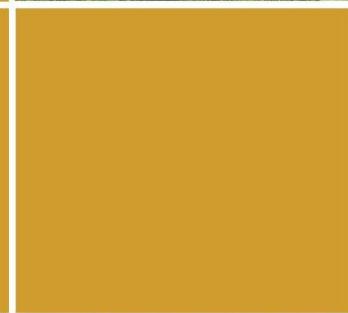
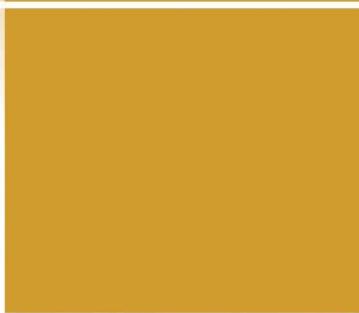
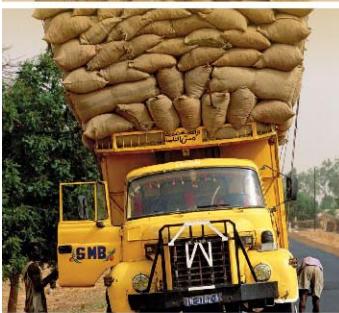


Competition Concerns in the Agriculture Sector in Select Countries of West Africa



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Abbreviations

ADPs	Agricultural Development Projects
AIO	Agriculture Input Office
ANCAR	National Agency for Agricultural and Rural Council
ANSAT	National Agency for Food Safety
CGFC	Comité de gestion de la filière coton
CSO	Civil Society Organisations
DNCC	Direction Nationale du Commerce et de la Concurrence
ECOWAS	Economic Community of West African States
GCC	The Gambia Competition Commission
GCP	Groupings of Cotton Producers
GDP	Gross Domestic Product
GGC	Gambia Groundnut Corporation
HHI	Herfindahl-Hirschman Index
IDRC	International Development Research Centre
IITA	International Institute of Tropical Agriculture
IMF	International Monetary Fund
INERA	Institute of Environment and Agricultural Research
ISSER	Institute of Statistical Social and Economic Research

LBCs	Licensed Buying Companies
M&As	Mergers and Acquisitions
NARI	National Agricultural Research Institute
NASC	National Agricultural Seed Company
NCRI	National Cereal Research Institute
NGOs	Non-governmental Organisations
PBC	Produce Buying Company
PPRC	Producer Price Review Committee
SoE	State-owned Enterprise
SOFITEX	Société Burkinabé des Fibres Textiles
SONACOS	State-owned Société Nationale de Commercialisation des Oléagineux du Sénégal
STU	Seed Technology Unit
UDPC	Union Départementale des Producteurs de Coton
UNPCB	Union nationale des producteurs de coton du Burkina
WAEMU	West African Economic and Monetary Union
WARDA	West Africa Rice Development Association
WASNET	West Africa Seed Network

Preface

In addition to soil and climatic factors that directly affect productivity of agricultural crops, nature of (input and output) markets and behaviour of players (international and domestic) have significant impacts on benefits that accrue to farmers in developing and least developed countries from selling these products. Enabling policies, nature of markets, institutional capacities and such other factors determine producer welfare in many African nations. Poorly functioning markets, weak domestic demand and lack of export possibilities are considered as constraints for Africa's agricultural growth prospects (IFPRI Vision 2020). These need to be urgently addressed through national and international policy processes.

One of the areas that African policymakers need to make urgent progress in this regard, is in terms of embracing appropriate market development and regulatory policies. Agriculture markets in many countries exhibit certain characteristics that not only dampen the growth of agriculture markets, but also imperil the condition of producers and consumers.

In this monograph, CUTS tries to identify certain factors that affect emergence of competitive agriculture markets, with inputs gathered from seven countries of West Africa (Burkina Faso, The Gambia, Ghana, Mali, Nigeria, Senegal & Togo). These countries were part of the CUTS 7Up4 project. Key input markets (seeds and fertilisers) and prevailing marketing systems/channels were analysed for some of the major crops from these countries, to

draw lessons for promoting competition in these markets. Factors that could contribute towards anti-competitive behaviour in these markets were also analysed, so that government departments and competition agencies (where they existed) could take cognisance and be more vigilant.

In the seeds market, reliance on informal sources for seeds/stocks was found to be considerably high in many countries, due to weaknesses in the government machinery and extension institutions. Limited use of good quality, certified seeds does have an impact on productivity (data suggests a stagnation in productivity in Africa over the 'lost' decades). High concentration was noted in the fertiliser sector in most countries, especially in those where the sector was dominated by private players (e.g., Burkina Faso, Ghana, Mali and Senegal). Governments in these countries have maintained subsidy programmes to encourage fertiliser use by farmers, and keep the prices at bay. However, in the wake of the future surge in fertiliser production and use (to be raised to 50kg/hectare from the present 8kg/hectare through the Africa Fertiliser Development Financing Mechanism of the African Development Bank, 2007), it remains to be seen, to what extent these governments can afford such subsidies. It would be crucial, given this background, for governments and regulators to closely monitor the behaviour of fertiliser firms in the future.

Agriculture marketing is controlled by monopolies in most of these countries. In some, these were public monopolies (Ghana, The Gambia), whereas in others (Burkina Faso) the privatisation process had converted an erstwhile public monopoly into a private one. These companies bought the products from farmers through 'licenced buying agents/companies' (LBCs), which according to the farmers we met, indulged in exploitative practices. Further, the process of granting licence to these LBCs was opaque and restrictive. In spite of the fact that they were supposed to compete with each other for buying the produce from farmers, there was

not much differentiation between prices offered by them. Also, the reach of these LBCs was not very good in the countries.

This monograph does highlight certain situations pertaining to agriculture markets in these countries that need to be borne in mind by government departments and policymakers for designing market development and regulatory strategies that could create better market opportunities. This will ensure that agriculture can become a more powerful engine of growth for the continent, than it has been in the recent past.

CUTS has been working on trade, competition and regulatory policy issues in a number of African countries for over a decade now, with the aim of developing knowledge base about key sectors of the economy. While designing the 7Up4 project, there was consensus amongst CUTS and the donors that investigation of the state of competition in the agriculture sector in the project countries would offer an interesting perspective. Efforts were made by all the partner organisations to get information and to also have discussions with farmers, firms and government agencies involved in the sector. Availability and access to data posed challenges and the investigation could have been even more interesting, if were able to gather more data from these countries. However, we expect this document to help stimulate debate on the benefits of competitive agriculture markets for small-scale producers and consumers, not just in the region or in Africa, but in other parts of the developing world.

Pradeep S Mehta
Secretary General
CUTS International

1

Introduction

In 2008, CUTS, with the support of Department for International Development (DFID), UK; International Development Research Centre (IDRC), Canada and the Ministry of Foreign Affairs, Sweden initiated a project in seven countries of West Africa entitled, ‘Strengthening Constituencies for Effective Competition Regimes in Select West African countries’ (7Up4 Project). The seven countries covered under the project were Burkina Faso, Gambia, Ghana, Mali, Nigeria, Senegal and Togo. Being the fourth of a type of research and advocacy project, it was named as ‘7Up4 Project’ (www.cuts-ccier.org/7up4). Earlier 7Up projects have been implemented by CUTS in other countries of Africa and Asia since the year 2000.¹

The major objective of the project was to develop the capacity of national stakeholders including policy makers, regulators, civil society organisations (CSOs), particularly consumer groups, academics and media persons in the project countries to bring the debate on the need for an effective competition regime into the wider public domain. The project involved research aimed at exposing various challenges to evolving effective competition regimes, which culminated into capacity building initiatives and an active advocacy agenda.

As a result, the project identified impediments to evolving national competition regimes and the best way for addressing such impediments through a participatory process involving multiple stakeholders.

Under the 7Up4 project, the country partners in each country produced a detailed country specific report, covering nine research themes, one of which was *competition issues in the agriculture sector*. The country reports are available in two volumes. The English volume contains the Anglophone country reports (Ghana, Nigeria and the Gambia) and the French volume contains the francophone country reports (Burkina Faso, Mali, Senegal and Togo). This monograph draws from findings on the theme of competition issues in agriculture markets as contained in the various country reports, to develop an overview of competition concerns in the agriculture sector in the region and their impacts on both producers and consumers.

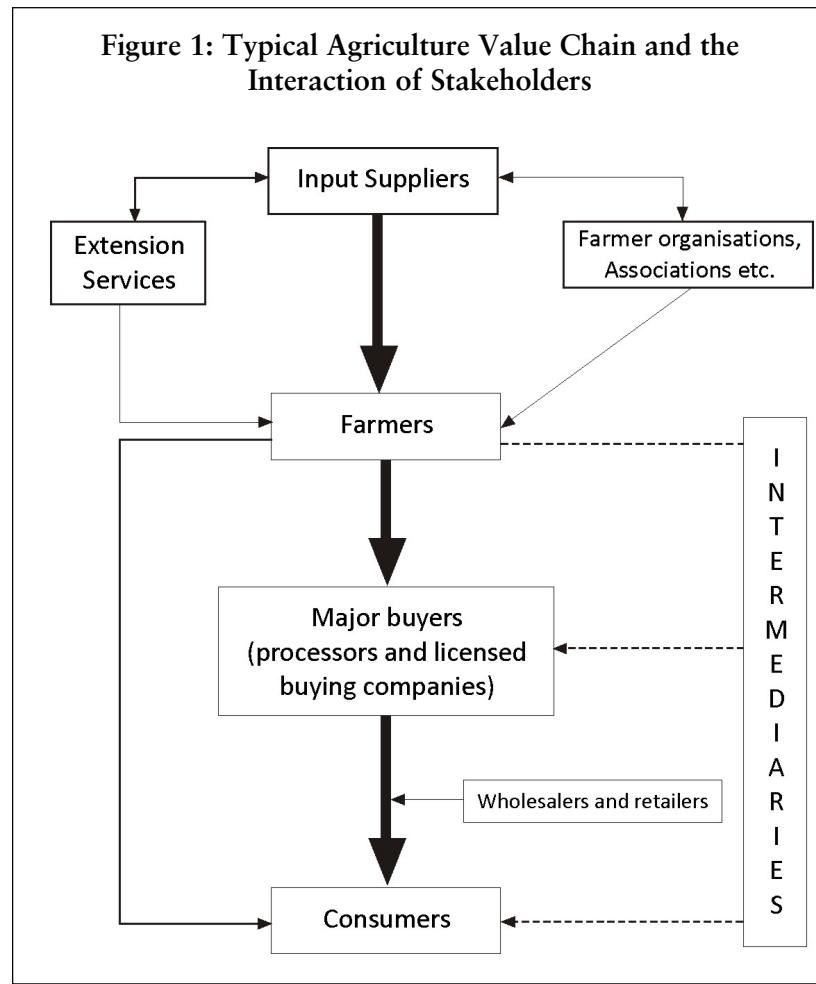
1.1 Study Objectives

The objective of this paper is to examine the nature of competition in the different markets in the supply chain and identify possible competition concerns as well as draw welfare implications of these concerns for different stakeholders, i.e. farmers, processors, traders and consumers. The supply or value chain in any agricultural sector consists of various distinct though linked stages – production of the crop by farmers using various inputs such as seeds, fertilisers and other inputs and sale of the produce (raw or processed) directly or indirectly to the final domestic consumer or end user, or in the international market. The farmers traders, processors, final domestic consumers, as well as domestic exporters and importers from other countries are major players involved through various intermediaries in this supply chain. The agriculture supply chain thus involves an interaction of multiple stakeholders, and those commonly witnessed across the seven countries covered under the 7Up4 project are depicted in Figure 1.

The efficiency of the value chain is critically dependent on the level of competition in various sub-markets – for example, the efficiency of the markets for inputs such as seeds and fertiliser responds to the nature of the demand for the inputs by farmers,

which is a reflection of competition by farmers for the inputs; the efficiency of the market at the farm gate is shaped by the competition by traders/processing firms for the produce; and in turn, the markets for processed produce by the processors also responds to the demand by domestic consumer/end user or foreign importer. This paper tries to analyse the nature of competition across the value chain as was encountered in the seven countries of West Africa and infer possible welfare implications for various stakeholders.

Figure 1: Typical Agriculture Value Chain and the Interaction of Stakeholders



1.2 Methodology

This publication highlights some competition concerns in agriculture markets in select West African countries. It is based on the chapter on ‘Assessment of Competition in the Agriculture Sector’ in each of the reports of the seven countries in the final 7Up4 project report.

Competition assessment is a research tool which ascertains the level of competition and its key determinants such as concentration and entry barriers. Such assessment is often done to generate recommendations for remedial measures which can enhance the efficiency of markets and in turn the value chains these serve.

The methodology followed for undertaking an assessment of competition in agriculture markets in this monograph was derived from the **Competition Assessment Framework** developed by DFID (UK) in 2008. The assessment has been done for three markets, namely production, input market (fertiliser and seed) and produce (farm gate).

Competition in each of the three markets is analysed by looking at both the demand and supply side in them, from the available data in the seven country reports. To augment the available information, other sources on the agriculture sector in the seven West African countries were also used, particularly for identified gaps in the seven reports.

It is important to note that the competition assessment done in this paper for each relevant market ends at assessing the extent to which the relevant markets are concentrated. Market concentration is defined as the extent to which a market is dominated by a few players, for which the measure used in this report is the Herfindahl-Hirschman Index (to be explained later). While it would have been more meaningful to assess specific anti-competitive practices, it was not possible to prove the cases based on the existing information, which is generally a prerogative of a competition agency, which has the mandate to identify violators and penalise companies guilty of anti-competitive behaviour.

Thus, the paper has avoided dwelling on such issues due to lack of evidence. Assessing the movement of prices for crops, which would have also added useful information on whether price levels are consistent with market structures, was not possible due to data challenges.

In order to make the assessment more meaningful and relevant for each country, a crop was chosen for a detailed value chain focus. There was no common set of criteria behind crop selection across countries but an attempt was made to identify the ‘major crop’ for each country.

The Gambia

Groundnuts can be regarded as the most important cash crop in The Gambia, given that it accounts for about 55 percent of the country’s export earnings and 38 percent of gross domestic product (GDP). In addition, groundnut production receives government priority in support and about 80 percent of rural households grow the crop on over 40 percent of the land under cultivation. The main production areas are North Bank, Lower River and Central River regions, where farmers have access to inputs and some level of mechanisation.

However, despite these efforts, yields have remained very low, with an average yield of about one tonne per hectare. Production has also been declining over the years, mainly due to drought, insufficient use of fertilisers, shortage of good quality seed, inadequate mechanisation and ineffective extension services.

While recognising the negative impact of the mentioned factors, it is also critical to assess whether the nature of competition among various players across the value chain also contributes to the mentioned negative trend. This will be done at three levels; input stage (seed supply), groundnut production stage and the marketing stage.

Ghana

Cocoa has been and still remains by far the most important agricultural export from Ghana. It contributes the bulk of foreign exchange earnings from the agricultural sector (see Table 1 for contributions over the period 2000-2008).

However, despite the important role played by the crop, some challenges still remain which limit production: low producer price offered to farmers; and high prices of inputs and their availability on a sustainable basis.² Competition assessment across the value chain of the crop is therefore needed to see whether these problems are an outcome of competition status.

Year	Cocoa		Others		Total	
	(in US\$mn)	(in percent)	(in US\$mn)	(in percent)	(in US\$mn)	(in percent)
2000	437	22.5	250	12.9	687	35.4
2001	381	20.4	251	13.5	632	33.9
2002	463	22.4	269	13.1	732	35.5
2003	818	34.9	312	13.6	1130	48.5
2004	1,071	39.2	372	13.6	1443	52.8
2005	908	32.4	378	13.5	1286	45.9
2006	1,187	31.8	402	10.7	1589	42.5
2007	1,103	26.3	446	10.7	1549	37
2008	1,502	28.5	497	9.5	1999	38

Source: Institute of Statistical Social and Economic Research (ISSER) Ghana in 'A Time for Action' (CUTS 2010)
Note: Percentages denote shares in total foreign exchange earnings of the economy

Nigeria

Rice is a very important crop in Nigeria, even though it is not largely grown for consumption but rather for commercial purposes. It is estimated that farmers producing it currently consume about 20 percent of it, selling the rest for their income and sustenance though consumption has been rising in recent times.

Rice generates more income for Nigerian farmers than any other crop.³ It also brings in immense benefits for the Nigerian economy, with the total rice industry valued at about US\$5bn, of which about US\$4bn accrues inside Nigeria.⁴

However, despite the importance of rice to the economy, the farmers growing it belong to largely resource-constrained, unorganised and poverty stricken households with the production process employed by them failing to register any significant progress in yields and output over the years. Major problems continue – for instance, high and unaffordable seed prices compelling farmers to buy seeds from uncertified sources.

It is, therefore, critical to assess the extent to which market structures characterising various components of the value chain are marked by the presence of competition and link deficiencies, if any, to mentioned shortcomings.

Burkina Faso

Over the previous decade, cotton has evolved to become one of the most important crops in Burkina Faso. It is currently the largest exported product, surpassing foreign exchange earnings from livestock products. Cotton accounts for around 60 percent of the foreign exchange earnings from agriculture, which in, turn, contributes 80 percent to the total foreign exchange earnings of the economy. In terms of GDP, agriculture contributes 40 percent of which 25 percent comes from cotton. In short, cotton farming is a very important means of livelihood.

In acknowledging the role that cotton plays in the sector, the government has devoted some attention to the crop: special

programmes for the cotton sector as well as some policies supporting the use of fertilisers and improved seed. However, despite these measures, there has been a noticeable decline in cotton production recently (2008) due to several factors – for instance, a 12 percent drop in producer prices (from US\$0.36429 to US\$0.30432 per kg), higher input prices and delayed payments to farmers. There was also a noticeable reduction in acreage devoted to cotton in favour of cereals (maize, millet, sorghum).

It, therefore, becomes necessary to undertake an assessment of competition status across various stages of the value chain, as a way of assessing whether competition issues have contributed significantly to mentioned problems.

Senegal

Just like in The Gambia, groundnut is a very important crop in Senegal, largely due to its importance relative to other crops in generating foreign exchange earnings. The contribution of groundnut to GDP far exceeds that of second placed cotton. For example, in 2006, groundnut production of 113,530 tonnes contributed US\$1.42845mn to GDP while the contribution of cotton and cotton fabrics (19,598 tonnes) to GDP was US\$0.62047mn.

Recently, a lot of effort has been made to improve the productivity of the groundnut sector. This includes the privatisation of State-owned *Société Nationale de Commercialisation des Oléagineux du Sénégal* (SONACOS) and the entrance of new players in the sector for processing of peanuts. However, problems have been mounting in the sector due to failure of these businesses to operate efficiently. The space created by the dismantling of the *Société nationale de graines* (National Society of Seeds), 100 percent subsidiary of SONACOS, which had been participating actively in the collection and transportation of groundnuts from farms to processing plants, seems to have not been adequately filled.

An assessment of the level of competition at various stages of the groundnut value chain in Senegal, with focus on ascertaining

abuse of dominance, if any, therefore becomes necessary. Such an exercise would serve as an input into diagnosing the mentioned lack of efficiency in operation of businesses.

CUTS has conducted such overview studies in the past. For example, its studies on competition and regulation in agricultural markets in India in 2006⁵ and 2009⁶ revealed the fragmented nature of Indian agricultural markets and inadequacy of supporting infrastructure which has adverse implications for competition in these markets and, therefore, the growth of farm incomes. It is hoped that such overview studies and the present one will contribute to our understanding of the challenges that the agricultural sector faces in the developing world in regard to competition in the market place.

1.3 Justification of the Study

While agriculture has been acknowledged as the backbone of all economic activity, a sad situation in most African countries is that farmers have remained poor, while agricultural processors have become, by comparison, affluent. Whilst a lot of efforts have been made till date to enhance farmers' welfare,⁷ the scrutiny of agricultural markets to ascertain the existence of fair competition has lacked a thorough attention.

The importance of fair competition among players in any market in promoting production and growth in incomes, and thus helping in poverty alleviation has been fairly well established by research. The importance of the sector to economic activity is with respect to many fronts.

First, it plays a very significant role in contributing to employment given the labour intensive nature of commercial farming, in which financial capacity has limited the use of intense mechanisation; and the engagement of a large proportion of the African population in subsistence agriculture on a full time basis. Burkina Faso and Togo, where agriculture provides jobs for about 85 and 80 percent of the labour force respectively, are countries with the largest proportions of people dependent on agriculture.

These are followed by The Gambia at 75 percent and Senegal and Mali at 70 percent each.

Second, the agricultural sector remains a very significant contributor to the GDP in the seven project countries though this contribution has been falling. To illustrate, in Ghana the percentage contribution has been falling in the recent past though it is still large in comparison to other sectors.⁸ In Nigeria, the agricultural sector was the biggest contributor to GDP and also the biggest employer of labour in 2008.

Third, the agriculture sector also contributes significantly towards the overall foreign exchange earnings in each country. In countries such as The Gambia and Burkina Faso, the agriculture sector actually generates the bulk of the country's foreign exchange earnings. In Ghana, the trends in the contribution of the sector towards overall foreign exchange earnings mirror its contribution to GDP – it has remained very significant despite a largely declining trend since 2000.⁹

Table 2 summarises the estimated contribution of agriculture to economic activity in the seven countries, mostly based on 2008 data.

Competition assessment is therefore critical, particularly to assess the extent to which the agriculture sector is susceptible to anti-competitive practices. A market is susceptible to anti-competitive practices generally if it is highly concentrated, giving room to those players with an advantage to exploit others. There are generally three major ways in which a firm can engage in anti-competitive practices and these are described briefly in turn.

i. Anti-competitive Agreements

They refer to agreements between firms that are intended to restrict competition for profit motives. Such agreements are prohibited by competition laws and generally fall into two categories; horizontal and vertical. Horizontal agreements are agreements entered into by firms who happen to be competitors, i.e. these are agreements among firms in the same level of business.

Table 2: Agriculture Contribution to Economic Activity in the Seven West African Countries		
Country	Estimated agriculture contribution to:	
	GDP (in percent)	Total foreign currency earnings (in percent)
Burkina Faso	40	80
The Gambia	19	85
Ghana	34	37.9
Mali	40	30
Nigeria	40	80 ¹⁰
Senegal	15	70
Togo	38	20

Source: A Time for Action (CUTS 2010) and various other online sources

Horizontal agreements are regarded as the most harmful to competition, and can take place through many forms, including those known as cartels. These include price fixing agreements (agreements intended to have an impact on the price of the product); bid-rigging agreements (intended to decide on which member of the cartel will win a tender/bid); market allocating agreements (members deciding to allocate themselves customers to serve or geographic territories to supply their outputs); output restricting agreements (agreements to limit the output or supply into the market).

Vertical agreements refer to arrangements between firms enjoying a supplier-customer relationship. Examples include resale price maintenance (a manufacturer and its distributors agreeing that the latter will sell products of the former at certain prices); exclusive dealings or distribution agreements (agreements whose effect is that either an upstream firm is not allowed to sell to competitors of the downstream firm, or the downstream firm is prohibited from buying from competitors of the upstream firm); tie-in sale agreements (where downstream firms are forced to

agree to purchase a certain range of products in order to be allowed to purchase a particular product) and quantity forcing (where a downstream firm enters into an agreement with the upstream firm that it can only purchase a product if it undertakes to purchase at least a prescribed minimum quantity of the product).

ii. Abuse of Dominance

This occurs when a firm in a dominant position engages in practices that are aimed at stifling the level of competition in the market. A firm is said to be in a dominant position if it is in a position to control the market outcomes for a particular good or service, particularly if it has the ability to influence the price of a particular commodity or service through its individual action. A firm can abuse its dominant position in two ways – exclusionary and exploitative. While exclusionary abuses are meant to restrict competitors, exploitative abuses have direct implications for consumers.

Abuse of dominance practices include excessive pricing (when a firm in a dominant position takes advantage of the absence of competition by charging excessively high prices); discrimination (where a firm in a dominant position takes advantage of absence of competition by applying different conditions to different customers for equivalent transactions); tie-ins (where a firm makes the sale of one good to customers become conditional upon the purchase of a second good); refusal to deal (where a firm in a dominant position, refuses to supply goods to a dealer without justifiable reasons) and predatory pricing (where a firm in a dominant position temporarily charges particularly low prices in an attempt to eliminate existing competitors, followed by excessive pricing once rivals have been chased off the market).

iii. Anti-competitive Mergers and Acquisitions

Firms may also try to curtail the level of competition in the market by strategically combining with, or acquiring other firms in related businesses to eliminate competition or to acquire some market power.

A better understanding of how firms can use mergers and acquisitions (M&As) anti-competitively can be established by focusing on different types of mergers, given that each type gives rise to different concerns. There are three distinct types of mergers, namely horizontal, vertical and conglomerate.

Horizontal mergers refers to those mergers in which the firms involved sell the same product or close substitutes and are considered the most harmful to competition as they directly result in the reduction in the number of independent players in the market.

Vertical mergers involve mergers between firms enjoying actual or potential buyer-seller relationships. The most serious concern that can arise from vertical mergers is market foreclosure, where one company merges with suppliers of critical raw materials and denies its competitors access to the raw material.

Conglomerate mergers are those where the parties involved are in business activities that are not related and are considered the least harmful to competition although such mergers can create a firm that is so large in terms of assets and financial resources, which they can easily use to engage in anti-competitive practices.

It is thus important to assess the extent to which the relevant markets are concentrated, so as to get a general idea whether the markets can be subject to competition concerns.

The rest of this monograph is organised as follows. Chapter 2 is devoted to identification of relevant markets for competition assessment, as well as the basis for choosing these. Chapter 3 identifies major players as well as their estimated market shares across the value chain. An attempt is made to identify and analyse the entry barriers characterising markets across project countries in chapter 4, with the focus being on barriers that are outcomes of private sector activity and chapter 5 analyses the policy impact of competition. Chapter 6 identifies a few anti-competitive practices in the project countries, while chapter 7 draws the conclusions.

2

Market Shares and Structure

2.1 Relevant Markets

As mentioned, competition analysis would be based on the value chain, which involves different phases like input sourcing, crop production and farm gate marketing. There are thus a variety of possible markets that can be identified, corresponding to the three phases. Moreover, since the agricultural sector is very broad, with a variety of largely non-substitutable crops being produced; several product markets can be defined. As a result, the major cash crop identified for each project country on the basis explained in the previous section will form the basis for competition assessment.

Thus, the production and marketing of the crop would be two separate relevant product markets. In addition, although there are many inputs that a farmer would need, two inputs, namely *seeds* and fertilisers have been chosen for detailed assessment. Thus, *fertiliser* and seed supply are also two distinct relevant product markets. For each of the identified relevant product markets, the relevant geographic market has been identified as the respective project country. Although there could be variations in the distribution of market shares within the country across some regions, this would not change the general pattern much.

This simplified analytical framework used in this paper implies that the market definition employed is general rather than specific. Although it is still possible to further define other sub-markets, this however would not change the general findings of this report.

While competition assessment is being conducted for a selected crop in regard to all three phases of the value chain in five of the seven project countries, only a quick overview of the seed and fertiliser markets is done for Mali and Togo due to limited information in these two countries.

2.2 Crop Production Market

Competition assessment at this relevant market involves assessing competition between farmers, intended to assess the extent to which farmers are constrained by competition in their decision making process. Competition concerns at this stage largely arise if the production process is controlled by large corporations through anti-competitive behaviour aimed at influencing prices and enhancing profits. On the basis of this criterion, generally there are no competition concerns at the crop production stage in the countries, as crop production is largely an individual or family affair, with activities mostly uncoordinated across units of production. Associations do exist but do not provide farmers with any significant market power. A closer look at the situation across the countries would explain this better.

2.2.1 Cotton Production in Burkina Faso

Although influenced by SOFITEX (as will be seen later), which is the main (or rather sole) buyer, cotton production is undertaken by individual and household farmers in Burkina Faso. It is estimated that in 2008, there were over 325,000 cotton farmers, with most cotton-farms being characterised by small size (on average one hectare, although the level of planted area may rise to 20-30 hectares for some farmers) and family ownership. Cotton production is concentrated mainly in the areas of West and South-West of Burkina Faso which are the wettest regions in the country as well as more fertile than the Eastern regions.

These farmers have to sell their produce to SOFITEX directly or through agents who sell to SOFITEX. Given the large number

of farmers, there are no competition concerns at the production stage – farmers are not able to influence prices offered by SOFITEX.

2.2.2 Groundnut Production in The Gambia

Groundnut production in The Gambia has remained largely under the control of individual households, who produce largely for both subsistence and commercial purposes. It is estimated that about 90 percent of the groundnuts produced come from individual households and smallholder farmers. Research institutions and other non-governmental organisations (NGOs) are also involved in the production process. This is, therefore, a market where there is free competition among the numerous producers.

Given the large number of individual households engaged in the production, mostly on a small scale, with production being largely uncoordinated, there are almost no competition concerns expected at the production stage. According to the National Agricultural Sample Survey of 2005-2006, an estimated 105,260 households derive income from groundnuts cultivation throughout the country. The farmers also have not much control over their outputs, remaining largely at the mercy of the marketing channels, as will be discussed later.

2.2.3 Cocoa Production in Ghana

Just like in the previously discussed situation of two countries, cocoa production is largely in the hands of household and small holder farmers. It is estimated that Ghana has about 720,000 cocoa farmers, and these mostly act independently of each other. In other words, there is free competition with hardly any serious competition concern.

There have been, however, cases of coordinated behaviour among farmers through associations to garner better prices for their produce. One very successful venture gave birth to *Kuapa Kokoo Ltd*, a company established as an association of farmers, whose membership continues to grow. Not only does its

production exceed that of similar associations and individual farmers it has managed to become vertically integrated and get licensed as a buying company.

Another case of coordinated activities among farmers is a scheme introduced by *Wienco (Gh) Limited*, known as *Cocoa Abrabopa*. This scheme has led to an association of cocoa farmers who receive inputs from the company and coordinate production efforts to boost production. The scheme was started in 2006 with 1,500 farmers and its coverage, according to indications, is expanding.

However, despite the presence of farmer associations, the structure of the market is still very competitive. For example, *Kuapa Kokoo*, now representing about 48,854 farmers, produced 35,000 tonnes of cocoa beans in 2008, which however only represents five percent of the total produced by farmers during that year.¹¹ A leading player with a five percent market share is hardly a cause for concern.

2.2.4 Rice Production in Nigeria

The same pattern of unimpeded competition is also apparent in Nigeria, where rice production has remained largely in the control of household and small scale farmers, with no scope for influencing outcomes. It is estimated that there are about 1,395,869 rice farmers in Nigeria, with most of them operating individually on a very small scale. There are, however, some zonal variations in farm size, with farm holdings ranging from one to two hectares per farmer in the South and three to five hectares in the North. Yields are also very low, averaging 1.7 tonnes per hectare, at a time when best practice could have raised this to seven tonnes per hectare.

2.2.5 Groundnut Production in Senegal

Just like The Gambia, groundnut production in Senegal is also largely under the control of individual and smallholder farmers and therefore characterised by almost perfect competition among farmers with hardly any room for anti-competitive practices. It is

estimated that about 4.5 million people, constituting about 40 percent of the Senegalese population, are involved in groundnut farming. The farms are usually very small, averaging 2.5 hectares per farmer. There are also some bigger groundnut farms, but these are very few, and most of these are owned by religious leaders, probably due to their ability to adequately mobilise labour.

The farms are mainly concentrated in the groundnut basin, which is in the centre of the country, and includes regions of Kaolack, Fatick, Diourbel, Thies, Louga and part of the region of Tambacounda. Some farms, can however, be found in other areas of Senegal as well.

2.3 Seed Supply Market

There is a predominance of the informal sector in seed supply in many countries that were studied. SoE seed companies dominated the seed market in a few countries (Burkina Faso, Togo); while the private sector was only seen to be active in certain geographical locations in some others (Nigeria, Senegal). High-level of concentration was noted in Mali and Togo – which would have serious competition concerns, and therefore demanded greater attention by the competition authorities/government. A deeper look at individual country scenario follows:

2.3.1 Gambian Groundnut Seed Market

The relevant market consists of two segments: the informal market and the formal market where participation of the private sector is largely negligible and government departments dominate in supplying certified and researched seed varieties.

Informal groundnut seed supply caters to about 80 percent of the seed demand from household and small holder farmers. The informal market is supplied by savings from the previous harvest. It is characterised by mutually beneficial exchange of seeds among farmers; cash purchases of seeds at informal sector shops; and seeds being exchanged for other commodities. Given that groundnut production has remained largely in the hands of

individual household farmers, it has remained difficult to lure these farmers into the certified seed market.

The formal market is composed of various units of the National Agricultural Research Institute (NARI formerly Department of Agriculture Research), under the Ministry of Agriculture. Units of particular interest in NARI include the Seed Technology Unit (STU). The formal seed market actually revolves around the STU, as it is the official public body responsible for seed activities. This includes seed multiplication (mostly through contract farming schemes), improvement of varieties, seed testing, farmer training, and coordination of related activities. The presence of STU implies that farmers have access to high quality seeds of improved varieties.

In addition to STU, the Agriculture Input Office (AIO) is also an active player in the seed market. Its functions include selling inputs countrywide to farmers through private dealers or contract agents. The office is also responsible for providing credit to farmers to buy seeds and related inputs. The AIO is, however, hamstrung by various challenges, key among them being the high default rate in loan payment by farmers.

The private sector also has some presence in the seed market, although it is hardly noticeable. This is despite some deliberate government policies aimed at attracting private players into the seed multiplication market. In fact, the private sector players have been focusing mostly on seeds of horticultural/vegetable crops imported from overseas. However, recently, these players have also started marketing of groundnut seeds, though these are confined only to urban areas, while the bulk of the farmers are located in rural areas. Notable (fringe) formal market players from the private sector are *Gambia Horticultural Enterprise* and *SANGOL Farms*.

It is important to note, however, that although household and smallholder farmers make up the bulk of groundnut farmers, the formal market has managed to sustain itself over the years due to the huge demand from large-scale producers, research institutions and NGOs, who engage in various farming projects. Thus, although

small in size relative to informal market, the formal market is viable, with more scope for growth if seed marketing becomes more organised.

The structure of the market, therefore, does not raise many eyebrows in term of competition concerns. Table 3 summarises the structure of the market.

Table 3: Market Structure for Groundnut Seeds		
Player	Estimated Market Share	Square of Market Share
Government departments	18	324
Private sector	2^{12}	4
Informal market	80	80 ¹³
Total	100	408

An attempt has been made to estimate the level of market concentration. This refers to the extent to which the market is dominated by a few large players. Markets that are dominated by a few large firms or monopolised are termed as ‘highly concentrated’.

One widely used method for measuring market concentration is the Herfindahl-Hirschman Index (HHI), defined as the sum of the squares of market shares of all the firms in the industry. According to the Antitrust Division of the US Department of Justice, one of the most experienced competition agencies in the world, a value less than 1000 implies that the market is not concentrated; for values between 1000 and 1800 the market is deemed as moderately concentrated; and for those above 1800 it is considered to be highly concentrated.

The HHI, as shown in Table 4, is estimated at 408 implying that The Gambian seed market is generally not concentrated. This, in turn, can be attributed to the predominance of the informal market characterised by several players.

However, although not concentrated, the structure of the market is also not ideal. The yields per hectare have remained very low due to the use of seeds from the informal market. The private sector has failed to make inroads due to a variety of reasons.

First, the existence of the informal market implies that farmers have a cheaper option to settle for, thus, luring them to the formal market is difficult.

Second, the government has not put in place any modalities for quality control of seeds used by farmers — field inspections are not mandatory and hardly carried out, giving very little incentive for farmers to consider the formal market.

Third, it is alleged that the STU's only seed laboratory is underutilised and inadequately equipped, with seed marketing neither organised nor well planned. Even if farmers get interested in improved varieties, their release has not kept pace with farm demand.¹⁴ There is a general shortage of certified seeds in the market, a gap which the private sector can fill if conditions permit.

However, conditions are clearly unfavourable – while the government lacks a comprehensive seed policy and is content with farmers remaining self sufficient in regard to seeds, the high risks, low profit margins and large investment requirements associated with the seed business coupled with high interest rates¹⁵ shut out the private sector.

2.3.2 Cocoa Seed Market in Ghana

The cocoa seed market is a little complex, given that the cocoa tree is a long term investment, which is productive over a reasonably long period. A cocoa tree is expected to start blossoming only after three years have been completed, with its yield being greatest in its tenth or twelfth year and expected to remain constant thereafter for ten more years, before declining later (Capelle, 2009). Unlike other crops whose seed demand is regular annually, the demand patterns for cocoa seeds among farmers is not regular, as farmers can go for years without any new cocoa trees planted. This also implies that comparison of quantities purchased in any

given year may not accurately reflect the competition for the downstream market, which depends largely on previous investments, making it difficult to trace the value chain. Thus, the analysis of the cocoa seed market has not been done in this section.

2.3.3 Nigerian Rice Seed Market

There are basically three sources of rice seed for farmers in Nigeria: government, local private firms and seeds saved from the previous harvest (informal market). The government operates mainly through the National Agricultural Seed Company (NASC), a parastatal under the Federal Ministry of Agriculture which acts in collaboration with other government research institutions providing it with breeder seeds: National Cereal Research Institute (NCRI), West Africa Rice Development Association (WARDA), and International Institute of Tropical Agriculture (IITA) etc.

After obtaining the seeds, NASC uses out-grower schemes for multiplication, before selling to state agricultural development projects across the nation and other private seed companies. The private companies then package the seeds and sell them as certified seeds to farmers. NASC as well as the other government agencies and research institutions also sell some seeds directly to farming institutions and farmers.

It is estimated that about 40 percent of rice farmers get their seeds from previous harvest, 25 percent mainly from government agency sources, 20 percent from local private suppliers and 15 percent from NASC.

An overview of the seed market indicates that the supply from the private sector comes mainly from *Premier Seeds*, a large local private company based in Zaria, Nigeria. It is estimated that the company is responsible for about 80 percent of certified seed production in Nigeria, with annual production of about 3000 MT seeds. This includes seeds such as maize (hybrid and pollinated), soybeans, sorghum, cowpeas, groundnut and vegetables in addition to rice. Other fairly large seed companies and their estimated outputs are given in Table 4.

Table 4: Estimated Supply Volumes of Seeds by Private Sector Companies in Nigeria

Company	Estimated annual production (tonnes)
Maslasha seeds	120
Nageri seeds	10
Savannah seeds	10
Alheri seeds	5
Dalgreen seeds	5

Given that *Premier Seeds* is much larger than other companies in the private sector, which accounts for a total of only 20 percent of the market, it can be concluded that only *Premier Seeds* among these companies has a significant share in the market. Rough estimates of market shares of important players/markets are depicted in Table 5.

Table 5: Estimated Market Shares Among Seed Suppliers in Nigeria

Supplier	Market share	Square of market share
Government	25	625
Premier seeds	16	256
NASC	15	225
Informal market	40	40 ¹⁶
Other private sources	4	4
Total		1150

The HHI of 1150 indicates that the market is moderately concentrated and hence might not be expected to give rise to serious competition concerns. This is largely due to the lack of concentration in the informal market, which dilutes potential concerns resulting from the high market shares of the top three suppliers.

2.3.4 Cotton Seed Market in Burkina Faso

The Burkina Faso cotton seed market is driven by primarily three players: *Société Burkinabé des Fibres Textiles* (SOFITEX), National Institute of Environment and Agricultural Research (INERA) and *Union nationale des producteurs de coton du Burkina Faso* (UNPCB), in addition to some other small scale producers. SOFITEX, a state controlled agro-industrial and commercial entity, is actually involved in the entire cotton production cycle, including planting, ginning and the export of cotton fibre.

Before liberalisation in 2004, SOFITEX had a monopoly over the cotton sector in Burkina Faso. It is one of the few companies in the region which have their own seed producing facilities (delinting units) to facilitate production of seeds of enhanced yield and disease resistance. SOFITEX is now a semi-public body after state ownership was diluted — the state now owns 35 percent of its shares while 34 percent is owned by a multinational company (DAGRIS), 30 percent by some cotton producers (mostly members of UNPCB) and the remaining one percent by two private local banks.

UNPCB is an umbrella cotton farmer organisation that coordinates national cotton producer associations composed of cotton producers seeking to have a bigger role to play in the cotton marketing chain. The structure of UNPCB is also quite formalised. Cotton farmers are firstly organised into about 8,000 groupings of cotton producers (GCP). These elect *Union Départementale des Producteurs de Coton* (UDPC), which is an association of farmers at the district (departments in French) level. UDPC then elects the Provincial Unions Cotton Producers (UPPC), who in turn, elects the members of the UNPCB. Thus, UNPCB has representations at district, provincial and national levels.

At seed level, UNPCB members are involved directly in cotton seed development, largely through contract farming schemes with SOFITEX and INERA. Thus, on matters related to cotton seed, UNPCB cannot act independently of these two institutions.

INERA is a research institution, whose role is largely to carry out research on seed varieties. It provides farmers with seed

varieties adapted to the climate conditions and also provides technical support in the use of the inputs. It coordinates its operations with SOFITEX, through an memorandum of understanding, where it supplies SOFITEX with cotton seed varieties, makes available results of its experiments in variety developments as well as supports SOFITEX in the establishment of seed multiplication schemes.

From the above, it becomes clear that the three main drivers of the seed process are not in competition with each other but rather complement each other. In fact, to all intent and purposes, it is largely SOFITEX which is the key player in the seed market, being involved in 85 percent of activities in the production chain (Yartey, C A 2008). Thus, there is almost a monopolisation of the seed production process by SOFITEX, with the other companies assisting the monopoly.

2.3.5 Senegalese Groundnut Seed Market

The Senegal groundnut seed market partly resembles that of Gambia, where the informal sector is mostly the source of the seeds used for planting, despite resulting poor yields. Problems such as poor storage mechanisms resulting in pest attacks on seeds, and use of seeds for consumption purposes due to hunger (Poulton and Tyler, 2007), led to serious shortages of seeds in the market, which the government took heed of. The government is therefore an active player in the seed market through a subsidisation programme in partnership with research institutions and private sector players. It is estimated that about 71,000 metric tonnes of groundnut seeds were sold through a government subsidy programme to farmers in 2008-09, which was enough to satisfy about 38 percent of total seed demand (Sylla, 2009). The *Fonds National de Recherches Agricoles et Agro-Alimentaires* (National Fund for Food and Agricultural Research), a government programme, is also working with farmers to certify and improve peanut seed quality.

Research institutions include the Senegalese Institute for Agricultural Research, which conducts basic and applied research to ensure diversification and improved crop varieties. In the process, the institute also releases the developed varieties into the market. The National Agency for Agricultural and Rural Council (ANCAR) also plays a role, though its mission is largely to provide consultancy and training, as well as transfer technology and farming techniques through information campaigns and advocacy.

Given the active role of the government in seed supply, as well as the pressure exerted by the ever present informal sector, there is little opportunity for the active players to engage in anti-competitive practices. However, the prices of certified seeds without the government subsidy are beyond the reach of many farmers. The structure of the market (with huge informal sector presence and active role of government), which does not give rise to serious competition concerns, seems to suggest that such pricing would be a means of recovering costs rather than anti-competitive behaviour.

2.3.6 Overview of Seed Markets in Mali and Togo

Togo

Major food crops in Togo include cereals (rice, maize, sorghum), tubers (cassava, yams) and legumes (groundnuts, beans, cowpeas), while major cash crops include cocoa, coffee and cotton. Except for tubers and to some extent cocoa, these crops require frequent supplies of certified seeds for good yields. In Togo, most of the seed companies are involved in distributing a variety of certified seeds, without specialising in one particular crop.

As part of the 7Up4 project, interviews were held with, among other stakeholders, a sample of 154 farmers and 28 seed supplying firms and institutions in three (out of five) economic regions of Togo (Maritime, Plateaux and Central). Among the seed suppliers were two parastatals, 12 private companies, 10 associations and NGOs, and four individuals. The results of interviews can be used

as a basis to infer the nature of competition in the seed market in Togo.

It was ascertained that two public bodies, CAGIA (central purchasing agency of the State under the Ministry of Agriculture, Livestock and Fisheries) and the National Agency for Food Safety (ANSAT), are the most active players in the seed market, supplying to 52 and 26 percent of farmers in Togo respectively. These two mostly supply locally produced seeds, although they also supply imported varieties. ANSAT has managed to establish outlets in most agricultural areas. It is also estimated that private sector companies or associations scattered across the country meet about 14 percent of farmers' seed requirements. Such private sector players include Agro-grain, Indiana Certified Organic, LLC (ICO), association of cotton producer groups, (*Groupements de Producteurs de Coton*), Ong Alafia among others,¹⁷ with most of these not having more than one percent share of the market. It is also estimated that the remaining eight percent accounts for the informal market through which farmers exchange seeds produced from the previous harvest.

Public enterprises benefit from the government price subsidy programme for seeds. The government, using depots of ANSAT, has created a buffer stock of seeds as a way of controlling prices during the dry seasons. Seeds distributed by the other private suppliers are mainly imported — it is estimated that about 34 percent of the seeds sold are produced locally by seed firms.

Thus, the Togo seed market is highly concentrated due to the dominance of two public sector companies though about 22 percent of the market is in the hands of small and informal market players. Thus, there is scope for abuse of dominance by two parastatals.

Mali

Statistics from the Mali Competition Authority, *Direction Nationale du Commerce et de la Concurrence* DNCC, reveals that the market structure for seed markets, particularly maize and rice, is far from ideal. First, the number of suppliers is very

low, with three players for maize seeds and two for rice seeds. Even among these few players, market shares are not evenly distributed with the leading player in each market being very dominant – the leader in rice seed is almost a monopoly with an estimated market share of over 98 percent, while that in maize has a 76 percent market share.

The same trend is also apparent in the fruit and vegetable seed market, where despite a large number of players estimated at 16, about three players stand out from the rest in terms of market shares. Table 6 summarises the information:

Table 6: Market Shares for Top Players in the Seed Market in Mali		
Seed market	Leading players	Estimated market share in percent
Rice	GDCM SA	98.57
Maize	MAF TRADING SARL	75.80
Fruit and vegetable	LA SIKASSOISE	41.90
	TROPICASEM MALI SARL	21.32
	INTER AGRO SARL	19.72

This information implies that the seed market in Mali are highly concentrated and therefore the source of some potentially serious competition concerns.

2.4 Fertiliser Market

2.4.1 Fertiliser Supply in Burkina Faso

The fertiliser market in Burkina Faso is fairly competitive, and there are quite a number of players involved. There are six major fertiliser companies, which were mostly identified in the survey conducted during the 7Up4 project. These are SOCOMA, SAPHYTO, SCAB, SIPAM, KING AGRO and BOUTAPA. In addition, the major player in the cotton sector, SOFITEX was

also identified as a source for fertilisers, since it supplies inputs, including fertiliser, to cotton farmers on a large scale. It can, however, be established that some of this fertiliser is sourced from these six companies. These major suppliers are all local private companies, showing the importance of the private sector in the economy. Estimated market shares of the six companies, at a national level, are given in Table 7.

Table 7: Estimated Market Shares for Fertiliser Firms in Burkina Faso	
Supplier	Estimated market share (%)
SAPHYTO	34
SOCOMA	20
SIPAM	13
SCAB	13
BOUTAPA	13
KING AGRO	7
TOTAL FOR TOP FOUR FIRMS (CR4)	80

Thus, the fertiliser market is highly concentrated, given that SAPHYTO, which leads in terms of market shares, and the second largest firm constitute more than 50 percent of the market. The fertiliser market, therefore, gives rise to some competition concerns. The situation becomes worse when regional markets in the country are reviewed. Four regions can be identified for the purpose of fertiliser distribution, namely the East, the Central region, the Hauts Bassins and the Cascades.

In the Cascades, the market is characterised by the presence of mostly one large supplier SAPHYTO, which leaves no room for competition in this region. In Hauts Bassins, there are largely two players, SAPHYTO and SCAB competing fairly in the market. Table 8 gives us an idea about competition in regional markets in Burkina Faso.

Table 8: Regional Level Market Shares for Fertiliser Firms in Burkina Faso		
Region	Players	Estimated market shares
East	SOCOMA	75
	SAPHYTO	25
Central	BOUTAPA	40
	SIPAM	40
	KING AGRO	20
Hauts Bassins	SAPHYTO	50
	SCAB	50
Cascades	SAPHYTO	100

Thus, though a national level overview reveals the combined dominance of six players, relevant markets¹⁸ might be best defined regionally. Moreover, these regional markets can be seen as characterised by 2-3 players, i.e. serious concerns in regard to competition. Farmers in the region are therefore at the mercy of such dominant firms.

2.4.2 Fertiliser Supply in The Gambia

The government directly supplies most of fertilisers in the country through an intensive subsidisation programme. The price of fertiliser is subsidised by between 30 and 35 percent. The role of the private sector in the subsidy programmes is also limited, as authorities directly source and distribute fertilisers rather than outsource to private sector. This has reduced the ability of the private sector to develop private distribution networks and sell inputs on flexible terms to farmers.

This implies that in general, competition is somehow distorted by the presence of government and its agencies as they make attempts at making fertiliser affordable to farmers. However, the private sector is not totally excluded, as it is also active in the fertiliser market despite this drawback. In a survey conducted

under the 7Up4 project, some private sector firms were among the largest suppliers identified by the respondents. The largest suppliers of fertilisers named were Gambia Horticulture Enterprise; Government enterprise NARI and private firms Silla, Bakary Bojang, Brikama (Aminata), First Choice, Brikama Market, Modou Ceesay, Alagie Tabara, Baraba (Brikama), Busumbala Market, Garden Centre, Narka and Sangol. However, the market shares of each firm could not be individually ascertained.

2.4.3 Fertiliser Supply in Ghana

The competition situation in the fertiliser market in Ghana reflects the impact of the country's economic reforms. The market oriented reforms since 1983 included elimination of subsidies for agricultural inputs including fertilisers. In 1992, the government abolished subsidies on fertilisers, and it has been alleged that the low level of productivity during subsequent periods can be partly attributed to the very low use of fertilisers following the price increases resulting from the withdrawal of government subsidies.

The private sector, particularly four private companies that dominate the import of inorganic fertilisers into the country, is in control of the fertiliser market in Ghana. By order of their estimated size, these companies are: Wienco Ghana Ltd.; Golden Stork (subsidiary of SCPA Sivex International); Dizengoff Ghana Ltd. (subsidiary of Balton CP Ltd.); and Chemico Ltd. The market shares for the companies could however not be ascertained. Wienco (Ghana) Limited is the leading fertiliser supplier, and specialises in importation and distribution of fertilisers and agro-chemicals. Since the privatisation of fertiliser import by the Ghanaian government, it has been the biggest importer of fertiliser in the country. For most part of the year, the company would be having over 25 varieties of fertiliser in stock.

Market indications are, however, that there is intense rivalry among these firms, despite there being only four main firms, with all competing to take advantage of the government's subsidy programmes, whenever introduced as an emergency or an *ad hoc* measure. Thus, the competition situation is not worrisome.

Fertiliser companies are often not the direct suppliers to farmers. Farmer-based organisations, which number over 4,000, are mostly the main channels through which fertilisers are supplied to farmers. These organisations give fertilisers to farmers on reasonable terms, mostly on credit and payable after harvesting. Wienco (Ghana) Limited, for example, has encouraged the formation of associations where farmers get packages of inputs, including fertiliser, from the company, for which payment is made after harvesting.¹⁹

2.4.4 Fertiliser Supply in Mali

The private sector is very active in the fertiliser supply market in Mali, with a number of suppliers also involved. Statistics from the National Competition Authority, *Direction Nationale du Commerce et de la Concurrence* (DNCC) for 2008 show that there are about 30 suppliers of fertiliser in Mali, which implies that average fertiliser buyers have lot of choices. However, despite the number of suppliers, the market is concentrated as the top four firms dominate the market. Table 9 shows four major suppliers as well as their estimated market shares.

Table 9: Top Players Market Shares for Fertiliser Firms in Mali	
Supplier	Estimated Market Share (in percent)
TOGUNA SARL	29.95
TOGUNA AGRO INDUSTRIES SA	28.24
DTE	21.22
BME MALI	7.37
Total (CR4)	86.78

As shown by Table 9, the market is highly concentrated, with a four firm concentration ratio of 86.78. This implies that the market is very susceptible to anti-competitive practices, particularly by three dominant firms who have the muscle to dictate conditions in the market.

2.4.5 Fertiliser Supply in Nigeria

In Nigeria, fertiliser distribution is mainly carried out by government agents, especially under the State Agricultural Development Projects (ADPs). In addition to the ADP system, fertiliser distribution is also carried out in some states through Fertiliser Procurement and Distribution Division of the Ministry of Agriculture.

In addition, village extension agents have been created under the ADP, which are important agents in linking small scale farmers with inputs. Fertiliser is heavily subsidised, as the Federal government, under the Federal Market Stabilisation Programme, procures fertiliser and sells it to state governments at 25 percent subsidy. The states add a certain level of subsidy, and in 2008, the subsidies ranged between 0 and 50 percent (Afua B *et al*, 2009). Private companies have to make bids to both the Federal and state governments to supply fertiliser under the subsidisation scheme.

This system of distribution can be argued to be flawed, especially since the system can be easily abused and a substantial proportion of the fertiliser is purchased by highly connected middlemen, even before it gets to the ADPs. Since most small farmers do not have ready funds to purchase fertilisers, even when it is available in the ADPs, the larger proportion of the stock in the ADPs usually finds its way into the hands of middlemen, who, in many cases, pretend to be real farmers. It is estimated that only about 30 percent of subsidised fertiliser reaches the small scale farmers (Afua, B *et al*, 209).

In a number of cases, farmers' associations do not get information about the time of sale of fertilisers by the government agencies on time to enable them to procure the same. The subsidisation programme has also disconnected the private sector suppliers from farmers, as the companies realise that the Federal and state governments are their main clients and not farmers (USAID, 2009). As a result, it is mostly the government agencies that supply fertiliser to farmers. According to the account of farmers interviewed under the 7Up4 project, about 76 percent of

fertiliser received by them comes through government agencies, while the remaining comes through private sector operators.

Most private sector agencies that distribute fertiliser to farmers are end-users of farm products and do so with a form of contractual arrangement with the farmers. Farmers receive fertiliser supplies from these end-users and pay back after harvest. Examples of such private sector operators are Notore Fertiliser Company (the major chemical fertiliser production company in Nigeria currently), OLAM (a Singapore-based multinational agro sector supply chain business with offices in most countries of Western Africa), Veetee Rice Mills Ltd (a large-scale rice processing mill in Ogun State) and Premier Seed (the largest seed production and distribution company in Nigeria). Most farmers are supplied by Federal and state government agencies buying from private firms and then selling for farm use at subsidised prices. In other words, little is bought directly by farmers from private firms.

Thus, competition in the market is not intense, due to the heavy presence of the government and its agencies, in their quest to ensure that fertiliser is available at cheaper prices to farmers. This has, however, created other loopholes which further worsen the market situation as agents abuse their access to government subsidised fertiliser.

2.4.6 Fertiliser Supply in Senegal

The market for fertilisers in Senegal is liberalised and has many private sector players. However, as a way of making fertiliser cheaper to farmers, the government heavily subsidises the sector, with subsidies being at 70 percent during the hot season and 50 percent during the rainy season. The government sources the fertiliser from private sector companies, particularly taking advantage of the presence of a local production industry, the Chemical Industries of Senegal. The market is divided into two sectors: the formal and informal.

The formal sector consists of only a few suppliers: primarily SENCHIM, a subsidiary of Chemical Industries of Senegal; a few

notable competitors include TSE/Afrique, de SEPAC, d'AGROPHITEX and de Niayes Sarraut; and some other firms which are smaller. The informal sector is characterised by importers as well as other small local businesses who find means of bringing fertiliser into the market. The role of State-owned Enterprises (SoEs) in the provision of agricultural inputs is very low due to the liberalisation of the sector. The Senegal government holds 15 percent stock in the Chemical Industries of Senegal.

2.4.7 Fertiliser Supply in Togo

There are few suppliers of fertiliser in Togo, with the largest being ANSAT and Cagia, which are public sector companies. The other private companies include Biochem, Agro-grain, Chimago, Agrovet and some small private retailers. These companies mostly source the fertiliser through imports from Asia and Europe, although production also takes place locally on a small scale at WABCOTIA plant. On average, about 2590 tonnes of fertiliser are sold by industry players per annum.

The government subsidises fertiliser to make it more affordable to farmers, although it is mostly the public sector companies that benefit from the scheme. Table 10 shows the major players in the fertiliser market and their estimated market shares.

Table 10: Estimated Market Shares For Fertiliser Firms in Togo	
Supplier	Estimated Market Shares
Cagia	60
ANSAT	30
Biochem	3
ICA Invest	2
Agrovet	2
Chimago	2
Agro-grain	1
CR4	95

Thus, the market is dominated by two companies and hence highly concentrated. This makes the market highly susceptible to anti-competitive practices. In fact, some allegations have already been levelled against the two dominant companies, which have been accused of creating artificial shortages of fertilisers to bring about higher fertiliser prices.

2.5 Output Marketing Stage

Across most of the project countries, serious competition concerns were encountered mostly at the output marketing stage. The situation ranges from one of dominance by few companies to one of a pure monopoly, as reflected by a study of individual country situations.

2.5.1 Gambian Groundnut Marketing

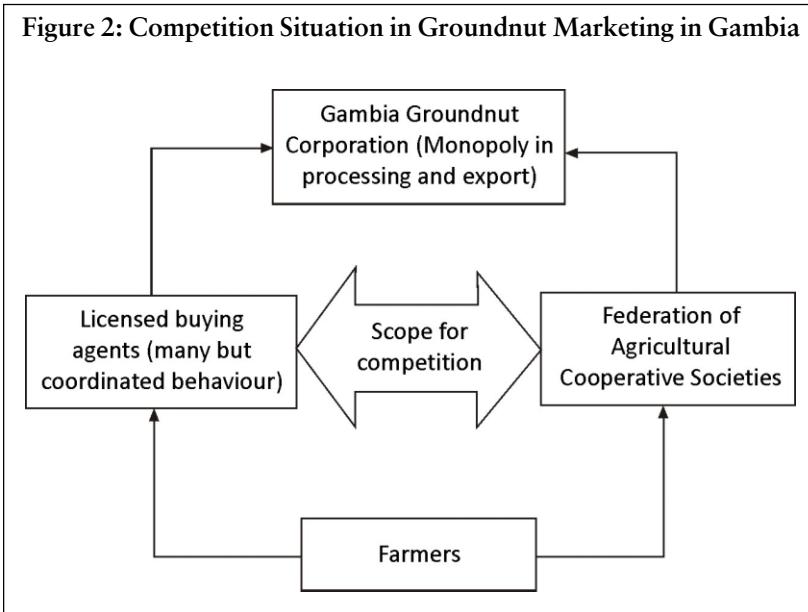
The marketing of groundnut in The Gambia is characterised by an imperfect market structure in terms of competition, with potential for exploitation of farmers. Although purchasers from farmers include a number of licensed buying agents as well as the Federation of Agricultural Cooperative Societies they all sell to (or rather they buy on behalf of) The Gambia Groundnut Corporation (GGC).²⁰ The licensed buying agents seem to coordinate their behaviour and appear to adopt uniform strategies rather than compete. The GGC, which has a monopoly in the processing of the crop and export,²¹ is the final destination for all groundnuts in the country meant for commercial use.

In addition to having a monopoly over groundnut processing, GGC also monopolises the processing facilities (no third party access). Moreover, these facilities are old, not every efficient and characterised by excess capacity. Such inefficiency and excess capacity is factored into the price paid to farmers at the farm gate. In areas located very close to the border, farmers find it more profitable to sell their produce in the neighbouring country of Senegal. However, such sales are largely informal.

The licensing of buyers is also not adequately transparent and very restrictive. Therefore, it needs to be revisited in order to open the industry to all potential participants. It is also apparent that the licensed agents, whose number is limited, mostly do not have the required capital to operate smoothly. GGC is (as a result) also failing to meet the threshold of 700,000 tonnes required to profitably operate its (only) mill at Saro (Denton Bridge). This compounds inefficiencies.

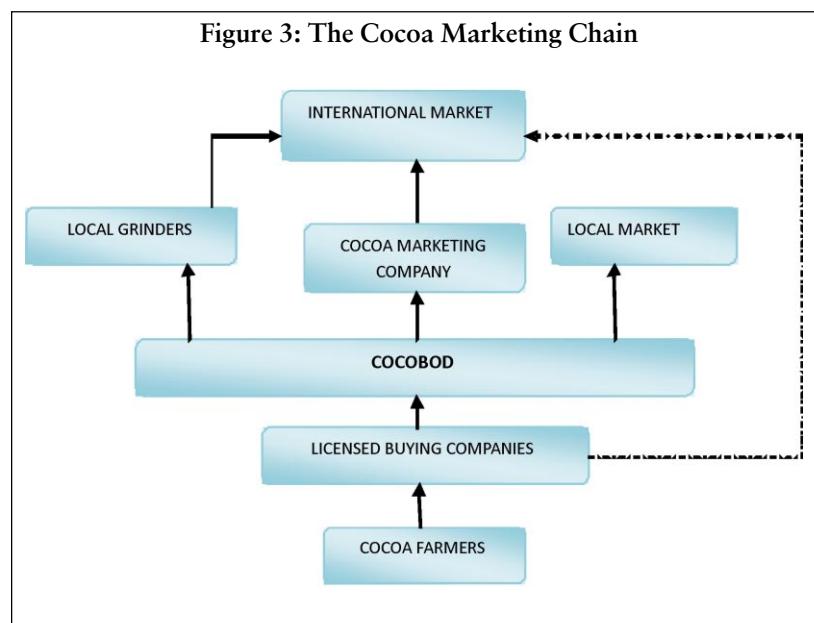
More processors, especially from the private sector, need to enter the industry so that processing cost can be further reduced and farm gate prices made more competitive for farmers.²² The licensed buying agents largely serve as middlemen; their profit is largely the difference between the price paid by GGC and what they pay to the farmer. Like the farmers, they are also affected by the existing market structure, where processing and marketing is (inefficiently) monopolised, though they can pass on the burden of such inefficiency to farmers.

Figure 2 sums up the structure of output markets with arrows showing the movement of groundnuts:



2.5.2 Cocoa Marketing in Ghana

The liberalisation of the cocoa market ushered in some private players into the marketing of cocoa. However, a review of the cocoa chain (see Figure 3 taken from the Ghana 7Up4 project research report) reveals that there is only one level at which these players could be accommodated.



After harvesting, cocoa farmers sell the cocoa bean to licensed buying companies (LBCs), who in turn sell to Ghana Cocoa Board (Cocobod), a government-owned entity. The *Cocobod* is in turn responsible for marketing the cocoa beans in both the local and international market. The international market is served either directly by *Cocobod* or indirectly through facilitation of the grinding of beans by local grinding companies.

As shown in Figure 3, Cocobod has a monopoly in the marketing of beans. This leaves scope for competition at the level of LBCs or in grinding. However, a deeper examination reveals that the

extent to which LBCs can compete is limited as the price paid to these by Cocobod is determined by the Producer Price Review Committee (PPRC), as is the case for prices paid to farmers (the producer price). Members of the PPRC include representatives from Cocobod, cocoa farmers, the Treasury department, the Bank of Ghana, the Institute for Statistical, Social and Economical Research among others (Capelle, 2009). In addition, each year, Cocobod announces the bonus which the LBCs should pay to farmers. Thus, competition among LBCs is strictly non-price competition.

In addition to operating as a monopoly in the marketing of cocoa, Cocobod is also responsible for licensing the buying companies and enforcing standards. As shown by the dotted line in Figure 3, there was a plan originally to facilitate the marketing of cocoa beans by LBCs internationally in competition with Cocobod. However, this is yet to take place and the idea appears to have been shelved.

The producer price announced by Cocobod is generally regarded as a floor price, implying that LBCs are free to pay more than that as a way of attracting patronage. It was established however that they never do so, sticking to the announced price (Zeitlin, 2005), possibly because the buyers' margin is set too low. Thus, competition among LBCs is volume based, although the industry has remained attractive, if the number and status of current LBCs is anything to go by.

In 2009, there were about 24 private LBCs that had been granted licenses. These have to compete with the Produce Buying Company Ltd (PBC), a subsidiary of Cocobod. PBC has been partially privatised, with the government retaining about 35 percent of the shares and the balance traded on the stock market (Laven, 2005). LBCs also include subsidiaries of international companies; Armajaro Ghana Ltd and Olam Ghana Ltd, owned by their parent companies in the UK and Indonesia respectively. The PBC, which used to be the sole buyer before liberalisation, has managed to remain a dominant player in the market, with a market

share of about 35 percent.²³ While Olam, on its website claims to be the leading buyer among private companies, Akuafu Adamfo Marketing Co., another LBC, claims that with a 14 percent market share, it is second after PBC.²⁴ Given that the number of LBCs is 25, a market share of 35 percent for PBC followed way behind by the second largest company at 14 percent confirms the market dominance of PBC.

LBCs are rarely fixed in terms of their operating locations and move from village to village. Farmers also move easily across LBCs. Thus, although PBC is a dominant player at the national level, the situation in some villages might give a fairly competitive picture, with LBCs competing vigorously in those villages. Thus, the dominance of PBC might not be alarming as it appears. This is reflected by two surveys conducted by Vigneri and Santos (2007) which used presence in selected villages as a potential indicator of competitiveness. The two surveys were conducted in 25 villages during 2002 and 2004 (see Table 11 for results).

Table 11 paints a very competitive situation, with about four firms being present in all the villages surveyed during 2004. The average presence also shows a fairly competitive situation. It is also estimated that some villages have access to more than 10 LBCs at any given point of time, though the remote ones have access to only one LBC (Laven, 2005).

2.5.3 Nigerian Rice Marketing

Just like the production stage, it can also be inferred that serious competition concerns at this stage are unlikely due to the involvement of many players, mostly on a small scale basis. The value addition to paddy rice and therefore its marketing involves two distinct stages of processing, par-boiling and milling, with farmers and millers commonly involved in both.

In Nigeria, all paddy processed is parboiled, since the quality of the par-boiling operation has a great influence on the technical performance of milling and therefore on the quality of rice.²⁶ This therefore implies that farmers not engaged in par-boiling would be selling to par-boilers mostly not engaged in the production

Table 11: Presence of LBCs in Villages Surveyed				
Licensed Buying Company	No. of Villages in 2002 Survey	No. of Villages in 2004 Survey	Total	Average Presence
Produce Buying Co	25	25	50	25
Kuopa Kakoo	22	25	47	23.5
Adwumapa	17	25	42	21
Olam	12	23	35	17.5
CashPro	21	9	30	15
Armajaro	10	20	30	15
Akuafu Adamfo	6	23	29	14.5
Fed Co	15	10	25	12.5
Cocoa Merchants	12	9	21	10.5
Transroyal Ltd	9	4	13	6.5
Ahoafu Buying Co	2	9	11	5.5
Universal Crop	7	1	8	4
Premus Trading Co	5	2	7	3.5
Goldcrest Co	3	3	6	3
Royal Co	5	1	6	3
Kiku Produce Marketing	4	1	5	2.5
Others ²⁵	10	10	20	10
Total	185	200	385	192.5

process. Par-boiling paddy consists of soaking paddy in hot or cold water in a drum, rapidly exposing the soaked paddy to steam, before gradually drying it for at least one day.

Par-boiling paddy in Nigeria has been described as a ‘cottage industry’²⁷ after it was discovered in a survey that it is typically done by the household itself, with 86 percent of surveyed households being involved. The other 14 percent, therefore, contract the service to private par-boilers, and to a lesser extent, private millers with par-boiling facilities. The survey also established that about 91 percent of the households doing the par-boiling at home do so only for themselves and not on behalf

of others. Further, on an average, par-boiling households have a par-boiling capacity of 200 kg of paddy – 2.4 par-boiling pots, each with a capacity of 87 kg per pot – which is very small. It therefore follows that the structure of the par-boiling market is very competitive.

As in the case of par-boiling, farmers are also actively involved in the milling industry, which is also largely in the hands of small and medium scale millers. The small/medium scale rice mills are estimated to number over 3500 and scattered all over Nigeria. These are mostly concentrated in Lafia (Nasarawa State), Abakaliki (Ebonyin State) and Bida (Niger State). It is estimated that about 85 percent of Nigerian rice is processed through small mills, with the remaining 15 percent processed by relatively larger-scale millers.

The processing at small and medium scale mills largely involves the use of mechanised milling units, with a maximum and minimum capacity of 600 and 200 kg per day, respectively. These do not use the rubber roller technology (a modernised technology). At the moment, most of these operate below their installed capacity, due to unavailability of sufficient paddy for processing.

The large-scale mills, which account for 15 percent of processing capacity, have been experiencing some downturn over the past decade. These were always few in numbers due to too much competition, including that from vertically integrated miller-farmers, and are mostly owned by the government or quasi-government parastatals. The Badeggi, Uzo-Uwani and the Agbede rice mills are typical examples of large mills in Nigeria. These mills combine rice milling with rice polishing and, in most cases, possess separate par-boiling equipment. Most of these mills broke down as a result of lack of spare parts and the general poor maintenance culture associated with government-owned assets. With a 15 percent share of the market, coordination, even if prevalent, would not give rise to serious competition concerns.

Government policy has however shifted focus to encourage the establishment of large-scale rice processors through public-private partnership arrangements. Programmes put in place by

the Federal government to increase the milling capacity of rice in Nigeria include those meant to establish the following:

- Large-scale rice processing factories with a combined installed capacity of 730,000 tonnes per annum. The country presently has less than 10 privately-owned large-scale rice processing mills.
- 100 medium scale fully automated plants with milling capacity of 176,000 tonnes per annum.
- 22 semi-automated rice milling clusters across the country with additional capacity of 1,089,000 metric tonnes when completed.

The projects are still at the inception stage. When completed, there could probably be some changes in the marketing structure, which would give rise to possibilities of dominance.

2.5.4 Cotton Marketing in Burkina Faso

The marketing chain in this section refers to the movement of cotton from the farm to the ginnery and does not include the spinning of lint by textile firms or crushing of seeds by oil firms to produce oil. It can be seen that although farmers could get the impression that there are many buyers,²⁸ the heavy presence of SOFITEX can be detected everywhere across the chain, which implies that competition is indeed very limited.

The marketing chain of interest here involves purchase of cotton from the farmer, its transportation to ginning facilities, and the subsequent ginning of cotton seeds which are sold to potential users of this input.

SOFITEX is heavily involved across the chain and other players largely operate in collaboration with it, rather than in competition. Transport of cotton from farms to ginning plants is mainly carried out by SOFITEX, with farmer associations being paid net of inputs purchased from SOFITEX, before they distribute the proceeds among the members of the association. Private carriers are also involved, but these are also organised into regional pools and

intervene mostly to assist SOFITEX to transport cotton from cotton growing areas to sites of ginning and cotton fibre from ginneries to ports of embarkation.

The guaranteed base price to the producers is set before the crop year and may include bonus payments (in case of profit, producers receive a higher premium the following season). A management committee – *Comité de gestion de la filière coton* (CGFC) sets prices for cotton and cotton inputs and manages a fund for the stabilisation of producer prices jointly with UNPCB. Individual farmers do not have much say in determination of prices.

SOFITEX also dominates the ginning market. The regions in which the company operates, which are mostly suitable for cotton production, are divided into eight cotton areas housing 12 ginneries of the company. Table 12 provides detailed information in this regard.

Table 12: SOFITEX's Ginneries and Provinces Covered

Cotton Region	No of Ginning Plants	Involved Provinces
Bobo-Dioulasso	4 ²⁹	Houet
Banfora	1	Comoe Léraba, Poni
N ' Dorola	1	Kénédougou
Houndé	2	Bale (part), Bougouriba Ioba, Noumbiel, Tuy
Dédougou	1	Banwa, Kossi, Mouhoun, Bale (part)
Koudougou	1	Bale (part), Boulkiemde, Nayala, Sanguié Sissili, Sourou, Ziro
Ouagadougou	1	Bam Boulgou, Nahouri, Zoundwéogo, Bazèga, Ganzourgou, Kouritenga, Oubritenga
Fada N'Gourma	1	Koulpelogo, Tapoa Komandjari, Gourma, Kompienga

Source: SOFITEX on its website: www.sofitex.bf/, accessed on July 15, 2010

The marketing of final output (cotton fibre) is again dominated by SOFITEX, which has a monopoly in selling to international buyers and, also dominates the supply to local companies, such as those involved in the crushing of cotton seed to make oil, or the textile companies.

SOFITEX's large market presence is indicated in Table 13.

Table 13: Principal Players in the Cotton Sector by Activity	
Activities	Players
Production of cotton seed	<ul style="list-style-type: none"> • Individual producers³⁰ • Producer groups
Support counselling for cotton producers	<ul style="list-style-type: none"> • State • UNPCB • SOFITEX
Cotton Research	<ul style="list-style-type: none"> • INERA • SOFITEX
Transactions involving the purchase, collection, ginning of seed cotton, fibre and marketing of by-products	<ul style="list-style-type: none"> • SOFITEX • Producer groups
Funding of the cotton sector	<ul style="list-style-type: none"> • Local and foreign banks • SOFITEX • State • Support fund
Related activities: organising small farmers, transportation, public works, etc.	<ul style="list-style-type: none"> • Support organisations • Relevant ministries • SOFITEX • Private carriers • NGOs
<p>Source: SOFITEX at its website: www.sofitex.bf/, accessed on July 15, 2010.</p>	

2.5.5 Groundnut Marketing in Senegal

The private sector was expected to be very active in the market, following privatisation and liberalisation efforts in the sector. The *Société Nationale de Commercialisation des Oléagineux du Sénégal* (SONACOS), a government-owned company was privatised, and its 100 percent subsidiary *Société nationale de graines*

(Sonagraines) dismantled, with expectations that this would encourage more private players.

However, the mentioned measure has largely facilitated the creation of a dominant private sector player. The attempt to replace Sonagraines, which facilitated collection and transport of groundnuts from farms to processing plants, by private storage facilities, has been a failure. The efficiency of sourcing of peanuts from farms to processing plants has been adversely affected and farmers often have not been paid for their produce.

The bulk of the buyers of groundnuts from farmers are local oil producing companies, as Senegal mainly produces groundnut oil. This comprises of the two main operators: SUNEOR and NOVASEN, in addition to other small players with smaller plants. These oil producing companies absorb 75 percent of all groundnuts produced with the remainder being consumed by farmers. 95 percent of the oil produced by these companies is exported and the rest locally consumed.

SUNEOR S.A. is a private company which came out of the privatisation of SONACOS in 2005. The company is a dominant player at the farm gate and thus not only produces about 70 percent of vegetable oils consumed in the Senegalese market, but is believed to be one of the world's largest exporters of peanut oil. The company has consolidated its dominance in the market over time.

NOVASEN is the second major player in the industry, although it buys a very small share of the groundnuts produced. The other important player is Agro-Industrial Complex of Touba, which purchases relatively smaller quantities.

Statistics from 2008 can be used to get a general idea of the structure of the buyer's side of the market. It is estimated that the total amount of groundnuts purchased by oil millers was about 53,453.75 tonnes (see Table 14) and there were 45 operators in all.

Table 14: Groundnut Purchase in Senegal	
Company	Groundnuts Purchased (in tonnes)
SUNEOR	23,127.525
NOVASEN	2,983.650
Other private operators	27,342.575
Total	53,453.750

Use of these statistics to calculate market shares would reveal that SUNEOR has about 43 percent followed by NOVASEN with about 6 percent, with the remaining 43 players sharing a total of 51 percent. This shows that the market structure is highly concentrated (the market shares imply a very high HHI index of 1936) given the dominance of SUNEOR. It is possible for SUNEOR to abuse such dominance if conditions permit.

3

Barriers to Entry & ACPS

There are a few entry barriers that could be responsible for the market characteristics described in the previous section. Some of the barriers do appear to be ‘natural’ barriers to entry, defined as those resulting from resource or technology requirements for becoming a supplier in the market (DFID, 2008), although elements induced by government policy also exist, especially in groundnut marketing in The Gambia and cocoa marketing in Ghana.

Although stakeholders from the private sector in The Gambia pointed out that they would be willing to compete with GGC in processing groundnuts. However, it is unlikely that this would happen, because they would not be able to match the level of investment at GGC’s plant and recoup such costs in the near future, given the size of the market. In Ghana, LBCs, except for a few big companies, are resource constrained, and also do not appear to be in a position to compete effectively with the heavily mechanised and experienced Cocobod.

In Burkina Faso, this also appears to be the case. Given the heavy capitalisation of SOFITEX in the ginning market and its vertical integration into the downstream market, it is difficult for other players to initiate large investments and recover associated costs. In addition, contract farming arrangements, though beneficial in terms of providing farmers with finance and assured markets, also imply that potential suppliers are already tied up to SOFITEX.

Strategic barriers to entry, defined as actions by existing suppliers intended to discourage entry (for example, forcing new entrants to compete for a grouped product; or predatory action by the incumbent to deter entry), also exist in Ghana and Burkina Faso, given the involvement of Cocobod at all levels across the production chain and the active role of SOFITEX.

For example, Cocobod, which is responsible for licensing LBCs, is supposed to compete with these in the international market. But Cocobod has ensured that all LBCs concentrate on the downstream market, rather than on selling to the international market or local grinders. LBCs too have not objected despite feeling deprived as these are interested in maintaining good relationships with Cocobod.

Although the possession of 12 ginning plants to dominate the market can be considered a natural barrier to entry, SOFITEX has managed to go further and put itself in a position to dictate the on goings in the whole chain. In that process, it has also managed to eliminate competition by collaborating with any new entrant rather than competing, resulting in its control over the market. This can be regarded as a strategic entry barrier. The concern was also voiced by a survey conducted by the International Monetary Fund (IMF) which recommended a reduction in the role of the Burkinabè government through SOFITEX in the cotton sector over time, pointing out that SOFITEX poses a risk to the financial viability of the sector because of its weight in the market, contributing 85 percent of production (Yartey C, 2008). This huge involvement of government through the company could be crowding out the private sector, hence becoming a strategic barrier.

Regulatory and policy entry barriers appear to emanate from the licensing regime in Gambia, which is not transparent at the groundnut buyers' level. This came out during the meetings under the project, despite the fact that some players are already licensed and operational. The same is also true for Cocobod, which is protected from competition. This is however not to suggest that a larger number of players could do better than what Cocobod is doing at the international level.

Box 1: Impact of Government Policies and Institutions

The monopolisation of the marketing of agriculture products, such as cocoa in Ghana and groundnuts in The Gambia, is a result of the current government stance that more players are not necessary for the task. It is still debatable whether allowing these institutions to compete with other players – for example, LBCs competing with Cocobod in Ghana – could improve the manner in which production is being carried out.

In Togo, public enterprises compete with some private players, but they also benefit from the government price subsidy programme on seeds during sale to farmers. The government, using depots of ANSAT, has created a buffer stock of seeds as a way of controlling prices during the dry seasons. This subsidy gives public bodies a competitive edge over their private sector counterparts.

The study could not establish many potential cases of anti-competitive practice, especially those that could be a result of the market structures discussed in previous sections, as the competition authorities in Francophone countries have not placed data on this in the public domain. The situation of information inadequacy is exacerbated by the absence of competition authorities in some project countries (Ghana and Nigeria), while in The Gambia the competition authority has just started operations.

However, there are a few alleged anti-competitive practices worth mentioning. In Senegal, there are some indications that SOFITEX could be abusing its dominant position in the market by engaging in exploitative behaviour in regard to farmers. It turns out that the price that farmers receive for groundnuts, as well as the terms of payment, are the “sore point in the entire production chain”.³¹ It is alleged that farmers not only receive less but have

to wait for a long period to get paid, which stretches to months. In addition, 1.4 percent of the farm gate price is claimed by oil extraction companies “to compensate for any inferior quality or bad groundnuts”.³² It is alleged that some farmers are now opting for the black market, where they receive less but prompt payment.

In Ghana, given limitations on the extent to which LBCs can compete because of near monopolisation of the market, some of these have taken to exploiting the cocoa farmers. Press reports suggest that Cocobod issued a warning to some LBCs who were holding back bonuses which should have been paid to farmers.³³ It was also reported that LBCs were ‘adjusting’ weighing scales in order to cheat cocoa farmers and maximise profits for their companies.³⁴

4

Conclusions

The analysis has revealed that the production stage of the value chain, where producers are too numerous to give rise to competition concerns, does not pose any major problems in any project country.

However, there are a few areas of concern in some of the project countries – for instance, concentration on the buyer's side in markets at the farm gate or on the seller's side in markets for processed goods in Ghana and The Gambia leading to scope for exploitative conduct. These could be areas worth focusing on as a way of improving productivity.

In The Gambia for example, GGC is largely not operating efficiently. Such inefficiency can be attributed to its monopoly in the market, leading to a lack of incentive for enhancing efficiency. It is reported that of late, GGC has been failing to collect the threshold of 70,000 tonnes required to profitably operate the mill at Denton Bridge. Such inefficiency has trickle down effects. For example, the failure of the private sector to enter the seed market could be a direct result of such inefficiencies. These depress potential profits that private companies could make through sales to cash-strapped farmers whose revenues from sale to GGC are depressed by its inefficiency. As a result, the purchase and use of certified seeds becomes unviable with adverse implications for yield.

Thus, serious thoughts on the choice between opening up of the market to competition and improving GGC's capacity are

warranted. This is particularly so, given that in border areas, farmers can sell their crops across the border at a higher price.

In Ghana, while the liberalisation of the downstream market to allow competition at the farm gate was a novel idea, the continued control of the market by government, through Cocobod, implies that competition is stifled. Ideally, LBCs representing the private sector should take over from the public sector for the sector to grow. As mentioned, because of price control, the LBCs can only compete in terms of volume given that prices are determined by government. Such competition takes place through channels relating to the extent and nature of interaction with farmers (loan facilities, prompt payment, choosing purchasing clerks with the help of communities, appearing at funerals to offer condolences etc). Thus, a decision has to be taken about opening up the market to price competition among LBCs.

The large use of uncertified seeds, which results in a weak private sector and the presence of the informal seed sector, is a major cause for concern even elsewhere. In Nigeria for example, despite very competitive market structures, farmers continue to suffer from low yields, probably due to reliance on seeds from previous harvests. Strategies to lure farmers from the informal sector into the formal sector need to be developed, and could start with giving incentives to the private sector to participate in the market, followed by extensive education of farmers on the dangers of using uncertified seeds. Expanding government seed subsidy programmes involving the private sector could be the starting point. With improvements in the quality of output, returns to farmers could also increase, which would enable them to afford unsubsidised, certified seeds in the future. As long as the informal segment continues to dominate the seed market, it is likely that problems would continue.

Dominance in the marketing of produce is a cause for concern in Burkina Faso and Senegal. In Senegal, a private company, which benefited from the privatisation programme, has become a dominant player in the market, with other players failing to catch

up. While this reflects some inadequacies in implementation of privatisation, (separation of units and geographical domains before liberalisation could probably have resulted in more players), it is important now that the Competition Authority pays attention to potential exploitation of farmers by the dominant company. In particular, the Competition Authority needs to assess whether the various arrangements between farmers and the dominant firms exhibit abuse of dominance, particularly of an exploitative nature. Farmers could be unnecessarily prejudiced through contract farming arrangements, where they end up selling their produce for a song, at a time when the inputs provided to them are excessively priced.

In the cotton sector in Burkina Faso, SOFITEX, a public sector company has managed to position itself in such a manner that it is involved in all going-on in the whole chain. While this has also resulted in its own inefficiency, it is important for the Competition Authority to heavily monitor the behaviour of the company, as all other companies across the chain have to follow its lead. It is unlikely that any one company could contemplate extensive competition with it, given its control over the ginning facilities, as well as its strong linkages with farmers.

In case of the fertiliser market, although governments have made the situation better in some countries (The Gambia, Nigeria, Senegal & Togo) by coming up with an intense subsidy programme, competition among fertiliser firms is curtailed due to the few number of suppliers in the markets. Concentrated markets are a common feature across countries in the fertiliser markets. The product is critical and farmers have no choice but to purchase if they are to improve crop productivity. Although not much can be done by competition authorities in inducing entry, they also have to monitor the behaviour of fertiliser suppliers, as they have been found in other countries to abuse their positions.

For example, in 2009 Sasol of South Africa, a fertiliser firm, was ordered to pay a heavy fine by the Competition Commission of South Africa (a total of about US\$36mn) for various anti-

competitive practices, including participating in price fixing in the fertiliser and phosphoric acid, along with its competitors, Omnia and Yara (fertiliser) and Foskor (phosphoric acid). The competition authorities therefore have to keep a close watch for any signs of anti-competitive practices, particularly through interactions with farmers' groups.

A noticeable trend across most countries is the inability of farmers in influencing prices of their outputs. Committees have been set up, which have public as well as private sector representatives as members – to set output/product prices. It is quite apparent that powerful private firms would strive to ensure that the price is kept as low as possible as a way of increasing their own profits. Moreover, given the powerful nature of some of these companies such as Cocobod or GGC, it is unlikely that farmers on these committees can counter their influence. This is also an area worth a closer look.

Whether it is the case of markets for farm output at the farm gate or that for inputs such as fertiliser or seeds where the farmer is the buyer, the observed high level of concentration is worrying. It can be argued that with the generation of free trade areas such as West African Economic and Monetary Union (WAEMU) and Economic Community of West African States (ECOWAS), trade barriers limiting trade among member countries have almost disappeared. Thus, it should be possible for a firm in any part of the region to supply any customer. In other words, it is strange that relevant markets are still characterised by high levels of concentration with local private or government firms dominating in them.

Government generated barriers are not the only possible explanation of highly concentrated relevant markets in most cases. Indeed some could be structural – for example, poor infrastructure might result in high transportation costs, thus resulting in relevant markets which are small in terms of geographical size and thus highly concentrated. However, such small size might be the result of cartelisation – firms agreeing to divide up geographical territory of a country among themselves.

To correctly attribute to competing reasons the high market concentration in relevant markets, whose geographical dimensions are not at all comparable to the mentioned free trade areas/customs unions, more intensive research is necessary. This would imply identifying and analysing indicators of or evidence regarding cartelisation; data on the costs of infrastructure services, the resulting impact of transport costs on payable consumer prices and therefore the competitiveness of products etc. It is in this way that we can leverage the findings of this paper.

Endnotes

- 1 <http://cuts-ccier.org/7Up-model-en.htm>.
- 2 See, Padi B and G K Owusu (not dated)
- 3 Grant W *et al* (2009)
- 4 *Ibid*
- 5 Ramesh Chand (2006), “Competition Policy in Agriculture” in *Towards a Functional Competition Policy for India* (2006), Pradeep S Mehta (Ed), Academic Foundation
- 6 “Competition and Regulation in Agricultural Markets in India”, in *Competition and Regulation in India, 2009*, Pradeep S Mehta (Ed), CUTS International
- 7 This includes contract farming arrangements, seed and fertiliser subsidisation programmes, establishment of farmers’ associations etc. as a way of improving farmers’ livelihoods and prosperity
- 8 In 2006, agriculture contributed 39.3 percent to the GDP in Ghana, with services contributing 32.9 percent and industry 27.8 percent. By 2007, its share had dropped to 38 percent, reaching 34 percent in 2008
- 9 The share of agricultural products in total foreign exchange in Ghana declined from 52.8 percent in 2004 to 45.9 percent in 2005 and then 41.1 percent in 2006. In 2008, agriculture contributed 37.9 percent to foreign exchange earnings, representing a 1.0 percentage increase over the 2007 share of 36.9 percent
- 10 This represents 80 percent of the non-oil foreign exchange earnings in Nigeria, given that the oil sector contributes to over 90 percent of the total foreign exchange earnings

11 Found online at www.fairtrade.org.uk/producers/cacao/kuapa_kokoo_union.aspx

12 These are generally two players identified above. Although they are independent, it is very likely that they could be coordinating their strategies as an attempt to make inroads. Since this is an estimate, it is also difficult to segregate this further

13 This constitutes uncoordinated behaviour across several players, each with less than one percent market share. Thus, 80 is an upper bound on the sum of squares of market shares

14 *Ibid*

15 Saidu Bah (2003)

16 This is an upper bound given that no informal sector player has a share exceeding one percent

17 The 28 seed suppliers interviewed are not the only players

18 Note that relevant markets need to be defined in terms of geographical dimensions, relevant products, suppliers and consumers. The products characterising a relevant market must all be close substitutes for each other. The geographical contours should be such that all consumers falling within the defined geographical area should be able to buy from any of the suppliers in that area. It is for this reason that the relevant market in Burkina Faso in regard to fertilisers might be best defined sub nationally rather than nationally

19 Each package consists of six bags of 590 kg Asaase Wura Special Cocoa Fertiliser, agro-chemicals (16 bottles of 30 ml Confidor 200SL, 48 sachets of Nordox and 48 sachets of Ridomil) and a Matabi Pneumatic Sprayer, supported by extension education, all valued at Gh¢318.10

20 Alhaji Tamu Njie, Chairperson, The Gambia Competition Commission, during a presentation at the interim review meeting of the 7Up4 project, July 30, 2009

21 There is almost no local demand after processing as the export market is the target

22 During the National Reference Group (NRG) meetings conducted under the 7Up4 project in Banjul, it was mentioned that due to the government protection to GGC, private sector is unable to enter the industry

23 PBC Board Chairman Dr John Frank Abu quoted in Ghana Business News, March 27, 2010

24 www.theghanajournal.com/2009/10/22/ghana-may-produce-record-cocoa-crop-this-season-buyer-says

25 These are Sompa Kookoo Company Ltd; Alhaji Sulemana Industries Limited; Geomco Services Ltd; Bowohoso Ltd; Ghana Cooperative Marketing Association; West Africa Exchange Company Ltd and Dio-Jean Company, who were either found in one village in both surveys or were only found in either one of the surveys, with no significant presence across villages

26 See Lancon F *et al* (2003)

27 *Ibid*

28 In a survey among farmers under the project, there were mixed reactions, with some farmers believing that there are many buyers of cotton

29 This includes one cotton seed delinting plant

30 Individual producers do not stand to benefit from SOFITEX's programmes which are negotiated with UNPCB. These are largely rare

31 Sylla F (2009)

32 *Ibid*

33 Daily Graphics, September 02, 2009

34 The Ghanaian Journal, April 20, 2007

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