction in public service salaries in 1993, the cessation of public sector grants and a reduction in producer prices. Despite these efforts, the measures failed to restore macroeconomic stability (Baye and Douya, 2004).

Since 1990, Cameroon has sought to spur business investment, increase agricultural efficiency, improve trade, and re-capitalize the nation's banks by undertaking a series of IMF and WB programmes. This included an IMF sponsored three-year SAP (the Enhanced Structural Adjustment Facility) which ended in June 2000. A number of policy measures that encompassed incentives in the exchange and trade system, incentives in regulatory and domestic pricing, revenue and expenditure, public enterprise reform, administrative reform, the financial sector, external debt, energy, transport, education and health were implemented within the program's first year. Nevertheless, the IMF continues to press for more reforms, including increased budget transparency, privatization and poverty reduction programmes (CIA, 2006 and IMF, 2001).

The government has additionally adopted a poverty reduction focus, however only 10 percent of public expenditure is allocated to agriculture, although it generates 25 percent of the country's revenues. Moreover, despite this shift in focus, the poverty level was 53.3 percent and 40.2 percent in 1996 and 2001 respectively, while the equivalent figures in rural areas was 60 percent and 50 percent. Table 2 below shows that improvements in poverty reduction have been slow.

Table 2. Human development indicators; Cameroon

HDI Rank	Human Poverty Index (HPI-1)		Probability at birth of not surviving to age 40 (% of cohort)	Adult Illiteracy Rate (% ages 15 and above)	Population without sustainable access to an improved water source (%)	Children under weight for age (% under age 5)	Population below income poverty line (%)		
	Rank	Value (%)	2000-05	2003	2002	1995-2003	\$1 a day 1990-2003	\$2 a day 1990-2003	National Poverty Line 1990-2002
141 (2004)	61	36.9	44.2	32.1	42	21	17.1	50.6	40.2
148 (2005)	67	36.2	43.9	32.1	37	21	17.1	50.6	40.2

Source: UNDP (Human Development Reports, 2004-2005)

Following the devaluation of the French Francophone Africa Currency (CFAF) in 1994, Cameroon regained a certain level of macroeconomic stability, although rural revenues grew at a slower rate since most of the coffee and cocoa plantations had been abandoned (in one of the rural areas visited, it is estimated that up to 75 percent of the farmers abandoned their cocoa farms). Additionally, the devaluation of the currency with its corresponding short-term inflationary effects served to restrict Cameroonians' purchasing power. Per capita revenue during the 1996-2001 period increased on average by 2 percent yearly, although social conditions haven't improved much (Baye and Douya, 2004).

POLICIES AND PROGRAMMES SUPPORTING THE EXPORT SECTOR

The standard crop marketing structure adopted in former British colonies was that of monopoly-monopsony marketing boards. Former French colonies on the other hand were set up to allow ownership of most of the crop to remain with the private sector, with the state intervening by setting producer and export prices, by buying and selling a proportion of the crop, by issuing export licences and by stabilizing prices through a 'caisse de stabilisation'.

Cameroon, both a former British and French colony, combined both structures by adopting a hybrid model centrally organized by the ONCPB (Office National de Commercialisation des Produits de Base). The ONCPB served as a 'caisse de stabilisation' (comparable with the old Caistab in Côte d'Ivoire) since it set both farm-gate and export prices, only intervening in a small proportion of total exports. In the Francophone areas it negotiated export contracts for private exporters, while in Anglophone areas it acted as a marketing board (such as those operating in Ghana and Nigeria) and bought produce directly from the local buying agents (Laven, 2005).

The ONCPB fixed the producer price as well as prices and margins along the marketing chain. The body was additionally responsible for regulating the system and all market participants required licences. Finally, the ONCPB controlled the quality of cocoa beans, both up-country and at the port (Akiyama et al., 2001 in Laven, 2005). The result of these functions was that the effects of world price fluctuations weren't felt at the micro level. A comparison of the differing cocoa marketing and cocoa pricing systems is presented in the following table.

Table 3. Key characteristics of different cocoa marketing and cocoa pricing systems

Characteristic	Free Market	Stabilization Fund	Marketing Fund
Legal ownership of crop	Traders, exporters	Traders, exporters	Marketing Board
Physical handling of crop	Traders, exporters	Licensed private agents	Marketing Board
Domestic price setting	Market forces	Stabilization fund	Marketing Board and government institutions
Price Stabilization	None	Yes	Yes, but not explicit
Taxation	Absent or very low	Mainly explicit	Implicit
Marketing costs and margins	Low	Medium to high	High
Producer prices	High	Medium to low	Low

Source: Adapted from Akiyama et al., 2001:41 by Laven, 2005

This table perhaps provides an exaggerated view of the advantages of a free market system. This is because it fails to take into consideration the effects of the volatility of world prices and the increase in costs of production, which led to a decline in producer incomes. Table 4 gives a clearer overview of the characteristics of marketing and pricing systems before and after liberalization, focusing on the farmers' enabling environment.

Table 4. Key characteristics of cocoa marketing and cocoa pricing systems before and after liberalization

Characteristic	Free Market	Stabilization Fund
Producer Price	Medium/Low	High
Price Stabilization	Yes	None
Income	Low	Low
Production Costs	Low	High
Marketing	One/few inexperienced players	Many unprofessional local players, few strong foreign players
Quality Cocoa	Medium/High	Low
Provision of services	Medium/good	Medium/low new players
Actors Involved in Services	Mainly Government	Different actors (private, civil and public)
Organization of Farmers	Low/Medium	Medium

Source: Laven, 2005

With the advent of liberalization the government was forced to withdraw its support to farmers. This pullout precipitated the collapse of the ONCPB, effectively shifting the price risk to smallholders who were unprepared and incapable of bearing it.

Historically, liberalization was stimulated by the low cocoa prices of the mid 1980s. At that time it was believed that reforms would help increase producer prices by reducing the costs of inefficient marketing and pricing systems, and by improving the efficiency of related cocoa activities. As such, the WB introduced SALs to provide financial assistance to indebted

developing countries. Those structural adjustment policies eventually became synonymous with market reform, warranting a reduction in state involvement in the domestic and external marketing of agricultural commodities and the opening up of these markets to competition. It was expected that these measures, coupled with the reform of public institutions and the entrance of private institutions supporting free-market activities would heighten economic and social development (Akiyama et al, 2001).

The WB accordingly imposed these market reforms as a condition to SAP. All West African cocoa producing countries undertook some reforms. Cameroon, Nigeria, and Togo engaged in drastic reform measures, while Côte d'Ivoire and Ghana opted for a more gradual approach.

However, Cameroonian smallholders, the intended beneficiaries of this advocated trade liberalization, were not sufficiently organized to effectively participate in the reform process. The state had previously ensured that the marketing channels operated efficiently, therefore the drastic reforms affected the smallholders' enabling environment without ensuring that other actors could take over the state's role (Laven, 2005).

As a measure under SAP, Cameroon liberalized cocoa trade in three phases of reforms. The first of these occurred in 1989 when the government liberalized internal marketing and reviewed the mechanisms of price stabilization. This led to the disbanding of the ONCPB. Subsequently, exporters were allowed to export directly and all licensing requirements were eliminated. However, a floor price was fixed, as marketing margins were retained in order to ensure intra-seasonal stabilization of grower prices (a formal stabilization fund was established to that end). A new body, the Office National du Café et du Cacao (ONCC) was created to regulate the system (Akiyama et al., 2001; LMC International and University of Ghana, 2000).

However, this set of reforms failed to improve the cocoa sector as the stabilization fund went bankrupt, there was no differentiation in producer prices and the establishment of the ONCC required new funding. In 1994/95 the government initiated the second round of reforms with the adoption of a new structural adjustment package, the further liberalization of the marketing system and the abandonment of the stabilization fund (Akiyama et al., 2001; LMC International and University of Ghana, 2000).

Once the fixed grower price was removed in 1994/95 the grower price increased from 40 percent of the International Cocoa Organization (ICCO) indicator price (1993/94) to 70 percent and has since remained at 60 percent (COPAL, 1998). The successful launching of an information system (Système d'information sur les Marchés de l'Arabica, du Robusta et du Cacao (SIMARC)) contributed to this price increase, as it increased the transparency of agricultural trade transactions (Laven, 2005).

Quality control up-country was no longer carried out following liberalization and the ONCC was instead charged with checking quality and certification at the port. The lack of effective monitoring by the ONCC led to poor quality and unreliable delivery, which further resulted in significant international price discounts (Laven, 2005).

In 1997/98 additional reforms were implemented as responsibility for QC was shifted to the private sector. Furthermore, three agents, Cornelder, SGS, and Observatoire Camerounais de

Qualité (OCQ) were charged with issuing quality certificates prior to export. Four additional companies were given the same mandate in 1998, thereby expanding the exporters' and international buyers' choice of QC companies (Laven, 2005).

While liberalization didn't initiate the decline in quality, the abandonment of licensing requirements, following liberalization, for domestic traders accelerated the multiplication of inexperienced buyers in the market (ICCO, 2001 and Laven, 2005). As was the case in Nigeria, these buyers failed to identify and compensate the varying quality levels and as such, enabled international traders to take over the domestic market (COPAL, 1998). According to the Cocoa Producers' Alliance (COPAL), whereas 80 percent of the export sector (including external marketing) was handled by nationals prior to liberalization, that figure has since diminished to a meager 20 percent. As well, the number of licensed exporters grew rapidly from 60 to over 300, since the stringent licensing requirements were poorly implemented (LMC International and University of Ghana, 2000).

Nevertheless, the situation has improved slightly in recent years. The number of active exporters has declined to about 50, albeit the ten largest companies account for over 70 percent of exports, with four of the five largest being foreign owned (Laven, 2005).

Where credit facilities are concerned, prior to liberalization farmers were provided with inputs on credit from both private buyers and cooperatives, with the costs being deducted from the price received on delivery. Since input costs were subsidized, farmers had limited need for credit, although the system was well organized (Laven, 2005).

Additionally, the Central Bank operated a re-financing facility at the start of each cocoa season, enabling commercial banks to lend to exporters and draw on the financing facility to cover a proportion of any ensuing changes in liquidity. However, with the growing indebtedness of the ONCPB in the late 1980s, forward sales were discontinued as the banking system's liquidity was severely compromised (Laven, 2005).

Financing has since shifted to the basis of warehouse warrants. Under this scheme, buyers issue exporters with a green clause letter of credit. The major transit companies subsequently issue warehouse warrants for the graded cocoa. The warrants are then sent to the buyers (or their local banks) and credit is released by the buyer to the local banks for advance to the exporter. For established exporters, foreign buyers also issue red clause letters of credit, which allow funds to be advanced prior to produce being placed in a warehouse (Laven, 2005).

Ultimately, the warehouse warrant system collapsed as "warrants were issued against stocks that had not yet been delivered to the warehouses" (LMC International and University of Ghana, 2000). Following its demise, no mechanism was instituted to provide smallholders with much needed credit facilities (which were required to offset heightened production costs).

The overall negative impact of liberalization is often explained by the haste with which the last phase of reform was carried out. "The only objective of the authorities was to honor the obligations of the SAP in such a way that no specific provision was made to ensure the smooth implementation of reform in the cocoa sector" (NCCB, 1999). Other reasons given for the encountered difficulties include the weak institutional system and the lack of professionalism

of private operators—two factors that still plague the sector (Minister of State, Cameroon, 1998).

Institutional and management infrastructure

SODECAO

The ‘Société de Développement du Cacao’ (SODECAO) was launched in February 1974. Its main mission was to actively pursue the rectification of the ailing cocoa sector. The body was additionally given the mandate of monitoring the techniques and methods used in creating new cocoa development programmes to identify those that seemed most promising. During that time, SODECAO oversaw a geographical zone of about 12 500 km, comprising 86 000 hectares of cocoa trees and employing more than 87 000 farms.

Between 1980 and 1990 SODECAO became operational, seeking to implement the approved cocoa development techniques. The target area extended from the provinces in the central and southern regions of Cameroon. Accordingly, SODECAO focused its activities on cocoa farming, driving and managing integrated development projects. Organized into eleven departments, the body also supported the farmers with technical assistance (with 1 officer assigned to 227 planters).

The year 1990 marked the beginning of a difficult phase in the Cameroonian cocoa sector. The state was encumbered with numerous difficulties: the drastic fall in the use of raw materials, the fall in the price of cocoa from CFAF 450 per kilo to CFAF 120 per kilo, the premature retirement of the ‘Caisse Française de Développement’ from financing the cocoa rehabilitation project, and the repeated suspension of WB financing, which deepened the effect of the devaluation of the CFAF. The government subsequently withdrew and SODECAO became a less important structure.

However, a contract initiated in January 1991 to help modernize cocoa farming, increased the earnings of smallholders through increased cocoa production and improvements in other food crop farming activities and the promotion of cocoa plantations, helped to reinvigorate SODECAO. The four year project allowed SODECAO to organize cocoa farmers and producers into groups, and support marketing, input provision and phytosanitary treatments. This new programme had the overall goal of regenerating the sector, encouraging diversification, maintaining the cocoa growing areas, and organizing the cultivators (Njawe, 2003). Nevertheless, the impact has not been as far-reaching as envisaged.

In evaluating the efficacy of SODECAO since then, it becomes apparent that the body has failed to meet a number of its intended goals. The heavy reliance on government grants and the lack of autonomy are perhaps to blame. The lack of funds (amidst speculations of mismanagement) has severely limited project activities, and has resulted in the non-payment of staff (which in turn has led to low productivity and low morale). In order to survive, SODECAO will need to become less dependent on government grants and will need to find other sources of income or funding (Mongo, 2006).

One strategy for generating income was put forth in the body’s founding by-laws. It states that SODECAO is to maintain its own cocoa farms to serve as both ‘testing sites’ and

'demonstration sites' for identifying good cocoa cultivation practices and for building farmer capacity. The cocoa produced could be sold as a means of generating funds for future activities (Mongo, 2006).

Additionally, SODECAO was charged with maintaining the rural road network. When it performed this function, rural transportation was efficient and inexpensive. However, the reverse is true today.

The lack of resources has also impacted the body's coverage of the cocoa producing region. Based in Yaoundé, SODECAO programmes are presently only able to benefit producers within close proximity, i.e. in the south and southwest (the Francophone area). Producers in other parts of the country remain out of its reach. Whereas SODECAO employed 3 500 employees prior to liberalization, after it went bankrupt that figure declined to less than 400 today.

Table 5. The roles of SODECAO

Roles of SODECAO	New Roles of SODECAO
Input provision	Encouraging more value addition at the farm level
Maintenance of rural roads	Opening new avenues for access to exporters
Extension services	Helping to improve phytosanitary standards
Guaranteeing producer prices	
Coordinating the cocoa sector	
Collection of cocoa	

SODECAO would profit from following the example provided by SODECOTON (its contemporary for the cotton sector). SODECOTON has proved to be a success, not only involved in technical crop promotion, but has also been instrumental in implementing general development policy in northern Cameroon (Bessem, 2000).

SODECOTON, established in 1974, serves as an agent of government policies (World Bank, 2003). Through a stabilization fund, SODECOTON has helped to ensure that producer revenues remain stable. The body additionally manages the provision of affordable inputs through the 'Organisation des Producteurs de coton du Camerou' (OPCC) (World Bank, 2003).

Table 6. The roles of SODECOTON

Agent for implementing government development policy
Engaged in applied research on behalf of the Institute for Agronomic Research (IRA)
Provides extension services through 650 staff members, reaching 140 000 farmers
Provides farmers with rural credit and inputs
Promotes food crops
Serves as the dominant rural development institution in northern Cameroon
Encourages farmers to save

SECTOR PERFORMANCE

Cocoa production in Cameroon has stagnated for the past five years only attaining an output level of 120 000 tonnes, a figure not much lower than the peak production of 136 000 tonnes in 1996 (Tollens and Gilbert, 2003). Nonetheless, the country produces about 4 percent of the world's cocoa (Ghana, 2003). A number of reasons are cited for the sector's declining performance.

As stated in the overview of macroeconomic environment section, the Government of Cameroon initiated a process of economic liberalization between 1989 and 1995 with a view to reduce the state's role and concurrently increase the private sector's role, thereby decreasing operating costs and increasing farmer incomes. Through this process, the government ceased to set domestic prices, allowing world market prices, the degree of local competition and the distance to port to play that part. This change transferred the cocoa price risk to farmers, many of whom subsequently abandoned cocoa farming following the collapse of prices on the world market.

The quality of cocoa outputs also fell owed to the lack of quality control at the farm gate and as a result of the entrance of inexperienced export participants. As the ONCC failed to adequately monitor the quality of cocoa beans, buyers and exporters increasingly mixed low and high grade beans together. Moreover, farmers soon started paying less attention to the drying and fermentation processes in order to sell their product quickly. However, the shift to bulk container transportation is perhaps one of the largest contributing factors to the overall reduction in quality. This is because bulk transportation prevents exporters from distinguishing between varying quality lots, unless they sacrifice the cost savings from bulking. Consequently, the demand for premium quality cocoa shifted downward as cocoa was classified as a homogenized product. Understandably, the farmers themselves soon became unwilling to invest additional time in adequately fermenting their beans to produce high quality cocoa (Tollens and Gilbert, 2003).

In addition to failing to impact product quality, the liberalization effort also failed to increase the amount of land under cultivation and did not result in increased production as expected (Abanda, 2000).

Between 1997 and 1998 the government changed the ONCC's responsibility for QC, instead appointing three private sector firms to issue quality certificates prior to exporting. In November 1998, four other companies were licensed to issue quality certificates, thereby giving exporters and international buyers the added freedom of choosing what QC company to use. This move, coupled with the fact that exporters increasingly grade and dry the beans before export, have helped to improve the reputation of Cameroonian cocoa beans (Ghana, 2003).

2. Characterization and appraisal of factors affecting commercial viability

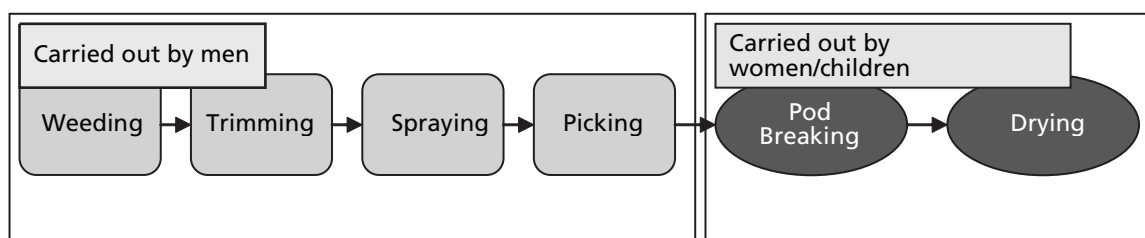
MARKET STRUCTURE AND ORGANIZATION

The changing dynamics in the cocoa industry causes smallholders frequently to forcibly sell their cocoa to buyers by the road side (literally on the side of major roads/highways), since they receive instant cash payments. In this setting, producers receive considerably less than they would by selling through the more formal process with certified buyers from the export companies because, as has been mentioned previously, a number of these buyers are inexperienced and do not discriminate on the basis of quality. Producers may also be exploited because they are desperate for cash (to meet pressing daily subsistence needs) and as such, will often take the low prices offered by buyers.

Apart from this informal selling scenario, the GICs (Groupe d'Initiatives Communes) would normally pool individual producer cocoa output together and sell to buyers either at the GIC level or at the Federation level. The federation is often better equipped to bargain with buyers and is responsible for marketing activities. Once the buyer acquires the produce, it is taken to the exporting company's base in Douala, from where it is exported to overseas confectionary companies etc.

In Figure 4 the main activities in cocoa harvesting and processing are weeding, trimming, spraying, picking, pod breaking and drying. Although mainly a 'masculine' activity, women and children carry out the last two segments. The women are often organized into what are known as 'mutual-aid groups'. These groups are designed to facilitate the cultivation and selling of all cocoa produced. The rapid development of these associations, operating under the GICs, is fostered by the joint benefits produced (Sonwa et al, 2000).

Figure 4. Organization of cocoa harvesting/processing activities in Cameroon



Source: Created by Author using data from Sonwa et al, 2000

Some of the GICs interviewed are additionally seeking ways to support women headed households, since the women play dual roles. The men in the groups offer assistance to these

women, especially with the more labour-intensive aspects of cocoa cultivation and processing. Furthermore, the women are encouraged to attend Farmer Field School (FFS) training, participate in group meetings and are provided with useful information about mechanization.

CONSUMER DEMAND AND DESIRED PRODUCT QUALITIES

Cocoa beans are ground to make cocoa liquor, which in turn is pressed to yield cocoa butter and cocoa powder. Cocoa liquor combined with varying quantities of butter is the raw material for chocolate production. Cocoa powder on the other hand, is often used in creating confectionery products.

For export purposes, cocoa quality is evaluated based on the following three factors:

- *Bean quality and size:* Shipments containing a high proportion of defective or mouldy beans increase processing costs. Additionally, while bean size doesn't affect the flavour or quality of the resulting butter or powder, it also makes processing more expensive.
- *Fat content:* High fat content increases butter production.
- *Flavour:* Flavour is primarily contingent on the fermentation process. An overly high content of free fatty acids affects fermentation and as such the flavour. Another factor that can negatively impact flavour is the drying method. In areas where beans are dried artificially, the use of low quality ovens can give rise to an undesirable smoky flavour to both liquor and powder.

Each of these factors directly affects processing costs because of the added processing requirements they impose (Ghana, 2003).

Cameroonian cocoa possesses a number of favourable characteristics that correspond with consumers' desired product qualities. It offers a good bean size, high butter content, a reddish-brown cocoa powder favoured by grinders because of its strong, classic chocolate flavour, a bitter and spicy flavour (the high theobromine content), and an acceptable degree of acidity (Lebailly, 1997). Conversely, Cameroonian cocoa beans tend to have a low degree of thickness as a result of high polyunsaturated triglyceride content with the result that farmers have to dry the beans artificially, which results in a smoky flavour. Furthermore, the low butter thickness and the powder astringency results in the blending of Cameroonian beans with those from other origins. This is why Cameroonian beans are most prized in the cocoa powder sector, rather than for the manufacture of cocoa butter (Tollens and Gilbert, 2003).

Quality

Several factors impact the quality of cocoa production, some of which have been mentioned above. For the most part, Cameroonian smallholders produce premium quality cocoa, but in recent years various elements have contributed to a decline in quality.

Poor fermentation practises: Some farmers fail to ferment their cocoa prior to selling it to buyers. They have overwhelming pressure to sell the cocoa in the September–December period if school fees are due and the producer has no other source of income. The entrance of considerably inexperienced buyers cause producers to complain that they receive the same

payment as inferior quality cocoa, although they produce higher grade cocoa. It is therefore important to ensure that quality is controlled at the farm gate and that producers receive a fair price according to the grades produced. This could be achieved by ensuring that GICs have at least one trained QC officer in each group who can disseminate relevant grading information. Furthermore, vouchers for daily subsistence and school fee payments, or a revolving fund could be instituted through the GICs, which essentially serve as cooperative societies.

Traditional drying ovens: Because of their small-scale, a number of smallholders are unable to afford modern drying ovens, opting instead for the traditional ones. The problem with these traditional ovens is that they infuse the cocoa beans with an undesirable smoky flavour that serves to reduce its quality. Moreover, some smallholders don't take the time to properly dry the cocoa, particularly during the rainy season, thereby selling cocoa with high humidity levels (exceeding 8 percent), which affects the price they are paid. Each GIC could be equipped with modern ovens, scales and hydrometers at subsidized rates to overcome this shortcoming. Nevertheless, drying is also affected by increased rainfall, which is an uncontrollable external factor.

Poor Rural Infrastructure: In the past, SODECAO managed the development and maintenance of rural roads. However, that function has since been abandoned, leading to the deterioration of the rural road network. The extremely poor condition causes transporting cocoa from the farms to the port of export, increasingly challenging. This difficulty is heightened during the rainy season, when it is virtually impossible for trucks to pass. The result is that farmers wait for weeks for buyers to come, while their cocoa rots. Additionally, since buyers no longer wait for the cocoa to be delivered to the port, but instead venture out to the farms themselves, producers absorb the high transportation costs that are charged by the buyers. It is therefore imperative that the rural road network is improved.

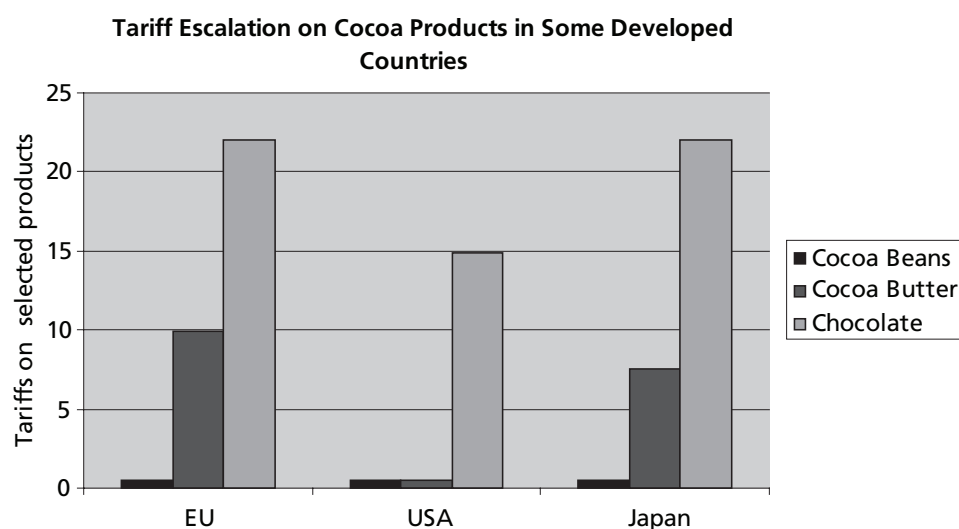
COMPETITIVE ADVANTAGE AND VALUE CREATION

As mentioned previously, Cameroonian cocoa is reputed for its high quality. In addition, the good bean size, high butter content, reddish-brown powder, bitter/spicy flavour, and the fact that it is highly prized in the cocoa powder sector, offer a competitive advantage over other producers. Comparing the quality of Cameroonian cocoa with that of its West African counterparts shows that the Cameroonian product is perceived as superior. The quality of Nigerian cocoa is still variable, although it is now viewed as a much more reliable supplier (ICCO, 2004). It has been argued that the quality of Ivorian cocoa has always been mediocre (ICCO, 2001). Cameroon could therefore capitalize on this strength to increase its market share. This is especially true considering that improving quality levels in Nigeria and Côte d'Ivoire would require increasing production costs, that are not in the interest of the farmers per se, whereas this is not the case in Cameroon.

Another potentially beneficial move could be to increase value addition locally. Traditionally, exports from developing countries are faced with tariff escalation, in which higher tariffs are levied on goods exported at more advanced stages of processing. A recent FAO (Food and Agriculture Organization of the United Nations) study of 16 commodity chains concluded

that 12 suffer from tariff escalation, mostly at the first stage of processing. The study also found that tariff escalation is particularly pronounced in commodity sectors (such as meat, sugar, fruit, coffee, cocoa, hides and skins) that are important to many of the poorest developing countries (FAO, 2004). This fact is shown in Figure 5.

Figure 5. Tariff escalation on cocoa products



Source: FAO, 2004

This evidently serves to limit market access (as do other market entry barriers in importing countries that have limited the ability of developing countries to expand exports of processed goods). One way to address this issue would be to seek reforms that facilitate market access for value added products from developing countries. Another way would be to develop the local market. While Cameroon can continue exporting cocoa beans and can seek to export value added cocoa products with reduced tariffs, the nation could also begin manufacturing its own chocolate and chocolate products. The local market could be further extended over time across various African regions as well.

In terms of producers' revenues, Cameroon fares about as well as Ghana and Nigeria and only slightly worse than Ivorian producers. This is illustrated in Table 7.

Table 7. Cocoa farmers net revenue in West and Central Africa

	CAMEROON		GHANA		NIGERIA		CÔTE D'IVOIRE	
	Net Revenue		Net Revenue		Net Revenue		Net Revenue	
	(\$/ha)	(\$/capita)	(\$/ha)	(\$/capita)	(\$/ha)	(\$/capita)	(\$/ha)	(\$/capita)
South West	104	49						
Mbam	105	70						
Lekie	80	34						
South	46	22						
Western Region			88.41	30.72				
Brong Ahafo			61.66	22.92				
Eastern Region			109.1	18.61				
Ashanti Region			74.48	19.66				
Idanre/Owena					154.09	76.44		
Akure/Owo					158.82	68.88		
Ile Oluji/Ondo/Ijesha					69.98	50.77		
Centre West							119.85	47.54
East							52.46	23.3
South West							182.45	82.73
West							90.16	39.25
Total	335	175	333.65	91.91	382.89	196.09	444.92	192.82

Source: STCP, 2002

RISKS AND SOURCES OF VULNERABILITY

Price Risk: The dominant feature of almost all primary commodity markets during the 1980s was the marked secular fall in real and nominal price levels. Cocoa was no exception and Cameroon's failure to adjust producer prices downwards in the face of falling world market prices resulted in the insolvency of the ONCPB in the late 1980s. This was because the central bank was unable to make available the balances from accumulated stabilization surpluses in order to support producer prices at the pre-announced levels. This situation resulted from the simultaneous reduction in oil, coffee, and cocoa prices, three of Cameroon's four main exports, the fourth is tropical timber (Tollens and Gilbert, 2003).

The immediate consequence was that the official farm-gate price for the 1989-90 campaign was reduced by 40 percent and although two reform efforts were undertaken, the ONCPB was finally closed and replaced by the ONCC in 1991 (Tollens and Gilbert, 2003). As such, financial risk shifted from the state to the smallholder without the corresponding creation of a support mechanism for absorbing that risk.

Pests and diseases: Farmers are additionally vulnerable to pests and diseases, particularly capsids and BPD. BPD can result in up to 80 percent loss of crop for producers. In addition, producers are required to apply eight to twelve treatments of expensive fungicides annually to control BPD. In recent years, the control of capsids has been improved considerably, thereby reducing the overall risk to smallholders.

In order to control BPD, the IITA has instituted IPM training, which effectively limits the impact of BPD and reduces smallholder production costs by decreasing the number of fungicide treatments to three. This training has been developed and is being administered through the STCP and is being widely disseminated through the FFS. The STCP simultaneously seeks to train heads of farmer organizations and monitors whether they pass on the training to members of their groups. Nevertheless, continued research into disease resistant varieties (which started in the 1980s) has produced little.

A new source of vulnerability for smallholders is found in ‘Dieback disease’, which has been discovered in central Cameroon in recent years and which is being researched. The disease, referred to as the ‘HIV/AIDS of cocoa’, is considered deadly and appropriate measures are being undertaken to curtail its spread.

Cooperative management: Another source of vulnerability for smallholders lies in the inefficient manner in which many of the GICs are managed. Although the cooperative societies are tasked with performing numerous functions, their managers often lack the required professionalism, and business management and marketing skills.

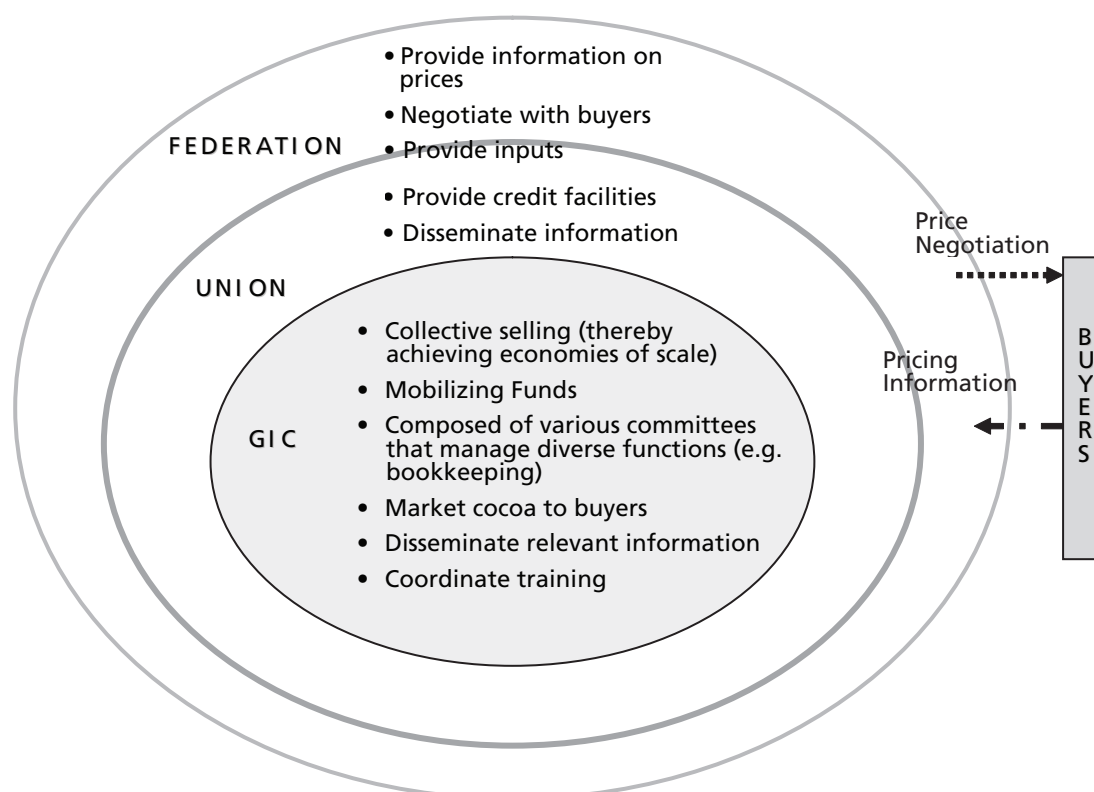
The GICs were formed to assist producers in improving their lot and in maximizing the little they had. Their main focus was to market cocoa (with the long-term goal of dealing directly with exporters). Therefore, the capacity of these groups should be built to improve their marketing skills, as well as to move them up the value chain.

One of the GICs visited was exceptionally well organized and professionally managed. It was atypical of the majority of the GICs, and had benefited from the early involvement of a university professor and former bank managers who had partnered with the group to render it effective and efficient. These professionals also helped to link the GIC with external partners, who provided funding for training and for constructing an impressive warehouse and meeting facility. This has certainly helped to increase the group’s credibility when lobbying for additional (external) assistance. Such a ‘success story’ could be replicated through the creation of public-private partnerships that will encourage the private sector and interested professionals in improving the efficacy of the GICs.

An example of the effectiveness of such GICs is presented by FUPROCAM (Fédération des Unions de Producteurs de Cacao du Mbam et Inoubou), which negotiated a deal with a private company, Agrochem, for the provision of fungicides on credit to nine unions (at 600 CFAF per bag for a combined value of 10 million CFAF). Credit was provided without any collateral and since the producer groups realize the fragility of this deal, they have devised internal structures for ensuring that they can pay back the product acquired on credit.

The next figure depicts the roles and functions of each level of the cooperative societies. District GICs together form unions, which subsequently form a federation.

Figure 6. The roles of farmer groups



Ageing cocoa trees: One of the factors constraining the Cameroonian cocoa sector is the fact that a significant number of the cocoa trees have reached the end of their productive lives. Those that haven't, continue to rely on old germplasms that have been used since the 1960s. As such, the quality of cocoa produced (if any) is understandably low. There are several solutions to the problem of ageing cocoa trees.

First, the useful life of the trees can be extended with appropriate technologies developed by research. It is possible to graft high producing trees onto the lower parts of the non-producing ones to create new hybrids. However, the constraining factor is how to disseminate this technology to producers.

Second, new cocoa trees can be planted with seedlings provided by research. 'Bafia', a town in the Mbam division of the central province and just 85 km north of the capital, Yaoundé is a prime location for new plantings. It is the country's best cocoa producing area and has few incidents of BPD. Again, the constraint is how to sufficiently supply seedlings.

Soil degradation: The quality of Cameroonian soil in the cocoa producing regions has declined considerably. In the southern part of the country, the soil is known to be of particularly low quality, yielding only 200-300 kilograms of cocoa per hectare. The same is true in the southwest. Ironically, creating cocoa agroforests (planting new trees) would help to improve soil quality, as well as stabilize the ecosystem. Moreover, cocoa agroforests can help with reforestation, can help to stabilize global chlorofluorocarbon (CFC) gases, and can facilitate diversification (and

therefore income). Accordingly, by meeting the producers' need for seedlings, the issue of soil degradation can be addressed.

Land: Perhaps one of the greatest sources (or at least an underlying source) of vulnerability for the Cameroonian cocoa producer is the lack of land ownership.

Agrarian reforms for land tenure and ownership are highly recommended. This is especially true considering that traditional rulers are the 'official landowners'. Moreover, farmers have restricted access to land for cocoa cultivation (a perennial crop) since it almost implies the transfer of land ownership. Such reforms could maintain agriculture reserve zones, without encroaching on restricted forest areas.

The government has, in recent years, sought to encourage the allocation of land in minimum four hectare lots to encourage the creation of cocoa agroforests and diversification among smallholders.

Access to information: Smallholders lack adequate access to reliable information, and this continues to hinder them in several ways. For instance, without adequate pricing information, they remain price takers, being unable to effectively bargain with buyers who may not provide accurate information. In some cases, buyers representing export companies are given a price in Douala, but once they reach the farms, they inflate that price to ensure that they receive their own 'piece of the pie.' If an appropriate information system were implemented, producers would know what reference price to use to determine farm-gate prices and would be better equipped to bargain with the buyers. One such mechanism for improving information dissemination could be to send Short Message Service (SMS) messages to farmer organizations on Cost, Insurance and Freight (CIF), Free On Board (FOB) and likely farm-gate prices. This inexpensive delivery option could be carried out alongside rural radio communications.

Another factor that could facilitate the dissemination of information is the provision of warehouses to facilitate selling to buyers. Since individual producers (as well as individual GICs lack the resources to erect warehouses) multiple bargaining takes place, which perhaps also impacts pricing. With strategically located warehouses (either at the GIC or union level) in place, pricing information could be consolidated and made available at these central points, to the producers' benefit.

Changes in climate: Climatic variations are an external source of vulnerability that cocoa producers are incapable of controlling. For instance, increased rainfall in the south and south-western regions has impacted the quality of cocoa since this has raised humidity levels (where producer drying habits were already significantly compromised). Conversely, rising heat levels have also impacted a number of areas within the cocoa producing region. A number of producers complained that their trees lacked sufficient shade, and as such, the cocoa pods are exposed to direct, scorching sunlight, which damages them. Measures could be instituted to assist with improving shade cover.

Continuity: While this issue is presently only a minor risk source, it could become increasingly significant if not properly addressed. A number of cocoa farmers are over 65 years old, and the younger generation from cocoa producing families is seeking employment and income

opportunities from other sources than cocoa. This is because of the low (financial) incentives offered by the sector and to the fact that new seedlings take years to become productive. However, with appropriate changes, the sector can become more enterprising (business-oriented) to attract the new generation and to ensure that they successfully continue managing cocoa cultivation once their parents have moved on.

Child labour: The issue of child labour has become increasingly important in the cocoa sector. IITA estimates that more than 60 percent of working children on West African cocoa farms are below the age of 14. Since children are often involved in cocoa farming tasks that are viewed as dangerous, such as clearing fields with machetes and applying pesticides (IITA, 2002) it is a topic that warrants further discussion. As such, fair trade certified cocoa is gaining increasing popularity and could have a significant impact on the income of Cameroonian smallholders.

As is the case in other developing countries, cocoa is grown on small family farms, and involves the active participation of all family members. From a cultural perspective, children helping their parents on a farm (a normal occurrence in many developing countries) could be misunderstood as 'child labour' which could inhibit the higher earnings offered by fair trade importers.

It would therefore be useful to create cost-effective measures for monitoring the value chain, from the field, to ensure that Cameroonian smallholders are able to benefit from the higher earnings. While fair trade certified cocoa earned US\$0.80 per pound in 2004 (as compared with US\$0.40 for regular cocoa), the added earnings could prove irrelevant, considering the added costs incurred for rigorous inspection and certification to audit the entire chain (Kallio, 2004).

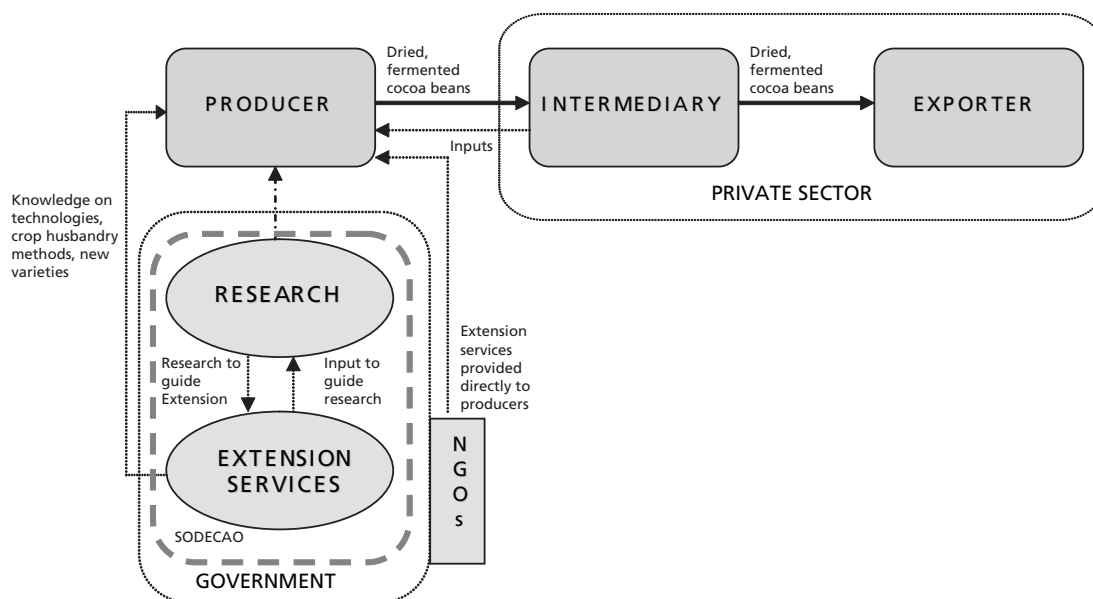
FLOW OF SERVICES WITHIN INDUSTRY

The main actors in the Cameroonian cocoa value-chain are:

- Producers
- Intermediaries (Buyers)
- Exporters
- Research
- Extension

The value chain is depicted in the following figure.

Figure 7. The Cameroonian cocoa value chain



Each actor in the chain faces certain constraints, which impact their performance. The main ‘critical success factors’ are depicted in the following figure.

Figure 8. Critical success factors for value chain actors

Producers Critical Success Factors <ul style="list-style-type: none"> •Inputs for improving quality •Regular profits for re-investing (buying seedlings, chemicals etc) •New seedlings, storage facilities 		Possible Corrective Measures <ul style="list-style-type: none"> •Affordable inputs & credit •Ensuring fair and timely payments •Improve research outreach to producers and set up nurseries and warehouses at coop level 		Intermediaries Critical Success Factors <ul style="list-style-type: none"> •Profits •Stable political environment 		Possible Corrective Measures <ul style="list-style-type: none"> •Ensuring transparent, fair, and timely payments •Sector regulation, limiting external political involvement 	
Exporters Critical Success Factors <ul style="list-style-type: none"> •Quality cocoa •World market prices 		Possible Corrective Measures <ul style="list-style-type: none"> •Improving post-harvest techniques to ensure quality •Ensure transparency along the chain so all actors receive fair prices 		Research Critical Success Factors <ul style="list-style-type: none"> •Funding •Development of local knowledge and techniques •Distribution and dissemination of knowledge and technologies (currently only two research centers) 		Possible Corrective Measures <ul style="list-style-type: none"> •Increased external funding, government funding, and self funding (through sales from demonstration sites) •Collaboration with external research for knowledge sharing •Open new research centres 	
Extension Critical Success Factors <ul style="list-style-type: none"> •Funding •Staff •Proximity to farmers 		Possible Corrective Measures <ul style="list-style-type: none"> •Increased external and government funding •Hiring qualified staff •Ensuring mobility 		SODECAO Critical Success Factors <ul style="list-style-type: none"> •Funding •Staff •Proximity to farmers 		Possible Corrective Measures <ul style="list-style-type: none"> •Increased government funding and self funding •Set up stations throughout cocoa growing region to increase outreach and efficacy •Increase in number of staff •Investments in staff development 	

EFFICIENCY AND PROFITABILITY OF PRODUCTION AND PROCESSING TECHNOLOGIES

A number of extension services are provided through external partners. The IITA plays a prominent role in this regard. The IITA is actively engaged in providing research and extension services, particularly (in the case of cocoa) through the STCP. To that end, the STCP is engaged in disseminating training on IPM for controlling BPD and for disseminating relevant technologies.

The IITA training is targeted at producers (through training of trainers workshops at the farmer organization level), Non-Governmental Organizations (NGOs), traditional extension services (provided by the government). In 2005, the institute trained 5 000 producers and seeks to increase its outreach in the coming year.

3. Guidance on strategies and actions to sustain and improve commercial viability

POLICY AND INSTITUTIONAL FRAMEWORK

National Cocoa policy

While the presence of numerous actors and diverse programmes aimed at revitalizing the Cameroonian cocoa sector has been noted, there is an undeniable lack of coordination among these actors and programmes. Various groups are involved in research and extension, most notably IITA and IRAD, however they are predominantly foreign owned (or funded). This structure could stimulate certain short and long-term consequences.

First, producers are left feeling ‘abandoned’ without a sense of where to go for assistance. Without a central coordinating body, many expressed uncertainty as to who actually controls the sector. As such in situations where an ‘empowered’ producer requires support to bargain with a buyer (for instance), the producer is uncertain as to where to seek recourse. Second, this system further creates uncertainty for the sector’s future performance since there is no mechanism for ensuring the transfer of skills, knowledge and technologies. In the case of IPM, once the STCP concludes this project, there is no indication of a national structure to absorb this function and ensure continuity. Moreover, the knowledge created by this and other groups requires ‘nationalization’ to ensure ownership and further dissemination.

Therefore, in order to reduce redundancy, increase transparency, heighten efficiency, and create synergies between cocoa projects, the government could create a national cocoa policy to ensure that the sector is well coordinated and properly regulated. This policy would address existing industry issues and would adequately define the roles and responsibilities of each actor.

Within this framework, national extension services and research facilities would be re-invigorated and the flow of information would be facilitated. The policy would additionally help to empower smallholders, supporting them in moving up the value chain and ensuring the uninterrupted flow of services and payments along the chain.

The policy would also address the issue of quality control and would seek to institutionalize measures for ensuring quality is maintained throughout the chain. Another issue that could be addressed would be the need for up-scaling cocoa production to move smallholders into medium-scale or large plantations. As such, the support mechanism to facilitate this transition would be created.

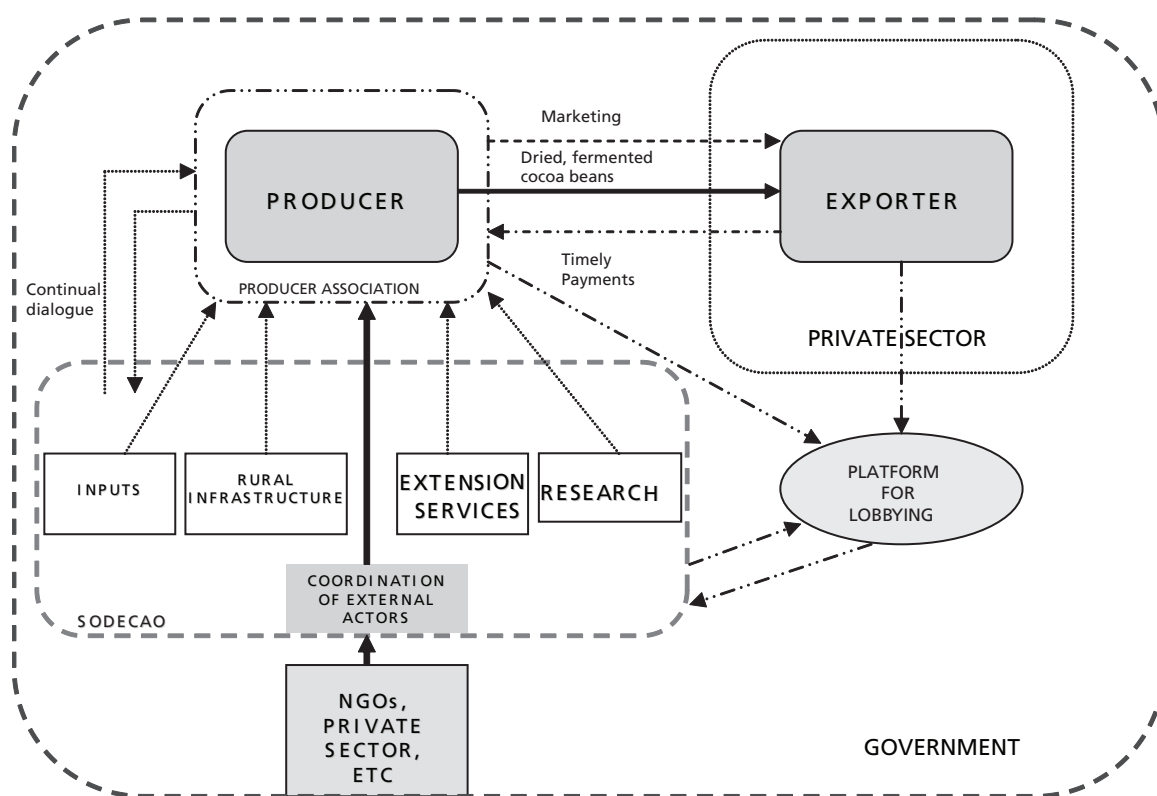
In addition, the policy would strengthen the smallholders’ capacity to deal with exporters, considering the suggested modifications in the value chain (see Figure 9). Therefore, the producer would require training and support in order to appropriately carry out the functions

previously performed by the intermediaries. The producer-exporter relationship would consequently be strengthened and the exporter could be assigned the leading role. This could additionally lead to contract farming, outgrower contracts, smallholders becoming shareholders in exporting companies, exporters leasing land to smallholders and so on.

Finally, such a policy would also seek to reinstate SODECAO into a pivotal role in the cocoa sector. One way to ensure continuity of the foreign managed programmes is to encourage collaboration between SODECAO and external partners for the transfer of skills and knowledge. This would enable SODECAO to continue the STCP, thereby regaining the producers' confidence. An additional benefit is that it would also reduce the government's reliance on external sources of funding that are usually accompanied by certain conditions that can have lasting effects on various aspects of the economy.

Such a policy could impact the value chain as follows, taking into consideration other recommendations for empowering producers and their associations.

Figure 9. Modified cocoa value chain



TECHNICAL

Farmer universities

One of the important constraints facing producers and producer associations is the lack of technical and managerial skills, as well as limited access to extension services and information. Through the FFSS, various training programmes are being disseminated to increase business

capacity and thereby empower producers. However, the FFS could be scaled-up and transformed into formal farmer universities to produce well-rounded farmers who are competent in a variety of areas.

Farmer universities would be charged with disseminating relevant information and training in good crop husbandry practices for a number of crops (starting with cocoa and a select few for diversification purposes), business management, and so on. They could be structured around the production cycle for major crops to ensure that farmers are able to attend classes with minimal disruption to their farming activities. The programmes could result in six month certificates, twelve month diplomas and so on. The universities could eventually support national research programmes and could facilitate public-private partnerships in this area.

The universities could be strategically located to enable as many farming communities as possible to participate. Initially, pilot programmes could be tested in key areas and the concept could be further developed nationwide. Apart from government and external funding, the university programme could ensure supplemental funding through its own demonstration farms, which would be used for practical training beyond in-class theoretical teaching. An additional benefit of such a structure is the creation of jobs. Moreover, farmers who have successfully graduated from the university could seek part-time or temporary employment with the schools.

The adoption of various training programmes offered through the FFSs was surveyed by the STCP in 2004. The percentage of adoption is depicted in the following table.

Table 8. Farmer field school adoption survey

Frequency per household	Non-participants		Participants		Prob (Chi test; df=5)
	Count	% of total	Count	% of total	
Age and gender class	Count	% of total	Count	% of total	
Boys 0-5	32	15	30	12	
Boys 6-9	23	11	36	14	
Boys 10-13	14	7	28	11	
Boys 14-17	19	9	23	9	
Men 18-54	104	48	111	44	
Men 55+	23	11	26	10	
Girls 0-5	18	10	32	16	0.943
Girls 6-9	27	15	21	10	
Girls 10-13	25	14	25	12	
Girls 14-17	11	6	15	7	
Women 18-54	85	47	95	46	
Women 55+	15	8	17	8	
Total	215	100	254	100	

Source: STCP, 2004

This highlights the need for increasing adoption among rural households. Farmer universities might be able to improve the adoption rate, because of the extended amount of time and the practical training involved.

Develop local production and processing

Cameroon has the capacity to produce 2 million tonnes of cocoa annually, but presently only produces about 150 000 tonnes (Mvondo). With such potential, Cameroonian producers can be assisted in moving up the value chain by decreasing the distance from the farm to processing. Local processing and production of chocolate and other cocoa products could also be encouraged.

This type of value addition would also significantly increase the price received by producers, as well as limit their dependence on fluctuating world prices. Eventually, instead of relying on three foreign exporters at Douala (ADM, Cargill, and SIC-CACAOS), the industry could be sufficiently established to allow for direct exporting to overseas retailers and consumers.

Additionally, the local market could be developed (reducing the dependence on imported chocolate and other cocoa products), which would provide another source of income generation for Cameroonian producers.

Achieving such a radical transformation of the cocoa sector would require strong public-private partnerships, strengthened partnerships among producers, and collaboration with research and technical partners. Foreign partners would additionally play an important role in helping to create a robust structure for building the industry. This collaborative platform would need to be created under the guidance of the government, with the MOA and the MOC working together as facilitators.

Already the FAO, the WB, the Brazilian Government and Belgian partners have provided technical and financial assistance for various projects and programmes aimed at stimulating the cocoa sector and this assistance could be scaled-up and targeted towards increasing value addition along the chain.

In addition, the STCP has provided training on product transformation and value addition. It would be helpful for SODECAO to partner with the STCP to ensure the transfer of knowledge (for instance on phytosanitary programmes and biological treatments to improve quality), skills and technologies, so that SODECAO can assume this role at the conclusion of the STCP and thereby encourage this development, while also regaining producers' confidence.

FINANCIAL

Improving access to credit services

The issue of credit has become increasingly important in recent years. Prior to liberalization, the 'caisse de stabilisation' provided producers with guaranteed fair prices, with which they could afford to buy inputs and other necessities. Moreover, credit facilities were readily available as the WB financed FIMAC (Fonds d'Investissement des Microréalisations Agricoles et Communautaires), Crédit du Sahel and others created access to funds and loans. However,

with the collapse of these mechanisms (for example, poor loan recovery etc), producers have been left with virtually no access to credit.

Banks are no longer willing to lend to cocoa farmers because of the high risks involved and their lack of capital. In certain cases, some banks will lend to them, however the interest rates charged are exorbitant (as high as 26 percent), making such services unaffordable.

In providing microfinance and credit facilities, producers should be taught the importance of saving, as well as the need to repay loans. Given this understanding and with assistance in opening savings accounts, they will have greater access to inputs for cocoa cultivation.

To that end, the government is presently creating the 'Fond de Développement de Filière Cacao/Café' to empower producers. It will be important to ensure that the accompanying interest rates are affordable. This fund will also require control measures to promote adequate loan recovery, and should facilitate saving by producers. Finally, it should provide equal access and equal opportunity to all eligible parties, and should allow other resources to be used as collateral (as opposed to land, to which some producers have limited access).

ECONOMIC

Expanding area under cultivation

Considering that a significant number of Cameroonian cocoa trees have reached the end of their productive lives, the option to plant new cocoa trees would appear to be a viable solution for increasing production. According to Gilbert, the question is where to plant. The region close to the Nigerian border is a potential site considering its proximity to Douala and the richness of the soil. However the poor rural infrastructure and the risk of facilitating the illegal passing of goods serve as both a hindrance and a disincentive. In order for this location to provide the intended benefits, the government would need to increase spending on infrastructure development, specifically ensuring that good roads are built to connect this remote area (and other such villages) with the commercial export centres and particularly Douala, from which about 90 percent of Cameroonian cocoa is exported (Tollens and Gilbert, 2003).

Another possible growing area is towards Gabon, particularly in the fertile Mbalmayo and Ebolowa regions (Sonwa et al.; 2000) just south of Yaoundé, although Bafia remains the most fertile area (see figure 10). However, the poor infrastructure would again be a limiting factor that the government would need to address. A useful way to tackle this issue efficiently would be to re-instate SODECAO's role of maintaining and improving rural infrastructure. The body used to ensure that the rural road network was well managed, but because of limited resources has had to abandon this function.

Figure 10. Map of Cameroon (potential sites for new cocoa plantations)

Source: Yahoo! Travel, 2006.

Promoting cocoa agroforests (diversification)

Cocoa was primarily viewed as an agent of deforestation during the 20th century (Ruf, 2000). This indirectly served to discourage the cultivation of cocoa. However, that negative trend can be reversed, considering that cocoa has been discovered to be an agent for reforestation, a significant development in light of the inherent potential for diversification within cocoa agroforests. Examples of some plants that can be inter-planted with cocoa trees include those used for market gardening, fruit trees, medicinal plants, and timber, original forest trees may be kept to provide additional shade (Sonwa *et al*, 2000), as well as annual crops like plantains and oil palm. According to Gockowski *et al.* (2004) such diversity in tree plantings stimulates the accumulation of earthworms and caterpillars that serve to increase soil fertility, rendering it as high as in a natural rainforest.

Furthermore, Cameroon has the highest frequency of densely shaded farms in West Africa. Farmers here have more commonly maintained native fruit, timber and medicinal tree species and the forest-like nature of shaded cocoa systems effectively provides a buffer and helps maintain the ecological functioning needed to maintain the biodiversity of the reserve. The environmental services this provides include habitat conservation and hydrological functions ranging from sediment control to in-situ conservation of indigenous fruit tree species. Given the positive externalities of shade, a higher level of resources should be allocated for the promotion and development of shaded cocoa systems (Gockowski *et al*, 2004). This would also require heightened training and information dissemination through extension services, for instance through the FFSs.

To that end, IITA is researching new land management structures to allow smallholders to participate in cocoa agroforestry. This research will recommend ways in which they can maintain productive trees, while diversifying their product base. While these suggestions could

help to increase smallholders' income generation, they could also warrant additional processing and training for the new crops. Therefore, linkages should be established with other actors to meet such needs.

Figure 11 depicts a thriving cocoa agroforest and provides a table showing the profitability of selected crops inter-planted with cocoa.

Figure 11. Agroforest and results of selected products in shaded cocoa



Secondary Product	Net Returns to Management and Land (CFAF/ha)
African plum (<i>D. edulis</i>)	96 913
Ndjanssang (<i>R. heudelotii</i>)	20 939
Palm Oil (<i>E. guinensis</i>)	4 771
Palm Wine (<i>E. guinensis</i>)	13 250
Avocado (<i>Persea americanus</i>)	2 795
Orange (<i>Citrus sinsensis</i>)	16 698
Mandarin (<i>C. reticulate</i>)	62 700
Cocoa (<i>Theobroma cacao</i>)	164 000

Source: STCP Newsletter IITA, 2004

Land tenure and management

Significant changes are required in the Cameroonian land tenure and management system to facilitate the acquisition of land for cocoa cultivation. In certain areas, cocoa producers wishing to rent land for growing cocoa are denied the opportunity because it is a perennial crop. The common belief is that 'the owner of the cocoa tree also owns the land' and as such, any 'long-term commitment type crop' is avoided. In a number of cases, producers are incapable of outright land purchase.

In the past, concerns surrounding the maintenance of forest areas and cocoa being seen as an agent of deforestation have also impacted land availability. However, since cocoa is actually an agent for reforestation, serving as a good source for crop diversification and for promoting healthy agroforests, the land tenure system should be modified to encourage its cultivation.

4. Discussion and conclusions

The importance of cocoa as a cash crop to smallholder farmers cannot be over-emphasized. Prior to the various reforms carried out during liberalization and before the SAP, much of Cameroon's economy depended on cocoa. In fact, a considerable percentage of the population has benefited directly or indirectly from the profitability of this sector during its thriving years. Children were able to go to school thanks to cocoa, houses were built and families were started as a result of the booming industry.

With the decline of the sector in the 1980s and the 1990s, the worst hit stakeholders were the producers themselves. Even with the present moves to revive the industry, smallholders continue to bear most of the cost, while earning the least returns. They are the weakest members of the value chain and unless certain considerations are made, interventions to increase cocoa production and exports will fail to ensure a concurrent increase in their earnings.

The recommendations presented in this paper seek to adequately address the various sources of risks and vulnerabilities to smallholders, with a view to strengthen the industry and have an impact on the country's economic development.

As such, it would be useful to further analyse the feasibility of instituting farmer universities as a means to enhance the producers' capacity, technical know-how, for improving quality and for creating employment opportunities. To that end, a feasibility study could be conducted and round-table discussions could be initiated with potential public and private partners to determine interest, investments required, roles and responsibilities, as well as any policy reforms needed to create a more enabling environment.

Another area for further study is the possibility of increasing value addition at the local level, and developing local, sub-regional and regional markets. While Cameroonian cocoa remains of premium export quality, in order to diversify and reduce dependence on uncontrollable and fluctuating world market prices, it might be beneficial to seek to develop the local market. In so doing, the price risk currently being absorbed by producers would be reduced and this would also avoid the high tariffs imposed by importing countries (tariff escalation as mentioned in the section on competitive advantage and value creation). Moreover, by increasing local value addition and by creating a local market, a new income stream would be developed, which could potentially impact other facets of the economy and social development. Once a high quality Cameroonian product has been created, exports could begin to sub-regions (West, Central, East and Southern Africa), which would also help to boost intra-regional trade.

It should be noted that while the interventions required to enhance the commercial viability of the Cameroonian cocoa industry span the technical, financial, and economic issues identified in this study, a policy that hinges on a robust institutional framework is paramount. Indeed, the industry retains a high potential for regaining a strong position in the world market, however any

measures to promote positive change would be limited by the lack of adequate coordination and collaboration within the sector. Already, several actors have begun implementing projects and programmes aimed at overcoming these shortcomings, however without adequate streamlining; redundancy, inefficiency, and limited efficacy are observed.

Accordingly, one can conclude that the starting point for further action in this industry would be for the government to establish a national cocoa policy that takes into consideration the role of the various actors within the value chain. The policy would additionally accommodate the producers' need for improved information access, training and extension services, access to credit, an upgraded land management system, the promotion of diversification through cocoa agroforests, the promotion of local processing and a strengthened role for SODECAO.

In addition, a critical issue that requires attention is that of the ageing population. With many of the producers aged over 65 and with a significant number of their children and other youths pursuing income generating activities outside of cocoa cultivation, a void is being created in the industry. Unless measures are taken to create considerable incentives for producing cocoa, a large number of the potential workforce will be lost in the rising rural-urban shift. By implementing strategies based on the recommendations made in this study, a more conducive environment could be created for stimulating the interest of the youth, including ensuring that adequate economic remuneration is available.

Considering the tremendous potential in the national, sub-regional, and global market, the future prospects for the Cameroonian cocoa industry are compelling. FAO (2003) projects an annual growth rate of 2.2 percent per year in the global market, resulting in 3.7 million tonnes of cocoa by 2010. Of this, Cameroon's share is expected to grow at 0.3 percent, while Côte d'Ivoire, Ghana, and Nigeria will enjoy 2.3 percent, 1.6 percent and 1.4 percent growth rates respectively. Further FAO estimates that in 2010 world grindings of cocoa beans (a proxy for world cocoa consumption) would stand at 3.6 million tonnes, reflecting an average annual increase of 2.1 percent. Accordingly, consumption in developed countries will account for 64 percent of global consumption, with Europe experiencing an annual growth rate of 1.7 percent, and the United States growing at 3.6 percent annually. In developing countries, the annual growth rate is expected to be 1.8 percent, with Africa accounting for 35 percent of the consumption, Latin America accounting for 28 percent and the Far East accounting for 34 percent (FAO, 2003).

This analysis suggests that global cocoa trade will continue to expand, therefore the government should work to strengthen the industry in order to tap into these future prospects and earn a greater share of the national, sub-regional and global pie.

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