Uganda’s Cotton and Textile Sectors: Current Production Challenges, Motivations and Effects on Development

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Uganda’s Cotton and Textile Sectors: Current Production Challenges, Motivations and Effects on Development

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Fall 2013
Uganda: Kampala, Jinja, Kasese District, and Gulu District
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Dedication & Acknowledgements

This report is dedicated to all the individuals who made my time in Uganda exciting and meaningful:

Thank you to all the organizations, individuals and lecturers including Nakatonzi, Rwenzori, Coo-Rom, TEXDA, Phenix, Southern Range Nyanza and all of the farmers who took the time to discuss issues regarding Uganda’s development.

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**List of Acronyms**

AGOA: African Growth and Opportunities Act  
AR: Above Range (cotton)  
BR: Below Range (cotton)

Bt Cotton: Genetically Modified Cotton  
CCB: Cotton Control Board  
CDO: Cotton Development Organization  
GADC: Gulu Agricultural Development Company  
Ha: Hectare  
LMB: Lint Marketing Board  
TEXDA: Textile Development Agency  
UGCEA: Uganda Ginners and Cotton Exporters’ Association

**Definitions:**

Inputs: implements used for production of a product, i.e. cotton seed for farmers or cotton lint for textile producers

Value Addition: the practice of improving or altering a product to increase its economic value

Value Chain: “a model of how businesses receive raw materials as input, add value to the raw materials through various processes, and sell finished products to customers.” (investopedia.com 2013)
Abstract

Current policies promote value addition industries and increased cotton yields. On the ground, however, cotton production and textile industries continue to lag behind previous rates of production. The study therefore sought to understand the conditions contributing to the current economic climate of the cotton industry. Once context was established, the researcher explored factors both promoting and discouraging cotton cultivation. Finally, the research explores the developmental consequences of increasing cotton and textile production in Uganda.

In order to meet the aforementioned objectives, the researcher carried out a value chain analysis of the cotton and textile industry, taking note of the policies most profitable for individual farmers and companies. A historical documentary analysis also provided insight into common tendencies in cotton production. Interviews and a focus group with farmers, ginnery operators, textile factory employees and other individuals with industry knowledge provided different insights into factors affecting the business. Site visits and participatory observation at ginneries, farms, and textile factories in Jinja, Kasese, Kampala and Gulu provided additional industry knowledge.

The researcher found that some efforts have successfully increased cotton cultivation by addressing challenges to production. However, the researcher also found increased production along the textile value chain does not insure industry cohesion. In addition, the methods currently being used to increase production lack sustainability. Although value chains and value added products could generate substantial income and jobs in Uganda, the cotton sector is not the area in which value addition should be supported. Cotton’s low profitability requires input subsidies in order to maintain farmer attentiveness to the crop. Without a domestic market for Ugandan-made textiles and cotton lint, international market volatility could jeopardize input subsidies, services and payment to farmers, leading to a steep production decline as occurred in the 1970s (Locke & Goeldner Byrne, 2008).

The researcher suggests further research into more promising sectors for value addition. Factors to consider when choosing a sector to investigate for potential value chain investment should include 1) food crops with high profit margins for farmers 2) labor intensive supply chains in order to increase employment and 3) a domestic market ready to receive value added products.
Introduction

Economic, geographic, and societal constraints affect all levels of the textile value chain. However, factors affect each actor in the value chain differently. Ginneries are highly affected by declines in cotton cultivation while farmers are more heavily affected by fluctuations in the prices of cotton. Textile producers rely heavily on clothing markets and international trends. By identifying and understanding the complex relationships between those involved in cotton, cotton processing and textile production one can seek out policy changes and business solutions that promote sustainable development.

This research explores the numerous factors promoting and inhibiting cotton production. After motivations and concerns are established, the researcher presents the impacts of current attempts to increase cotton production in Uganda. The researcher collected qualitative data through numerous methods to give a balanced perspective of the industry. Interviews, sight visits
and focus groups were carried out with farmers, cotton processors and textile producers throughout Uganda. Research was carried out in Kasese and Gulu districts as well as the cities of Kampala and Jinja. Additionally, an extensive literature review was carried out.

The researcher used historical and value chain analysis in order to identify trends in production, their causes and impacts. Jacques Trienkens (2011) explains, “value chains can also be seen as a vehicle by which new forms of production, technologies, logistics, labor processes and organizational relations and networks are introduced.” Analyzing the way business is carried out within value chains helps identify power relations between organizations and the countless ways organizations and business affect development.

The study was carried out in order to provide a better understanding of value addition and challenges the nation of Uganda confronts supporting the value chain of textiles within Uganda. By framing the study around the cotton industry in Uganda the researcher was able to identify specific ways in which industries and organizations involved in cotton value addition shift the ways in which Uganda develops.

**Background**

Since its introduction in 1903, the cotton industry has played a central role in Uganda’s economy. During the early colonization period, cotton established a strong presence as a major cash crop and export earner for Uganda. Forceful government policies and regulations pressured farmers to cultivate the crop. Cotton production grew rapidly as a result. Growth continued through the early post-independence years until the mid-1970s. At that time, poor ginnery and government management practices combined with a 1974/75-cotton price drop, beginning a long period of decline in cotton production. Since that time, any attempts to resume production have been quickly immobilized by continued cotton price fluctuations. One such example is the slight resurgence of production around 1985, which quickly regressed when cotton prices declined (Figure 3). A 1994 cotton price peak prompted restorations to the industry still in effect today. (Masinga M. Ruhweza A. 2007). Since that time government has encouraged production and investment in the cotton and textile industry from both the private and public sector. Liberalization and increased government interventions have been implemented with the goal of increasing cotton production and cotton value addition industries. However, forces of
privatization and government support are sometimes contradictory in their attempts to improve the cotton and textile sectors.

Most recently, the legacy of irresolute government policies surrounding cotton and textiles has manifested itself in the form of the Uganda National Textile Policy (2008), a policy that has not yet been fully implemented. President Museveni’s foreword to the policy emphasizes the potential benefits of value added industries. Value addition is defined as the practice of improving or altering a product to increase its economic value. For a nation to promote value addition along value chains, it must create domestic linkages between different members of a value chain. The foreword also explains that currently 90% of Ugandan cotton lint is exported with no additional value added, causing Uganda to miss out on opportunities to increase the worth of the product through yarn spinning or garment production. The policy promotes government and private industry support to cotton value addition industries as a path for development.

Uganda’s long history of intervention in the cotton sector leading up to current resurgence of interest reveals value addition is the newest trend in a long line of government interventions aimed at restoring the cotton sector to production rates similar to those achieved in the 1960s. History, however, reveals previous attempts to maintain high levels of cotton production failed due to management and pricing issues. This history presents a shaky background on which Uganda is hoping to promote future development.

**Justification**

Currently, 82 percent of Uganda’s labor force is employed in agriculture (Central Intelligence Agency). In addition “abject poverty is most prevalent in cotton producing areas relative to other parts of the country”. (Government of Uganda, 2008). Research should therefore be carried out with the intention of increasing the profitability of the agricultural sector for workers, thereby increasing incomes for the many Ugandans working in the agricultural sector.

A 2008 USAID report expresses the potential for value chain analysis to help address humanitarian issues such as rural poverty: “Combining value chain tools with those that exist and are well-known by humanitarian staff can add richness to the analysis and open dialogue about how to support long-term economic needs” (Locke & Goeldner Byrne, 2008). Value addition of cotton is being supported for a number of reasons: its labor-intensive nature has the potential to
provide numerous jobs, past production rates display that increases in production are physically feasible, and trade incentives such as the African Growth Opportunities Act (AGOA) suggest foreign markets are ready to purchase African-made goods.

It remains unclear why, given the numerous incentives for increased value addition industries, so few actually exist in Uganda. In fact at the time the policy draft was written, only two large-scale textile value addition industries were in production: Phenix Logistics and Southern Range Nyaza. Phenix Logistics has also halted production since that time, leaving a single large-scale manufacturer of textiles in production. Understanding this gap between policy and practice is critical in understanding how to better support value addition industries in the future.

As private public partnerships attempt to promote cotton farming and cotton value addition industries there is a need to identify causes of previous failures in production and assess whether private public partnerships supporting cotton value addition address these concerns. The cotton sector is of particular interest due to its historical significance as well as current attempts to increase cotton production and textile manufacturing. The researcher intends to study the effects of national promotion of cotton production on Uganda’s development, particularly among those working in the agricultural sector.

**Objectives**

The following are the main points of focus for this study:

1) Identify historical trends in Uganda’s cotton and textile production industries
2) Identify factors inhibiting production of cotton and value addition industries within Uganda
3) Identify factors promoting production of cotton and value addition industries within Uganda
4) Identify impacts of increased cotton production and textile value addition on development

**Methodology**

A wide variety of methods were used to obtain qualitative understanding of Uganda’s cotton and textile sectors. Sampling was purposeful and consisted of identifying actors in the
value chain through secondary sources followed by primary data collection. Disadvantages of each method were accounted for and mitigated through diversification of data collection methods, helping to triangulate accurate data. Advantages provided by certain methods such as the speed and low costs of many rapid rule appraisal methods were also utilized to collect reliable data within the allotted time frame and budget. Limitations include the small number of sights visited. Eastern Uganda is a major cotton-producing region; the researcher’s omission of the area on site visits was a result of cost and time constraints. It may bias findings to reflect cotton sector issues for just Gulu and Kasese districts.

Formal interviews:

Formal interviews were one of the most important methods for identifying trends and factors affecting production for cotton and textile producers. Interviews were carried out with members at numerous points of production along the value chain of textiles including ginnery operators and textile manufacturers, as well as those with expertise in the industry (Figure 5). Different survey schedules were constructed for the various members of the value chain. Interviews were carried out in a semi-structured format allowing discussion to expand beyond questions prepared in the interview schedule. While formulating questions for interview schedules, the researcher gave priority to open ended questions. Open-ended questions were also placed before more focused questions on the interview schedule so the subject would not be biased from the perspective of the researcher. Instead, these questions allowed respondents to identify their own concerns and subsequently facilitated discussion.

Open-ended questions prompted interviewees to direct the interview according to their opinions and expertise. As a result, dialogue was more organic and prevented bias of leading questions. The open-ended format also allowed the researcher to learn about topics not encountered through other data collection methods, leading to a rich diversity of responses. However, a major drawback to this approach was the amount of time spent discussing topics not directly related to the study. In order to maintain focus, the researcher reiterated the attention of his research and proceeded to the next question on the question survey.

One significant limitation was the inability to get clearance to speak with government officials. Following a brief meeting with the Cotton Development Organization (CDO) the researcher was informed they could not continue interviews with members of the organization.
Although CDO’s unwillingness to participate left a gap in research, the researcher collected presentations and documents from the CDO to identify their general policy positions. Location of the interviews was also a challenge. Most interviews took place in the participant’s workspace, oftentimes leading to interruptions. In the future, interviews should be carried out during the participant’s work break and in a location where they will not be disturbed by phone calls, visitors or other work related distractions.

Information gained through formal interviews was used to assess perceptions of production barriers, identifying additional barriers to production and questioning factors influencing trends in production. The method proved effective in providing data regarding research objectives.

Informal interviews:

Informal interviews were conducted similarly to formal interviews. Interview schedules were sometimes used, although not as frequently as in formal interviews. Informal interviews were often carried out in conjunction with site visits, such as farm and factory tours. As a result, most informal interviews were carried out with individuals focused on the technical aspects of cotton production, while formal interviews were more often carried out with individuals in management positions. The different perspective offered by individuals involved in technical aspects of cotton production made informal interviews a worthwhile method for compiling a thorough report of trends in cotton and textile production.

Despite similarities to formal interviews, informal interviews presented unique limitations. Given that interviews occurred during site visits, it was difficult to record information shared while still observing the actual site. As a result, transcriptions from informal interviews are typically briefer. Language barriers requiring the use of a translator were also more common in informal interviews. To ensure translator accuracy the researcher asked numerous follow up questions to respondents. Additional questions were successful in overcoming response brevity, which was typical when employing the use of translators.

Participant observation:

The researcher visited multiple communities in Gulu district; including Amuru, Atiak, Pabo, Pawel, Olwiyo and Alero. During this time he worked with two senior area coordinators in
organic crop production for the Gulu Agricultural Development Company (GADC). The researcher assisted in selling agricultural inputs to farmers at rates subsidized by the organization. In addition, the researcher visited crop demonstration plots and local farms. Interacting with farmers and visiting demonstrations plots provided useful insight into the technical details of organic cotton production. The two staff members assisting the researcher shared valuable information on cotton production, trends in crop production, and difficulties of working in the field. Language was not a major barrier as the two staff members’ spoke English with one another. This allowed the researcher to observe and interact in informal conversations related to the work being done.

Participatory observation was effecting in explaining how organic cotton production differs from conventional cotton production as well as identifying barriers and incentives for organic cotton production and marketing. One advantage of participant observation gave the researcher the ability to meet with more farmers and observe more areas in a short amount of time than would have been feasible through non-participatory observation. Instead of scheduling meetings with individual farmers, the researcher was able to ride along with the senior area coordinators, observe and talk to multiple farmers each day.

As a participant within an organization, the researcher had to remain conscious that data might be skewed. Both by the small geographical area of participation and the fact that GADC is the lone producer of organic cotton in Uganda both presented notable limitations. The researcher accounted for this by visiting non-organic (conventional) cotton producers, visiting other regions of Uganda, and doing additional literary research.

The ability to quickly identify motivations and barriers behind cotton production for both farmers and ginners made participant observation an integral data collection method. Data collected through participation in ride alongs would have taken much longer and been much more expensive without the participatory component. The researcher’s participation in GADC’s activities allowed him to observe a large geographical area cheaply (at the cost of the organization) and interact with more members of the organic crop value chain than would have been possible otherwise.
Non-Participant Observation:

Primarily used to triangulate issues, non-participant observation allowed for unstructured exploration of trends and factors involved in cotton production. Non-participant observation solidified the researcher’s understanding of issues referenced in literature, interviews, and sight visits. In addition, the researcher was better able to gauge the impact of the cotton value chain on public discourse and national development through non-participant observation.

One challenge of this method is the tendency to overvalue issues observed while downplaying factors not seen in person. In order to give scale to phenomena observed through non-participant observation the researcher took note of the observation and carried out further research, often through review of reports or questioning others about the topic during conversations and interviews. Awareness of factors including location, timing and the effect of outsider observation on individuals were also important in preventing misjudgments based on short observations. Non-participant observation was highly effective in providing innate knowledge of the cotton industry in Uganda. It also assisted in generating new questions and identifying areas of further interest for interviews and literature review. As a method of data collection it was useful for a number of reasons. No expenses and little time required to take note of observations made non-participate observation an easy method to incorporate into research.

Site Visits:

Site visits were carried out at three ginneries, three textile producers, two conventional cotton farms, three organic cotton farms and test plots, a local textile producer’s retail store, and a preliminary site visit to a future textile manufacturing plant. Contacting individuals and organizations for site visits was a challenge, as many did not respond to emails or phone calls. To address this issue the researcher used multiple methods of contact in addition to visiting locations in person to schedule meetings or ask for permission to tour facilities immediately. Letters of introduction assisted in increasing the formality and participant trust in the researcher while carrying out unscheduled visits. The nature of unscheduled visits may have also been an advantage, giving little or no time for organizations such as ginneries or even individual farmers time to change behavior as a result of being observed. Despite these challenges in data collection the researcher felt observation was a successful method of collecting data on the fundamentals of the cotton and textile industry.
Observation was also helpful in verifying information obtained through interviews and readings. The researcher was able to ascertain functions performed by different members of the cotton and textile value chain. In addition, it assisted in identifying trends in production. Site visits led to many additional unstructured interviews, where respondents provided explanation and answered questions about what was being observed. Non-participant observation and site visits were effective in acquainting the researcher with the industry and its many dynamics. The limited scope sight visits provided was supplemented with information gained through other methods including interviews and literature review.

Focus Group:

One focus group was carried out to gain a general consensus of opinions held by farmers in Olwiyo village, Alero, Gulu District. The focus group provided an understanding of major concerns for farmers, concerns repeated by previously written research on cotton production and farmer’s interests in other areas. Size was of importance; with roughly 80 participants, hearing the concerns of each individual participant was unmanageable. Splitting the large group into smaller groups could have addressed this concern. The researcher also noted the importance of keeping focus groups brief, as the group quickly became impatient.

One necessary limitation was the use of a translator as many local farmers could not express their opinions in English and the researcher did not comprehend Acholi, the local language. One limitation was present in the focus group was the translator’s position as a senior area coordinator for organic production. His position may have skewed answers to present organic production more favorably. However, responses coincided with previous research regarding farmers key concerns and criticism of organic cotton production was also voiced, suggesting the translator’s role did not bias answers received.

Despite its challenges, the focus group was highly effective in conveying farmer’s main concerns. The brevity with which it provided data on the community’s interests regarding agriculture was also extremely convenient given the short time spent in the area. This research collection method gave farmers concerns more weight in the researcher’s final assessment and recommendations for Uganda’s cotton sector.
Documentary review and analysis of reports and institutional documents:

Review of reports, research, and literature was the mainstay for findings regarding historical trends in cotton and textiles. Review and analysis was used in order to inform the researcher of previous trends in the industry. Knowledge of previous trends in cotton and textile production assisted the researcher in understanding the talking points of the industry and how current trends originated. Limitations include insufficient statistics on current cotton production in Uganda since the researcher was unable to work with the CDO. Reviewing online statistics and combing through reports for data on production mitigated the lack of consolidated statistics.

A number of different types of documents including news articles, organizational reports, government documents and books were used to ensure a balanced perspective. Access to information and reliability of information were major challenges for this research method. Most information was accessed through online databases or websites, although a number of books were also used to provide perspective. Specifics regarding pricing and production rates were difficult to distinguish. The problem was most evident in organizational reports, which often had poorly labeled graphs or only identified high and low points for market indicators. In order to ensure validity of information, an extensive literature review was carried out and most facts such as cotton prices and production rates can be verified by multiple sources. The large scale of literature review also mitigated the bias of authors on the eventual findings of the study. Information gained through literature was organized using a number of methods including and the highlighting key passages for reference while reading and construction of a timeline (Figure 9). In the future the researcher recommends additional time for organization and more extensive use of memos while reviewing cut down on time spent re-reading documents.

Value Chain Analysis:

Another tool to understand current barriers to production is value chain analysis (Trienekens, 2011). Value chain analysis requires study of every group involved in the production of a product through observation, interviews, literature review, and analysis. To inform the objectives of this study, the researcher identified activities which add significantly to value and which activities do not profit enough to justify their costs. This system seeks to maximize profit and efficiency within an industry. Although profit may be secondary to job creation and value addition for the government of Uganda, previous failures due in part to
inefficient management suggest the need for a more robust and profitable industry in order for long-term sustainability.

Ethics statement:

The researcher was committed to ethical practices throughout the research period. Before all formal interviews, the topic and academic purpose of the study were explained. Interviewees also read and signed an informed consent form outlining the methods and purpose of the study as well as providing contact information, should participants wish to contact the researcher with any additional questions or concerns. Informal interviewees, guides, and translators on site visits gave verbal consent before photographs were taken. Informal participants also gave verbal permission for the information gathered to be attributed to them in this paper. When asked, the researcher observed the right to anonymity and confidentiality regarding information shared “off the record”. Participants have received credit in this final report for information and ideas shared unless the condition of anonymity was requested.

Findings

The study identifies numerous historical and current trends surrounding production of cotton and textiles. Challenges and motivations behind the production of cotton and textiles have also been recognized and explored. Recurring themes affecting production include government involvement, the impact of cotton prices on production and difficulties promoting sustainable investment and development in the sector. Before investigating current trends in production and the challenges and motivations to production associated with those trends their place must be identified within a historical context. Following identification of trends, the researcher will assess the cotton industry’s impact on Uganda’s development.

Historical Trends in Uganda’s Cotton and Textile Production Industries

Cotton and textiles have long been important crops for Uganda’s economy. However, social, economic and governance issues have also affected the cotton value chain, surrounding it with contention. Many of the current trends in cotton production have their origins in earlier, often-controversial policies and practices. The history of the industry in Uganda can be organized into four phases. The general trend of production was steady growth in the sector from
the crops introduction through the early years of independence. Following growth was the decline of the industry in the 1970s, which continued through the 1980s. Currently, numerous approaches are being attempted in order to revive the sector and contribute to Uganda’s development. Uganda has initiated privatization of the cotton sector, while at the same time increasing government presence in the industry, with resulting production rates still miniscule when compared the once-enormous industry.

*Colonial Period:*

First farmed in 1903, cotton quickly gained traction as Uganda’s major cash crop. By the mid 1930’s production reached 60,000 tons (Baffes 2009). One of the most divisive methods used to encourage cotton production during colonial rule was the enforcement of a poll tax used to supply the British textile industry with cotton. Baffes (2009) explains the poll tax as “forced-labor conditions” because cotton was the only crop able to generate cash to pay the tax. The law was officially removed prior to World War II. However, the practice continued until independence, and refusal to plant the crop resulted in imprisonment. Forced promotion of the crop early on displays an unconcealed disregard for farmers’ interests on behalf of the colonial rulers. Early requirements of cotton production set a precedent for cotton cultivation in Uganda that continues to this day. Mandatory cultivation is no longer government enforced. However, ginneries can, and still do, lease out land to farmers and require production of cotton on the ginnery-owned property (Nakatonzi, 2013). Ginnery land ownership ensures ginneries with cotton supply, safeguarding profitability, but could be seen as continued forced cultivation for farmers who are unable to afford their own land.

Colonial governance also set the stage for heavy government involvement in regulation of the cotton sector. In 1933 Cotton Control Board (CCB) increased government restrictions considerably with the passage of the Cotton Zone Ordinance. The ordinance established fourteen zones; each was allotted a ginnery that maintained a monopoly on its zone’s harvest. Furthermore the ordinance enacted a minimum price scheme (Lundbæk 2002). Although this heavy government involvement could protect farmers from sharp price declines, it ultimately served the interests of ginneries by ensuring farmers would produce cotton instead of more lucrative crops since cotton received government price protection.

The Lint Marketing Board (LMB), a government body established with the passage of the
Lint Marketing Board Act (1959), also took an active role in the textile industry. According to Masinga and Ruhweza (2007), the LMB held a “monopoly on domestic and international trade of cotton lint and seed, with ginning and marketing functions vested in the cooperative unions.” The LMB also took on marketing and regulation responsibilities as time progressed (Baffes 2009). Both the LMB and Cotton Zone Ordinance were in place until 1994, although their roles essentially evaporated with the collapse of the cotton industry during the 1970s and 1980s. Despite recent industry privatization, legacy of government involvement established during colonial governance remains to this day.

Colonization was formative not only in introducing the crop but also introducing social and governmental structures for the cotton value chain. One of the most notable social structures brought on by colonization was the influx of citizens from other British colonies. During the colonization period, post-harvest activities such as ginning, marketing, and trade were controlled by a mostly Indian private sector (Baffes 2009). The influence of early immigrants can still be seen today in numerous ancestral Indians taking part in production (Rwenzori Cotton Ginners Company Ltd.; Southern Range Nyanza; Fine Spinners Ltd.).

The overarching legacies of the colonial period on cotton production are numerous. Heavy government control of the industry, manipulation of incentives to farmers to promote production and a foreign-owner dominated processing sector are all continued legacies with foundation in Uganda’s colonial period. Most importantly, it founded a legacy of cotton cultivation within the nation. Early cultivation of the cash crop also prompted monetization for the capital-lacking nation, creating associations between the crop and economic wealth.

Post-Independence Growth Period:

Following independence in 1962, cotton production continued to increase, and in 1969 cotton production peaked at 84,000 tons (Baffes 2009). The stable cotton prices experienced during colonial rule continued throughout this period. The price stability of this period is especially remarkable when compared to the volatile price fluctuations occurring from the 1970s onward (Figure 2). Price constancy may have made reliance on cotton exports appear to be a sustainable development strategy during this time. The newly formed government promoted cotton farming as a result of its relative price stability and historic economic significance.
Exports for the newly self-governing nation relied heavily on coffee and cotton (Masinga M. Ruhweza A. 2007).

Co-operatives along with block farms established near the end of the colonial period expanded during the post independence years as the cotton sector became increasingly nationalized. Competition among ginners declined and a few years after independence co-operatives took over all ginning operations. The climate of decreased competition allowed cooperative ginneries to continue their monopolies on cotton purchases within zones established during the colonial era.

Baffes (2009) notes that growth during the post- independence phase was unsustainable as it was based on expansion of land devoted to crop production. During the growth period actual yield per acre decreased. Land expansion for cotton production was spurred by high prices paid (on credit) to growers, which could not be maintained long-term. The price stability of the period had emboldened cooperative management, leading unsustainably high payouts to farmers, which promoted production in the short term but proved unsustainable for ginneries. Poor business practices caught up with many co-operatives, who failed to pay farmers in a timely manner or bought cotton on credit and never paid farmers (Locke R, Goeldner Byrne K 2008).

The use of credit for farmer payment was short sighted in its assumption cottons value would remain stable. Price fluctuations increased as globalization took hold. Although the system boosted production for the short term, its lack of foresight invited in the period of decline as soon as political and price stability was disturbed.

Despite the cooperative system’s eventual failure, co-operatives and co-operative-like institutions are receiving renewed attention as a way to increase cotton production (Locke R, Goeldner Byrne K 2008). Renewed attention is not unfounded, the 84,000 ton production high under cooperative management in the post-independence period is covetable compared 2011 production of 25,587 tons Uganda’s Statistical Abstract (2012)). The ultimate demise of production following this period of prosperity emphasizes the caution necessary when managing ginneries under a cooperative (Figure 1). If public institutions are to be revisited they must learn from past failures. In order for ginneries to be sustainable, cotton prices paid to farmers must be balanced in a manner that provides sufficient economic motivation for farmers to grow cotton while keeping the ginnery profitable.
Era of Decline:

Growth following independence was misleading. Unsustainable increases in land use for cotton cultivation, political turmoil, and poor management all destabilized the industry. Decline in world cotton prices deepened the impacts of mismanagement. Inability of the industry to bounce back following price increases (Figure 3) shows the necessity of proper management in addition to good pricing. Current actions to revive cotton production are focused on reversing the trend of decline begun in the mid 1970’s.

Management of the cotton sector was further damaged under the Amin regime. Expulsion of Ugandan Asians in 1972 and subsequent Properties and Businesses (Acquisition) Decree of 1973 (Asiimwe A, 2012) shook up the management of many post harvest industries. Historically high involvement of Ugandan Asians in post-harvest processing meant expulsion of Asians also resulted in management turnover for many businesses.

Management problems also plagued government institutions. The LMB’s monopoly on cotton lint and seed sales (Ahmed M., Ojangole S., 2012) became an issue as the decade progressed. According to Baffes (2009), “the administrative expenses of the Lint Board for one bale of cotton rose from UGX66 in 1970 to UGX618 in 1979, an almost 10-fold increase.” Increased administrative costs diminished profits to farmers during this time, further discouraging cotton trade.

In 1972 cotton production was still around 78,000 tons, not a significant decrease from 1969 peak production of 84,000 tons (Baffes). While the trend of decreased production had begun, it hit full stride when the Amin regime’s policies were coupled with a 1974/75-season decline in crop prices (Figure 2). By 1976 cotton production fell to 14,000 tons (Baffes 2009). The fluctuation of 1974/75 was the largest price decline seen in Uganda’s independent history. While the market recovered quickly, the fluctuation combined with mismanagement was enough to impede production for years to come (Figure 1; Figure 2). Following its collapse in the seventies, cotton production continued at a substantially lower rate, reaching a record low of 2,000 tons in 1987 (Baffes 2009).

The productive legacy of Uganda’s cotton industry is tarnished by this period of decline. As the nation attempts to develop, efforts are being made to distance the cotton industry from the
problems it had in the 1970’s and 80’s. The Cotton Development Organization (CDO) has replaced the LMB. Idi Amin’s regime has fallen and Asian-Africans have returned to Uganda, reclaiming their businesses and once again taking part in cotton production (Asiimwe A 2012). However one significant contributor to cotton’s decline remains a threat to development: price volatility of cotton on the world market has only increased since the 1970’s (Figure 2). Any attempts by the Government of Uganda to distance its farmers’ reliance on world cotton prices by bolstering in-country consumption of cotton risk a return to government maladministration.

_Era of Renewed Interest (current):_

Actors from the private sector as well as Uganda’s government have recently resumed attentiveness to the potential of the cotton value chain as a driver of development. Reinvigoration of the industry occurred in 1994 when cotton prices peaked at US$0.43/kg (Masinga M. Ruhweza A. 2007). At the same time liberalization of the cotton industry took hold with the liquidation of the LMB and establishment of the CDO (Baffes 2009), who works in partnership with private industries dealing with cotton. The CDO has taken on many of the same functions of the LMB since that time. Similar responsibilities include provision of inputs, regulation of the industry, marketing and setting prices (although the CDO does this in conjunction with private industry Uganda Ginners and Cotton Exporters’ Association (UGCEA) (Cotton Development Act 1994). The striking similarities of the CDO to previous government institutions suggests the liberalization of Uganda’s cotton industry is mostly superficial, with government still maintaining considerable control over production. Liberal reforms such as the Cotton Development Organization Act (1991) had been passed earlier but were left uninitiated, substantiating the claim that it was a increase in cotton prices, above all else, which encouraged recent industry interest.

Since 1994, a number of partnerships between the public sector (through the CDO) and private sector have been enacted to increase cotton production to pre-decline levels. Publicly private-public partnerships are hailed as successful bringing about major investment and increases in production. Production has risen since this time, although nowhere close to pre-decline levels (Figure 3).

A number of factors, many promoted by the Ugandan government, seek to increase value addition and domestic trade ties between farmer, ginneries and textile producers. However the
numerous challenges in production faced by every level of the value chain must first be explored in order to assess how well increasing production and value addition will meet their needs.

Government attempts to balance liberalization while nurturing the cotton and textile sector has placed the government once again in the middle of the industry. The government supports privatization and foreign investment while, at the same time, attempting to protect local industry and production through involvement in the sector. Though the role of private firms has increased, industries most invested in Ugandan value addition have strong economic and political ties to Uganda’s government. The Ugandan government has increased its economic interests in the cotton and textile sector to such an extent that it can no longer regulate the industry without bias.

Cotton and textiles roles in the national economy are diminishing, however government attempts to support growth and small surges in production make it difficult to define a clear trend in the industry. This is telling of the lack of cohesion in policies and interests surrounding the cotton and textile sector where interests, sometimes even two government interests, butt heads. Despite a lack of clarity in the industry’s general direction is fair to say Uganda’s cotton and textile industries have not made a significant and sustainable revival in recent years. In Uganda’s 2012 statistical abstract, cotton was not even listed as a cash crop for the nation. Fluctuations on the chart “Cotton in Uganda” reveal cotton’s instability even as an export, for which it used to be a mainstay. Current production rates wax and wane, responding to
international prices as well as input subsidies provided by the CDO and ginneries. Most recent data suggest the trends of fluctuation in production have continued up until today as evidenced by the surge and decline.

Factors Inhibiting Production of Cotton and Value Addition Industries within Uganda

Farmers:

Farmers face a number of interrelated production challenges. Low profits result in low farmer capital, which means less money for labor and pesticide costs, resulting in lower quality harvest and increasingly lower profits. The cycle of poverty and production is a major barrier for farmers and was a common thread among farmers from all regions visited.

Many physical barriers to production are linked to poverty or issues of governance. Lack of land in the Kasese region as well as concerns of animals trampling cotton harvests (Mugisha 2013) are both due in part to nearby Queen Elizabeth National Park. Weather problems such as drought were also raised; since many cotton farmers are too impoverished to afford irrigation they are left to rely on rain to supply their crop with water. Cotton requires considerable capital for production. Without sufficient income, farmers in rural areas, such as Kitgum and sites visited in Gulu District, are currently unable to support a private market for farm inputs (Locke R, Goeldner Byrne K 2008). Those unable to pay for inputs including labor and pesticides are affected by weeds and insects damaging the cotton’s growth and bolls. Farmers such as those in Gulu district, where land is cheap, are unable to access tractor rentals and other inputs such as oxen and plows. As a result, farmers with large plots are unable to cultivate all their land. On the other hand, farmers in Kasese, where land is expensive, must have considerable funds to even begin production.

Lack of storage facilities for crops is another symptom of low capital among farmers. As a result cotton is often stored in homes, where the quality is compromised by dust and dirt.
Farmers must split cotton into two grades before selling to ginneries: above range (AR) and below range (BR). AR receives normal cotton prices while ginneries only pay half price for BR cotton (Maganda 2013). When quality is compromised farmers receive lower prices, further demotivating them and decreasing the chance of continued cotton production.

Quality is also negatively affected by the early sale of cotton crop. Brokers go directly to the field, inciting day laborers to pressure landowners to sell the crop early. Sales to field operatives are disliked by farmers since brokers buy even AR cotton at prices lower than those offered at ginneries (Olupot 2003). Farmer distrust towards brokers was also observed in informal interviews in Kasese district and Locke & Goeldner Byrne’s (2008) report. Since day laborers receive wages they have no interest in ensuring cotton is of higher quality to fetch higher prices. Brokers often receive a commission by sale and have little concern for quality since buying early gives them a longer marketing season in which to work. Ginneries also have fewer reasons to be concerned about decreased quality, since they can still maintain profit when they buy BR cotton at half price and are still able to sell it for making blankets (Maganda 2013). As a result farmers are the most economically affected by declines in cotton quality. Any attempt to bolster the cotton and textile value chain must include the support of farmers, who supply the raw seed cotton. With poverty as their main concern, any efforts to increase production must also increase farmer’s incomes.

Maintaining profitability is a challenge for those farmers who are able to afford the costs of production of a high quality crop. High costs of inputs such as seed, pesticides, fertilizer in addition to the cost of land and labor, are coupled with cotton’s low value per Hectare (Ha) (Figure 4) result in narrow profit margins. One farmer in Kasese said during good years she invests 3.5 million Ugandan shillings in production costs and sells her crop for 5 million. However, she also said some years she makes a loss by selling her crop for less than the cost of production. Since cotton is not a food crop and cannot be consumed by the farmers themselves, farmers have no choice but to sell, even if they earn a loss. Smallholders find this payment system problematic compared to food crops, which can be consumed at home or sold bit by bit in local markets.

Cotton’s annual marketing season provides farmers a single opportunity to sell all their harvest to cover production costs. The once-seasonal payout system presents additional challenges to production costs since laborers are paid daily. Daily payment to workers and
annual payout to farm owners means owners must pay workers on credit and hope the end of the year harvest will cover debts incurred in paying production costs. If farmers feel they will not be able to pay off loans they may abandon production to save the money instead of wasting it on input costs for a crop they feel will earn a loss. Volatility of cotton’s market price makes it difficult for farmers to know if harvest will cover the cost of production. This discourages farm production, since it is difficult to rely on the prices posted by the CDO at the beginning of each season to ensure production will be profitable.

**Ginneries:**

Ginneries are affected by many of the same factors as farmers, including price fluctuation. However, their position in the middle of the value chain allows them to adjust buying price of seed cotton and selling prices of both cotton lint and cottonseeds. By adjusting these prices, ginneries are able to protect themselves from extreme fluctuations in cotton prices.

One of the biggest challenges ginneries face is maintaining cotton supply (Mungisha 2013). Ginneries must strike a delicate balance of paying farmers high enough prices as to encourage cultivation but low enough prices to ensure ginnery profitability. Factors threatening ginnery profitability include Uganda’s poor export location since exported cotton is trucked to Mombasa, Kenya before being shipped abroad (Locke & Goeldner Byrne, 2008). Poor infrastructure increases the expense of shipping cotton lint. It also makes access to farmers and their harvests more difficult and costly. Weather also affects ginnery profits; rainy weather can affect machine productivity (Rweanzori 2013) as well as damage cotton being stored in storage warehouses, while overly sunny weather and droughts threaten the cotton supplied by farmers.

**Textile producers**

A number of factors have prevented the establishment of new textile producers and present challenges to current textile producers. High costs of production, lack of domestic market access and unpredictability of international textile orders are all significant barriers to textile production.

Much like other members of the value chain, textile producers find high overhead costs a major challenge in production. Factors contributing to the high cost of production include high energy and transit costs due to unreliable infrastructure. Other overhead costs include the price of
machinery imported from abroad, often Europe or the U.S. In addition to purchasing the
machines, companies must keep multiple spare parts at all times, since time to ship new spare
parts from abroad would result in huge losses in production.

In addition to importing machinery, textile producers import raw materials for
production. Southern Range Nyanza, a large textile producer located in Jinja imports, buys
cotton at competitive prices from world markets although a portion is sourced in Uganda.
Southern Range Nyanza also noted Ugandan cotton is not fine enough for tops such as button up
shirts, it could only be used for bottom such as shorts and pants (Daftary 2013). TEXDA, a small
hand-loom weaving company, located on government property but still under NGO status,
imports yarn used for spinning as well as dyes (Kirabo 2013). Phenix, an organic clothing
producer does use organic cotton from the north for knitted clothing such as t-shirts and
underwear although items like buttons and permastays for shirt collars must be imported. This
example of domestic value chain cohesion is however, not the norm. Phenix, a company who’s
majority shareholder is the government of Uganda, was commissioned by the government to buy
organic cotton from Northern Uganda as a way to encourage citizens to leave internal
displacement camps following the conflict with the Lords Resistance Army and return to farming
and agriculture (Lwanga 2013).

Another concern presented by representatives from TEXDA and Phenix, both companies
with government affiliation, was difficulties receiving money from the government. In addition,
the lack of implementation on the National Textile Act has left the industry unregulated. As a
result the Ugandan textile market is flooded with secondhand clothes from abroad as well as
cheap new products from Asia. Challenges entering Uganda’s casual clothing market means the
only industries succeeding have found niche markets. While they produce some clothing and
cloth for the open market both Phenix and Southern Range Nyanza produce basic clothes for
school and work uniforms. Because of this focus both companies identified Asian-produced new
products as a larger challenge for their company than secondhand clothes, which are easy for
consumers to differentiate.

Government policies from abroad have been equally non-beneficial to Ugandan textile
producers. Notably the African Growth and Opportunities Act (AGOA) attempted to support
production of African textiles through reduced trade barriers. However, Phenix, a company
created to fill the organic niche in international markets has been unable to sustainably take
advantage of the trade agreement. Although Phenix did export under AGOA in the past, the recession of the late 2000’s hit the Phenix’s buyer hard, ending Phenix’s exports to the USA. Other challenges with AGOA include the small capacity of many Ugandan operations as well as issues with quality control and internationally certified working conditions. Inability to rely on foreign markets has forced Phenix to shift focus to domestic markets, which has been a tough transition given the hyper competitive environment of the Ugandan textile sector.

Factors challenging production of textiles are numerous, poor management has led to the collapse of previous industries and the few surviving have little room for expansion in Uganda’s constricted clothing market. Mixed involvement of government in the industry has helped sustain a number of producers and also promoted value chain linkages, however such interventions also allow poor management practices or unprofitable businesses to continue until political support falls, as was the case with LAP Tri-Star a previously failed garment producer (Lwanga 2013). In order for the textile industry to thrive in Uganda the nation must find access to more stable markets, decrease costs of production through improved infrastructure and improve quality and capacity of production. However the high costs associated with updating the industry brings into question the motivations for production textiles in Uganda.

Factors encouraging production of cotton and value addition industries within Uganda

The overarching motivator for farmers, ginners, and textile producers is profit. However, different trends assist each of these actors in achieving profits. Liberalization is helpful in improving prices farmers receive but hurts profits to gineries. Government promotion of improving the textile value chain and calling for increased cotton production is beneficial to cotton ginners, who want more cotton in order to maximize production during marketing season. One of the most promising ways to increase production and cotton and improve all levels of the value chain would be a switch to organic cotton. Organic motivates farmers with better prices, thereby producing more for gineries.

Liberalization:

While not all of liberalization’s impacts have been positive, farmers have benefited from privatization of ginning industries. As gineries compete for seed cotton harvests prices farmers receive goes up. Farmers can now keep over 60 percent of their cotton’s market value, as
compared to little as 12 percent under the nationalized system in 1983 (Masiga M., Ruhweza A., 2007). This increase in percentage of cotton price paid to farmers may have reduced ginnery profits but regardless of its source, increasing prices benefits farmers involved in cotton production and their communities where poverty is more prevalent, relative to the rest of Uganda (Government of Uganda 2008).

Following the impact liberalization has had on farmers and their communities. It has resulted in increased connections to international markets. Between 1994 and 2000 Uganda’s cotton exports increased roughly 10 percent per year (COMPETE 2002). Many Indian businesspeople have also reentered the Ugandan cotton industry. Textile producers Southern Range Nyanza Ltd, and newly opening Fine Spinners Ltd. have Indian management (Erebu 2013). In addition, many private ginneries have African-Indian owners (Olupot P. 2003). Textile trade education connections are also present between Uganda and India under new polices. Upper management and specialized technical workers encountered during field research attended University or trade school in India for education in textile production though the magnitude of this trend remains unexplored (Nanyonjo 2013; Daftary 2013). Return of Indian businessmen reflects a larger trend of international investment in Uganda’s cotton and textile industries, a trend heavily encouraged by the Ugandan government.

_Government promotion of value addition industries:_

In order to attract businesses, the government has sold off state owned ginneries and textile production companies. The government has also adopted a policy of selling off state owned land to private industries to attract investment (Bomuhangi, Doss, & Meinzen-Dick, 2011). Government research, policies and brochures all have the aim of increasing production along with foreign investment throughout the cotton value chain. A number of brochures including *Cotton from Uganda* (International Trade Centre, 2011), *Turning a Government Mill into a US$10 Million-and Growing Business* (Uganda Investment Authority) and *Invest in Uganda’s Cotton Sector* tout investment opportunities within Uganda. In addition to private sector promotion, the government has instituted policies to further support and encourage production of cotton and textiles within Uganda.

Companies like Phenix have been kept afloat thanks to government promotion following withdrawal of international investors. However, the sustainability of this system is in question.
since Phenix is not currently producing goods. The current halt in production is a result of insufficient capital to purchase enough cotton for yearlong production (Lwanga 2013). The CDO’s negative stance on organic is also contradictory to the government’s position as the majority shareholder in Phenix logistics, a company specializing in organic products. Contradictions of the CDO once again fail to support textile producers, instead protecting the interests of conventional ginners.

Growing Organic Cotton:

Conversion to organic cotton production could reduce concerns of low cotton prices and profitability for farmers. Organic production could also decrease the high subsidization of inputs required to promote conventional cotton. Organic cotton receives price premiums, making it more profitable than cotton. In addition to environmental preservation, international investment, price premiums and reduced costs of production are major motivators behind the movement.

However past attempts to convert to the crop have been unsuccessful in prompting an industry-wide shift towards organic. A malaria prevention programs in Lira district resulted in the districts disqualification from organic production since homes, where cotton is often stored post-harvest, were sprayed with DDT (Maganda 2013). “In the 2007/2008 season about 50% of the cotton areas embarked on en-mass promotion of organic cotton production. Due to lack of proper training and availability of inputs the pest incidence caused the loss of about 68% of the yield in those areas” (Horna D, Kyotalimye M, Falck-Zepeda J, 2009). The 2008/2009 further decreased the popularity of organic cotton when bollworms infested much of the crop. However decreased yields are typical for the first few years in areas converting to organic production, meaning the major disadvantage to organic production is only a temporary concern (Eyhorn F., Ratter S & Ramakrishnan M 2005).

Despite previous failures, the numerous benefits of organic production over conventional cotton merit additional attention. Price premiums on the international market make organic potentially more profitable for farmers than conventional cotton (Horna D, Kyotalimye M, Falck-Zepeda J, 2009). However there are concerns cotton farmers in Uganda do not receive these premiums. This concern could be a result of ginneries like Coo-Rom who pays conventional cotton prices during the marketing season before paying a “bonus”, which is actually the price premium at the end of the marketing season (Oboth 2013). Payment is carried
out in this way for two reasons, first to prevent non-organic farmers from attempting to sell their crop as organic during marketing season. Secondly this system of payment is a response to complaints from conventional ginneries that price premiums offered by Coo-Rom give them an unfair advantage in attracting farmer’s harvests.

In addition to price premiums the cost of production is lower with organic since all pesticides are produced using local ingredients and are non-harmful to the environment. While the method is more labor and information intensive it eliminates the need for imported pesticides and empowers farmers to maintain their land sustainably. The GADC also has many outreach services to assist organic farmers, including technical training in pest prevention and crop management as well as subsidized inputs such as tarps to assist in crop storage.

Despite these benefits, the CDO continues to refuse supporting organic cotton production, based on the two poor crop harvests in 2007-2009 (Sabune J. 2011). The CDO has conflicts of interest regarding organic as well as Bt (Genetically Modified) cotton, which also has potential to be more profitable than conventional cotton (Horna D, Kyotalimye M, Falck-Zepeda J, 2009). Locke and Goeldner Byrne (2008) explain, “ginners are required to pay a tax and development levy to the CDO, which also places restrictions on the same ginners, such as which seed varieties can be used.” What this means is the industries the CDO is supposed to be regulating are, in fact funding the organization.

The CDO’s criticism of organic cotton (Sabune J. 2011) and prohibition of genetically modified cotton (Bt cotton) (Locke R, Goeldner Byrne K 2008) means the only type of cotton cultivation the CDO currently supports is conventional. The CDO provides goods and services including pesticides, spray pumps and (conventional) seeds (MAAIF 2009). As the reading below explains the CDO can use income generated from sales of these services as funding.

“Funds of the organization shall consist of… all monies received by the organization from the sale of cotton seeds for planting… All monies received by the organization for registration, goods or services provided under this act… access not exceeding 2 percent on the sales value of lint cotton sold at every ginnery” (Cotton Development Act 1994).

Since the CDO is profiting from its services to conventional cotton farmers the lack of support for organic and Bt cotton is contentious. Although the historical factors, the funding the CDO
receives leaves potential for immediate economic interests of the organization to outweigh long-term development in decisions regarding support of organic cotton. The potential benefits to the environment and farmers profits serve to encourage organic cotton production despite the lack of CDO support.

*Farmer Encouragement:*

The push for increased cotton production has occurred on many fronts. Most attempts to increase production include higher prices paid to farmers by ginneries and increased subsidies in the form of farm inputs such as seeds, pesticides and tractor services provided by both ginneries and the CDO. Through liberalization and competing ginneries, farmers can now keep over 60 percent of their cotton’s market value, as compared to little as 12 percent under the nationalized system in 1983 (Masiga M., Ruhweza A., 2007). Farmers have benefited from an increase in input subsidies; however, it is unclear how long such subsidies can be sustained. Ginneries reap the benefits of increased farmer production and often are tasked with caring out CDO policies such as seed distribution.

*Poverty:*

Despite the many ways poverty negatively affects production, it can also force reliance on credit services, which may-in fact increase cotton production. The annual marketing system discourages production since farmers prefer crops that can be consumed locally and sold bit by bit. However, the system does encourage cotton production for farmers impoverished enough to require credit services. According to Horna, Kyotalimye & Falck-Zepeda (2009), labor accounts for over 50 percent of production costs for cotton. Day laborers are paid daily meaning these high costs of production must be paid out before the crop harvest provides income. This crop season necessitates the need for loans to support inputs. Banks also will not provide loans directly to farmers, requiring them to use credit services of ginneries and cooperatives (Mugisha 2013). The inaccessibility to credit outside of ginneries and extension services does promote cotton production since it links farmers to industries promoting cotton production. However, it is at the expense of crops with fewer extension services.
Impacts on development of current methods to increase cotton production and textile value addition

Decreases in cotton quality:

Degradation of cotton quality appears to be a symptom of liberalizing ginning operations. Ginneries are able to buy from farmers anywhere, but must also compete with a larger ginning industry. Ginneries are forced to compete for cotton harvest, promoting the early purchase of cotton through field brokers. Previous zoning laws inhibited competition between ginneries, allowing each one to maintain fairly stable cartels in local area without threat of other buyers competing for cotton harvests. An attempt was made to revive these zones between 2003 and 2007 (Locke & Goeldner Byrne, 2008), but failed due to farmer disapproval and ginneries bypassing or bribing roadblocks set in place to prevent transit between zoning areas (Maganda 2013).

To ensure high quality cotton, the bolls should be left sufficient time to dry on the plant (Maganda 2013). However, competition among ginneries under liberalized government policies has spurred an increase in early buying. The inability to maintain high quality cotton under current liberalization prevents value chain cohesion since farmers dislike low prices for crops purchased early and textile producers are currently unable to use low-quality Ugandan cotton to produce fine fabrics.

Ginneries are burdened by the decline in quality but must support early buying in order to generate sufficient levels of cotton to make cotton processing profitable. Since they are less economically affected by poor cotton quality it is a much lower priority for ginneries than for farmers. As a result, ginneries have a greater interest helping farmers increase production before helping them increase quality of crop. One such example of this bias of quantity over quality can be seen in the CDO’s provision of tools to increase output such as seeds, pesticides and oxen, as outlined in the policy outline for the Ministry of Agriculture, Animal Industry, and Fisheries (2009). All of these inputs would increase yields but would not ensure the cotton produced is of high quality and is able to be stored in a manner ensuring quality.

The funneling of subsidies to high priority areas for ginners while high priority areas for farmers are left uncared for could have negative impacts on development of the industry. If farmer interests in quality are continually left unmet when creating incentives for cotton production, farmers are likely to quit growing cotton altogether.
Increasing cotton production and value addition industries form an unsound foundation for development. Simply increasing cotton production and value addition industries does not address many factors that have constrained its development in the past. Overreliance on price subsidies to promote cotton production, inaccessible domestic markets, international market volatility and the disconnect between members of the value chain are all left unaccounted for under current public and private efforts to improve cotton production.

*Impacts to farmers:*

Harmful industry practices to sustainable development may become more prevalent as a result of increased production. One such practice is poor safety standards observed especially among farm workers spraying pesticides. Improper laborer training could be damaging to the health and human safety of many impoverished Ugandans working at the low levels of the textile and cotton value chain. Another flaw within the current system is farmer reliance on ginnery loans and land, forcing production for those too impoverished to be able to fund production of crops they prefer. Farmers also remain dependent on world prices, which subsequently impacts their dependency on the incentives provided by ginneries and the CDO. Similarly, a more unified value chain would not result in significantly higher prices to farmers because ginneries and other cotton buyers still pay prices based on the world cotton price. There is also little benefit either to farmers and textile producers to increase conventional cotton production, given that producers receive most of their cotton from outside Uganda to begin with, leaving producers struggling and farmers within the cycle of poverty.

*Impacts of liberalization on industry:*

Liberalizing the cotton sector is successful in increasing prices to farmers, though price fluctuations often threaten producers at all levels of the value chain. On the same note, liberalization allows ginneries to compete, but this may result in marginalizing profits, as they must compete amongst themselves for farmer harvests. Farmer harvests have also suffered—liberalization has decreased the quality of cotton, as mentioned earlier, posing challenges and generating smaller profits for farmers trying to sell their goods, ginneries buying those goods, and the goods finally produced. Though liberalization initially did generate some foreign direct investment in Uganda, many textile producers have since left because of the increased
competition from Ugandan imports and secondhand clothing. As a result, the central government has been once again forced to support a floundering industry within all parts of the value chain.

**Conclusions**

Increased production for farmers requires high prices for cotton as well as access to inputs, which often must be subsidized by the government or by ginneries. While increased production through subsidies benefits farmers it is an unstable development path as it creates dependency and low profitability. Many of the import subsidies to cotton currently are supported by ginneries and the CDO. If prices drop, ginneries would likely be unable to support subsidized inputs and services. They would either have to cut their own profits to maintain attractive prices for farmers or drop prices and services provided to farmers, resulting in decreased cotton production for the following year. In addition, the CDO would be affected by a decline in cotton lint prices since it receives funding partially from a two percent tax on the value of ginnery exports. In order for subsidies and services to be effective, they must be available when farmers need them most, which would be when cotton prices are low. Since the two groups providing subsidies, ginneries and the CDO, would also be affected by a downturn in world cotton lint price the current system of cotton production promotion is unsustainable for farmers.

The lack of domestic textile markets means cotton production would be reliant on the international market, which is prone to serious fluctuations. History shows these market fluctuations have decreased production in the past (Figure 3). Subsidized inputs and services, which are used to promote cotton cultivation, can be beneficial to farmers under the right conditions. However, historical trends of market and political fluctuations warn that reliance on international prices and subsidies are not sustainable. In addition, if farmers are unable to access loans at banks or other lenders, impoverished Ugandans could see ginnery credit services as a continuation of the forced cultivation of cotton. Following upturns or downturns in global cotton prices, government promotion of production becomes the largest factor in production rates in Uganda. This means current government support for cotton production, despite its low profitability to farmers, could be keeping cotton production from extinction and preventing a shift to more profitable crops. Unsustainable ginnery credit services promote cultivation of cotton at the expense of more profitable crops for domestic consumption.

Decreasing reliance on international pricing is a main motivator behind promotion of
value addition (Ministry of Agriculture, Animal Industry and Fisheries, 2009). The inability of a strong textile value chain in Uganda to reduce international market dependence is yet another reason policy changes promoting cotton production are not worth their costs. Instability in the international market could threaten current input subsidies and higher prices paid to farmers leading to production declines similar to those in the 1970s. The interests of different sectors of the value chain are at odds. Competition for profits between sectors continues to prevent industry cohesion, dependence on government support is unsustainable, and the cotton industry in Uganda has an unstable road ahead of it.

**Recommendations:**

As a result of insufficient domestic markets, high cost of subsidies necessary to increase cotton and the current lack of industry cohesion, the researcher recommends withdrawing government inputs and support for value addition in the cotton sector. Before any additional government or private industry efforts are made to revitalize the cotton sector volatility of world cotton prices needs to be seriously considered. A better method of investment, perhaps both for farmers and the government, would be to identify crops with more stable price trends and higher profits in order to encourage sustainable production practices. The CDO may also benefit from reconfiguring its sources of funding such that reliance from production of conventional cotton and taxes from ginneries producing conventional cotton becomes obsolete. A more reliable and stable source of funding, such as the money earned on growing organic cotton perhaps, would allow an opportunity for the CDO to prosper.

Research should be conducted on exploring the impacts that similar inputs, including but not limited to taxes, incentives, subsidies, and so forth, could have on more profitable crops and value chains in order to increase employment. Some farmers are already producing profitable crops; sunflowers can be observed on the side of the road along with sesame and other oilseed crops and, according to Dr. Muhumuza (2013), companies large and small are already in place to process the crop and sell it on the domestic market. The government of Uganda can harness the positive impacts of input supply and input subsidies to encourage crop diversification toward more profitable plants. Such a policy could increase food security, decrease reliance on the international market, limit the effects of world crop price fluctuations, and require fewer subsidies in order to increase production among farmers. Factors to consider when choosing a sector to
investigate for potential value chain investment should include 1) food crops with high profit margins for farmers, 2) labor intensive supply chains in order to increase employment, and 3) a domestic market ready to receive value added products. Though Uganda has shown serious dedication to maintaining a cotton industry, cotton’s inherent price volatility and low profitability for farmers make it a poor focus for a nation hoping to develop based on a labor force largely involved in agriculture.


COMPETE Project. (2002). The Path Foreward for Uganda's Cotton and Textile Sector. USAID. USAID.


Appendix

Figure 1: Ugandan Cotton Production in Bales (Lunbaek 2002)

Figure 2: Average Price of Cotton in US cents/lb. from 1960 to 2013
Figure 3: Ugandan Cotton Price and Production Trends 1970/71-2004/05 (Masinga M, Ruhweza, A. 2007)
Figure 4: Crop value per Ha (World Bank)

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Figure 5: Formal Interview Participants

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</tr>
<tr>
<td>1/11/2013</td>
<td>Musoke Abdallah</td>
<td>Textile production, TEXDA technical supervisor</td>
<td>Kampala</td>
</tr>
<tr>
<td>1/11/2013</td>
<td>Namaseruka Grace Juliet</td>
<td>Textile production, TEXDA instructor and saleswoman</td>
<td>Kampala</td>
</tr>
<tr>
<td>1/11/2013</td>
<td>Nanyonjo Elizabeth</td>
<td>Textile Production, TEXDA instructor and management assistant</td>
<td>Kampala</td>
</tr>
<tr>
<td>11/11/2013</td>
<td>Mugisha Francis</td>
<td>Ginning, Nakatonzi Cooperative Management</td>
<td>Kasese</td>
</tr>
<tr>
<td>15/11/2013</td>
<td>Kiggundu Abdul Aziz</td>
<td>Textile Production, Phenix Logistics Sales</td>
<td>Kampala</td>
</tr>
<tr>
<td>15/11/2013</td>
<td>Lwanga Yusuf</td>
<td>Textile Production, Phenix Logistics Accounting</td>
<td>Kampala</td>
</tr>
<tr>
<td>23/11/2013</td>
<td>Oboth Charles</td>
<td>Ginning, Coo-Rom Ginnery</td>
<td>Gulu</td>
</tr>
<tr>
<td>25/11/2013</td>
<td>Fred Muhumuza</td>
<td>Government official</td>
<td>Kampala</td>
</tr>
</tbody>
</table>
### Figure 6: Site Visits

<table>
<thead>
<tr>
<th>Date of first visit</th>
<th>Site Visited</th>
<th>Description</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>30/10/13</td>
<td>Southern Range Nyanza Retail Store</td>
<td>Retail store in Uganda house selling a variety of garments and textile products</td>
<td>Kampala</td>
</tr>
<tr>
<td>1/11/2013</td>
<td>Textile Development Agency (TEXDA)</td>
<td>Training center and production plant for hand-woven and tailored products</td>
<td>Kampala</td>
</tr>
<tr>
<td>4/11/2013</td>
<td>Southern Range Nyanza Factory</td>
<td>Fully integrated textile production plant, carries out all processes from cotton lint to finished garment</td>
<td>Jinja</td>
</tr>
<tr>
<td>11/11/2013</td>
<td>Nakatonzi Cooperative ginnery</td>
<td>Cotton ginnery and cooperative for cotton, coffee maize and beans</td>
<td>Kasese District</td>
</tr>
<tr>
<td>11/11/2013</td>
<td>Nakatonzi Ginnery block farm</td>
<td>Conventional cotton block farm owned by Nakatonzi and farmed by co-op employees</td>
<td>Kasese District</td>
</tr>
<tr>
<td>11/11/2013</td>
<td>Rwenzori Cotton Ginners Company Ltd.</td>
<td>Privately owned ginning operation took tour of ginnery</td>
<td>Kasese District</td>
</tr>
<tr>
<td>12/11/2013</td>
<td>Privately owned farm</td>
<td>Privately owned conventional cotton farm outside of Kasese town, sells harvest to Nakatonzi co-operative</td>
<td>Kasese District</td>
</tr>
<tr>
<td>15/11/2013</td>
<td>Phenix Logistics</td>
<td>Textile producer currently out of production</td>
<td>Kampala</td>
</tr>
<tr>
<td>21/11/2013</td>
<td>Coo-Rom Ginnery</td>
<td>Ginnery processing both conventional and organic cotton for farmers in Gulu and surrounding districts</td>
<td>Gulu</td>
</tr>
<tr>
<td>21/11/2013</td>
<td>Smallholder organic farms</td>
<td>Visited organic cotton farms and training plots in different areas of Gulu Districts over the course of three days</td>
<td>Gulu District</td>
</tr>
</tbody>
</table>
Dear participant,

My name is Daniel Chell and I am a student at School for International Training working on a research project during the Fall 2013 under the direction of my academic advisor, Dr. Charlotte Mafumbo. I am doing a research project about the value chain of cotton and the role of textile manufactures in Uganda's development. You were selected as a possible candidate because you possess knowledge of textile and/or cotton production in Uganda.

**Purpose of the Study**

The purpose of this study is to first explore the historical and global context of cotton and textile production in Uganda. Secondly I will identify the value chain of textiles from grower to consumer. Following this preliminary research the purpose is to understand the affects of small-scale textile manufacturers on their communities and identify barriers in production.

**Procedure**

I would like to interview you in English for a maximum of one hour. During the interview, I will take hand-written notes and record the interview on a digital recorder with your consent. If requested, I will assign or ask you to pick a fake name, which will be used in my notes, and writings to make sure your information stays confidential and no information can be used to identify you.

**Potential Risks and Discomforts**

Should you feel uncomfortable at any moment during the interview, you have the right to refuse to answer any question and to terminate the interview without prejudice.

**Potential Benefits to Subjects and Society**

I think my study of the textile industry and value chain will provide a useful background of issues facing the textile industry. It will also identify areas for improvement including links between industries in the value chain and the success of different business strategies in cotton production, marketing and sales.

**Confidentiality**

You have the right to designate specific material as strictly confidential, and I promise to exclude such material from any publications or presentations that may result from this research. In addition you can choose to one of the following (check one):

1. Remain named in all research documents
2. Choose a pseudonym to be used in the final research report.

**Participation and Withdrawal**

It is your decision for you to participate in this study. If you decide you want to participate and then change your mind that is completely allowed. Additionally, you are allowed to refuse to answer certain questions if you want and still be a part of the study.

**Identification of Investigators**

If you have any questions before or after participating in this interview, feel free to contact me, Daniel Chell by e-mail: dchell@callutheran.edu or phone at: (079) 393-8591.

I understand the procedures described above. Any questions I had have been answered, and I agree to participate in this study. I have been given a copy of this form.

Name of participant (Print)

Signature of participant __________________________ Date __________________________

I have explained the research to the subject or his/her legal representative and answered all of his/her/their questions. I believe that s/he understands the information described in this document and freely consents to participate.

Signature of researcher __________________________ Date __________________________

Daniel Chell
Figure 8: Interview schedules

Questions for textile manufacturers Administrators

• What activities does your firm carry out?
• What are your top production priorities?
• How would you describe your company’s target market?
• What are the advantages of a fully integrated vs. non-integrated textile manufacturing plant?
• What is the factories capacity? Are they operating at capacity?
• What are major barriers in production?
• Where do your raw materials (yarn, cotton, machinery) come from and why?
• Do you pay the world market price for cotton?
• How is your relationship with other members of the value chain?
• How are you remaining competitive in the face of secondhand clothing?
• What government agencies do you work with the most
• How many workers do you employ?
• How are they paid, per garment? Salary? Hourly?
• What are working hours?
• How is employee morale maintained?
• Are most customers return customers or new customers?
• How do you reach customers?

Questions for textile manufacturers (TEXDA)

• Where do your raw materials (yarn, cotton, machinery) come from and why?
• How do you gauge market interest in products?
• How do you find consumers or buyers?
• What are your top production priorities?
• How would you describe your company’s target market?
• How does being an NGO instead of a registered business change your business practices or make you different from typical producers?
• What are the advantages and disadvantages of a fully integrated vs. non integrated textile manufacturing plant?
• Is there any push or plans to further mechanize TEXDA? Why or why not?

Questions for Raw Cotton Processors

• Please provide an overview of the ginnery/what you do/services provided/value added.
• What are your top priorities in production?
• What are your biggest challenges in production?
• How do you address these challenges?
• How does cotton get from the farm to your ginnery?
• How many workers do you employ?
• How many hours do they work?
• How long have they worked here? (are they mostly seasonal or salaried?)
• Are there any hazards to working here? How are those addressed?
• What is the working capacity of this ginnery? What is the avg. capacity?
• How do you ensure cotton is high quality when arriving at the ginnery?
• What businesses practices have been most successful in your opinion, exporting all cotton? Finding local markets?
• Do you offer any services to farmers?
• How would you describe your relations with farmers?
• Who do you sell your cotton lint, seeds and any other by-products to? Why?
• How is the cotton transported from your location to the next stage in the value chain?
• How would you describe your relationship with the purchasers of your products? What do they do with your products?

Questions for textile industry technical workers

• What is your job? What does that entail?
• How did you get a job at here?
• Did you have any previous jobs before working here? If so, what were they?
• Why did you begin working here?
• What is your favorite part about working here?
• What are the biggest challenges you face in carrying out your job?
• How could that be improved?
• How are you paid? Hourly? Salary? Output?
• Is your pay ever delayed? If so how do you maintain yourself financially?
• How many hours do you work a day?
• How much work do you do in terms of output per day?
• Do you have any other jobs besides working here? If so, why?
• Do you get any benefits? If so, what are they?
• Do you have any contact with the customers or suppliers of materials? If so what are your interactions?
• Do you have any other information you would like to share regarding textile production in Uganda?
Questions for Cotton Development Organization

- How is the Cotton Development organization aiding in development?
- What services do you provide?
- What is the ultimate goal of these programs? How successful has each program been in achieving that goal?
- Are Ginneries still required to sell back seeds to the CDO? If so how do you ensure the seeds being sold back are of high quality?
- How are seeds distributed to farmers? Has there been any push to privatize the distribution industry?
- How would you describe the linkages between the value chain, farmers, ginnerry owners, textile manufacturers and exporters?
- Why is most cotton currently exported?
- Why is cotton production not at previously high levels?
- How are cotton prices determined?
- Do prices remain fixed from planting until harvest time?
- How can farmers access information regarding cotton prices, farming techniques, etc?
- Impacts and potential impacts
  - What advantages does block farming have over traditional practices?
  - Have partnerships with seed suppliers and exporters such as Dunavant been successful? How so?
  - Could you explain the zoning process regarding ginneries and it’s impact on cotton production?
  - Has privatization helped or harmed the cotton industry?
  - What impact would GM cotton have on Ugandan cotton industry?

Statistics questions

- Do you have information on cotton production, export and production capacity I could have to use in my research?
- What is the current domestic consumption of cotton?
- What sector in the cotton value chain currently has the lowest production capacity?
- Do you have any other information you would like to share regarding cotton or textiles in Uganda?

Questions for Farmers

- Why did you decide to grow cotton?
- What are the most important challenges you face for your job?
- Do you plan to continue growing cotton in the future?
- Where do you get seeds for cotton, how much do they cost?
- What machinery do you use and where do you get it?
- How much of your land is used for growing cotton?
- How much cotton do you produce a year?
- How much money do you receive for the cotton you produce?
- Do you have any other jobs?
- Where does the water you use come from?
- Do you use any fertilizers or pesticides?
- Do you rotate crops, interplant or mono-crop?
- Who do you sell your cotton to and for how much?
- Why do you sell to that company in particular?
- How is cotton transported from your farm to the cotton buyer?
- How much contact do you have with ginneries, exporters and textile producers?
- Do you keep any cotton for home production of cotton products?
- Do you have any other information you would like to share about cotton production or textile production in Uganda?

Figure 9: Timeline of Cotton History

1903:
- Cotton Introduced in Uganda along with 1,400 km Mombasa-Ksumu Railway (Baffes 2009)
1921:
- Establishment of Cotton Control Board (Lundbæk 2002)
Unknown Date:
- Introduction of poll tax (which required cultivation in order to pay) (Baffes 2009)
1932
- Uganda Cotton Society tried to obtain high prices by ginning and marketing its own cotton and “eliminate the Indian middleman,” but wasn’t allowed (Asiimwe 2012)
1933
- Cotton Zone Ordinance passed, set up 14 ginning zone monopolies and minimum pricing scheme (Lundbæk 2002)
Mid 1930’s
- Production Reached 60,000 tons (Baffes 2009)
1959
• Lint Marketing Board Act: Formed Lint Marketing board, who held “monopoly on domestic and international trade of cotton lint and seed, with ginning and marketing functions vested in the cooperative unions “ (in effect until 1994) 

1960 • Block farms have been in Kasese
1962 • Uganda’s Independence
1963 • Coo Rom Ginnery founded
1964 • Revised Cotton Act (in effect until 1994) (Masiga M, Ruhweza A, 2007)
1965-1970 • Peak performance of cotton sector “cotton sector was responsible for 40 percent of Uganda’s export earnings” (Masiga M., Ruhweza A., 2007)
1969 • Record output of 84,000 tons (Baffes 2009)
1971 • Idi Amin took power
1972 • Idi Amin expels Ugandan-Asians
• Cotton production 78,000 tons (Baffes 2009)
1973 • Properties and Businesses (Acquisition) Decree (Asian properties expropriated by government and sold) (Asimwe A, 2012)
1973-974 • Peak for domestic demand for cotton 65,000 Bales (Masiga M., Ruhweza A., 2007)
1976 • Lint Marketing Board Act Amended (Masiga M, Ruhweza A, 2007)
1979 • Amin overthrown (Masiga M., Ruhweza A., 2007)
1985: • Dr. Milton Obote military coup (Masiga M., Ruhweza A., 2007)
1986: • President Yoder Museveni military coup (Masiga M., Ruhweza A., 2007)
1987: • 2,000 tons of cotton produced (Baffes 2009)
• Gov. launched Emergency Cotton Production Program, “key objectives were to increase cotton production, revitalize research, initiate a system of seed multiplication, and rehabilitate primary processing facilities “(Bibangambah 1995) (taken from Baffes 2009)
• Domestic demand for cotton decline to 15,000 bales (Masiga M., Ruhweza A., 2007)
1988: • Only 11,000 bales produced (Ahmed M., Ojangole S., 2012)
1992 • NARO established to undertake research, seed breeding and tech development (Cotton in Uganda, Flyer)
1993: • Smallholders Cotton Rehabilitation Project 1993-1996 (SCRP) “intended to re-establish research and seed multiplication, and to develop animal traction in the subsector” (Masiga M, Ruhweza A, 2007)
1994: • Lint Marketing Board liquidated (Baffes 2009)
• Peak price of cotton (US$0.43/kg)
• Attempts to spur growth
  o Domestic demand for cotton only 2,800 bales (Masiga M., Ruhweza A., 2007)
  o Formation of CDO (Baffes 2009) Under the Cotton Development Statute of 1994, the Lint Marketing Board was liquidated and a new regulatory agency was established, the Cotton Development Organization (CDO)
1996: • Cotton production reached 20,000 Tons (attributed to 1993 reforms and high prices) (Baffes 2009)
2001: • Low point in cotton price (US$0.20/kg)
2003 • Zoning policy put in effect
2007: • Uganda de-zoned
2007/2008

• Bad organic harvest due to lack of proper training and availability of inputs, loss of 68% of yield (Horna D, Kyotalimye M, Falck-Zepeda J, 2009)
• Bad organic cotton harvest due to bollworm (Horna D, Kyotalimye M, Falck-Zepeda J, 2009)