



ECONOMIC AND SOCIAL IMPORTANCE OF COTTON
PRODUCTION AND TRADE IN WEST AFRICA:
ROLE OF COTTON IN REGIONAL DEVELOPMENT,
TRADE AND LIVELIHOODS

Sahel and West Africa Club Secretariat / OECD

DRAFT FOR DISCUSSION AND COMMENT

January 2005

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Economic and social importance of cotton production and trade in West Africa:

Role of cotton in livelihoods, national & regional development and trade

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NOTE:

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This overview has been prepared as part of the Agricultural Transformation and Sustainable Development Unit's Work Programme focusing on agricultural transformation in West Africa and as a substantive contribution to the Information Meeting it has co-organised with the OECD's Development Co-operation Directorate and the Development Assistance Committee on the Development Dimensions of African Cotton (Paris, 28 January 2005). It aims to **provide a lasting resource to inform debate** between West African actors and the international community and **support the process of developing actions to be taken both in the region and internationally** in the months ahead. It draws on a range of SWAC studies and additional materials, to provide background information and data to build up an empirically based **regional perspective** on the nature and dynamics of change in the cotton sub-sector in West Africa.

NOTE ON THE SAHEL AND WEST AFRICA CLUB /OECD

The Club du Sahel was established in 1976 by Member countries of the Organisation for Economic Cooperation and Development (OECD), in collaboration with African leaders of Sahelian countries, in response to the drought that had devastated the region and the ensuing food crisis.

In 2001, taking into account the interdependence and complementarity of the Sahel and other countries of West Africa, the Sahel Club's Strategy and Policy Group decided to expand the Club's geographic coverage to encompass the whole of West Africa. The Club then became the Sahel and West Africa Club. Its activities cover West Africa, composed of 17 countries including of which 15 are 15 ECOWAS member countries, to which are added Mauritania, Chad and Cameroon, which represent an area of 7,800,000 sq. km. and a population of 290 million inhabitants, i.e. 43% of the total population of Sub-Saharan Africa.

The Club works in close partnership with the Economic Community of West African States (ECOWAS), its main partner in the region as a whole, and with other West African organisations, such as the Permanent Inter-State Committee for Drought Control in the Sahel (CILSS) and the West African Economic and Monetary Union (WAEMU).

Attached to the OECD, the Club's Secretariat is financed through voluntary contributions from a large number of OECD countries. The Club is led by a Secretariat composed of a small technical team based in Paris. It benefits from the support of a network of partners from inside and outside the region.

The SWAC Secretariat concentrates its efforts on four areas of interest for the region itself and the international community: medium- and long-term development perspectives; agricultural transformation and sustainable development; local development and the process of regional integration; governance, conflict dynamics, peace and security (see the SWAC Secretariat's website: <http://www.oecd.org/sah> for more details concerning the SWAC Secretariat's mission, its work plan and its outputs).

As a facilitator, moderator, leader of open constructive exchanges, the Club plays a bridging role, an interface between West African actors and OECD Member countries. The Club Secretariat's main objectives are to:

- ⇒ Help identify strategic questions related to medium- and long-term development in West Africa
- ⇒ Contribute to mobilising and strengthening African capacities within a network approach;
- ⇒ Support initiatives and efforts by West Africans to promote medium- and long-term development in the region
- ⇒ Facilitate exchanges between regional actors and OECD member countries;
- ⇒ Promote constructive debates that lead to innovative decisions within and outside the region aimed at building a better future for the region.

The Club has adopted a methodology based on an **iterative, consultative and participatory process**. The process involves three types of partners (West African partners, partners from outside the region and SPG members) and that combines field work, consultations with the various actors, comparison of experiences, analysis and research, exchanges and discussions.

The approach adopted is:

- **Temporal, spatial and regional** and is essential to understanding the complex phenomena of development, cross-border exchanges and strategies of actors in the field, within the framework of a multidisciplinary approach.
- **Field-based** targeted to obtaining a more thorough knowledge of local realities and the concerns and visions of different groups of West African actors.
- **Scientific and multidisciplinary** drawing on human, economic, social, political and legal sciences.
- **Network-based** including actors from the South and the North.
- **Based on partnerships** with West Africans and those who are interested in the region.

For further information on the Club, its mandate, its activities and its products, go to: <http://www.oecd.org/sah>.

Abbreviations

ATSD	Agricultural Transformation and Sustainable development Unit (SWAC Secretariat)
BT	Biotech (cotton)
CEMAC	Communauté Economique et Monétaire de l'Afrique Centrale
CILSS	Permanent Inter-State Committee on Drought Control in the Sahel
CMDT	Compagnie Malienne des Textiles
CNCA	Caisse Nationale de Crédit Agricole (Burkina Faso)
ECOWAS	Economic Community of West African States
EU	European Union
FAO	Food and Agriculture Organization
GCC	Ghana Cotton Company
GMO	Genetically Modified Organism
ICAC	International Cotton Advisory Committee
IMF	International Monetary Fund
NEPAD	The New Partnership for Africa's Development
NGO	Non-governmental Organisation
OECD	Organisation for Economic Cooperation and Development
OHVN	Office de la Haute Vallée du Niger
PO	Producer organisation
PRS	Poverty Reduction Strategy
ROPPA	Réseau des organisations paysannes et de producteurs de l'Afrique de l'Ouest (West African Network of Farmers' and Producer Organisations)
SOFITEX	Société des Fibres Textiles (Burkina Faso)
SWAC	Sahel and West Africa Club (OECD)
UNPCB	Union nationale des producteurs de coton au Burkina Faso
US	United States of America
WABI	West African Borders and Integration Network
WAEMU	West African Economic and Monetary Union
WTO	World Trade Organisation

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EXECUTIVE SUMMARY

TO BE ADDED

I. INTRODUCTION

Cotton plays an important part in West Africa's development. Between 1-2 million households produce cotton in West Africa, up to 16 million people are involved in cotton production in some way and West and Central Africa taken together are the world's 2nd largest exporters of cotton after the United States. Since 2003 and the stalemate at the World Trade Organisation (WTO) Cancun Ministerial meeting, West African cotton has become a priority issue in the "Doha Round" of international trade negotiations. At the Cancun Ministerial meeting Benin, Burkina Faso, Mali and Chad requested that price-distorting northern subsidies to cotton producers be eliminated and compensation be provided to countries that have suffered from price falls which have put West African cotton at the top of the international agenda. While subsidies in the North are only one cause of lower cotton prices¹, this request was related to sustained increases in cotton production worldwide², accompanied by a trend of falling cotton prices in international markets over the last 10 years. This has had serious impacts on key West African economies dependent on foreign exchange from cotton revenues, on small farmer incomes in West Africa and ultimately on the wider process of agricultural transformation.

The need to resolve the West African cotton issue through the agricultural trade negotiations at the WTO and accompanying development assistance measures was agreed by all sides in the WTO's 2004 July Framework Decision. This agreement aimed at restoring confidence of WTO members in the Doha Round negotiations and integrating African countries into the agriculture negotiations by ensuring that a special effort would be made to resolve the cotton issue rapidly and confirming the willingness of WTO members to work towards removing price-distorting subsidies in agriculture. However, it remained unclear how this commitment would be implemented and in what timescale.

A further WTO ruling in autumn 2004 stated that many of the agricultural support measures provided to US and EU farmers in the cotton and sugar sub-sectors were against WTO regulations, encouraged overproduction and artificially lowered international prices with harmful effects on developing country producers. In this context, in 2005 a number of initiatives are underway that bring together African states and developed countries in an attempt to address the fundamental issues behind the cotton crisis. In parallel, a growing number of OECD Member countries and the OECD itself have become concerned with fostering greater coherence between trade and agricultural policies to ensure that trade policies work to support rather than undermine development and poverty reduction objectives

Given the importance of these issues for West Africa and the OECD, the SWAC Secretariat was requested by regional partners to undertake initiatives that contribute to constructive dialogue between West Africa and the OECD to help deepen understanding of the importance of cotton for West Africa, the nature of the problems the sector faces, highlight the perspectives of diverse West Africa actors involved in the sub-sector and identify issues that need to be addressed in finding solutions. In accordance with the mandate of the Sahel and West Africa Club³ to foster dialogue between West Africa and the OECD on strategic issues facing the region's development, the SWAC's work on cotton has aimed to assist actors in identifying concrete actions needed to address both development and trade aspects of the African cotton issue in order to find a solution that supports West African development and strengthens the multilateral rules-based system for to benefit all. The SWAC Secretariat prepared a series of briefings and participated in international (e.g. WTO), regional (e.g. ROPPA) and internal OECD events on cotton and policy coherence from 2003-2005 to support this process.

¹ Rising use of synthetics and new cotton producing countries are also important factors.

² For example, in 2004/5 world cotton production is estimated to reach an all-time high of 25 million tonnes, an increase of 4.2 million tonnes or 20% over the previous season, according to an ICAC Press release January 3, 2005.

³ See "Note on the Sahel and West Africa Club" above. More information can be found on the SWAC web-pages: <http://www.oecd.org/sah>

Throughout its work on the challenges facing the cotton sub-sector since 2003, the SWAC Secretariat has sought to:

- ⇒ provide opportunities for informed dialogue between OECD Members and West African actors on cotton, while at all times playing the role of an impartial facilitator of debate
- ⇒ bring together, and synthesize and share diverse information on the place of cotton in West Africa
- ⇒ highlight the priorities and perspectives of West African actors regarding cotton, and its place in producer livelihoods, its role in the broader process of the transformation of West African agriculture and its contribution to West African economies in the region
- ⇒ to use this information to foster dialogue among West African actors and OECD Members on options for action.

Specifically, this overview assesses:

- *the evolving importance of cotton production and trade in the West Africa region over recent decades;*
- *the changing place of cotton in farmer livelihoods;*
- *the contribution of cotton to West African development;*
- *strategic issues to be considered to determine the appropriate action to be undertaken in the sub-sector* so as to assist any necessary adaptation to a changing context and to maximise the contribution of cotton to West Africa's broader development.

This report aims to provide a distinctly regional perspective, while drawing on national and sub national data to illustrate points and ultimately contribute to initiatives supporting the development of this sub-sector. The data on West Africa contained in this report should also be *useful to inform Africa-wide cotton sub-sector initiatives currently underway or in the process of being developed.*

The paper draws on and complements the extensive materials available on the SWAC Secretariat's web-pages devoted to cotton (www.oecd.org/sah - click on cotton)⁴. The site provide links to materials from diverse regional and international actors, ongoing consultations with West African governments and regional organisations (e.g. ECOWAS, the WAEMU, the CILSS), private sector (e.g. ACA), producer networks (e.g. ROPPA, UNPCB) and international agencies on regional agriculture priorities and cotton. The paper also draws on our scoping studies on the transformation of West African agriculture (studies available at: <http://www.sahel-club.org/en/agri/index.htm>); field studies in cross-border cotton production zones (see <http://www.afriquefrontieres.org>); as well as joint work with other OECD Directorates on the impacts of trade and agricultural policies in West Africa, policy coherence for development, and the Development Assistance Committee's work on donors best practices.

II. COTTON AND THE DYNAMICS OF CHANGE IN WEST AFRICAN AGRICULTURE

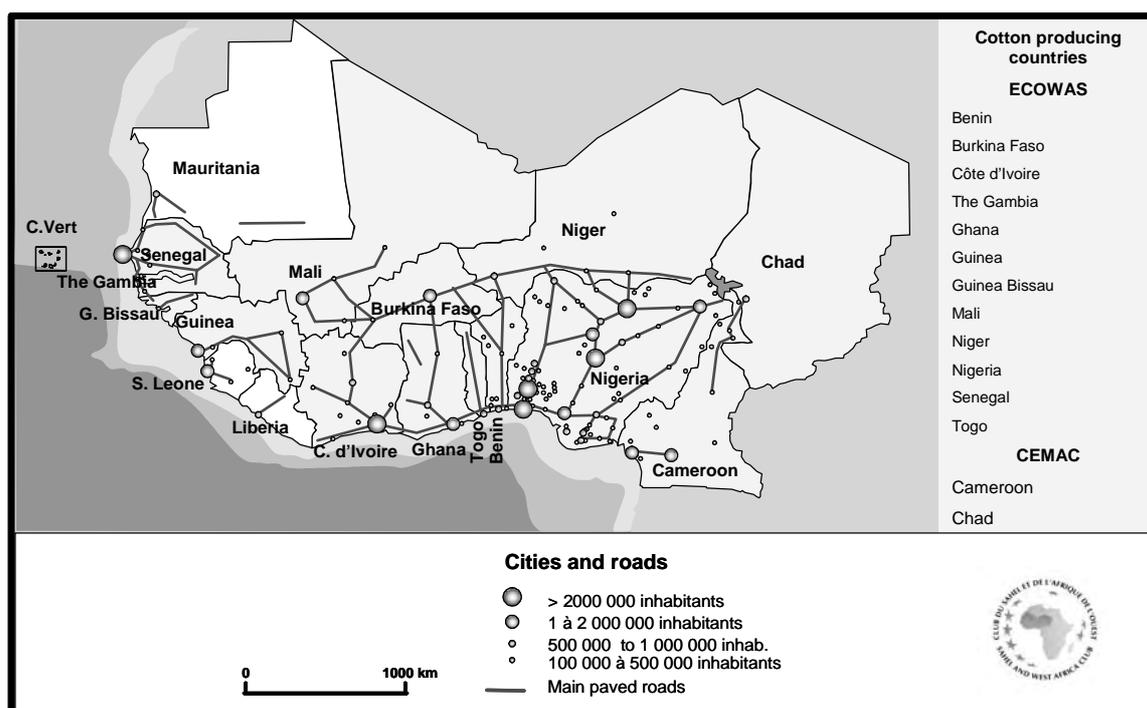
The West Africa region covered by this paper relates to the zone covered by the SWAC's mandate. This geographical area includes all members of ECOWAS (15 West African states⁵), Mauritania, and two countries that are members of CEMAC (Cameroon and Chad): 18 countries in total plus Mauritania and Chad (see map below). This region therefore includes the key cotton producing countries in Central Africa included in the West and Central Africa sectoral initiative on cotton, submitted to the WTO in 2003.

⁴ These web pages are updated from time to time with new material on cotton in West Africa. If you would like us to consider including additional material on these web-pages, please send contributions to: karim.husseini@oecd.org

⁵ Cape Verde, Senegal, The Gambia, Guinea Bissau, Guinea, Sierra Leone, Liberia, Mali, Burkina Faso, Niger, Côte d'Ivoire, Ghana, Togo, Benin, and Nigeria.

In 2003, there were approximately 290 million inhabitants, representing about 43% of the population of Sub-Saharan Africa. This represents some 4.6% of the world's population, 64% of the population of the European Union, roughly equivalent to the United States and 2.2 times the population of Japan. West Africa is characterised by a process of rapid demographic, social, agricultural and economic transformation. The population is growing faster than anywhere else in the world and may reach 600 million by 2050. Any action to support the development of agricultural sub-sectors needs to keep the dynamics of this broader process transformation in view. The cotton producer countries in West Africa are highlighted in the map below.

Figure 1: The West Africa Region covered by the Sahel and West Africa Club



Source: SWAC Secretariat

The SWAC's work on trends, dynamics of change and prospects in West African agriculture confirmed the strategic importance of cotton in the process of significant regional agricultural transformation. Significant expanding population and rapid urbanisation have increased regional demand for agricultural products. West African farmers have demonstrated their capacity to respond to increased demand for staple foods and cereals, illustrated by cereal production having broadly kept up with rapid population growth and demand over the last 40 years. This is explained as most cotton is produced on family-run farms that combine diverse agricultural and livelihood activities. In areas of the Sahel, cotton is one of the only viable cash crops. It will take time to develop economically feasible diversification opportunities.

West African cotton is produced with relatively low levels of inputs and production costs, is hand picked and high quality: West Africa should have a clear natural comparative advantage in producing cotton "all other things being equal". Key export crops have dramatically increased in terms of area cultivated and volume produced (cotton, cocoa, etc.). Nonetheless, reliance on export crops and primary commodities is clearly not a secure route to poverty reduction, due to price volatility and environmental risk among other factors.

Indeed, cotton is one of the well-known "success stories" in Sahelian agriculture where it has contributed to the improvement of incomes, livelihoods, and access to social facilities (education, health centres and pharmacies, etc.). It also seems to be correlated with rapid increases in cereal production thanks to the cotton production support system (maintained by the state and national cotton companies) and its

promotion of innovation processes. In zones that have benefited from the cotton production support system, it seems as if a cotton boom might have been accompanied by an *agricultural revolution* that contributed to increased cereal production which seems to be confirmed by work undertaken by the SWAC on structural trends in West African agriculture. It seems that the cotton production support system is driving a process of extensive use of land accompanied by intensive production of cereals as cash crops to supply urban markets.

Burkina Faso provides an example of the national cotton support systems established in cotton-producing countries under colonial administrations in order to ensure continuity between upstream (inputs supply, extension) and downstream aspects of production (collect and marketing). In Burkina Faso, cotton producers have benefited from credits from the national cotton company, SOFITEX, and the national agricultural credit bank, CNCA, to purchase inputs such as fertiliser, pesticide and herbicide. Short term loans to cover the pre-harvest period and loans to purchase ox-ploughs have also been made available to cotton producers in recent years (Government of Burkina Faso 2001).

Key question

- ⇒ Does field evidence confirm that cotton really is at the heart of an agricultural revolution in Africa or are there other explanations? How has this affected development and poverty reduction objectives in these zones?
- ⇒ What combination of measures in cotton zones and the cotton production support system best account for this? If so, how can this be used as an example to dynamise agriculture?
- ⇒ If the cotton sub-sector collapses in West Africa due to price volatility, what will be the likely impacts on livelihoods, access to services, cereals availability, and development multipliers including poverty reduction? How many people will be affected?

Some *1-2 million households* in West Africa cultivate cotton, with *up to 16 million* people estimated to directly or indirectly benefit from the impacts of cotton production. In the US or Europe cotton is produced on large, highly mechanised farms that often average over 100ha, are specialised in cotton and characterised by high input use. In contrast almost all cotton produced in West Africa is on relatively small family farms *almost exclusively as a cash crop* designed to meet household's cash needs for both consumption and investment. It is a particularly important cash crop in the Sahel, where historically there have been limited alternative cash crops, with cocoa and other sub-humid cash crops dominating the coastal zone. Cotton production is usually *one activity that is normally part of a diverse production system* involving the production of cereals, vegetables and other activities that are designed to satisfy farmers' consumption and income needs. In fact, earlier work by the SWAC estimates that up to 80% of West African agriculture is undertaken on small family farms of 3-10 hectares (see Toulmin and Guèye 2003). These farms depend largely on household labour and farmers opportunistically switch types of production over time to manage risk and adapt to changing constraints (e.g. climate, soil quality etc), opportunities (new urban markets, processing and marketing possibilities etc.), and shocks. These family farms generate some 30-50% of national GDP in West Africa – depending upon the country – and in some countries they generate the largest export revenues. These family farms also produce almost all of the region's staple food crops, oilseeds and cash crops, although they are important consumers of diverse imported fruit, vegetables and processed foods.

Cotton production has for many years guaranteed an important source of cash income for producers in zones where there are limited alternative cash crop or income opportunities. Given volatility of commodity prices in the international economy, increasing emphasis is being placed on diversification, i.e. the identification and uptake of new economic and agricultural activities to replace cotton as a key source of farmer income.

Key question

⇒ What real opportunities for diversification exist for cotton producers in the Sahel? How long will it take to identify and ensure access to viable and profitable alternative sources of cash income? What kind of material support and investment will be required in the transition process?

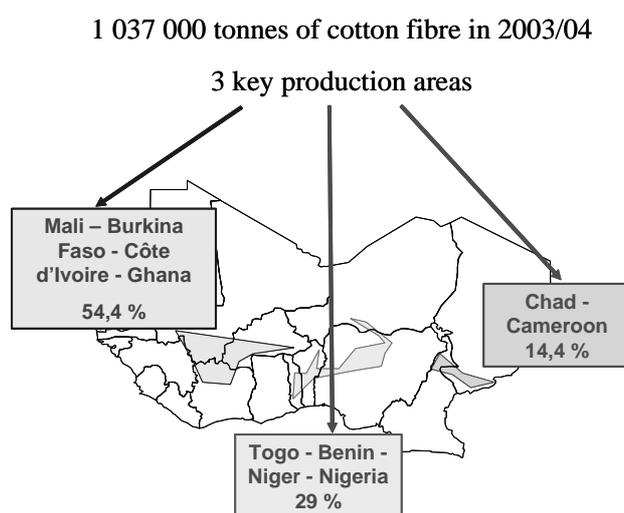
III. STRATEGIC IMPORTANCE OF COTTON PRODUCTION AND TRADE IN WEST AFRICA

3.1 West African cotton – the regional level

Cotton has been cultivated for over a century in the sahelian and soudanian savanna zones of West Africa, in both coastal and landlocked countries. It is produced all across the sub-humid and semi-arid zones in areas benefiting from 600-700mm to 1200/1300mm annual rainfall. Its cultivation at low latitude in Togo and Benin is the result of the southern distortion of the 1200mm isohyete in West Africa (see map). Cotton production has rapidly increased over recent decades in West Africa – rising from some 150,000 tonnes of cotton fibre in the 1970s to around 500,000 tonnes in the 1990s and over 1 million tonnes in 2003-2004.

Most West African cotton is produced in sahelian areas of West Africa, although a significant amount of cotton is also produced in the inland areas towards the sahelian zone of coastal countries such as Benin, Ghana, Nigeria and Côte d'Ivoire (see map below). There are **three main zones of cotton production** as indicated below. The CFA Franc zone, which has benefited from long term investment in structured national commodity chains, produces more than 80% of the region's cotton. It is particularly important for 5 countries where it ranges between 5-10% of GDP. Most of the rest is produced in Nigeria. Production is comparatively limited in Ghana, Niger, Guinea, and The Gambia.

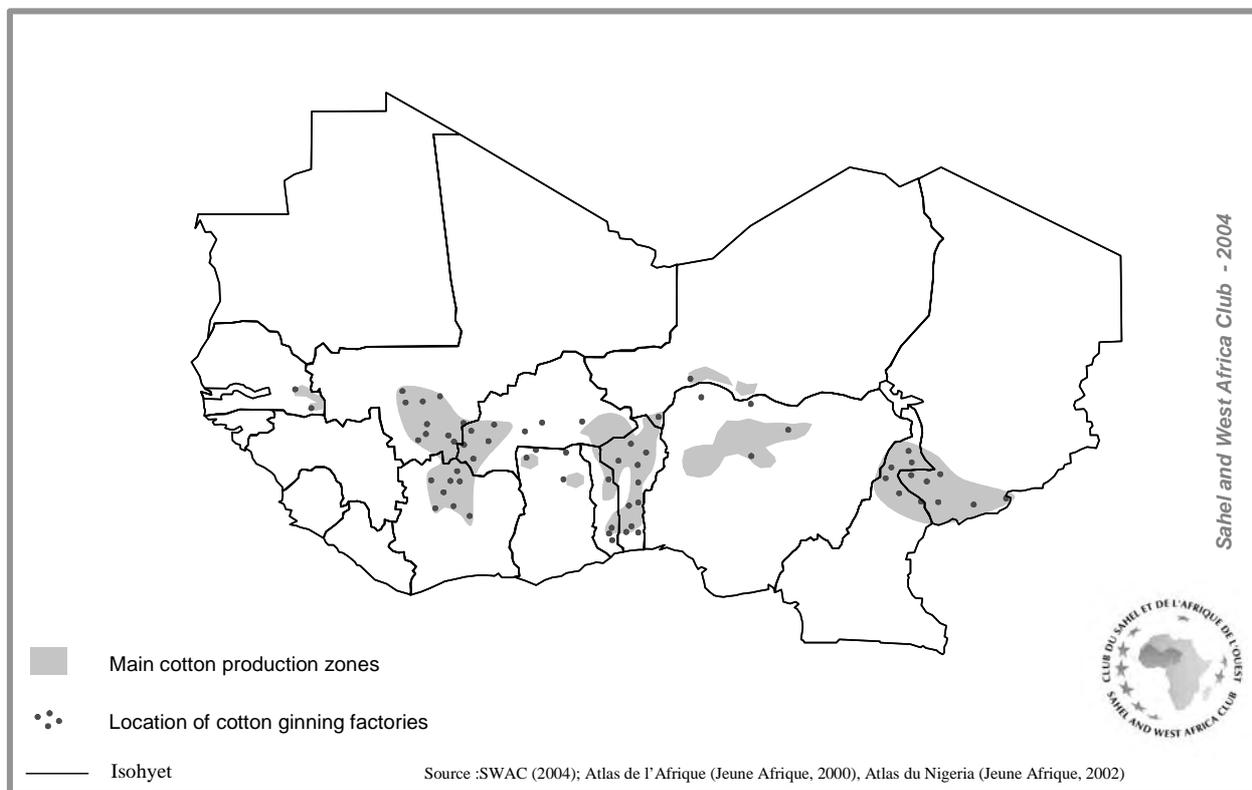
Figure 2: Three main cotton production zones in West Africa



Source: SWAC Secretariat (using ICAC data)

The **regional** importance of cotton is underlined by the fact that cotton is cultivated to some degree in all eight member states of the West Africa Economic and Monetary Union (WAEMU), making a significant contribution to national foreign exchange revenues in many cases. It is also produced in several ECOWAS member states, with countries such as Nigeria and Ghana being significant producers in addition to the WAEMU.

Figure 3: Cotton production and ginning in West Africa: A regional view



Source: SWAC Secretariat (using ICAC data)

The map that follows shows the national geographical areas bounded by state frontiers in which cotton policy frameworks normally apply. This is contrasted with the reality of cotton production zones, which stretch beyond borders with neighbouring countries (See Figure 3 above) that apply different policy frameworks to cotton production and trade, i.e. differing impacts of borders on the movement of goods; differing degrees of access to extension, training, supply of inputs, marketing support; and a different pace of reform concerning the public/private mix in the cotton sub-sector in Burkina Faso, Mali and Côte d'Ivoire. These policy differences can create market distortions and prevent maximising the benefits from inter-country cooperation and comparative advantage. The map suggests that further examination of the potential for **developing more inter-country cooperation on cotton sub-sector policies and management systems to ensure the maximum benefit is drawn from synergies and policy coherence** should be considered. This could be undertaken through regional organisations – the WAEMU and ECOWAS – and their agricultural policy which already have some relevant initiatives.

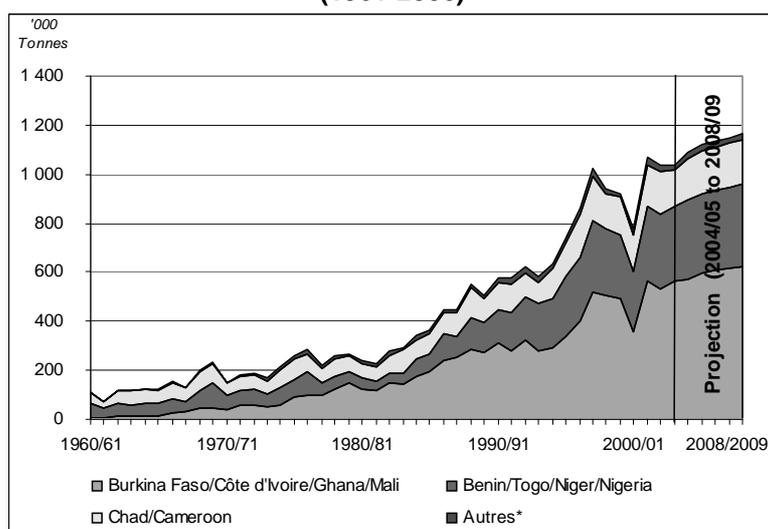
Figure 4: Cotton production areas in 2002



Source: SWAC Secretariat

Cotton has been one of the most important “success stories” in agriculture in the francophone sahelian countries in particular. For example, it has been a critical part of the Burkina Faso economy and society since before colonial times, providing cloth for daily use and clothing. Particularly in countries colonised by France at the end of the 19th century, cotton promotion programmes were introduced and cotton became a central part of the national economy. The World Bank complemented this historical effort by launching cotton promotion programmes in Burkina Faso and elsewhere in the region in the 1970s (World Bank 1988). In this region, cotton has been promoted by parastatal companies whose multiple agricultural support activities have contributed to improved livelihoods in cotton production zones. In the 1990s, governments in the region continued their support programmes for the cotton sub-sector via the supply of credit programmes, extension services, inputs supply and marketing normally through national cotton companies (e.g. SOFITEX, Burkina Faso; CMDT, Mali; GCC, Ghana – often majority-owned by the State) with the objective of strengthening the contribution of cotton export revenues to national budgets.

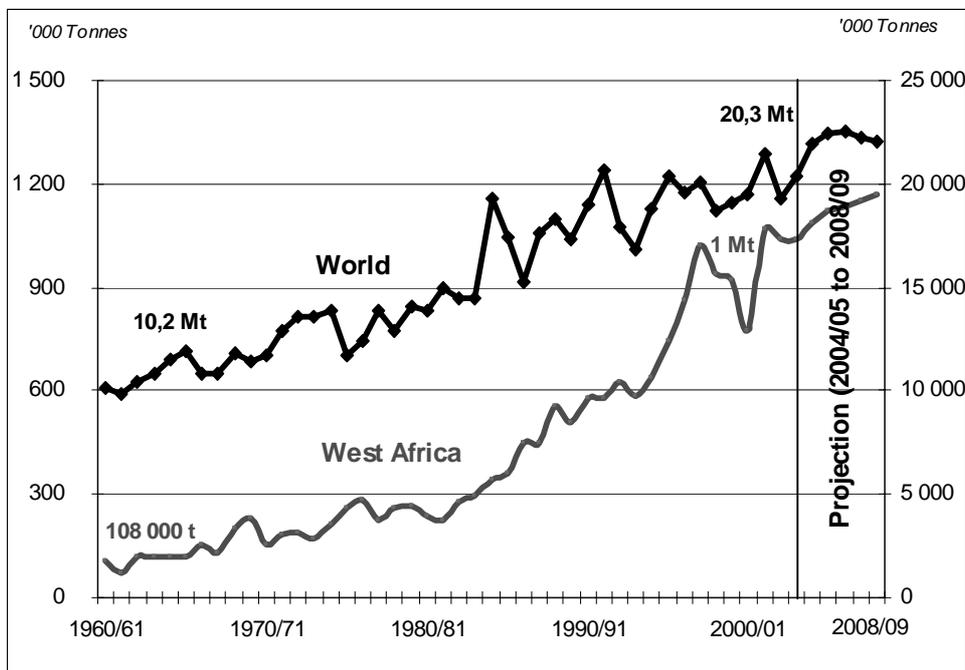
Figure 5: Dramatic increase of cotton lint production in the three main zones of West Africa (1961-2006)



Source: SWAC Secretariat (using ICAC data)

The rapid increase of cotton production over the last two decades can be traced back to the process of economic liberalisation that began in the early 1980s. This gave farmers incentives to increase production so as to improve their incomes, but increased downward price pressure in international markets also required an increase in production for producers to simply maintain incomes and purchasing power. This has occurred in all three main production zones identified above, with overall production rising from about 200,000 tonnes in the 1970s to over 1 million tonnes per year in the early 2000s (fibre, lint and seed counted together - but with seed accounting for only 5-10% exports). Production of cotton fibre in 2003/2004 reached 1,037,000 tonnes (ICAC 2004). Most of this dramatic increase in production in recent decades has been achieved by expanding the area of land on which cotton is grown rather than through intensification (e.g. inputs) as yields have been stagnant or falling in recent years (see Figure 6 below). This expansion can also be temporary as data indicates that farmers are very responsive to pressures and opportunities. When cotton prices fell in the early 1990s, farmers in Burkina Faso reduced the areas planted with cotton. Similarly, in the 2004-2005 season, Burkinabé producers have indicated that due to low prices for cotton, they have replaced cotton with maize in some of their fields.

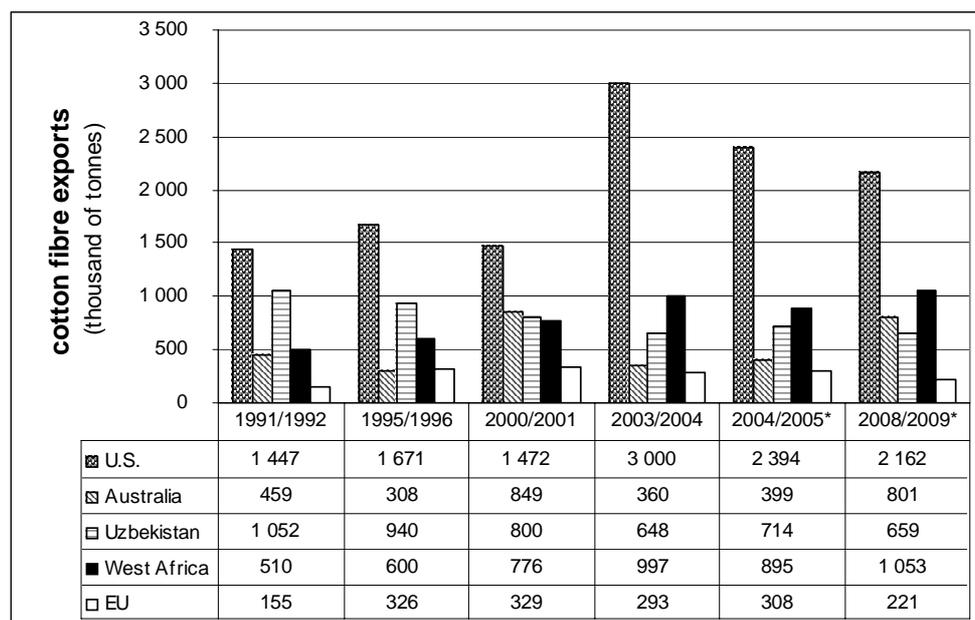
Figure 6: West Africa’s increasing share of world cotton lint production



Source: SWAC (using data from ICAC)

The bar chart below shows the breakdown of West Africa’s share of world cotton exports in relation to other key producers.

Figure 7: West Africa's share of cotton lint exports compared with major world cotton producers



Source: SWAC (data from ICAC)

Over the last 20 years, West African farmers have increased the land area allocated to cotton cultivation to preserve production levels in the face of falling yields and liberalisation, and in order to maintain income in the face of a structural price reduction on the international market to prices that producers felt were below the cost of production. This was a particularly important strategy during the late 1990s when increased consumption of synthetics, support for cotton production in the North and supply to international markets rose substantially. In 2002, the price of cotton dropped to 35 cents per pound – a level which Africans found near impossible to compete with as it is a price considered below the cost of production. Nonetheless, reliance on export crops and primary commodities is clearly not a secure route to poverty reduction, due to price volatility and environmental risk among other factors. This supports the need to develop opportunities for West African countries to reduce their dependence on agricultural commodity exports and to foster instead regional trade, processing and diversification.

A number of incentives exist for farmers to continue to produce cotton as a key route to access cash income, particularly in the Sahelian zone of West Africa:

- ⇒ a crop suited to climate (limited rain);
- ⇒ natural comparative advantage given the low production cost and high quality of West African cotton fibre;
- ⇒ existence of international demand;
- ⇒ availability of a support infrastructure, agricultural and social services (e.g. extension, pharmacies, schools, etc.) and established marketing channels;
- ⇒ until the crisis generated by the sustained trend of falling prices for cotton on international markets that emerged from the mid-1990s, West African cotton had been highly competitive at the international level in terms of production cost, quality and price;
- ⇒ perhaps most importantly – there are limited alternative cash crops suited to these zones for which there is sufficient market demand.

However, in some cotton-producing coastal countries where cotton is not a major export commodity the situation is different. For example in Ghana, the northern region where cotton is produced is poorer than the south where cocoa, a key export crop for the country. Historically, Ghanaian political authorities have shown less interest in cotton than their counterparts in the West African Sahelian countries where cotton is a major source of extremely needed export earnings.

3.2 *Regional cotton processing and trade: towards capitalising on regional synergies*

Although a traditional textiles market has existed for a long time in certain countries, there are few modern textile factories. Several attempts to industrialise by establishing textile factories have been made in the past without much success. This limits the region's capacity to benefit from value-added derived from textiles and other products related to cotton processing, and makes it more vulnerable to price fluctuations for raw materials in international markets. Some cotton by-products are processed in the region – for example cotton oil and animal feed produced using the unused parts of the cotton plant once the fibre has been extracted for export⁶. However, intra-regional trade of cotton and related products is not significant, limiting the scope for the development of this industry. Even cotton oil plants that exist have problems obtaining sufficient raw material required to keep factories functioning at the highest levels of efficiency due to informal barriers to intra-regional trade of cotton in certain border areas (e.g. between Benin and Nigeria).

On the other hand, the traditional textiles industry has a long history in certain countries (e.g. Mali, Ghana, Nigeria) and may present development opportunities. Ghana and Nigeria in particular seem to have developed an efficient local cotton processing industry that uses the majority of cotton produced in these countries. Employment related to the production of traditional cloth and clothing (spinning, dyeing, cloth-making, sale etc.) is, according to one study by the Sahel and West Africa Club, the second largest employer in West Africa after agriculture. This study states that some 65-70% of artisans in Mali, 50% in Burkina Faso and 30-40% in Ghana are employed in the traditional textiles industry (Igué 2003:285). Indeed, high regional demand continues to exist for the elegant traditional robes (“boubous”) worn formally and for special occasions. However this market remains more regional than international and while of high quality, the products are more expensive than many clothing imports from Asia.

In this context, in 2003 /2004 the WAEMU launched an ambitious proposal to rapidly develop cotton processing capacity by **developing a regional textiles industry**. It calls for investment to develop a dynamic regional textiles industry by 2010 that will process 25% of cotton produced in the eight countries of the WAEMU area. The intention is to create 50,000 new jobs in this area, building on local knowledge and experience (e.g. artisanal craftsmanship, tradition design, etc.) to develop products that add value to cotton through trade in the regional and international markets. The implementation of this proposal in a relatively short amount of time (5 years) depends on the effective resolution of a number of factors:

- Existence of adequate regional demand for West African cotton products and traditional clothing;
- Development of products with adequate quality and low price to satisfy consumers and effectively compete with cheap imports;
- Development of adequate regional economic, industrial, energy and transport infrastructure to make these industries viable;
- Sufficient funding from the state and private sector to support the range of investments required.

In the same vein, ENDA Perspectives Dialogue Politique has argued for the region to increase its capacity to process cotton to take advantage of added value on the raw exported product and stressing that this is only feasible through a regional framework. Specifically, ENDA suggests the *cross-border integration of cotton processing to maximise the benefit from the comparative advantages of neighbouring countries*. It proposes that the only way for industrial units to be sustainable is to take advantage of each country's value-added: one country may have cheaper infrastructure costs, another may have cheaper, constant access to electricity; others may possess cotton ginning plants and infrastructure (see Figure 1 at the top of the paper), while some may have good road, rail and sea transport routes (WABI 2003). This concept of co-operation between countries on an economic sub-sector would require a readiness from West African

⁶ For more information on the constraints and opportunities in this area see the documents provided by Fludor Benin, a company involved in processing cotton oil, <http://www.oecd.org/sah> – click on cotton.

states for much deeper regional integration and greater capacity to jointly manage economic activities, investments and profits than currently exist.

Key questions

- ⇒ Given past efforts with mixed results, how might support for a new regional textiles processing strategy really foster a profitable and competitive textiles industry in West Africa, given the existence of economies of scale for other powerful players in the international economy? How can this strategy build on the relatively successful existing regional traditional textiles manufacturing industry? (e.g. the case of Kente and Faso Fani cloth; see Igué 2003)?
- ⇒ Where will the investment funds for the regional textiles industry come from? Would the private sector be ready or capable to fund this development given the trends in the cotton market?
- ⇒ What incentives and conditions would be required to lead West African countries so that they may take advantage of regional synergies and collaborate on the management of the cotton sub-sector regarding use of infrastructure and investment in processing, as suggested by ENDA? What would be the role of regional organisations here?

3.3 West African cotton: The national level

3.3.1 Importance of cotton in the national economy

The contribution of cotton to national GDP varies according to country in West Africa. It provides 3-5% of GDP in Benin, Burkina Faso, Mali, Chad and Togo and less than 2% for other cotton producers. However, cotton exports generate significant resources for national economies in many West African countries, for example in 2001, 51.4%, 37.6% and 36.2% of exports receipts for, respectively, Burkina Faso, Benin and Chad. For Mali the figure was 25% and Togo 11.2% (see Table below). This percentage varies from country to country and is linked to the structure of each country's economy. On the other hand, Nigeria, Côte d'Ivoire and Cameroon have more diversified economies that are more dependent on petrol and cocoa revenues, and less dependent on cotton.⁷

Table 1: Importance of cotton exports (grain and fibre) as a proportion of national export revenues and GDP in West Africa

Average 1998-02 (millions of US\$)	Cotton fibre exports	Share of total West African cotton exports	Share in total exports of the country	Share of the agricultural exports of the country
Benin	144,2	17,5%	37,6%	72,6%
Burkina Faso	107,0	13%	51,4%	70,6%
Cameroon	91,7	11,1%	5,4%	19,6%
Cape Verde	-	-	-	-
Côte d'Ivoire	114,9	17,6%	3,4%	6,0%
The Gambia	0,2	0%	1,3%	1,6%
Ghana	3,0	0,4%	0,2%	0,5%
Guinea	2,3	0,3%	0,3%	7,4%
Guinea-Bissau	2,2	0,3%	4,4%	3,7%
Liberia	-	-	-	-
Mali	167,3	20,3%	25%	62,1%

⁷ Data compiled from the IMF and FAO, 2003.

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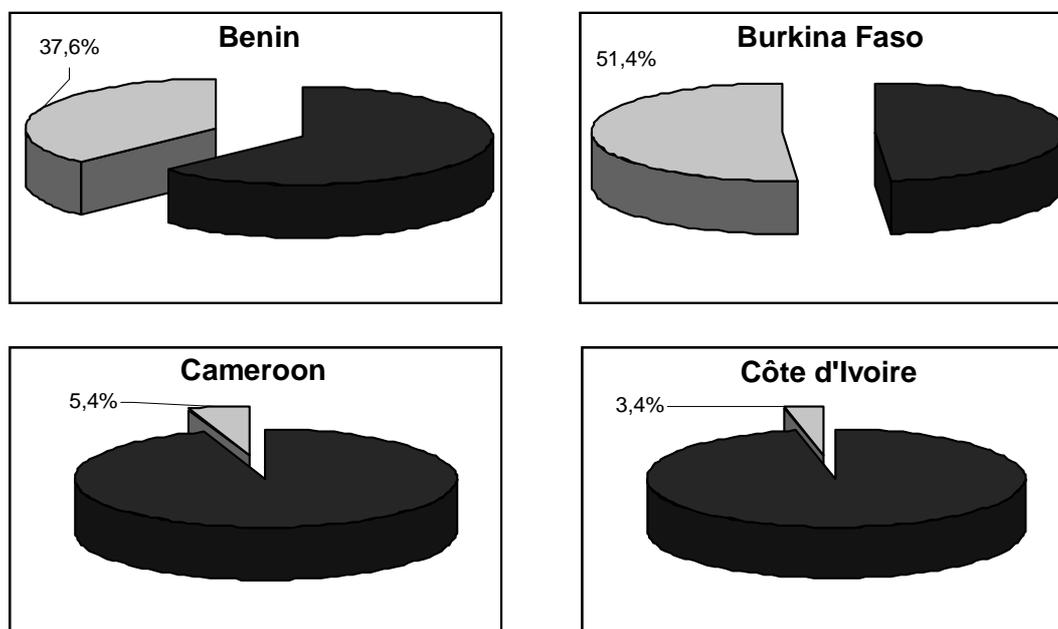
Mauritania	-	-	-	-
Niger	0,4	0,1%	0,2%	0,6%
Nigeria	32,7	4,0%	0,2%	7,9%
Senegal	11,2	1,4%	2,0%	8,6%
Sierra Leone	-	-	-	-
Chad	73,5	8,9%	36,2%	58,7%
Togo	43,5	5,3%	11,1%	41,1%
TOTAL	824,2	100%	-	-

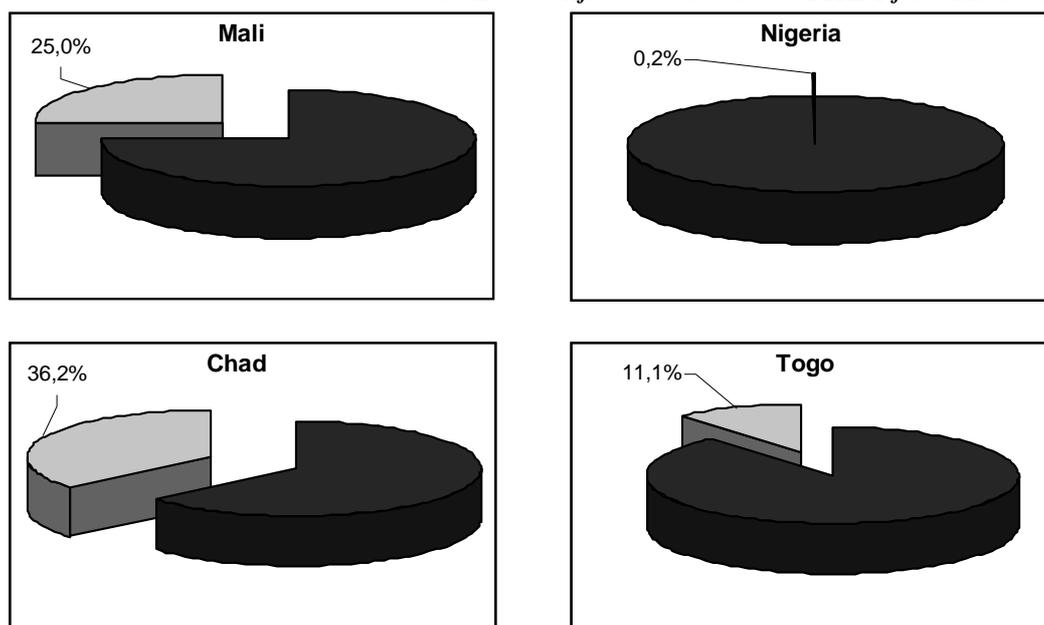
Source: FAOSTAT database, 2004; WDI World Bank, 2004

Most West African cotton is exported unprocessed in the form of cotton fibre and is very vulnerable to price fluctuations on international markets. This graph shows that West African cotton exports have progressively risen in the last forty years. When combined with cotton produced in Central Africa, cotton produced in West Africa is set to establish the region as the second largest exporter of cotton in the world in 2004/2005, just behind the US, with some 13% of the international market. Certain economies, particularly those in the CFA Franc zone, are highly dependent on cotton exports for national revenues. For example, cotton accounts for almost 50% of Burkina Faso's national export revenue, between 32% and 36% for Benin and Chad and 25% for Mali. It is evident that these revenues are of strategic importance for economic stability and broader development investment in these countries.

The pie charts below show the degree to which eight West African countries are dependent on cotton for their export revenues and national budgets.

Figure 8: Importance of cotton fibre exports as a share of the total national exports in eight cotton producing countries (averages for 1998-2002)

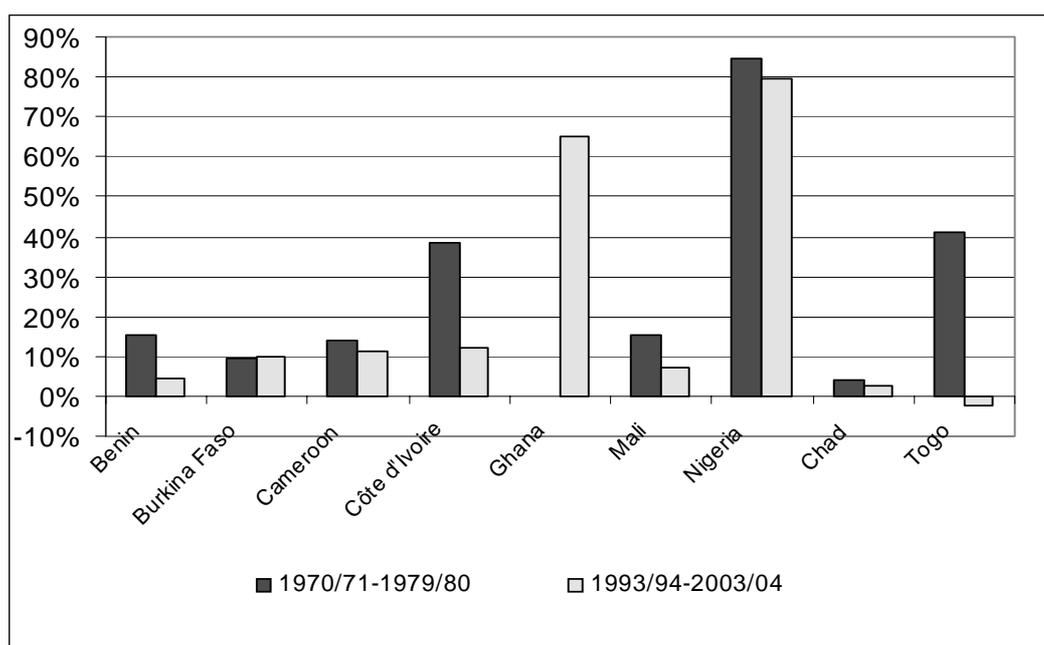




Source: SWAC using data from FAOSTAT Database, 2004 and WDI World Bank, 2004

These charts illustrate cotton's importance as a source of export revenues for a selection of key producing and exporting countries in West Africa. The main exception seems to be that of Nigeria, whose traditional textile industry and textile factories consume a significant amount of cotton produced nationally. Nigeria produces some 150,000 MT cotton but official figures show that it exports only 8-10%. The figure below shows a generally reduced use of cotton fibre in the region which may correlate with less processing capacity – even a process of effective *de-industrialisation in the textile industry*. However it also demonstrates that Nigeria and Ghana stand out in the region as, according to official figures, they appear to consume a large proportion of the national production of cotton in-country. It can be deduced that they are therefore less affected by issues related to international trade.

Figure 9: National consumption of cotton production in selected producing countries



Source: SWAC using data from ICAC (note: data refers to annual averages for each producing country)

Key question

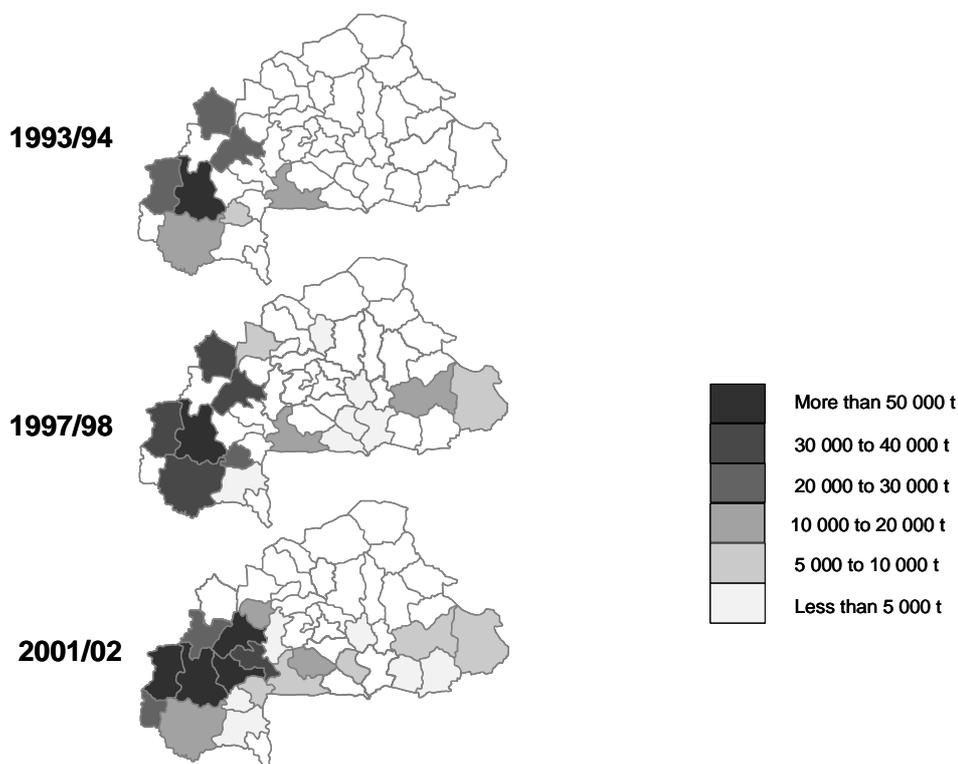
⇒ What will be the place of cotton in the Economic Partnership Agreements (EPAs) being negotiated between the EU and ACP countries between 2004 and 2008? Is there a case for protecting the cotton sub-sector from full liberalisation in the first stages to maintain state and farmer revenues? What is the role of regional organisations in negotiating such protection with the EU?

3.3.2. *Subnational distribution of cotton production*

Areas planted with cotton shift regularly in West Africa in response to climatic factors, availability of water and fertility of soils. In Burkina Faso, cotton production zones shifted from the northern part of the central areas towards the south and south-western parts of the country due to environmental degradation and land becoming less fertile. This could be due to increased population and livestock pressure, but possibly also due to negative environmental effects of the cultivation of cotton itself. (Hårsmar 2004).

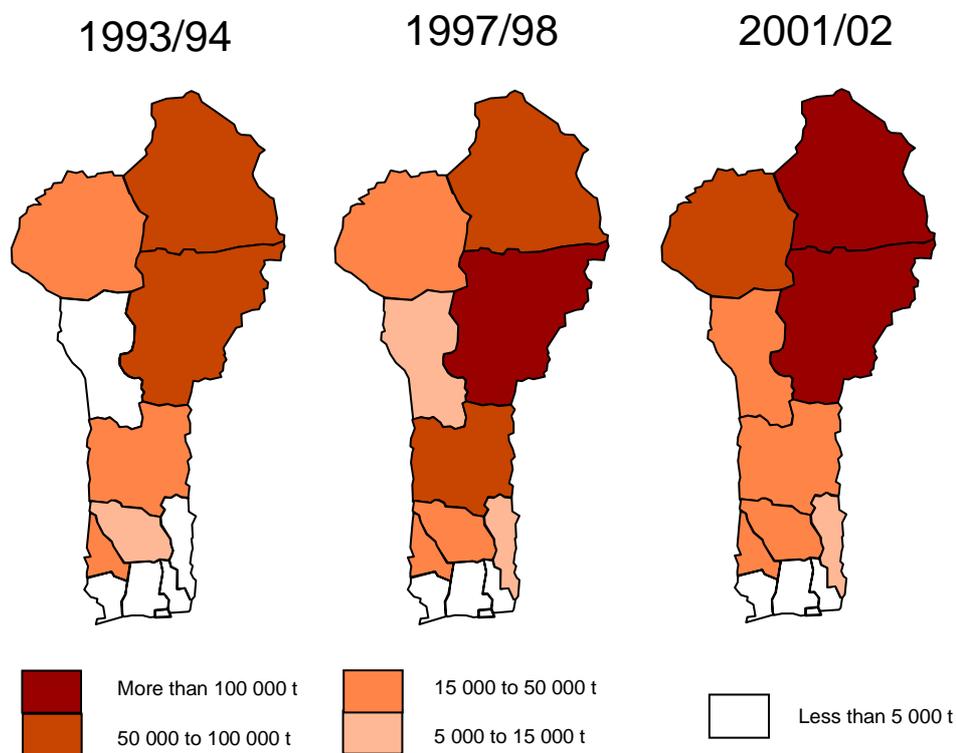
The maps below show further detail on the subnational or district level distribution of cotton production in key cotton producing countries: Burkina Faso; Benin; and Mali. This shows cotton production areas in each country and the way in which these have evolved over the last 10 years. It demonstrates the changing strategies of producers which could be in response to, e.g.: market price changes; climatic variability; field and soil management practices related to trends in soil fertility and rotation; changing policies concerning supply of services to producers. Specifically, it shows a general spread in areas on which cotton is cultivated in each country – supporting the assertion that cotton farmers are increasing the area cultivated to maintain incomes in the face of price pressure.

Figure 10: Dynamics of change in cotton production zones in Burkina Faso



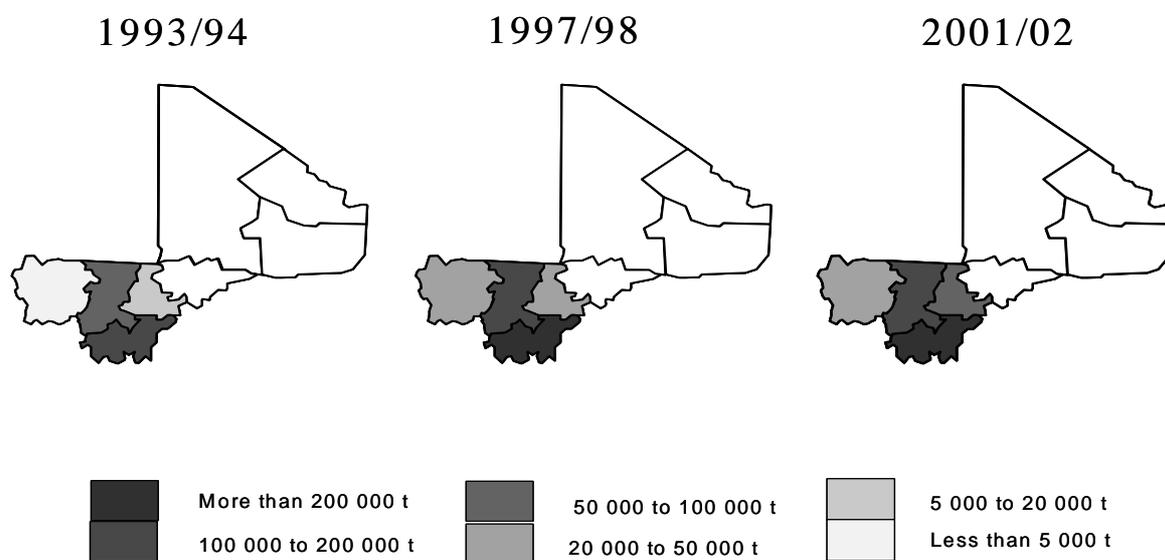
Sources: SWAC using data from Ministry of Agriculture data, Burkina Faso

Figure 11: Change in cotton production areas in Benin



Sources: SWAC using data from Ministry of Agriculture data, Benin

Figure 12: Change in cotton production areas in Mali



Sources: SWAC using Ministry of Agriculture data, Mali

While the geographical area suited to cotton cultivation remains fairly stable in aggregate terms, the specific local areas and fields allocated to cotton production may change each season depending on crop rotation practices, soil fertility and changing strategies of farmers in response to market incentives. For example, in 2004/5 farmers in Burkina Faso reported choosing to plant maize instead of cotton in fields usually planted with cotton due to low cotton prices.

IV. ROLE OF COTTON IN LIVELIHOODS AND ACCESS TO SERVICES

4.1. Better access to innovation in cotton production areas: The cases of Mali and Ghana

Access to agricultural innovation is often higher in cotton zones, due to the cotton production support system introduced initially by the colonial administration: providing consistent access to extension advice, credit, access to technology and inputs. Cotton support systems have favoured high access to agricultural innovation by farmers through the provision of access to financial support over the long term, the introduction of demand-led innovation processes, close extension support and efficient upstream and downstream agricultural services.

The role of the cotton support system in agricultural innovation processes is illustrated by the cases of Mali and Ghana. In Mali, access to agricultural innovation generally appears to be better in cotton production zones, due to the cotton production support system introduced initially by the colonial administration: providing consistent extension advice, technology and inputs in a number of countries. SWAC fieldwork on access to agricultural innovation in Mali undertaken in 2004⁸, illustrates the way in which the strong cotton production support system has fostered access to innovation. However, it identifies a number of wider risks related to the reforms underway and the scaling down of the cotton production support system provided to date by the parastatal company - Compagnie Malienne pour le Développement des Textiles (CMDT). A case study on Ghana also shows the close links between cotton and access to innovation, but here Ghana has historically provided less support to the cotton sub-sector, preferring to prioritise investment in the cocoa sub-sector as the main source of foreign exchange revenue from an agricultural product. Hence, the agricultural innovation processes in cotton production zones in Mali and Ghana outlined here occurred in a context of very different levels of State support within the region.

In Mali, there is evidence that cotton production areas are also zones that have experienced an “agricultural revolution” where farm productivity, the creation of added value and the improvement of rural livelihoods has been observed. The “cotton production support system” has in these areas fostered agricultural innovation with secondary impacts on agricultural development. Besides supporting education initiatives, the CMDT was also interested in activities that contributed more broadly to improved livelihoods and food security: helping producer organisations with the collection and marketing of cereal crops; promoting cattle feedlots (using ex-draught oxen), promoting sheep fattening (the ram for Tabaski), promoting the production of bullocks to replace draught oxen; and promoting women’s income generating activities (e.g. processing). For all these activities, CMDT provided technical assistance (supervision) and facilitated access to credit.

As a result of this support from CMDT, cotton zones tend to be areas where the largest amounts of cereals and other food crops are produced; CMDT ensures access to inputs, assistance in developing post-harvest activities related to all these crops, and offers help with marketing the cereals harvest. This innovation process was also enhanced by a demand-driven approach to agricultural service delivery, based on contractual agreement between the CMDT, the *Office de la Haute Vallée du Niger* (OHVN) and the *Institut d’Economie Rural* (IER) that clearly spelled out expected results. These contractual agreements

⁸ The agricultural innovation case studies can be accessed on the web at the following address: <http://www.oecd.org/sah> – click on cotton, then additional SWAC materials.

are financed exclusively by the cotton sub-sector, via CMDT. During the 2002/03 and 2003/4 cropping seasons, the contract was of a value close to 300 million CFA Francs. But at the same time, the cotton sub-sector has undergone dramatic changes in Mali, and the respective roles of the public and private sectors in the producer support system are being reassigned. Producers fear that these changes will be harmful to their livelihoods, at a time of downward price pressure on cotton in international markets.

In Ghana, the cotton sub-sector was fully liberalised and privatised in 1985 and cotton marketing is now controlled by 12 private cotton marketing companies, the Ghana Cotton Company (GCC) being the biggest. Most of local production is sold to local textile companies and only a small quantity is exported. Some innovations introduced by the GCC in its areas of activity have increased productivity:

(i) Introduction of high yielding cotton varieties from Burkina Faso and the promotion of the cotton-maize/millet rotation system. Inspired by practices used by farmers in Burkina Faso, the GCC is now encouraging producers to adopt a rotation that contributes to soil fertility maintenance by alternating cotton with maize or millet. These changes have resulted in yield increase of close to 20% over local/traditional practices.

(ii) Establishing a quality grading system. The cotton judged to be of “second quality” attracts 80% of the price set for the highest quality. The GCC feels that at present, 75% of the output is top quality, while five years ago, that figure was 50%. This system is especially important for promoting cotton exports.

(iii) Incentives for personal reimbursement of loans obtained for inputs. Normally, the GCC recovers the loan given to farmers for inputs when paying for the cotton farmers produce and then sell to the GCC. Producers who choose to make personal reimbursements are granted a 3% debt reduction as an incentive for farmers to reimburse themselves. This system encourages producers to be independent in their borrowing and repayment operations. Thanks to this reform and to the fact that fertilisers are applied properly in the soils, cotton yields have increased. Before this reform, producers thought that fertilisers were “free” (although the company recovered its investment via sales) and made little effort to plough it into the soil; hence fertiliser tended to get washed away with the first rains. These changes undertaken by private companies, particularly the GCC, have led to the increase of cotton production and yields.

Innovation processes are complex and may need a holistic approach to be effective. The example of role played by the CMDT in fostering innovation demonstrates the way in which a holistic approach contributed to improved livelihoods, increased cotton and cereals production, and better yields. Less interest and support of cotton production in Ghana has meant that producers in cotton zones have not experienced similar improvements in livelihoods and no rapid development of agriculture or agricultural revolution has been observed.

Key questions

- ⇒ What is the most appropriate mix of public–private–producer organisation responsibilities to meet requirements for liberalisation whilst maintaining the holistic approach to producer support that may best foster innovation processes, productivity and competitiveness of agriculture in West Africa? Can value chain analysis help identify the most effective and complementary roles for these actors in their partnership to dynamise agriculture?
- ⇒ How will the cotton sub-sector reform and CMDT privatisation process affect producer access to agricultural inputs, fertiliser, technology and profitability? How will reduced access to inputs and innovation affect the production of food crops, producer livelihoods and wider agricultural development? Will the State or development partners be able to effectively ensure continued producer access to technical support and inputs?

4.2 *Biotechnology and cotton in West Africa*

Genetically modified cotton, sometimes referred to as BT cotton, is a result of biotechnology developments in the 1990s. It represented more than 30% of global cotton production in 2003-2004. It has the potential of reducing the production costs, particularly by reducing the number of pesticide sprays needed in a season. For example, in China, farmers who do not use BT cotton spray 12 times on average, whereas farmers who use BT cotton spray 3-4 times during the cropping cycle. This is an important aspect as pesticides are relatively important in the production costs related to cotton. Genetically modified cotton was introduced in the United States in 1996 and other big producer countries have adopted it, including China, India, Mexico, Australia, Argentina and South Africa. This poses a challenge to the competitiveness of African cotton.

In West Africa, the introduction of genetically modified organisms (GMOs) is still controversial. Most francophone West African countries have taken a position against the use of GMOs in general and BT cotton in particular. Many African NGOs and producer organisations campaign against the use of genetically modified cotton. The Association des Organisations Paysannes Professionnelles (AOPP) widely distributed a declaration against the introduction of GMOs in general, and BT cotton in particular, in July 2004: *Manifeste: le Mali face à la menace des O.G.M.* The key reasons for this disapproval were that GMOs threaten biological diversity, will contaminate other agricultural products and will harm the ecosystem in West Africa. Likewise, GRAIN, an international NGO based in Benin, sees BT cotton as a “poisoned gift” as farmers become bound to purchase every season’s cotton seed from large multinationals, are fined if they share transgenic seed with their neighbours, and may easily become indebted. It advocates other measures to reduce the use of harmful insecticides in cotton fields rather than the introduction of BT cotton (GRAIN 2004). Environmental Rights Action of Nigeria (ERAN) and the Nigerian branch of Friends of Earth International have declared themselves to be against their government’s decision to introduce GMOs. However, several countries in West Africa are already at the stage of trials or in the process of approval for trials; Burkina Faso is conducting trials on genetically modified cotton and setting up regulatory measures, in accordance with the Cartagena protocol on biological diversity that led to an international protocol on biosafety; Ghana has just finished developing its own regulation mechanisms and the Nigerian government is supporting several initiatives on biotechnology for a whole range of crops.

In June 2004, a high level Ministerial Conference was held in Ouagadougou, sponsored by the US, on harnessing science and technology to increase agricultural productivity, improve food availability and improve people’s lives in the West Africa region⁹. This aimed to identify West African perspectives on adoption of scientific innovations, including biotechnology. This focused on the best way to use biotechnology, how to ensure its proper regulation and use while maximising its benefits for farmers. The example of the way BT cotton had reduced pesticide costs and changed the lives of small farmers in developing countries such as South Africa was discussed. A major issue that emerged was the ***need for regional cooperation and partnerships on science and technology***: given that financial and technical resources are limited, it is most efficient and effective to identify problems and apply scientific knowledge to find solutions at the regional level. The roles of regional economic and research institutions such as ECOWAS, the WAEMU and the CILSS were seen as key, as were those of new organisations such as the African Agricultural Technology Foundation. Given the costs of establishing regulatory systems for biotechnology, the meeting underscored the usefulness of developing a harmonised, transparent and predictable regulatory system at the regional level.

However, in January 2005, a meeting was held in Bamako (Mali) on the place of cotton in the WTO trade negotiations. This brought together Ministers and West African ambassadors to Washington from Benin, Burkina Faso, Mali, Senegal and Chad and US government representatives. The final declaration stated, however, that ***BT Cotton is not the panacea vis-à-vis the current international trade negotiations*** and the way in which they need to address the crisis in the cotton sub-sector.

⁹ For the conference closing statement by the US Under Secretary, Farm and Foreign Agricultural Services see <http://www.fas.usda.gov/icd/stconf/event6/event6pennclosing.html>

West African governments and civil society have different perspectives on the introduction of GMOs as a whole and BT cotton. However, the strength of the West African position in the international trade negotiations concerning cotton has benefited greatly from a joint position between producers, the private sector, civil society and governments at the regional level. It will therefore be important for these West African actors and decision-makers to develop an agreed position and approach on the introduction of biotechnology, specifically BT cotton, at the regional level. Here, the establishment of a regional mechanism to monitor and regulate the introduction of biotechnology may help.

Key questions

- ⇒ Some countries are embracing genetically modified cotton and rapidly expanding the area planted, while neighbours remain reticent. Those that delay adopting BT cotton may lose their competitive edge in a tight market where prices are falling and other countries are adopting BT cotton, but are concerned about potential medium and long term risks related to environmental, human, and equity factors. There is concern that cotton products enter the food chain through cotton oil and may affect other crops. Others argue that biotechnology will reduce risks (related to pesticide use, for example) and that it does not pose issues relating to human health as it is not a foodstuff. International protocols on biosafety stipulate that countries that adopt biotechnology should establish monitoring and regulatory procedures at the national level. Given that biotechnologies may have effects that cross national boundaries and affect other crops (via pollination for example) , ***is there a role for regional coordination, monitoring and regulatory measures concerning the introduction of BT cotton?*** This could provide a balanced assessment of the advantages and risks for different producers of adopting biotechnology over the short and medium term. If so, which regional body would be best suited to undertake this function? What lessons can be learned from other developing country regions attempts to develop regional regulatory mechanisms (e.g. Southern Africa/SADC)?
- ⇒ Given the increasing use of genetically modified cotton internationally (set to hit 50% of total cotton produced by 2007), will adoption of BT cotton be the key to increasing productivity, competitiveness and sustainability of African cotton? What are the implications for financial and environmental sustainability?
- ⇒ What will be the costs of increased dependence on agribusiness for the supply of biotech plants? Where BT cotton is introduced, how can access be ensured for small and large-scale producers alike?
- ⇒ Is there sufficient demand for organic cotton to make it a viable alternative to BT cotton? Is there a remunerative market niche for Africa here?

4.3 *Links between cotton and cereals production*

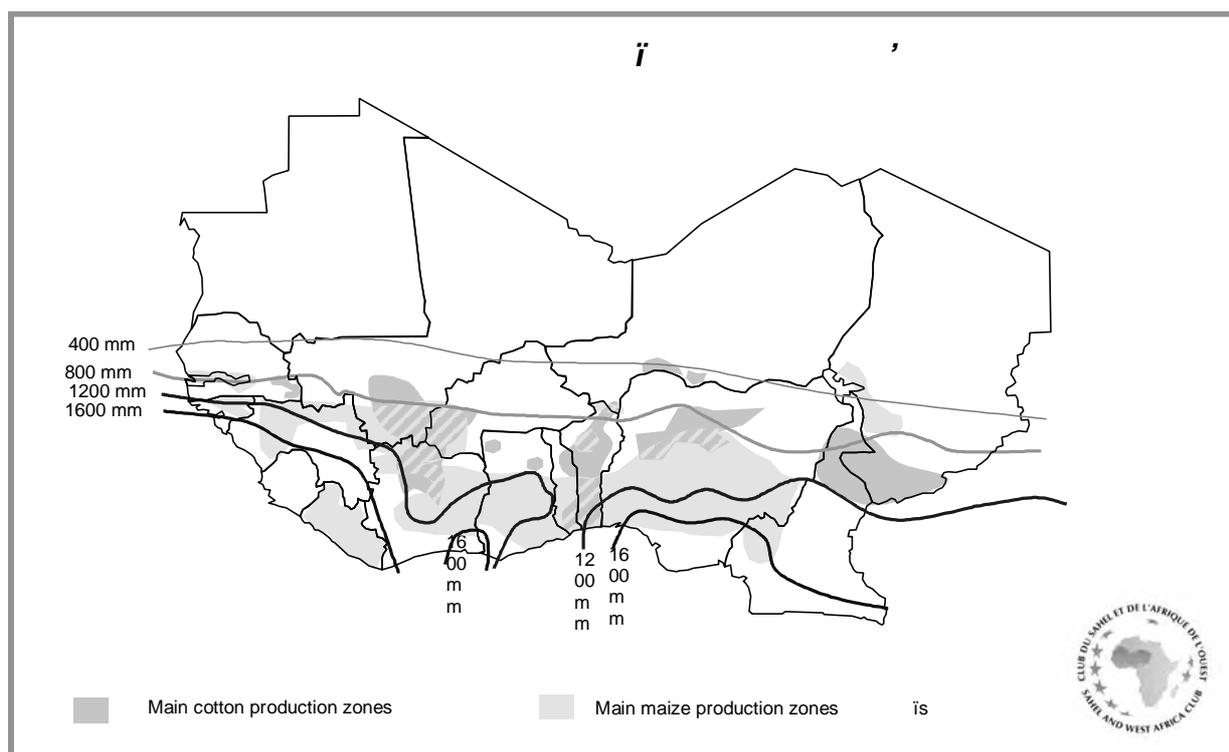
The Savanna zones of West Africa have always been suited to cultivation of both cotton and cereals. In a report for the SWAC on the regional and spatial dimensions of West African development, the geographer, Roland Pourtier confirms the historic co-existence of food grain and cash crop production, and rotation between the two, on farms in the region:

« Mieux arrosée que le Sahel et en cela épargnée par les crises climatiques extrêmes, la zone des savanes du constitue la colonne vertébrale de l'Afrique de l'Ouest. Aux traditionnels mils et sorgho s'ajoute, depuis le XVIème siècle, le maïs. La culture, la conservation, la commercialisation et les usages des céréales sont communs à l'ensemble des pays de savane. Aux espaces des céréales se superposent ceux du coton. Culture vivrière et culture de rente sont en général associées dans les exploitations, la succession

coton/céréales sur une même parcelle permettant à celui-ci de bénéficier de l'arrière-effet des engrais apportés à celui-là »¹⁰.

There may indeed be a strong correlation between increased cotton production and increased cereals production. There is evidence from Burkina Faso that the rotation of maize and cotton is favourable for soil fertility. If the fertiliser needed by cotton is applied, better results are observed for maize grown on cotton fields the following year. However, such intensive use of soils and some characteristics of the demand placed by cotton plants on soil nutrients and water can result in soil degradation over time (Hårsmar 2004). The three maps below use FAO data to illustrate the correlation between cotton and cereals production zones in more detail.

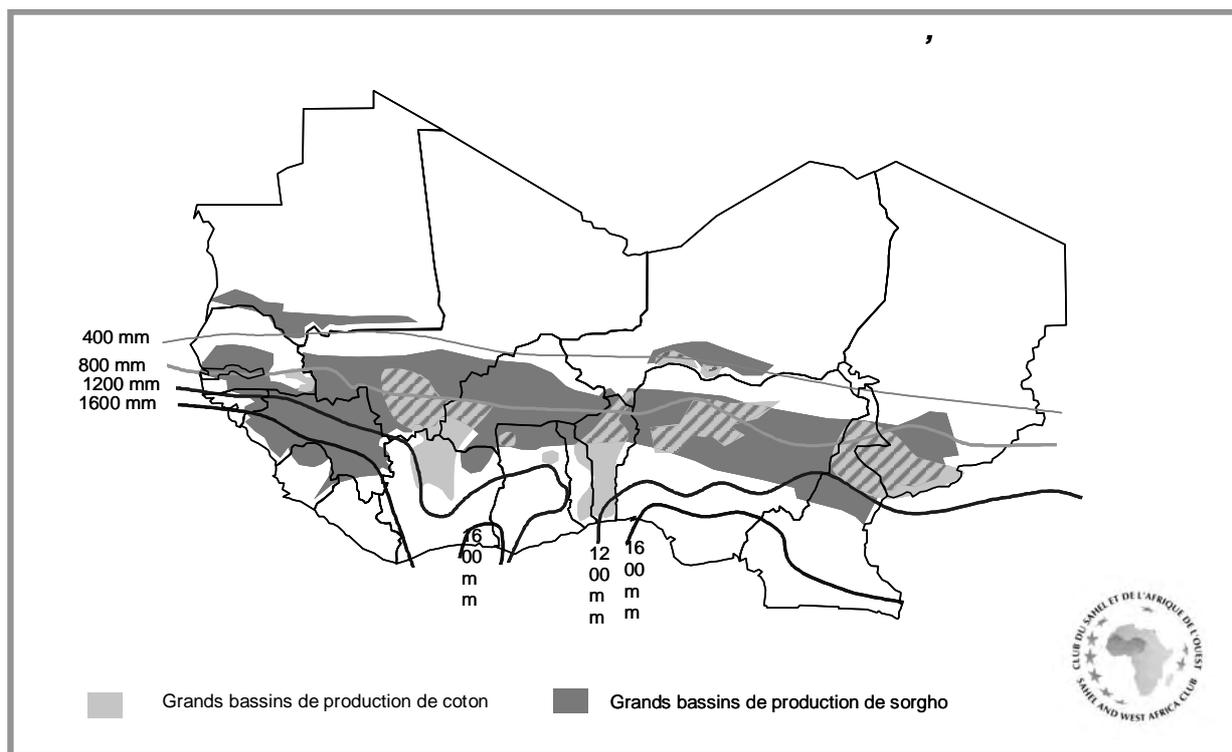
Figure 13: Main cotton and maize production zones in West Africa 2000/2004



Source: Sahel and West Africa Club/OECD and FAO Smiar

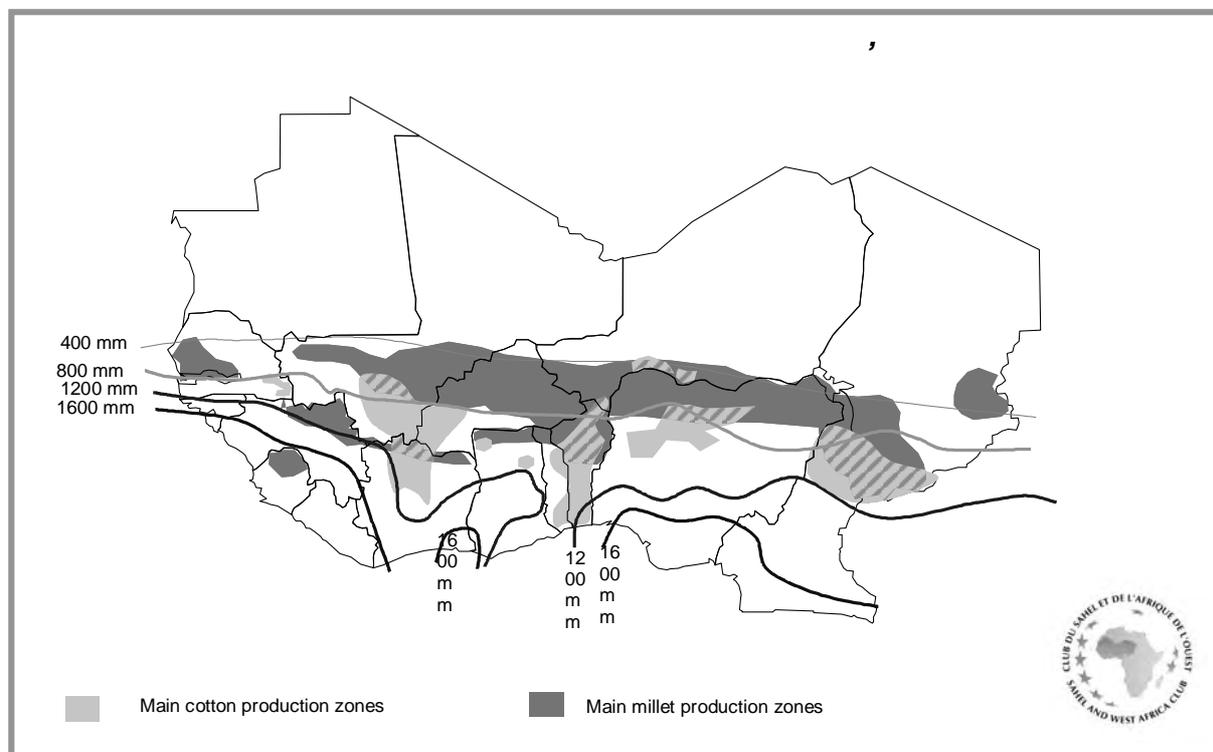
¹⁰ La régionalisation en Afrique de l'Ouest, Roland Pourtier, 2003.

Figure 14: Main cotton and sorghum production zones in West Africa 2000/2004



Source: Sahel and West Africa Club/OECD and FAO Smiar

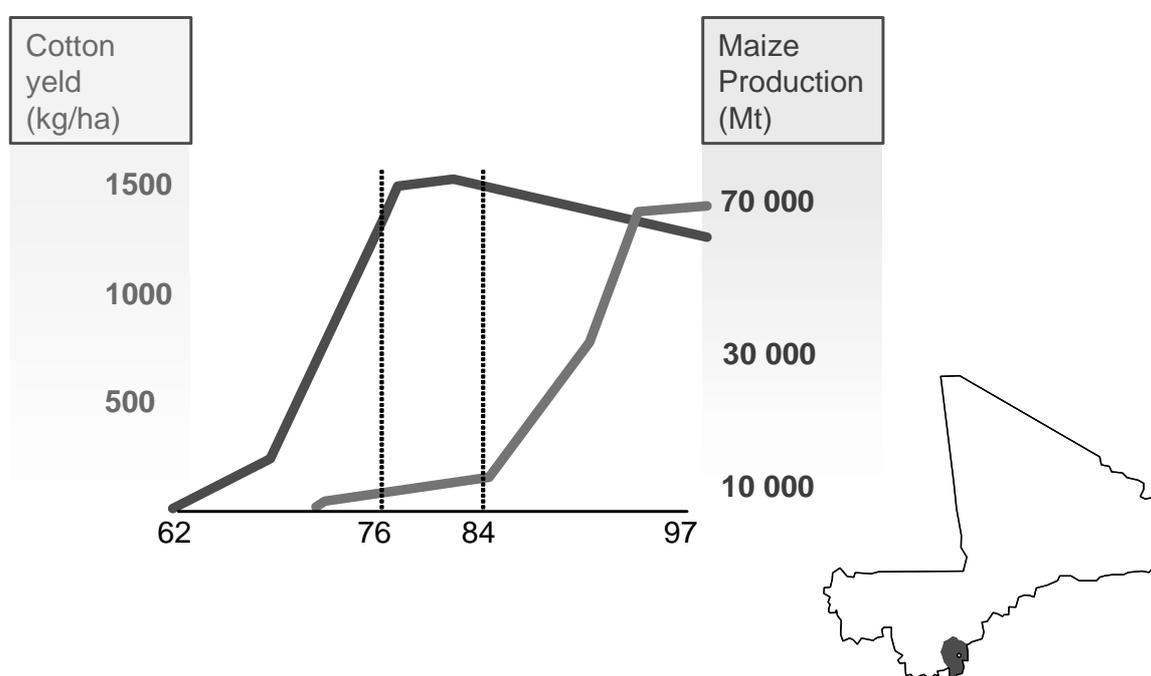
Figure 15: Main cotton and millet production zones in West Africa 2000/2004



Source: Sahel and West Africa Club/OECD and FAO Smiar

The SWAC Secretariat's "ECOLOG" studies on local economies in the Sikasso zone of Mali in the 1990s showed that the loosening of the regulatory aspects of the cotton production support framework in the mid-1980s (e.g. use of fertiliser for food crop fields forbidden) allowed farmers to freely manage the allocation agricultural inputs. At the same time the CMDT provided incentives to farmers to increase yields from 200 kg to 1,600 kg over time, encouraged limiting areas sown to cotton and providing fertiliser, which farmers distributed across different farm plots, they began to apply these to maize for which there was growing urban demand. Maize then became a major cash crop. Farmers increasingly used their animal-drawn ploughs to increase areas sown. Farmers expanded areas cultivated, spreading the use of animal traction from cotton to other fields, and increasingly integrated crop and livestock activities. Similar patterns were observed in Bobo Dioulasso, Burkina Faso and Korhogo, Côte d'Ivoire. Between 1984 and 1997, average farm size in the Sikasso zone rose from 1 hectare to 3-4 ha. Between 1977 and 1997, maize production increased from 10,000 tonnes to 70,000 t per year. At the same time, while yields fell, the area sown to cotton rose from 15,000 ha to 78,000ha.

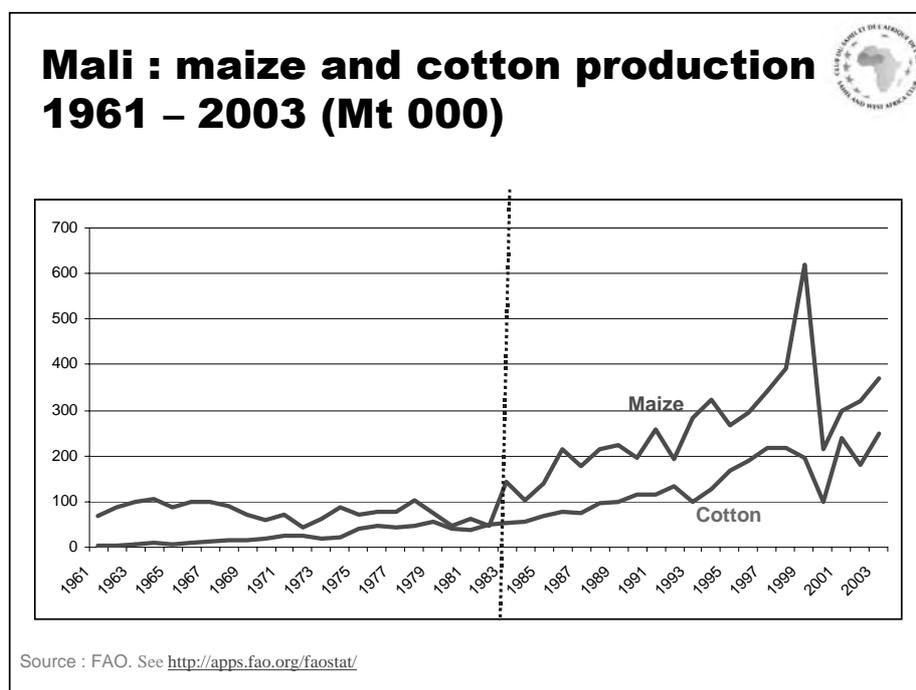
Figure 16: Links between maize and cotton production in Mali: 1962-1997



Source: SWAC/OECD (ECOLOG Study of Sikasso)

The graph above further illustrates the interdependence of cotton and maize production in Sikasso. It shows the remarkable increase in maize and cotton production, and the way in which the maize curve closely follows the cotton curve with an initial gap of 10years but rapidly narrowing. Confirming the linked trends, maize production also declined when cotton production fell dramatically in 2000- 2001, largely due to a prolonged strike by cotton producers in dispute with government over cotton sub-sector reforms. This is reflected even in the marked downward trend in 2000-2001, primarily due to a strike by cotton producers. It is important to note that However, maize is produced for African markets where demand is variable and tight. Therefore, it currently remains marginal when compared to cotton as source cash income. However, this example illustrates that if the cotton production system is seriously damaged, maize and millet production could also suffer, with concomitant impacts on poverty, food security, nutrition.

Figure 17: trends in cotton and maize production, in Sikasso, Mali



This graph, using data from SWAC ECOLOC studies, shows that trends in cotton and maize production have been close and interdependent in the Sikasso zone of Mali in recent decades. A major rise in maize production has accompanied rises in cotton production. More recently, the trajectory for maize seems to continue upwards while cotton has stagnated.

This relationship is not primarily due to State intervention or incentives as these became less important after 1994. Rather, rapid urban growth, rising demand in neighbouring countries and availability of inputs via the cotton support system have been key. A similar relationship has been noted by regional actors in other zones between cotton and traditional food grains such as millet and sorghum - though this remains anecdotal. This relationship principally arises through sharing of inputs, availability of infrastructure, technical innovation, access to agricultural services and increased capacity to invest in agriculture due to cotton cash incomes. These examples also illustrate that family agriculture can diversify in response to changing incentives and demand when the conditions are right.

Agricultural transformation is accompanying this process, with the introduction of crop rotation and mixed farming systems that combine crop and livestock activities, replacing historic forms of itinerant farming. The current challenge is to introduce effective methods of soil regeneration and end fallow. A similar transformation seems to have begun in other parts of the Sahel. Ecoloc studies in Korhogo and Bobo-Dioulasso have also experienced this type of change, with minor differences. Furthermore, according to an independent observer Gérard Magrin, the combination of a worsening political climate and volatile cotton prices is causing a similar shift in southern Chad. Although the level of urbanisation in this area is low and the capital, N'djamena, is distant from producing zones, overall domestic demand for cereals has increased due to growing urban demand from neighbouring countries (e.g. Cameroon and Central African Republic). Chad's "cotton" farmers are producing cereals for these countries, in spite of problems related to distance and poor transport links.

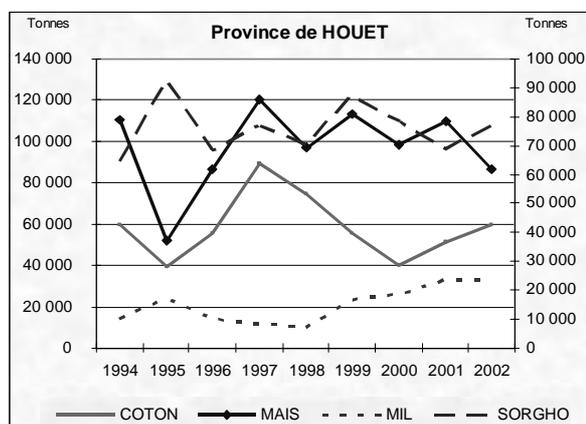
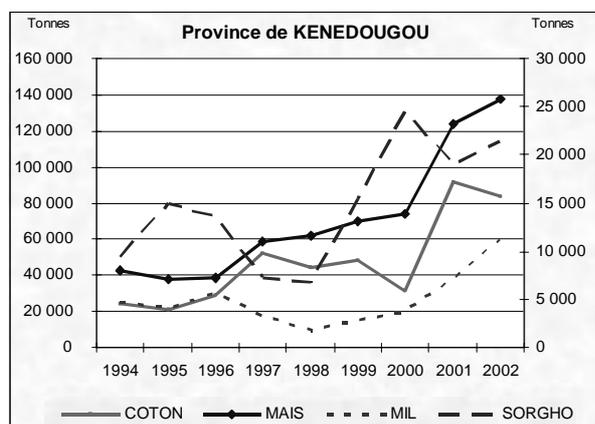
The evolution of cotton and maize production has clearly been close and inter-dependent. However, maize is produced for African markets where demand is variable and tight. Therefore, it currently remains marginal when compared to cotton as source cash income. However, this example illustrates that if the

cotton production system is seriously damaged, maize and millet production could also suffer, with concomitant impacts on poverty, food security, nutrition.

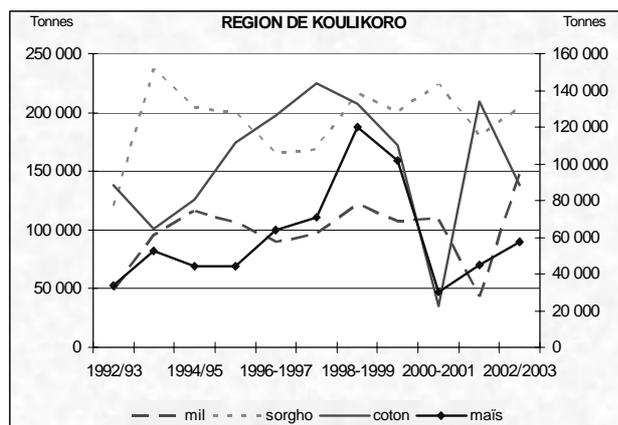
Cotton cultivation seems to have played a determining role in the production systems of the Sikasso and Bobo-Dioulasso area. It is linked to agricultural diversification as well as to the introduction of new techniques related to use of livestock, principally the introduction of animal traction. In these areas, cotton farming has contributed to the emergence of mixed cropping, specifically: millet, sorghum and, for the last 20 years or so, maize. Indeed, maize has become the crop known to have the best results in association to cotton due to its use in phyto-sanitary products used for cotton and the existence of agricultural service providers that have promoted this crop association by providing access to inputs, support for post harvest activities, cereals marketing support etc.¹¹ Data at the Departmental or District level in West Africa can help to illustrate the role of cotton in promoting cereals production – particularly maize, millet and sorghum which are all key crops for food security. Taking the examples of Benin, Burkina Faso, Mali, the following graphs illustrate the correlation between cotton and cereals at a local level.

Figure 18: Evolution of the production of cotton and cereals in regions of Burkina Faso, Mali and Benin

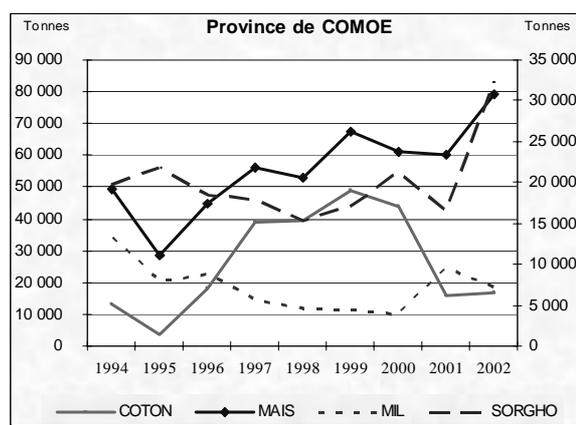
Burkina Faso Provinces



Region in Mali

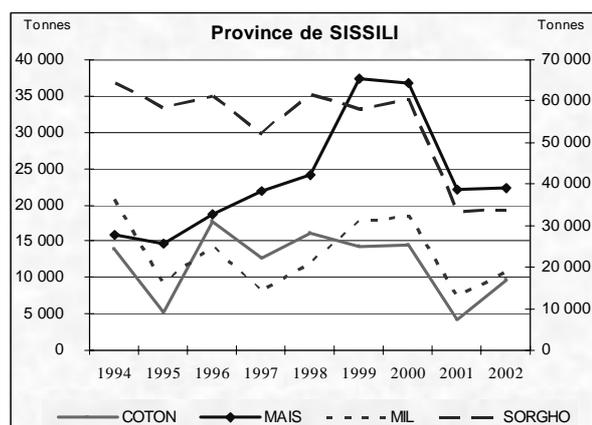
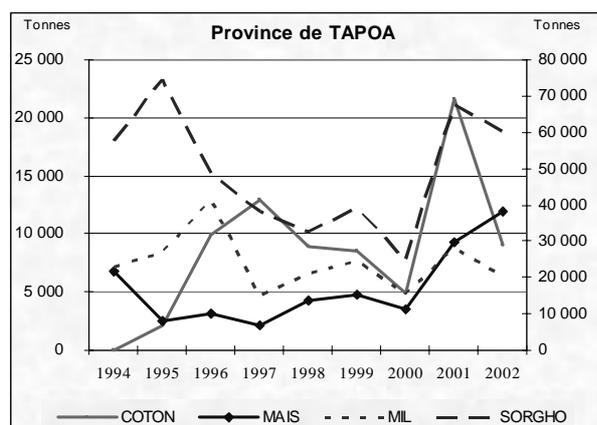


Burkina Faso Province

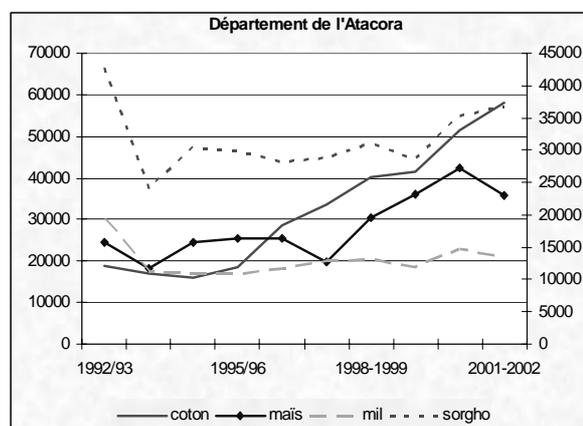
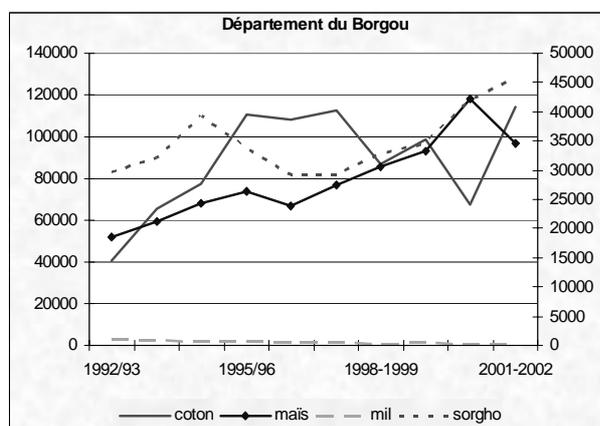


¹¹ See 'Espaces frontières et intégration régionale, le cas de SKBo'. Enda Diapol ; SWAC publication.

*SWAC West Africa Cotton overview: DRAFT for comment January 2005
Burkina Faso Provinces*



Benin Departments



The links between cereals and cotton production differ according to the production zone. In the Sikasso, Korhogo, Bobo Dioulasso areas, the association of cotton and maize is stronger than in other regions. On the other hand, the cotton/sorghum/millet association seems closer in the Tapoa and Sissili zones of Burkina Faso.

Key question

⇒ Are the links between cotton and cereals production different according to the geographical area? If so, why? Due to policies, agro-ecological conditions or farmer strategies defined by culture and practices?

African farmers are clearly ready to adapt their livelihood strategies where possible and beneficial, respond to demand and diversify when incentives exist and it is possible to do so. However, this may not be possible everywhere and diversification beyond cereals production may not be possible in many parts of the Sahelian zone. This will be the case for remote areas poorly connected to urban grain markets. Indeed, there are limited alternatives to cash crops and other income earning opportunities. A long term decline of cotton production could therefore be accompanied, at the local level, with a decline in the cultivation of maize and other associated cereals with perhaps unintended consequences for supply of food grains to urban centres, farmer incomes and food security. At the national level, a decline would threaten the stability of state budgets through the fall in export earnings.

SWAC West Africa Cotton overview: DRAFT for comment January 2005
Table 2: Cotton production and export subsidies in the US China and EU

A. PRODUCTION SUBSIDIES

	Direct production subsidies (millions USD)		Production (thousands of tonnes)		Production subsidies (cents/kg)	
	2001/02	2002/03	2001/02	2002/03	2001/02	2002/03
US	3001	1996	4420	3747	67,9	53,3
EU	979	757	542	475	180,6	159,4
China	1196	750	5324	4916	22,5	15,3
All countries	5844	3800	21475	19295	-	-

Source: ICAC, 2004 et REPA, 2004 (Cotons d'Afrique face aux Subventions mondiales)

B. EXPORT SUBSIDIES

	Export subsidies (millions USD)		Exports (thousands of tonnes)		Export subsidies (cents/kg)	
	2001/02	2002/03	2001/02	2002/03	2001/02	2002/03
US	100	182	2395	2591	4,2	7,0
EU	-	-	361	334	-	-
China	21	50	81	172	25,9	29,1
All countries	-	-	6477	6600	-	-

Source: ICAC, 2004 et REPA, 2004 (Cotons d'Afrique face aux Subventions mondiales)

For Sahelian countries and zones more dependent on cotton production, then, a longer term transition process is probably necessary. This would involve targeted investment over time in economically viable alternative economic activities and creation of new markets, accompanied by a carefully sequenced withdrawal of support for the cotton sub-sector – over a period of 10-20 years.

The need for a *very gradual process of cotton system reform appears to be necessary in African countries* given the sub-sector's important contribution to wider agricultural innovation, development and livelihoods, and the continued agricultural support provided to the cotton sub-sector in OECD producer countries, particularly in the U.S. and European countries, that may have a downward affect on prices. The emphasis on the North here is justified as China, while it supports its cotton producers, remains a net consumer of cotton most years as it requires enormous amounts to satisfy its textiles industry – hence its agricultural support has minimal downward impact on world cotton (see Table 2 above).

4.4 Access to infrastructure and services

Cotton production has led to the development of socio-economic infrastructure and farmer services via at least two different approaches. In countries like Mali, where cotton companies have historically been very strong, what has been called the “cotton system” took shape. In others, such as Chad, communities could use cotton-related payments to farmers, allowing them to invest in local social services.

In countries that have historically had a strong coordinated cotton production system, an elaborate network of producer support services and infrastructure emerged increasing producer access – and in many cases access for the wider community – to inputs and extension services, health centres, pharmacies, schools, and roads. This is especially the case in the key producers in the CFA Franc zone. These coordinated services and infrastructure were designed to increase and sustain productivity in a strategic sector of the economy and were usually provided by the State or national cotton companies. They have thus contributed to increased well-being and human development, and could serve as a model for stimulating the contribution of agriculture to wider development in other agricultural zones. A rapid analysis of data available for Mali in the late 1980s implies that there is a correlation between cotton production areas and improved access to social as well as economic and productive services (see tables below).

It could be that the combination of services provided has even been a key stimulus to the link between cereals and cotton production and an agricultural revolution in certain areas. Current reforms in the cotton sub-sector in certain countries of West Africa may lead to a scaling back in these services (see Box on extension services in Mali, below). If there is a collapse of cotton production in response to worsening prices and reforms in the provision of services in cotton zones, this could have unintended consequences not only for wider agricultural development, but also for human development and the attainment of the Millennium Development Goals. This relationship merits further confirmation through field work on the evolution of livelihoods and access to services in cotton zones compared with non-cotton producing zones in the current period. If access to such services has worsened, and with it human development indicators, continued investment in such services may be justified.

Further examples from Mali and Chad illustrate the importance of the cotton production support system in providing access to infrastructure and services. Besides supporting agricultural production, cotton companies such as CMDT in Mali provided economic infrastructure (e.g. rural roads) and social infrastructure (e.g. training of producer organisations; health and education services; access to drinking water) with a view to improving the overall productivity of the system¹². As these were provided to the

¹² J. S. Zoundi, 2003 :*L' innovation technologique dans le processus de changement structurel de l'agriculture familiale en Afrique de l'Ouest*. SCSSAO Paris.

entire community, these services benefited the livelihoods of more than solely cotton producers themselves. Hence, regions such as Koulikoro and Sikasso seemed in 1987 to be better equipped with socio-economic infrastructure than other regions in Mali – excluding Bamako, the capital. For example, the ratio of number of inhabitants to school for each dispensary was generally lower in cotton producing regions (see table below). It would be useful to confirm this ratio today, after many years of reform, economic adjustment and liberalisation and population growth.

Table 3: Distribution of social services in Mali (1987)

Regions (1987)	Population	No. of inhabitants/ dispensary	No. inhabitants/ school	No. inhabitants/ drinking water point	Dispensaries (%)	Schools (%)	Drinking water points (%)
Kayes*	1 066 968	9 198	5 009	82 074	13,86	12,95	1,51
Koulikoro*	1 197 770	4 970	3 103	9 818	28,79	23,47	14,15
Sikasso*	1 310 750	7 490	4 648	15 066	20,91	17,14	10,09
Ségou*	1 339 650	11 450	5 902	6 665	13,98	13,8	23,32
Mopti	1 282 600	11 660	7 329	80 163	13,14	10,64	1,86
Tombouctou	459 316	17 666	7 291	45 932	3,11	3,83	1,16
Gao	380 725	15 229	5 288	38 073	2,99	4,37	1,16
Bamako	658 287	24 381	2 900	1 633	3,22	13,8	46,75
Ensemble	7 696 066	12 755			100	100	100

Source: Étude d'investigation et de diagnostic sur la situation de l'aménagement du territoire au Mali, November 2003

* Cotton producing zones in Mali

In Chad, the situation is somewhat similar: « for villages in the cotton zone, revenue from cotton are the sole source of community development devoted to the satisfaction of their basic needs and the improvement of their quality of life »¹³. Community development is based on the use of repayments to producers. In other words, these payments represented the only source for farmers to invest in collective resources at the village level: schools, dispensaries, credit groups, stores, water pumps etc.). These resources were also available to people who did not produce cotton. Farmers fear that these rebates might disappear with the reforms in the cotton sub sector underway. This would result in less income or resources to maintain or replace community equipment and infrastructure.

However, regarding access to agricultural services, the data is less clear-cut: the cotton company in Burkina Faso, SOFITEX, has had its own extension agents since 1992, numbering some 480 agents for 200,150 cotton producers. That is a ratio of 2 extension agents for 1000 farmers - less than the FAO recommended minimum. Even if there are more cotton sub-sector extension agents in Mali now, the ratio to producers is still relatively low: 4 agents per 1000 farmers. Table 4 provides the number of extension agents for the cotton sub-sector in Mali and Niger (to be completed with data on No. of agents per producer).

Table 4: Extension agents in the Mali cotton system

	1998	1999	2000	2001
Total No. of CMDT technical agents	1187	1160	1126	1191
Total No. of technical agents in the OHVN		153	160	156

Data from Resocot IER/CIRAD, 2003

¹³ Analyse de l'impact social et de la pauvreté. Réforme du secteur coton au Tchad. Analyse qualitative ex-ante, Première phase (no date).

4.5 Institutional development and producer organisations

Another key development is that the historic support for institutional development in cotton areas provided by cotton companies or agencies has facilitated the rise of strong producer organisations. For example, in Burkina Faso the UNPCB has emerged as an influential national cotton producer organisation ready to represent and advocate the interests of its members in national, regional and international policy fora.

Indeed, producer voice has become increasingly important in national and regional agricultural policy formulation – although producer representatives are not consistently involved in decision making on the cotton sub-sector. The degree to which producer organisations are sufficiently structured and close to their members varies, however. They are not all equally able to effectively interact in national, regional or international policy arenas. Indeed, a community development / producer organization-strengthening approach to cotton development in the FCFA zone has not only enhanced technical and productive capacities in relation to cotton, but has also contributed to improved agricultural practices and overall living conditions. This is due to income from cotton but also secondary activities, e.g.: coordinated marketing of cereals; support for additional economic activities (e.g. CMDT support for livestock development and income generating activities for women in Mali).

4.6 Multiplier effects: equity and sustainable development

Where cotton producers have benefited from the existence of a cotton production support structure, their families have benefited from multipliers that make them less vulnerable to poverty: increased cash income, improved access to schools and clinics (via extra earnings or services provided by cotton companies leading to increased access to education and health).

The *gender, equity and sustainability impacts of cotton production* are also worth considering. There are more detailed studies on these aspects elsewhere that will not be repeated here. It is worth noting here that the successes related to cotton have led to cotton producers being considered as better-off, having more access to services and more capable of emerging from poverty. The need to continue investment of governmental and development aid in this productive sector has been questioned in a policy context where aid and development programmes focus on poverty reduction. Furthermore, there has been some evidence of inefficient resource use by cotton companies, creating the climate for the current emphasis by international finance institutions on the reform and privatisation process in the cotton sub-sector in West Africa. It is therefore important to provide evidence as to the range of populations benefiting from the cotton sub-sector and whether the distribution of benefits is equitable (across gender and socio-economic groups).

Key questions

- ⇒ What is the most appropriate mix of public–private-producer organisation responsibilities to meet requirements for liberalisation whilst maintaining the holistic approach to producer support that may best foster innovation processes, productivity and competitiveness of agriculture in West Africa? Can value chain analysis help identify the most effective and complementary roles for these actors in their partnership to dynamise agriculture?
- ⇒ How will the cotton sub-sector reform and CMDT privatization process affect producer access to agricultural inputs, fertiliser, technology and profitability? What will be the gains in terms of efficiency, market opportunities and incomes? What will be the losses related to dismantling of the cotton system? How will reduced access to inputs and innovation – particularly by poorer producers - affect the production of food crops, producer livelihoods and wider agricultural development? Who will ensure continued producer access to technical support, inputs and infrastructure?

V. WEST AFRICAN PERSPECTIVES ON KEY PROBLEMS FACED BY THE COTTON SUB-SECTOR AND POSSIBLE SOLUTIONS

In recent years, the SWAC Secretariat has, through meetings, special events and field visits, maintained ongoing consultation with a wide range of regional actors on the priority issues facing the cotton sub-sector in West Africa. This has included governments, regional organizations, NGOs, private sector, producers...) Notwithstanding some competing interests and differing perspectives, there is a high degree of consensus among regional actors on the key stakes regarding the issues facing the cotton sub-sector in West Africa and wider implications for agricultural development. Key points emerging from these consultations merit careful consideration in the development of regional and international initiatives to address the difficulties faced by the African cotton sub-sector in the years to come.

(i) It is urgent to *find a solution to price volatility* in order to avoid long term damage to the West African cotton sub-sector. Although the problems faced by the cotton sub-sector could be seen as symptomatic of underlying structural problems in the development of African agriculture in the context of integration with the international economy that need to be addressed over time, many argue that cotton remains a special case due to its importance to the Sahel and the continued existence of a support infrastructure in some countries. Many producers and traders in the region argue that the West African cotton sub-sector could be irreparably damaged or destroyed in the next 15-20 years if fundamental trade and price problems are not addressed.

To recall, from 1997 on, there has been a structural collapse in the price of cotton by some 39% between 1997 and 2002 to a rate estimated at below the cost of production; it bottomed out at 35 cents a pound in 2000, although it has risen to over 50 cents / pound in following years. This has had a major impact on mainly poor producers' incomes and has become a crisis for countries dependent on export revenue. Many argue that this is directly due to the effects of international overproduction directly resulting from production and export subsidies in the North. The level of support to agriculture as a whole in the North is enormous; international subsidies for the cotton sub-sector have been estimated at some \$6 billion per year (Agriculture et Développement Rural, Vol. 11 No.2, 2004). US subsidies to its 25000 cotton farmers have been estimated at \$2-3 billion on average per year since 2000 (\$3.7 billion in 2003). European cotton producers in Greece and Spain have annually received some \$0.7 billion (though this is changing with the reforms proposed by the EU in 2004). Over-production and supply to international markets due to these incentives in the North is alleged to directly reduce international prices for cotton to the detriment of West

African exporters. To address this, in 2004 West African states proposed the elimination of these subsidies in the medium term and compensation in the short term. Compensation required was assessed at some \$250 million per year just to cover losses felt by Benin, Burkina Faso, Mali and Chad due to the price-reducing effect of subsidies. In January 2005 at a conference on cotton in Mali, the West African states reiterated the demand for compensation to the tune of \$400million. While a politically charged issue, international trade negotiations at the WTO under the Doha Development Round and the development of the EPAs must be used to address these complex problems. This will not be addressed in more detail here as many more refined and detailed analyses of this issue have been undertaken already (see e.g. Goreux).

(ii) **Public awareness of the importance of policy coherence in richer nations in order to support development and poverty reduction efforts** needs to be raised. Enhanced understanding of the actual impacts of different national and international trade and agricultural policies on Africa at the regional, national and disaggregated levels could provide evidence to support targeted action to address these. OECD, a number of development agencies, research institutions and NGOs are working on the development of effective methods to analyse policy impacts. These could be applied in field studies in cotton zones.

(iii) As noted in regional meetings of private sector operators in the cotton sub-sector under the aegis of the Association Cotonnière Africaine (ACA), specific actions are necessary to **enhance the quality, efficiency and competitiveness of West African cotton** on international markets (in terms of cost of inputs and labour, yields, price....).

(iv) **Opportunities for rural diversification** need to be explored over time and related upstream and downstream infrastructure developed. However, diversification will not solve the current price crisis. However, instant solutions and ready made alternatives for producers in the rural Sahel are few and far between; options currently available are unlikely to be sufficient, particularly in the Sahel. Time will be required to develop viable economic alternatives. During this period there is a case for continued support to this sector. Excessively rapid reform in West Africa could seriously harm poor producers and destabilise national finances in a number of countries most dependent on cotton.

(v) **Targeted support for strategic agricultural commodities or sub-sectors such as cotton and use of WTO provisions allowing special treatment** may need to be considered to support the development of West African agriculture. This is necessary given that the international economy is not a level playing field. Agricultural support measures and increased investment may be needed for some time as has been the case in Europe, the US and many Asian countries. However, it is unclear how the costs of such measures can be covered by cash strapped African governments. Fostering *regional* markets and processing capacities may be a way forward. Regional organizations such as ECOWAS may have a lead role to play in terms of fostering targeted agricultural support measures that fit with international and inter-regional trade agreements.

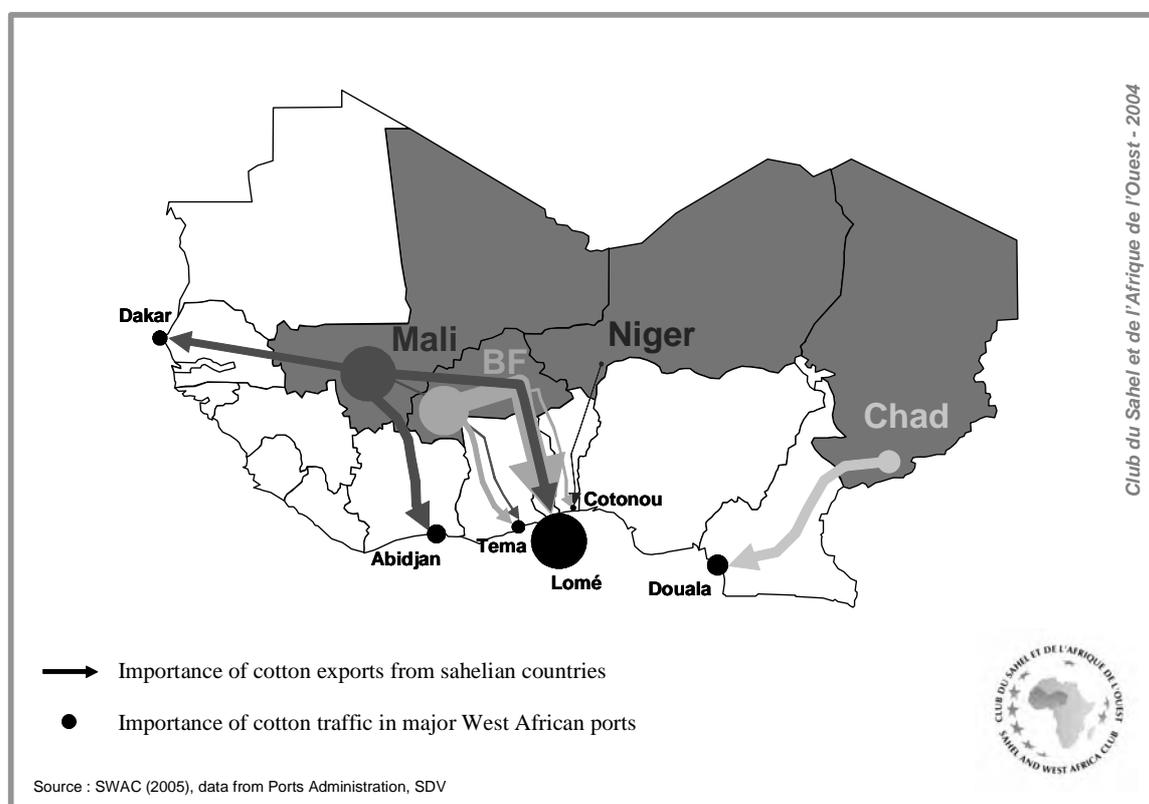
(vi) **Developing the processing capacity in the region** to allow for increased value added to cotton fibre, grain and oil products is key for regional institutions such as the WAEMU. However, it is unclear who will finance such initiatives, particularly given the economies of scale commanded by other players in the international system. Most West African textiles would not be able to match the price / quality ratio of Chinese or other Asian textiles for a very long time – especially now that the textiles trade quota system has now been removed. Hence in an open market, West African textiles may not find sufficient markets in the short – medium term.

(vii) **There is much scepticism in West Africa about the emphasis several international development agencies place on the need to diversify agriculture, to deepen liberalization and implement more reforms** in African agriculture in order to resolve problems facing the cotton sub-sector, make agriculture more

productive, efficient and capable of competing in the international market. Indeed, some regional actors ask what new reforms are possible after extensive liberalisation since the 1980s and argue for *more* agricultural support - not removal of what is left of the cotton support system.

(viii) *The crisis and conflict in Côte d'Ivoire since 2002 has had a profound impact on the regional economy and trade of neighbouring countries.* Data is emerging to show that the transport and trade routes from landlocked cotton-producing countries to the coastal ports has changed dramatically. Prior to the conflict, the main port for the export of Sahelian cotton from West Africa was Abidjan. Now, it seems that the routes have changed and most cotton exported from Mali and Burkina Faso is routed through, first, Lomé (Togo), second, Tema (Ghana), and in smaller amounts, via Cotonou (Benin) and Dakar (Senegal). The medium and long term economic and social impacts of this re-routing of the cotton trade merit further analysis.

Figure 19: Corridors of cotton exports from Sahelian countries following the start of the Ivorian conflict (based on data from 2003)



(ix) Finally, regional actors continue to highlight the importance of working to address the trade-related aspects of the cotton crisis at the same time as addressing aspects related to the development of agriculture as the whole and the cotton sub-sector in particular. They continue to underline the need to resolve the thorny issue of the downward impact of northern subsidies on international cotton prices and consider compensatory measures for the losses suffered. While this issue is highly political, and relates to the trade rather than strictly development aspects of cotton as defined by the WTO, it will be critical to find concrete solutions to these problems in the medium term in order to create a more level playing field for African cotton producers in the international economy.

There are a wide range of proposals to address the development aspects of African cotton and support the development of the cotton sub-sector currently on the table. These include: establishing a regional support fund and regional processing capacity; promoting diversification opportunities, particularly into activities that can attract significant value-added from agricultural production; establishing risk management or insurance schemes to help producers address price volatility and seasonality; the establishment of mechanisms to monitor the impact of subsidies; or trade capacity building initiatives.

VI. TEN STRATEGIC QUESTIONS FOR AFRICAN COTTON SUB-SECTOR SUPPORT INITIATIVES TO ADDRESS

- (i) What is the role of biotechnology in cotton sub-sector development and how should its introduction be regulated at the regional and national levels? What investments in soil fertility and improvement (Soil and Water Conservation etc) are necessary to obtain positive benefits from cotton production in the medium and long term?
- (ii) As cotton is a commodity produced in a key productive sector of African economies, are Poverty Reduction Strategies the most appropriate place for measures to address the crisis facing the cotton sub-sector? Should investment in and measures to develop the sub-sector rather be dealt with in broader economic development and investment strategies?
- (iii) Which strategies are being used by farmers to cope with the fall of the world price of cotton due partly to OECD cotton subsidies and the reforms underway in most West African countries? Is there a case for national investment in and support for the regional textiles industry for a given period until it can effectively compete with imported products? This merits a regional debate to establish a response that fits with the interests of the diverse actors in the African cotton sub-sector.
- (iv) How might agricultural and non-agricultural diversification really provide another route to adding value in agriculture for small farmers and what types are feasible – particularly in the Sahelian Zone? What concrete initiatives are necessary to support diversification? Who will invest funding for inputs, processing, marketing and transport links? How will producers be able to take up these activities?
- (v) The WAEMU proposal on developing regional processing capacity provides an example of what might be done at the regional level. Given past efforts with mixed results, how might support for a new regional textiles processing strategy really foster a profitable and competitive textiles industry in West Africa, given the existence of economies of scale for other powerful players in the international economy? How will West African producers be able to compete in the international textiles market with established low cost textiles producers in other regions as international policy regimes change – e.g. the end of textile quotas with the Multifibre Agreement in early 2005 or the new ACP / EU Economic Partnership Agreements in 2008? How can the relatively successful existing regional traditional textiles manufacturing industry be enhanced and competition from new industrial plant avoided? (e.g.; Kente and Faso Fani cloth)? Who will invest in processing?
- (vi) What other strategic roles could the regional organisations such as WAEMU and ECOWAS play, for example in the areas of: including cotton in the regional agricultural policy; addressing cotton in the Economic Partnership Agreements being negotiated with the EU and in establishing monitoring and regulatory activities on biotechnology? Further, how can the

challenges related to cotton addressed in the regional agricultural policy being developed by ECOWAS (ECOWAP)?

- (vii) What is the nature of domestic and international trade and agriculture policy impacts in African agriculture? What key adaptations of these policies will generate real gains for West African farmers? Will removal of subsidies really produce expected gains? More detailed evidence would be useful on which policies cause harm and to whom. Can we model the impacts of policy change on African farmers or other regions? Proposals to develop a policy impact monitoring mechanism are important here, as will be continued work on impact measurement by a range of international institutions.
- (viii) What types of non-agricultural diversification opportunities are available to Sahelian and West African farmers? Will they really provide a sustainable alternative another route to gaining a cash income and adding value? Where will the infrastructure come from? Who will invest? How will farmers be able to take up these activities? What will the State and external partners do to support and create such opportunities?
- (ix) What conditions are required to attract local and foreign investment to support cotton sector development and diversification?
- (x) In principle, both powerful and more vulnerable players in the international economy stand to gain from a functioning, transparent, rules-based trade system. How can options be developed where positive sum games can emerge? Related to this, how can institutional aspects of negotiation processes be adapted to take account of constraints felt by poorer nations? (e.g.; continued trade capacity building, transparency, etc.)?

VII. CONCLUSIONS

This review shows that cotton has and continues to have a critical role in producer livelihoods, agricultural development processes, contributing to GDP, wider development and poverty reduction and in generating significant foreign exchange revenues for a large number of West African countries. Further analysis at the field level in cotton zones would be useful in order to determine the evolving place of cotton in producer strategies, the actual contribution of cotton to livelihoods and poverty reduction and concrete alternatives and diversification opportunities emerging.

As a number of initiatives emerge to address the trade and development dimensions of African cotton, this paper provides data on the importance of cotton in West Africa, its evolving place in the economy, the challenges facing the sub-sector and action that needs to be taken urgently and over the medium and long term. In order to find a lasting solution to the difficulties faced by the cotton sub-sector and the competing interests of Northern and Southern producers, it is essential to continue to create opportunities for dialogue between different categories of actors in order to identify the most appropriate trade and development related interventions. This dialogue needs to be nurtured with impartial information on the key trends and challenges in West African agriculture and cotton production. It is hoped that this paper contributes to this process and the SWAC Secretariat is ready to continue to coordinate the production and dissemination of information on this topic..

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