

PN-ABN-215

80724
62

African Cotton Study

Final Report

Prepared for:

Labat-Anderson, Inc.
Under Contract AFR-0438-C-00-8059-00
to the
U.S. Agency for International Development
Market Development and Investment
Africa Bureau
Washington, D.C.

Prepared by:

Fintrac
(A division of RCG/Hagler, Bailly, Inc.)
370 L'Enfant Promenade, SW
Washington, D.C. 20024

October 1989

Reference No. 89-4902

CONTENTS

	TITLE	PAGE
	EXECUTIVE SUMMARY	i
CHAPTER 1:	BACKGROUND AND INTRODUCTION	1.1
	1.1 Background to the Study	1.1
	1.2 Introduction and Statement of Work	1.1
	1.3 Organization of the Report	1.3
CHAPTER 2:	BARRIERS TO COTTON EXPORTS TO THE U.S.	2.1
	2.1 Assistance to U.S. Cotton Exports	2.1
	2.2 Limits on Cotton Imports to the U.S.	2.2
	2.3 U.S. Import Duties on Cotton	2.5
	2.4 Agriculture Programs Affecting Cotton	2.7
CHAPTER 3:	U.S. INDUSTRY PERSPECTIVES ON AFRICAN COTTON ..	3.1
CHAPTER 4:	TRENDS IN WORLD COTTON MARKETS	4.1
	4.1 Worldwide Cotton Production	4.1
	4.2 African Cotton Exports	4.6
	4.3 U.S. Cotton Imports	4.13
	4.4 African Cotton Costs and Quality	4.14
CHAPTER 5:	CONCLUSIONS AND RECOMMENDATIONS	5.1
 APPENDICES		
APPENDIX 1:	QUOTAS ON COTTON FIBERS OF STAPLE LENGTH GREATER THAN 1-1/8 INCH	
APPENDIX 2:	U.S. IMPORT DUTIES ON RAW COTTON	
APPENDIX 3:	LIST OF CONTACTS	

EXHIBITS

1.	U.S. Cotton Import Quotas	2.4
2.	Worldwide Cotton Production	4.2
3.	World Cotton Supply and Use (1984-1989)	4.7
4.	World Cotton Prices	4.8
5.	Worldwide Cotton Exports	4.9
6.	African Countries Exporting Primarily Fibers, 1985	4.12
7.	U.S. Cotton Imports	4.15
8.	Inter-Country Comparison of Cotton Production Costs	4.18

EXECUTIVE SUMMARY

This study reviews the historic, current and future prospects for selected Sub-Saharan African countries to export cotton to the United States.¹ The study includes an examination of U.S. and international trade policies, U.S. industry perspectives on African cotton, and U.S. and worldwide aggregate statistics for raw cotton supply and demand. The seventeen countries covered in this analysis are Burkino Faso, Cameroon, Chad, Cote d'Ivoire, Ethiopia, Gambia, Kenya, Mali, Mozambique, Senegal, Sudan, Swaziland, Tanzania, Uganda, Zambia, Zimbabwe and Malawi. They are displayed in the map at the end of this summary

The U.S. Government has well-established, long standing policies and programs to protect domestic cotton producers from foreign competition, to assist U.S. cotton exports, and to support U.S. cotton growers. The most significant of these programs affecting the importation of African cotton is import quotas. These are established for specific countries or regions, or on a global basis as part of the Harmonized Tariff Schedule of the United States. Import duties on raw cotton do not unduly discriminate against African cotton imports; neither do they give these countries special treatment. Programs that support U.S. exports through credits and credit guarantees do not affect cotton imports directly, but they are clearly an indication of the U.S. position as a net exporter of raw cotton. Agricultural assistance programs provide price support to U.S. growers in order to maintain their competitiveness on the world market. The subsidies to U.S. cotton production and import duties combine to further limit the prospects of African exports to the U.S.

The industry impression of African cotton exports to the U.S. can be characterized as both guarded and suspect. Based on limited discussions with U.S. textile companies and trade

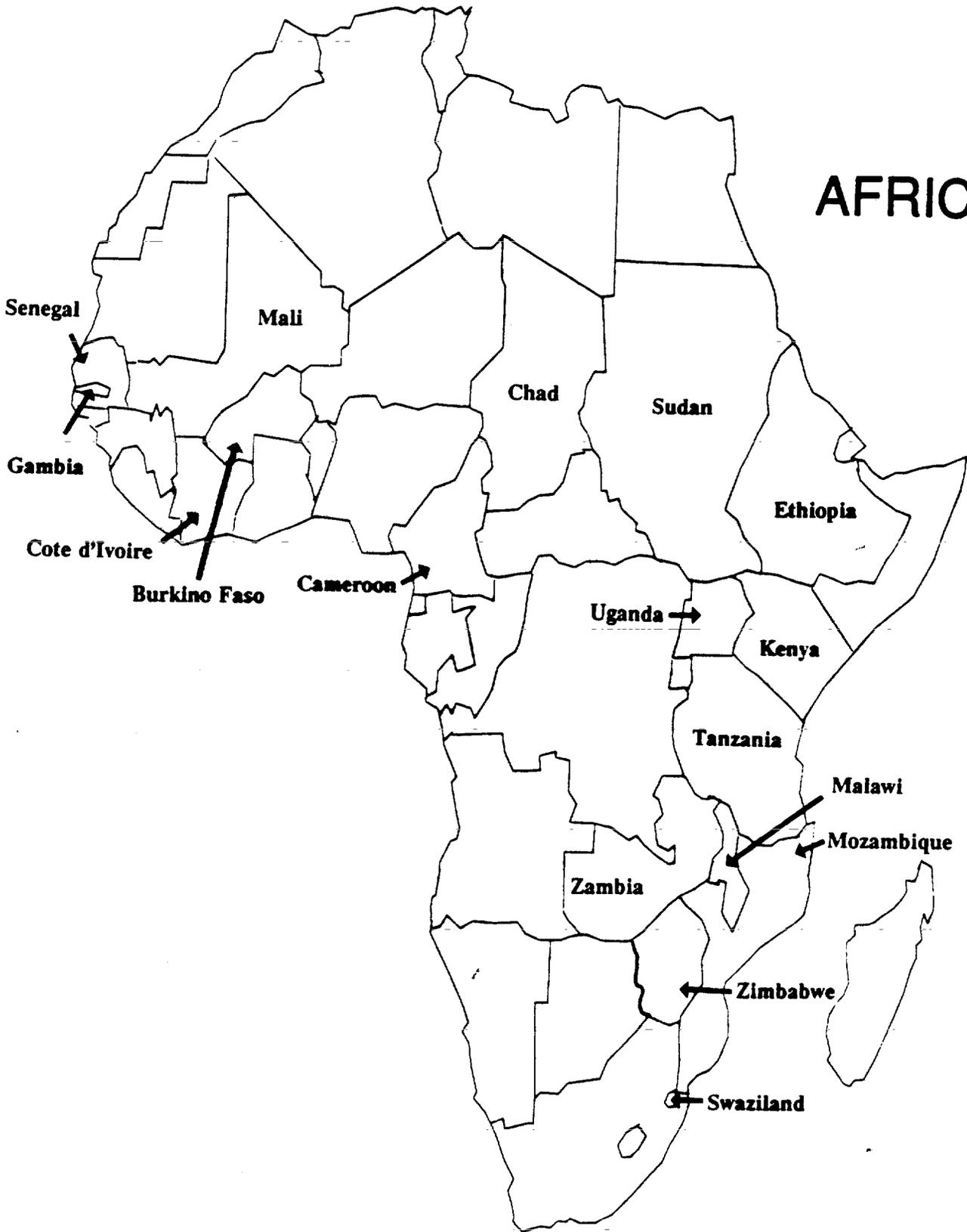
¹ Cotton is defined here as raw cotton and processed cotton up to and including cotton thread and yarn.

organizations, there is little attractiveness to new sources of supply from Africa. This is primarily due to the current excess production in the U.S. and the unfamiliarity with foreign suppliers. Cotton can be purchased as part of long-term, short-term, or spot-market agreements. For the African cotton producers to open markets in the U.S., they must be adequately represented by export trading companies that are familiar with the U.S. cotton industry and are capable of assuring buyers of adequate cotton quality and reliability of supply. It should be noted that niche markets may exist for cotton fiber types that are not available in the U.S. (e.g., Egyptian cotton, which commands a higher price on the world market).

Finally, the prospects for African cotton exports to the U.S. are most negatively affected by the statistics themselves. First and foremost is the fact that the U.S. is a net exporter of raw cotton. While there have been imports over the past 10 years, the current level of imports is virtually negligible. Of the study countries, only Sudan has exported cotton to the U.S. Nonetheless, growth in total cotton exports from the study countries has outpaced that of other African countries as well as the world as a whole. Primary markets are in Europe, Asia and selected South American and African countries.

The only positive sign for exports to the U.S. may come from the value-added production of cotton thread and yarn, as well as fabric. While raw cotton imports have fallen off in the U.S. in recent years, imports of yarn and fabric are on the rise. Several of the countries covered in this analysis have yarn spinning capabilities.

AFRICA



CHAPTER 1. BACKGROUND AND INTRODUCTION

1.1 BACKGROUND TO THE STUDY

This study, which analyzes the export markets for raw cotton produced in Africa, is a follow-up to an earlier study commissioned by the U.S. Agency for International Development, Market Development and Investment (MDI), Africa Bureau. The previous study, *Textile Tariff Study*,¹ reviewed the tariff and non-tariff barriers for textiles (e.g., cotton, wool, silk, synthetics) and apparel that are exported from selected African countries to the United States and the European Community. The countries considered in the analysis were Botswana, Kenya, Lesotho, Mali, and Swaziland.

The study found that because there are few import advantages to producing textiles and apparel in Africa over other countries, the issue becomes one of comparative production and transportation costs. While labor and materials may be less expensive in the countries studied, substantial training of the local workforce may be required to maintain product quality. Exports from African countries to the U.S. and European Community are possible if the correct market niche is identified, if effort is spent to train the local workforce, and if the marketing infrastructure is developed.

1.2 INTRODUCTION AND STATEMENT OF WORK

The expansion of the cotton exports industry is likely to play an important role in the economic development of the sub-Saharan African countries. The implications for U.S. textile companies of increased raw cotton imports to the U.S. from Africa are an equally

¹ Fintrac (a division of RCG/Hagler, Bailly, Inc.). *Textile Tariff Study*. Final report, prepared for Labat-Anderson, Inc. under contract AFR-0438-C-00-8059-00 to the U.S. Agency for International Development, Market Development and Investment, Africa Bureau, Washington, D.C., July 7, 1989.

important consideration. The underlying purpose of the *Africa Cotton Study* is to identify mutually beneficial trading relationships between the U.S. and the countries studied.

Importance of Raw Cotton Production and Export

Raw cotton production and export have been identified as a possible means of furthering economic development in Africa. According to World Bank figures, cotton is the third most important foreign exchange earner among Africa's agricultural commodities. Exports of raw cotton generate an average of over \$1 billion per year, representing about 16 percent of the total foreign exchange earned from African agricultural exports.

The nature of cotton farming also lends itself to rural development objectives. Aside from a few large-scale operations, cotton is grown by small landholders on farms of less than 20 hectares each. Because of this, cotton provides employment and income for millions of poor farm families and as a cash crop, may deter the migration of young skilled workers to the urban areas.

Finally, bilateral and multilateral efforts to increase the quality and quantity of cotton produced in sub-Saharan African countries have proven successful. Integrated technology transfer, price support mechanisms and market development have helped certain countries increase their export earnings while establishing a local industry capable of meeting international standards for cotton quality.

Statement of Work

The U.S. Agency for International Development's Market Development and Investment, Africa Bureau has commissioned this study to review the trade restrictions on cotton exports from selected African countries to the United States. The seventeen countries considered in this analysis are Burkino Faso, Cameroon, Chad, Cote d'Ivoire, Ethiopia, Gambia, Kenya,

Malawi, Mali, Mozambique, Senegal, Sudan, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe.

The statement of work for this study consisted of three distinct tasks. First, Fintrac was asked to identify non-tariff restrictions on cotton imports to the U.S. Second, U.S. textile companies and cotton importers were to be interviewed in order to assess their perspectives on African raw cotton and cotton products, with particular reference to any issues related to product quality and reliability of supply. The third task was to assess the current trends (1984-1989) of cotton imports to the U.S. from Africa, and identify any special factors that are likely to influence those trends in export trade.

1.3 ORGANIZATION OF THE REPORT

The report is divided into five chapters and accompanying appendices. Following this introductory chapter, Chapter 2 presents a review of all the U.S. policies and programs affecting cotton production and trade. This includes assistance programs to U.S. cotton exports, limitations on foreign cotton imports into the U.S., import duties on various cotton products, and agricultural support programs designed to assist U.S. growers in competing in the world cotton market.

Chapter 3 gives a general description of the attitude of the U.S. cotton industry toward sub-Saharan African raw cotton exports. The broad generalizations are drawn from a limited number in-depth discussions with industry representatives. Caution is advised in interpreting these generalizations as widely held views in the industry. Instead, the information should be regarded as providing insights into individual companies' perspectives.

Chapter 4 is a statistical review of the trends in world cotton markets. The analysis covers worldwide cotton production, African cotton exports, U.S. cotton imports, and cotton costs and quality, including a comparison of U.S. and African cotton production costs.

Chapter 5 presents conclusions drawn from the study. It also offers some recommendations to the U.S. Agency for International Development on ways in which to stimulate African cotton production and trade with the U.S.



CHAPTER 2. BARRIERS TO COTTON EXPORTS TO THE U.S.

International trade in raw cotton and cotton textiles is affected by a number of government actions that are designed to stimulate exports, limit imports, stabilize prices, and protect domestic textile and apparel industries. U.S. cotton export subsidies, for example, have served foreign policy as well as agricultural program goals since 1931 when a Grain Stabilizing Corporation loan for the purchase of cotton was first made to the Chinese government. Quotas on the imports of raw cotton into the United States were first established in the 1930s and have not been amended since 1950. Under provisions of the General Agreement on Tariffs and Trade (GATT) and the Multifiber Arrangement (MFA), the U.S. Government has attempted, since 1956, to restrict textile and apparel imports. These and other actions affecting cotton exports to the U.S. are discussed in this chapter.

2.1 ASSISTANCE TO U.S. COTTON EXPORTS

The Export-Import Bank and its predecessor agencies authorized numerous cotton export loans to China and Europe during the 1930s. However, the first instance of a direct subsidy to cotton exports occurred in 1940, when \$41 million in import tariff revenues (P.L. 320, Section 32 funds) were used to reduce the export prices of 6.3 million bales of cotton.¹ In that same year, the United States bartered 600,000 bales of cotton for 85,000 tons of rubber from the United Kingdom.

Cotton exports continued to benefit from Section 32 subsidies between the end of World War II and 1970. During much of that period, U.S. domestic prices were maintained above world market prices, and subsidies sometimes amounting to over \$200 million per year were required in order to make U.S. cotton competitive. In most years, cotton was second only to wheat in the amount of Section 32 export assistance received.

¹ One bale of raw cotton is roughly equivalent to 4.5 metric tons.

Soft currency sales, long-term dollar credits, and barter, where P.L. 480 programs were used to assist agricultural exports, began in 1955. Barter was especially important for cotton, and because domestic prices were maintained above world prices, almost all cotton exports between 1955 and 1973 moved under some form of assistance. Beginning in 1974, domestic prices were no longer supported above world prices, and the need for export assistance was much reduced. Limited use of P.L. 480 funds for long-term sales has continued, usually affecting less than \$20 million in cotton exports each year.

Export-Import Bank loans continue to finance some cotton shipments, but Commodity Credit Corporation (CCC)² credits and credit guarantees have become the primary form of government assistance to U.S. cotton exports. During fiscal years 1982-1985, exports of between 500,000 and 1.1 million bales were assisted by CCC credits each year. About 400,000 bales were also exported under the Blended Credit Program in fiscal year 1983. Cotton shipments under P.L. 480 assistance total 30,000-70,000 bales each year.

2.2 LIMITS ON COTTON IMPORTS TO THE U.S.

Raw cotton imports into the U.S. were first limited under the authority of Section 22 of the Agricultural Adjustment Act of 1933. That law allowed the President to establish tariffs or quotas to prevent imports from rendering cotton price support programs ineffective. Section 22 controls were last revised in 1950. Quotas for U.S. cotton imports from individual countries are currently based on the representative period of July 1, 1928 through June 30, 1933.

The U.S. import quotas for cotton staples shorter than 1-1/8 inches total approximately 30,000 bales (6,585 metric tons) per year. Mexico has the largest quota, 18,507 bales (4,029

² The Commodity Credit Corporation is administered by the Foreign Commercial Service of the U.S. Department of Agriculture.

metric tons). The import quota for Egypt and Sudan, in the aggregate, is 1,600 bales (356 metric tons); British West Africa (except Nigeria and Ghana), 33 bales (7.3 metric tons); and British East Africa, 5 bales (1.02 metric tons). No import quotas exist for French West Africa. Exhibit 1 lists the specific quotas for individual or aggregate countries.

Global quotas also exist for cotton staples longer than 1-1/8 inch in length and cotton waste. Import quotas for cotton staples length of 1-1/8 inch or greater but less than 1-3/8 inch for all countries combined is 12,381 bales (2,751 metric tons). Import quotas for staple lengths of 1-3/8 inch or greater for all countries is 80,811 bales (17,958 metric tons). Import quotas for fibers of cotton processed but not spun for all countries is 2 bales (0.5 metric tons). About 5.5 million pounds of cotton waste may also be imported. Global quotas are administered on a first-come, first-served basis (see Appendix 1).

Successive farm acts have provided for an additional global import quota equal to 21 days of domestic mill use if the monthly average spot market price exceeds the previous 36-month average by 130 percent or more. The quota was last triggered during 1980. Even in that year, fewer than 30,000 bales were imported into the U.S.

Exhibit 1
U.S. Cotton Import Quotas¹

<u>Country/Region</u>	<u>Metric Tons/Year</u>	<u>Bales/Year</u>
Egypt and Sudan²	355.52	1,600
Peru	112.47	506
India and Pakistan²	908.76	4,091
China	621.78	2,799
Mexico	4,029.38	18,507
Brazil	280.65	1,265
U.S.S.R.	215.51	970
Argentina	2.36	11
Haiti	0.11	*
Ecuador	4.23	19
Honduras	0.34	*
Paraguay	0.40	*
Columbia	0.06	*
Iraq	0.09	*
British East Africa²	1.02	5
Indonesia and Dutch New Guinea ²	32.38	146
British West Indies (except Barbados, Bermuda, Jamaica, Trinidad and Tobago) ²	9.67	44
Nigeria	2.44	11
British West Africa (except Nigeria and Ghana)²	7.30	33
Others	<u>none</u>	<u>none</u>
TOTAL	6,585.00	30,007

Notes: ¹ Cotton, not carded, not combed, and otherwise not processed having a staple length of less than 1-1/8 inch.

² Totals given in the aggregate

* Less than one bale equivalent

Totals may not equal the sum of individual countries due to independent rounding and estimations.

Source: Harmonized Tariff Schedule of the United States, First Edition, Supplement 2, U.S. International Trade Commission, Washington, D.C. 20436.

2.3 U.S. IMPORT DUTIES ON COTTON

Under the Harmonized Tariff Schedule of the U.S., no import duty is assessed on cotton fibers of staple length less than 1-1/8 inch. The import duties for cotton fibers with a staple length of 1-1/8 inch or greater, but less than 1-11/16 inch are assessed on an import duty of 4.4 cents/kilogram. Cotton fibers of staple length of 1-11/16 inch or greater are assessed an import duty of 1.5 cents/kilogram. The import duty for cotton waste, carded or combed cotton, cotton sewing thread, and cotton yarn range from 3.7 percent to 10.8 percent ad valorem (see Appendix 2).

With the exception of Ethiopia, all the countries covered in this study are beneficiary countries in the U.S. General System of Preferences (GSP). Burkino Faso, Chad, Gambia, Mali, Sudan, Uganda, Tanzania, and Malawi are designated as "Least-Developed Beneficiary Developing Countries." This means that these countries can import into the customs territory of the U.S. under the GSP system without regard to the limitation of preferential treatment of eligible items (e.g., the competitive need limitation).

The articles eligible for the GSP do not include raw cotton, cotton thread, or cotton yarn. As a result, the subject countries would be assessed the same import duties on these items as other countries that are not covered by the GSP. It should be noted that raw short-staple cotton (less than 1-1/8 inch in length) can be imported duty free regardless of source. However, as discussed earlier, quotas have been established on this type of cotton in order to limit imports from various countries and regions.

The General Agreement on Tariff and Trade

The U.S. Harmonized Tariff Schedule must conform to the broad guidelines of the General Agreement on Tariff and Trade (GATT). This agreement, which came into force on January 1, 1948, established rules for international trade. Since then, GATT has functioned as a code of rules and as an international body concerned with negotiating the reduction of trade barriers. Its main thrust is that trade must be conducted on the basis of non-discrimination. All contracting parties are bound to grant to each other treatment that is as favorable as the treatment they give to any country in the world. Exceptions to this rule are only granted in special trading agreements and for developing countries. Burkino Faso, Cameroon, Chad, Cote d'Ivoire, Gambia, Kenya, Malawi, Senegal, Tanzania, Uganda, Zimbabwe and Zambia are GATT members. Mali, Mozambique, and Swaziland maintain a de facto application of GATT. Only Ethiopia and Sudan do not observe the GATT rules.

Depending upon the outcome of the Uruguay Round of the GATT, both textiles and agriculture could fall under new international trade agreements. The final text of this round, adopted in Geneva on April 8, 1989, affects agriculture and textiles, as well as a number of other items. The Office of the U.S. Trade Representative notes that the accord seeks to move farm trade toward a "fair and market-oriented trading system." It proposes the adoption of long-term measures aimed at a "substantial progressive reduction" in support programs and import barriers plus short-term measures to freeze existing programs. The accord also restates the goal of bringing textile and apparel trade back under GATT rules and phasing out the Multifiber Arrangement (MFA); however, it only seeks to reach a framework for negotiating that process after 1990. Elimination of the MFA and imposition of GATT rules would essentially result in replacing import quotas with tariffs.

The Multifiber Arrangement

The Multifiber Arrangement (MFA), which regulates the international trade in textiles and apparel, first came into existence in 1974, having evolved from the Short-Term and Long-Term Arrangements of the GATT.³ The MFA was most recently modified in 1986, when MFA member-developed and developing countries agreed to a five-year extension of its current rules. The MFA, which typically restricts the flow of textile products between importing industrialized countries and exporting developing countries, is invoked only for those products which are imported in significant quantities.

The MFA covers most cotton textile products, but has not yet been invoked for raw cotton or cotton thread. Cotton yarn is also covered under the MFA; however, trade restrictions on cotton yarn have not been called into action for any of the sub-Saharan African countries reviewed in this study. In fact, none of the countries covered in this study are signatories of the MFA. Therefore, sub-Saharan African countries must negotiate bilaterally with the United States regarding quotas for exporting raw cotton, cotton thread, and cotton yarn.

2.4 AGRICULTURE PROGRAMS AFFECTING COTTON

Cotton and other U.S. farm commodities have been subject to wide swings in production, stocks and prices since the turn of the century. The productive capacity of U.S. agriculture has generally exceeded the effective demand for many products, including cotton.

Since the early 1930s, U.S. Government cotton programs have attempted to support prices and adjust acreage and production to market needs. Two separate U.S. Government

³ The Multifiber Arrangement was discussed in considerable detail in the *Textile Tariff Study*.

programs for cotton are in effect, one for Upland cotton and the other for extra long staple (ELS) cotton.⁴ The Upland cotton program has been more market oriented since 1966, featuring price supports based on world price levels and direct payments to participating producers. This program has provided some price and income stability, and has eased the transition of resources out of cotton production. However, it has not solved the underlying problem of chronic overcapacity of production, loss of markets to manmade fibers, and loss of domestic markets to cotton textile imports. Although cotton programs have changed over the years, the goals and many provisions of recent legislation (discussed below) trace back to the Agricultural Adjustment Acts of 1933 and 1938.

The Food Security Act of 1985

New farm legislation was developed in 1985, at a time when the cotton market was characterized by falling mill use, lower export expectations, rising stocks, growing textile imports, and low farm prices. The Food Security Act of 1985 (FSA) established farm policy for five crop years, 1986-1990. This act retained some major features of past farm acts, including acreage limitations, non-recourse loans, and target prices, but the FSA vested the Secretary of Agriculture with more discretionary authority for administering annual commodity programs. The FSA provides for greater market orientation and more flexibility to promote market competitiveness. The FSA also specifies declining target price minimums through 1990.

Loan rates under the FSA are tied to an average of past world market prices with provisions for allowing loans to be repaid at levels below the loan rate if market competitiveness might be hampered by the formula-determined rate. The basic loan rate for Upland cotton in 1986 was set at 55 cents per pound for 1-1/16 inch fiber length cotton.

⁴ Ninety-nine percent of the cotton grown in the United States is Upland cotton. ELS cotton is defined as having a staple length of 1-3/8 inch or longer. Upland cotton is the type of cotton with which African cotton is most likely to compete. For this reason, this section discusses Upland cotton support programs in greater detail.

14

The rate for 1987 was 52.25 cents per pound. (The Department of Agriculture's support to U.S. cotton growers in 1987 amounted to \$1.4 billion.) In 1988-1990, the loan may not be reduced by more than 5 percent annually, as it was in 1987, from the rate of the preceding crop, and the minimum loan rate through 1990 is 50 cents per pound.

Another major provision of the FSA provides a loan repayment plan if the basic rate is not competitive on world markets. If the world price of cotton, as determined by the Secretary of Agriculture and adjusted to U.S. quality and location, is below the loan rate, a loan repayment plan must be implemented. A generally accepted average for U.S. production costs is \$360 per acre, with a range of \$300 to \$430 per acre. The world market price of cotton is approximately equal to a production cost of \$260 per acre, amounting to a \$100 per acre subsidy from the U.S. Government.

If the loan program fails to make U.S. cotton fully competitive in world markets and the world price is below the loan repayment rate, negotiable market certificates must be issued to first handlers of cotton. The value of these certificates is based on the difference between the loan repayment level and the adjusted world price of cotton. Target prices for Upland cotton were frozen for the 1986 crop at the 1985 level of 81 cents per pound. Subsequent minimum target price levels per pound were 79.4 cents in 1987, 77 cents in 1988, 74.5 cents in 1989, and 72.9 cents in 1990.

If the Secretary of Agriculture determines that the supply of cotton is excessive, an acreage limitation program or paid diversion program, or both, is authorized. This is also called the "Payment In-Kind" or PIK program. The FSA specifies that, to the extent practicable, an acreage limitation program should create a carryover of 4 million bales of Upland cotton.

Prospects for New Legislation

During the Reagan Administration, two textile trade bills were introduced and passed by Congress before finally being vetoed by the President. Since then, Rep. Sam Gejdenson (D-Conn.) told industry representatives at the March 1989 annual meeting of the Knitted Textile Association (KTA) that no new textile legislation is expected in 1989. The KTA plans to set up a committee to establish yarn standards which would have a direct impact on fiber producers in terms of the delivery and quality of yarns coming from spinners.

A new farm bill is expected in 1990, as a replacement for the Food Security Act of 1985. At this point, it is too early to determine the content of the proposed legislation or its effect on African exports to the U.S.

CHAPTER 3. U.S. INDUSTRY PERSPECTIVES ON AFRICAN COTTON

The U.S. cotton industry can be broken down into producers, ginners, spinners, textile and garment manufacturers, and merchandisers. According to the National Cotton Council, there are an estimated 25,000-30,000 cotton farmers in the U.S., 1,500 ginning operations, and 100 spinners. Another 100 entities are involved in exporting and merchandizing. There is some vertical integration within the U.S. industry. For example, about 25 percent of the growers/producers are members of cooperatives that own their own ginning operations. There have also been consolidations in the milling operation, resulting in increased integration.

The National Cotton Council, representing producers, ginners, warehousemen, merchants, cooperatives, textile manufacturers, and cottonseed crushers, was asked to provide their perspective on cotton imported from Africa. Their response was that because imports represent such a negligible percentage of total cotton use in the U.S. and because African imports are a very limited percent of the total, the question is almost meaningless. Further, only high-quality cotton that is not available in sufficient quantities domestically (e.g., extra-long staple cotton from Egypt and Sudan) would be considered for import.

The countries considered in this analysis have well established trading relationships outside the U.S., mostly with their former colonial ties. In fact, industry trade groups view the African countries as competitors with the U.S., because the African countries have access to markets in Europe, for example, which have been difficult for the U.S. industry to penetrate. On the whole, increasing African raw cotton exports to the U.S. is considered problematic, particularly to U.S. industry groups that represent some segment of domestic cotton producers.

Several cotton companies engaged in spinning, textile manufacturing and merchandizing were asked to give their views on imported African cotton. The public and private sector

groups contacted as well as those that could provide MDI further insights, are listed in Appendix 3. While the companies represent some of the largest textile manufacturers in the U.S., none had any experience with importing cotton from the countries covered in this analysis. Their comments concerned both product quality and price.

Because of the variability in cotton quality, most U.S. buyers rely on familiar sources. In fact, as mentioned earlier, many of the largest textile companies own their own production and ginning operations. Because the quality of cotton varies so much from country to country and even within a country, and because the company representatives were unfamiliar with the specific fibers produced by the study countries, the discussion was focused more on generic quality than on cotton from the study countries. It was suggested that in order to accurately assess the quality of cotton from the study countries, samples would need to be analyzed either by individual companies or through industry-wide laboratories (e.g., Cotton Incorporated).

The quality of any new source of cotton supply is generally a concern to U.S. millers, particularly imports from developing countries. Although there are numerous exceptions (e.g., Egypt and Pakistan), cotton produced in developing countries is perceived as having less quality control. The issues that arose most frequently in the discussions were fiber length and uniformity, strength, grade, sugar content, nep content (e.g., knots and tangles), non-lint content, and contamination. Although all cotton entering the U.S. must go through fumigation at U.S. ports, infestation is a primary concern.

The relative cost of African cotton is of minor concern to those interviewed. Discussions of the competitiveness of African cotton with U.S. cotton seemed meaningless to the industry representatives because of the significant quality variation and existence of subsidies, both domestically and in the African exporting countries.

For the most part, U.S. spinners buy cotton locally in order to reduce the costs associated with transporting cotton long distances. It was felt that transportation costs would constitute a major criterion in purchasing cotton from the study countries. Most of these countries ship their cotton to Europe, which the International Cotton Advisory Council indicates can cost as high as 70 cents per pound. The costs of shipping to the U.S. are considered to be equal to, if not greater than, the shipping costs to Europe.

CHAPTER 4. TRENDS IN WORLD COTTON MARKETS

Cotton is one of the oldest agricultural products traded internationally. Much of the world's cotton production capability was established during the colonial periods of Africa and the Americas. As individual countries gained their independence, cotton remained a major source of export earnings. Today, cotton is produced in over 100 countries worldwide.

4.1 WORLDWIDE COTTON PRODUCTION

During the past decade (1980-1989),¹ worldwide production of cotton has been dominated by the United States, the Soviet Union, and the Peoples Republic of China (PRC): each produced over 10 million bales of cotton per year. Together, these three countries account for roughly half of total worldwide cotton production. Pakistan and India produce between 7 and 8 million bales per year each; Brazil and Turkey produce 3 to 4 million bales each. Greece, Australia, Egypt and Mexico all produce 1 million bales or more per year. Together these eleven countries account for about 80 percent of worldwide annual cotton production.

Over this ten-year period, a number of African countries (many of which are covered in this study) have become significant sources of cotton production. Exhibit 2 provides the figures for the countries covered in this study, as well as a total for all other African producers. Cotton production statistics are available for all of the countries covered in this study except Gambia and Swaziland. The eight largest producers of raw cotton in Africa are Sudan, Cote d'Ivoire, Zimbabwe, Mali, Tanzania, Burkino Faso, Cameroon, and Chad, in that order. Each of these countries produced over 200,000 bales of cotton in 1989.

¹ Years given for production of cotton are based on the harvest period, e.g., August 1 - July 31. For example, 1989 is actually August 1, 1988 to July 31, 1989.

Exhibit 2

Worldwide Cotton Production (thousand bales)

COUNTRY	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Rate of Growth
Sudan	446	712	944	1,021	933	652	753	613	730	690	0.045
Burkino Faso	108	99	132	138	158	211	303	269	276	334	0.120
Cameroon	149	141	131	170	176	211	223	207	299	268	0.060
Chad	144	120	175	275	163	178	156	220	253	227	0.047
Cote d'Ivoire	256	260	302	268	406	378	427	523	606	532	0.076
Mali	186	175	229	252	254	308	361	344	459	456	0.094
Senegal	33	70	85	54	87	50	49	70	78	73	0.083
Ethiopia	124	124	124	90	90	100	90	90	88	84	-0.038
Kenya	36	40	35	34	54	41	35	35	35	29	-0.021
Malawi	32	19	19	49	48	35	32	45	38	33	0.003
Mozambique	80	85	70	24	25	49	136	147	135	124	0.045
Tanzania	197	207	216	217	237	150	292	392	396	350	0.059
Uganda	21	23	47	85	68	29	32	22	43	85	0.150
Zambia	39	29	22	53	76	52	49	87	85	107	0.106
Zimbabwe	283	256	275	420	473	390	367	494	436	471	0.052
Subtotal	2,134	2,360	2,806	3,150	3,248	2,834	3,305	3,558	3,957	3,863	0.061
Rest of Africa	3,076	2,906	2,659	2,495	2,573	2,776	2,817	2,590	2,502	3,023	-0.002
Africa Total	5,210	5,266	5,465	5,645	5,821	5,610	6,122	6,148	6,459	6,886	0.028
World Total	63,587	68,164	65,979	66,384	88,024	79,941	70,517	81,159	84,214	82,104	0.026

Source: International Cotton Advisory Committee, 1989.

Mozambique and Zambia each produced over 100,000 bales in 1989. All other countries for which data are available produced less than 100,000 bales.

On the whole, the rate of growth in cotton production for the study countries outpaced the rest of Africa as well as the worldwide cotton production growth rate over the period 1980-1989 (see Exhibit 2). The highest average annual growth rates were experienced in Uganda, 15 percent; Burkino Faso, 12 percent; Zambia, 11 percent; and Mali, 9 percent. Ethiopia and Kenya experienced negative growth rates in average annual production of raw cotton.

The World Bank and the French Government have conducted cotton development programs in Francophone Africa as part of the host governments' efforts to ensure national food security, to increase agricultural exports, and to alleviate rural poverty. From 1970 to 1983 World Bank programs provided support services to increase cotton and foodcrop production; funds for buildings, equipment, staff, and operating expenses for the project authorities; and the construction of roads, village wells (Cote d'Ivoire and Togo) and cotton ginneries (Burkino Faso and Cote d'Ivoire). The French Government's assistance has centered around two organizations set up in West African following World War II, the Compagnie Francaise pour le Development des Fibre Textiles (CFDT), an organization to help French-speaking sub-Saharan African states to implement their cotton policy; and the Institut de Recherche du Coton et des Textiles Exotiques (IRCT), which was established as one of a series of tropical institutes for applied research. IRCT maintains research stations in several countries (Cote d'Ivoire, Chad, Mali, Central African Republic).

Cotton is an important cash crop in Francophone Africa. It is produced by small land holders, in rotation with foodcrops, in a number of countries in the Sahelo-Sudanese climatic zone. The success of these programs contrasts with the generally weak record of agriculture in Africa, and particularly, the poor performance of cotton development projects in a number of other African countries. The ginning yields in Francophone Africa have

improved considerably, from 28 percent to 30 percent in 1950 to between 38 percent and 44 percent in 1987-88. Current varieties have a staple length of 1-1/32 to 1-1/8 inch. In 1950 staple length barely reached 1-1/16 inch. The maximum experimental crop yield has increased from 500 kilograms to as much as 1,200 kilograms of seed cotton per hectare (Cote d'Ivoire: 1,400 kilograms). Successful research results are disseminated with assistance from IRCT.

The rapid and considerable rise in cotton production over a ten-year period in each of these countries is due to a combination of the expansion of cultivated areas and increases in yields resulting from a rapid technology transfer to farmers. The programs relied on the integration of technical, financial, and marketing services to farmers.

In a number of French West African producing countries, prices are guaranteed to cotton farmers by the government through a national stabilization fund. The national cotton development organizations are entrusted by the funds to select the most appropriate cotton marketing channels. While a number of countries use only the services of Compagnie Contonaire, headquartered in Paris, as their selling agent, others such as Chad have their own marketing organization (Cotonchad). Still others have begun to allow given quantities to be sold through private agents in addition to Compagnie Cotonnaire (e.g., Cote d'Ivoire).

Until 1985, governments benefited from substantial revenues from the cotton subsector, except where policy dictated the transfer of resources on equity grounds, as in Cote d'Ivoire. The dramatic drop in world cotton prices in 1986, due mostly to a massive production increase in China, together with the fall in the value of the U.S. dollar, has adversely affected the economic and financial impacts of price support systems. With existing producer prices, sales from the cotton subsector in 1986 resulted in estimated losses of \$22 million in Burkino Faso, \$72 million in Cote d'Ivoire, and \$20 million in Togo. These losses have amounted to 50 percent of the accumulated earnings from cotton in the stabilization funds of these three countries.

Annual Raw Cotton Production (1984-1989)

In 1984/85 world cotton production hit a record 88 million bales (each weighing approximately 480 lbs of lint), exceeding consumption by nearly 18 million bales. That year also set a record for crop yield at 486 lbs/acre, a 21 percent increase over the previous year. As a result of reforms in China, allowing Chinese growers to sell outside the state controlled markets, Chinese cotton production more than doubled between 1981/82 and 1984/85. In May 1985, Chinese cotton stocks represented 48 percent of the world stocks. (By contrast, that figure was only 7.5 percent in 1982.) For the first time since 1974, non-U.S. production in 1984/85 exceeded non-U.S. consumption. World ending stocks in 1984/85 reached a record 42 million bales, resulting in a sharp drop in the world market price, from 87.6 cents per pound to less than 70 cents per pound.²

Although world production dropped to about 80 million bales in 1985/86, ending stocks rose to about 48 million bales, a 60 percent surplus. The world market price of cotton continued to fall to 48.8 cents per pound, the lowest price since 1972/73 (not inflation adjusted). In 1985/86, U.S. production represented 20 percent of world production, approximately 3,600,000 bales, valued at \$4 billion (\$ 1988). The U.S. accounted for less than 17 percent the previous year.

In 1986/87 worldwide cotton production continued to fall to 70 million bales; ending stocks represented 50 percent of the total. The U.S. share of world production fell to only 13 percent. Cotton prices rose to an average of 62 cents per pound.

Cotton production in 1987/88 increased to just under 80 million bales, while ending stock declined to 33 million bales, or 41 percent of the total. The average price of cotton rose

² Prices given are based on C.I.F. (crate, insurance and freight) in Northern Europe, as reported by Cotlook, Ltd.

to 72 cents per pound. The cotton yield per acre topped the 1984/85 record of 486 pounds per acre, reaching 489 pounds per acre in 1987/88.

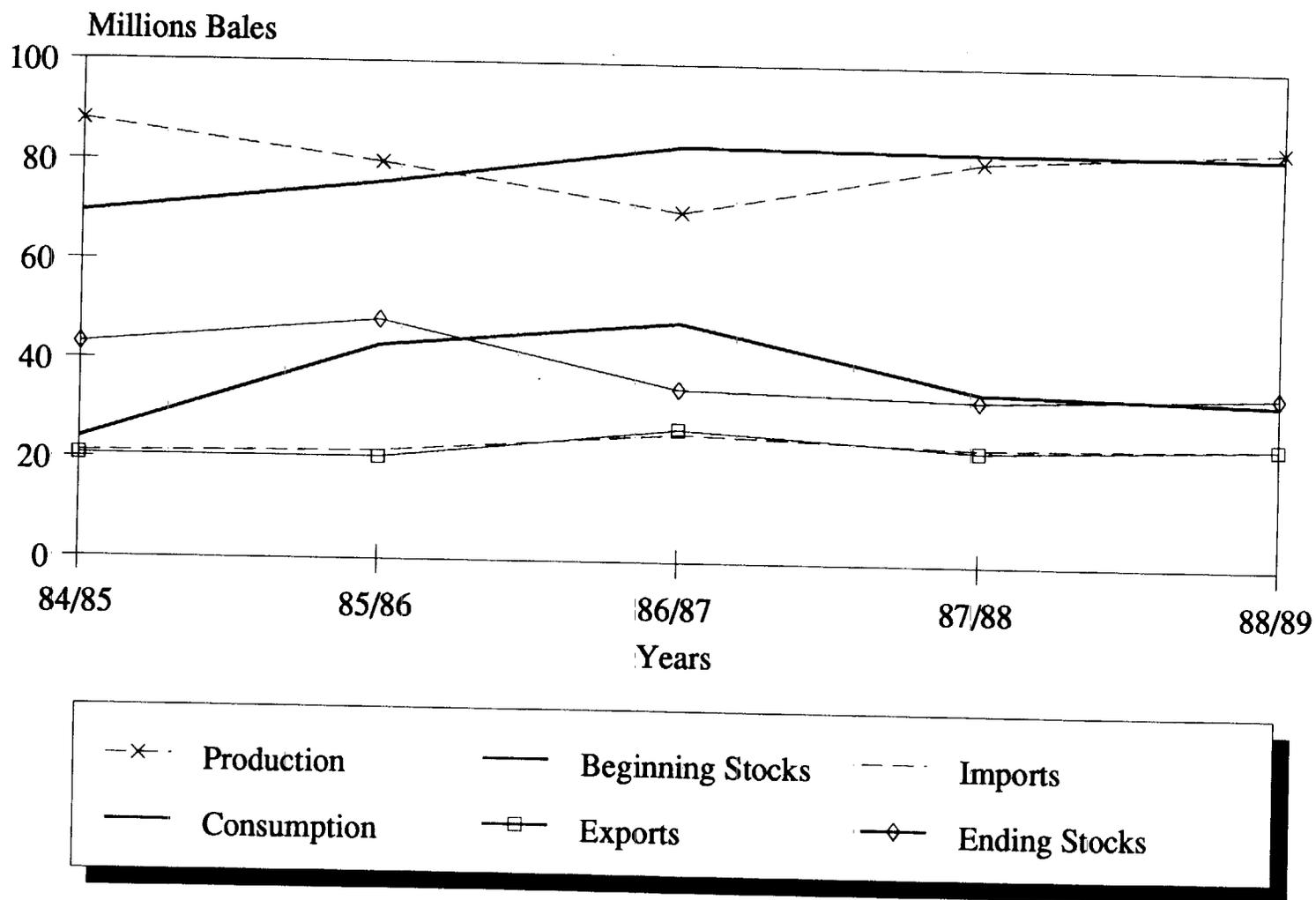
Worldwide cotton production in 1988/1989 hit 84 million bales, a six percent increase over the previous year. Ending stocks were roughly equal to the two previous years, totaling just under 35 million bales. Yield per acre fell slightly to 478 pounds per acre. The average world market price of cotton was 70 cents per pound. Exhibit 3 illustrates the world cotton supply and use over the past five years (1984-1989). Exhibit 4 shows world market prices over this same period.

4.2 AFRICAN COTTON EXPORTS

Of the countries covered in this analysis, the largest exporters of raw cotton in 1989 were the Sudan (605,000 bales), Cote d'Ivoire (498,000 bales), Mali (442,000 bales), Tanzania (400,000 bales), Zimbabwe (346,000 bales), and Burkino Faso (323,000 bales). The other study countries' exports are each less than 300,000 bales per year. The study countries accounted for 77 percent of the total exports coming from Africa, and 13 percent of worldwide exports.

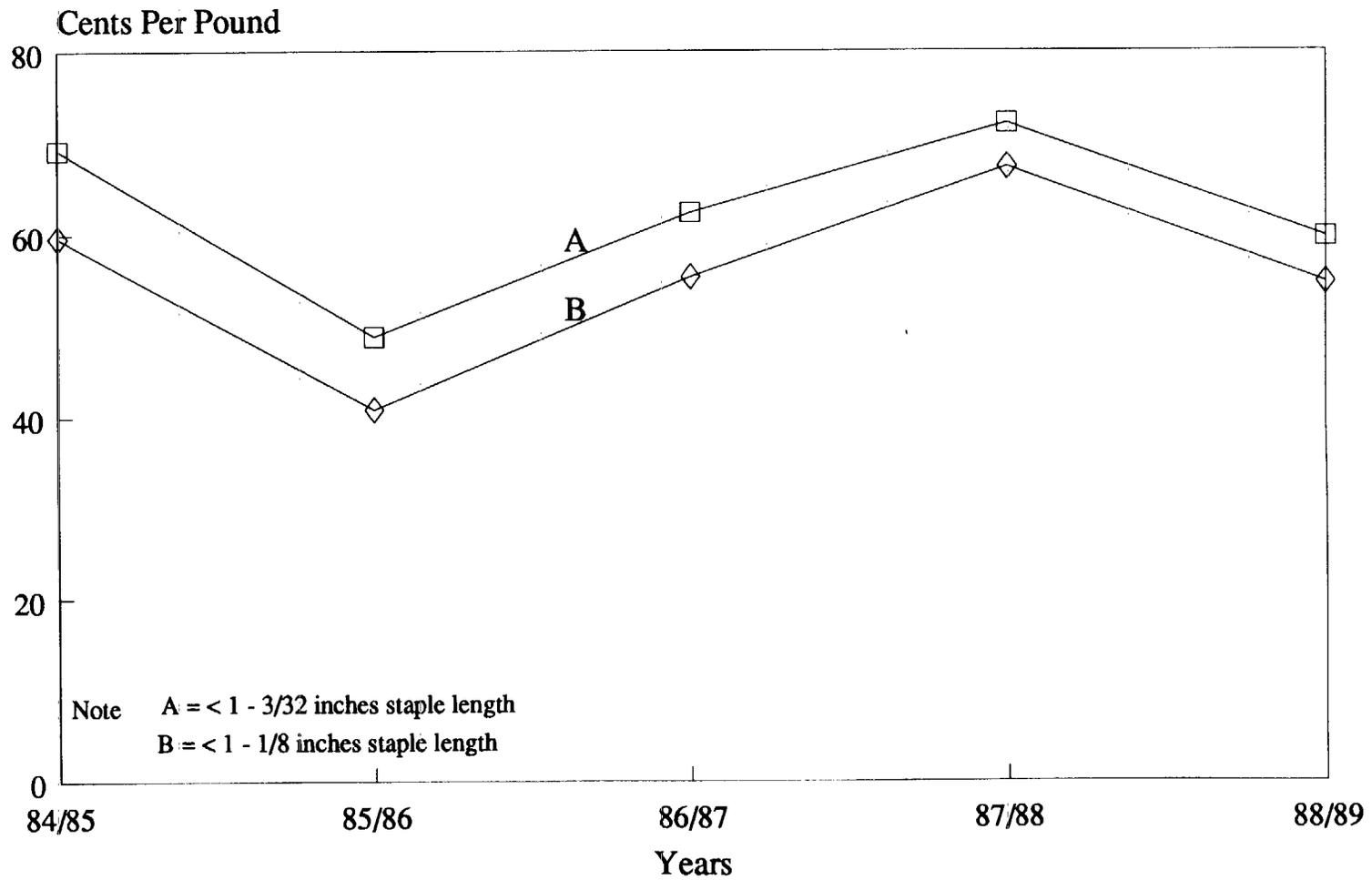
During the 1980s, several countries experienced phenomenal average annual growth rates in cotton exports (see Exhibit 5). For example, in Uganda the average growth rate over the past ten years has been 28 percent. Other countries with high average annual export growth rates include Zambia (16 percent), Senegal (14 percent), Burkino Faso (13 percent), and Mali (11 percent). The average growth rate for the all of the countries covered in this study was over 7 percent per year, compared with 0.8 percent for the rest of Africa, and a

Exhibit 3
World Cotton Supply and Use (1984-1989)



Source: International Cotton Advisory Committee, 1989.

Exhibit 4
World Cotton Prices
(e.g., North Europe)



Source: International Cotton Advisory Committee, 1989.

Exhibit 5

Worldwide Cotton Exports (thousands bales)

COUNTRY	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Rate of Growth
Sudan	426	255	641	1,004	666	686	1,217	639	570	605	0.036
Burkina Faso	95	7	119	144	169	157	296	275	275	323	0.130
Cameroon	124	118	103	141	112	153	163	225	270	250	0.073
Chad	149	115	163	264	150	165	147	190	243	213	0.036
Cote d'Ivoire	195	139	175	245	305	292	294	420	470	498	0.098
Mali	159	159	216	169	225	275	346	336	430	442	0.108
Senegal	15	39	67	25	60	35	31	50	60	56	0.141
Ethiopia	20	26	21	12	0	10	0	0	0	0	-1.000
Kenya	5	0	5	0	0	6	9	7	5	6	0.018
Malawi	14	5	2	0	9	33	10	3	15	13	-0.007
Mozambique	50	50	40	35	20	15	70	90	90	80	0.048
Tanzania	166	155	115	166	88	109	199	177	224	400	0.092
Uganda	5	7	17	16	41	28	22	12	25	57	0.276
Zambia	16	9	0	19	18	30	25	50	50	70	0.159
Zimbabwe	251	251	235	241	276	332	316	321	312	346	0.033
Subtotal	1,690	1,335	1,919	2,481	2,139	2,326	3,145	2,795	3,039	3,359	0.071
Rest of Africa	913	1,060	1,053	992	944	976	1,004	804	720	990	0.008
Africa Total	2,603	2,395	2,972	3,473	3,083	3,302	4,149	3,599	3,759	4,349	0.053
World Total	20,052	20,363	19,590	19,846	20,754	20,688	26,850	23,700	24,500	25,300	0.024
Percent of Total Exports	0.084	0.066	0.098	0.125	0.103	0.112	0.117	0.118	0.124	0.133	0.046

Source: International Cotton Advisory Committee, 1989.

worldwide growth rate of only 2.4 percent. Most important, over the ten-year period, the study countries' share of worldwide exports grew from 8.4 percent in 1980 to 13.3 percent in 1989.

The primary markets for African cotton exports have been Taiwan, France and West Germany. In 1988, the countries covered in this study accounted for 17 percent of all cotton imports into Taiwan, 11 percent into France, and 19 percent into West Germany. Several of the countries covered in this study have also exported significant quantities to other nations. For example, Burkino Faso has exports to Japan, Morocco, Spain, Tunisia, the U.K. and Venezuela; Cameroon to Belgium, Italy, Japan, Nigeria, and the U.K.; Chad to Belgium, Japan, Nigeria, Portugal, Spain, and the U.K.; Cote d'Ivoire to Indonesia, Japan, Malaysia, Morocco, and Portugal; Senegal to Italy, Japan, Tunisia, and the U.K.; Sudan to Bangladesh, Belgium, PRC, Hong Kong, Italy, Japan, South Korea, Romania, Thailand, USSR, and Yugoslavia; Tanzania to Hong Kong, Italy, Malaysia, Portugal, Singapore, Spain, the U.K. and Yugoslavia; and Uganda to Hong Kong, Portugal, the U.K., and Yugoslavia.

Importance of Sub-Saharan Africa Cotton Exports

Over the past three seasons, exports have constituted about 66 percent of total production in sub-Saharan Africa. Some of the cotton in these countries is spun locally into yarn. The largest producers of cotton yarn are Cote d'Ivoire, Ethiopia, Senegal, Tanzania, and Zambia. Several of the African developing country fiber exporters have not developed their textiles and clothing industry to the extent that it can facilitate their participation in exporting processed products. These countries are still dependent on commodity trading, with all its attendant problems, and thus realize no additional value added to the gross domestic product (GDP). They have the natural resources of textile fibers, but are not able to take the path of industrialization in the textile sector. The main examples of countries

still exporting essentially fibers, and importing processed textiles, are shown in Exhibit 6. These countries are Mali, Chad and Burkino Faso.

In Mali and Chad, cotton accounts for over half of total export earnings. Cotton exports from Chad represent 93.5 percent of the total exports. Similarly, Mali's exports of cotton represent more than 68 percent of its total exports. Both countries have the natural resources for the production of textiles. Investment is needed to manufacture the raw cotton and to realize some value added. But with the flags of restriction on the importation of textiles and clothing being raised and the MFA in operation as an actual or potential trade weapon against exporters of textiles and clothing, investment would certainly be restricted if not inhibited altogether. The mere fact that the MFA is in existence inhibits investment and would be stifling to the growth of the potential exporting countries, even those which are not members of the MFA.

Furthermore, the overall demand for fibers is derived from the demand for textiles and clothing, as well as other industrial products made from those fibers. Any increase in consumption of end-use products resulting from a liberalization of trade would also improve the market prospects for producers and exporters of fibers, and cotton in particular.

African Exports of Cotton Yarn

Because of the limited amount of data available on African cotton yarn exports, it is difficult to determine any significant trends during the past decade. For example, Burkino Faso doubled its exports from 1984 to 1985 (100 to 200 metric tons); however, data for other years are not available. Cote d'Ivoire exports grew from 1,880 to 2,160 metric tons between 1978 and 1980. Again, data for other years are not available. Senegalese exports averaged 100 metric tons per year between 1981 and 1983 before jumping to 270 metric

Exhibit 6
African Countries Exporting Primarily Fibers, 1985
(millions of dollars, f.o.b.)

Country Item	Exports	% Share of Total Exports	Imports	% Share of Total Imports	Net Trade
<u>Mali</u>					
Fibers	77	68.4	1	0.3	+ 76
Textiles	4	3.8	19	5.8	- 15
Clothing	-	-	4	1.1	- 4
Total	81	72.2	24	7.2	+ 57
<u>Chad</u>					
Fibers	43	93.5	1	0.8	+ 42
Textiles	-	-	1	1.3	- 1
Clothing	-	-	-	-	0
Total	43	93.5	2	2.1	+ 41
<u>Burkina Faso</u>					
Fibers	15	30.9	3	1.3	+ 12
Textiles	1	1.7	5	2.3	- 4
Clothing	-	-	-	-	0
Total	16	32.6	8	3.6	+ 8

Note: Fibers refer to SITC 26, textiles to SITC 65, and clothing to SITC 84.

Source: United Nations COMTRADE Data Base.

tons in 1984. Exports from Malawi fell from 430 metric tons in 1981 to 70 metric tons in 1984. Exports from Kenya were 430 metric tons in 1981, 140 in 1982, 20 in 1983, and 70 in 1984. In Tanzania, cotton yarn exports grew from 80 metric tons in 1983 to 200 metric tons in 1984 before leveling off. In 1985, the only year reported, Zambian exports amounted to 10 metric tons. Finally, exports from Zimbabwe peaked in 1979 and 1980 at about 1,500 metric tons before falling to less than 4 metric tons in 1982. Zimbabwean cotton yarn exports increased again to 57 metric tons in 1984, the last year reported.

4.3 U.S. COTTON IMPORTS

According to the U.S. Department of Agriculture, Foreign Commercial Service, the U.S. has imported raw cotton from ten different countries during the past five years (1984-1988): Canada, Mexico, Barbados, Brazil, Italy, India, Pakistan, China, Egypt, and Sudan. Total imports grew from 2,617 metric tons (valued at \$4,911,456) in 1984 to 7,162 metric tons (\$8,251,768) in 1986. By 1988, imports fell drastically, with only Mexico, India, and Pakistan shipping cotton to the U.S. Total imports were only 341 metric tons in that year (\$454,500).

Of the countries considered in this study, only Sudan exported cotton to the U.S. over the past five years. According to the U.S. Department of Agriculture's Foreign Commercial Service, the value of imports from Sudan fell from nearly \$1 million in 1984 to only \$687 in 1985. No imports from Sudan were reported after 1985.

It is interesting to note that while the U.S. is a net exporter of raw cotton, it is a net importer of cotton yarn and fabric. U.S. imports of cotton yarn have increased from 13,970 metric tons in 1978 to 61,010 metric tons in 1987. Imports actually declined during 1978-1979. Between 1980 and 1987, U.S. imports of cotton experienced an average annual growth rate of roughly 28 percent, increasing from 8.71 metric tons to 61.37 metric tons. Imports of cotton fabric have also grown steadily over the last decade, from 136,030 metric tons in 1978 to 303,950 metric tons in 1987 (the last year for which data are available), an 8.4 percent average annual rate of growth (see Exhibit 7).

4.4 AFRICAN COTTON COSTS AND QUALITY

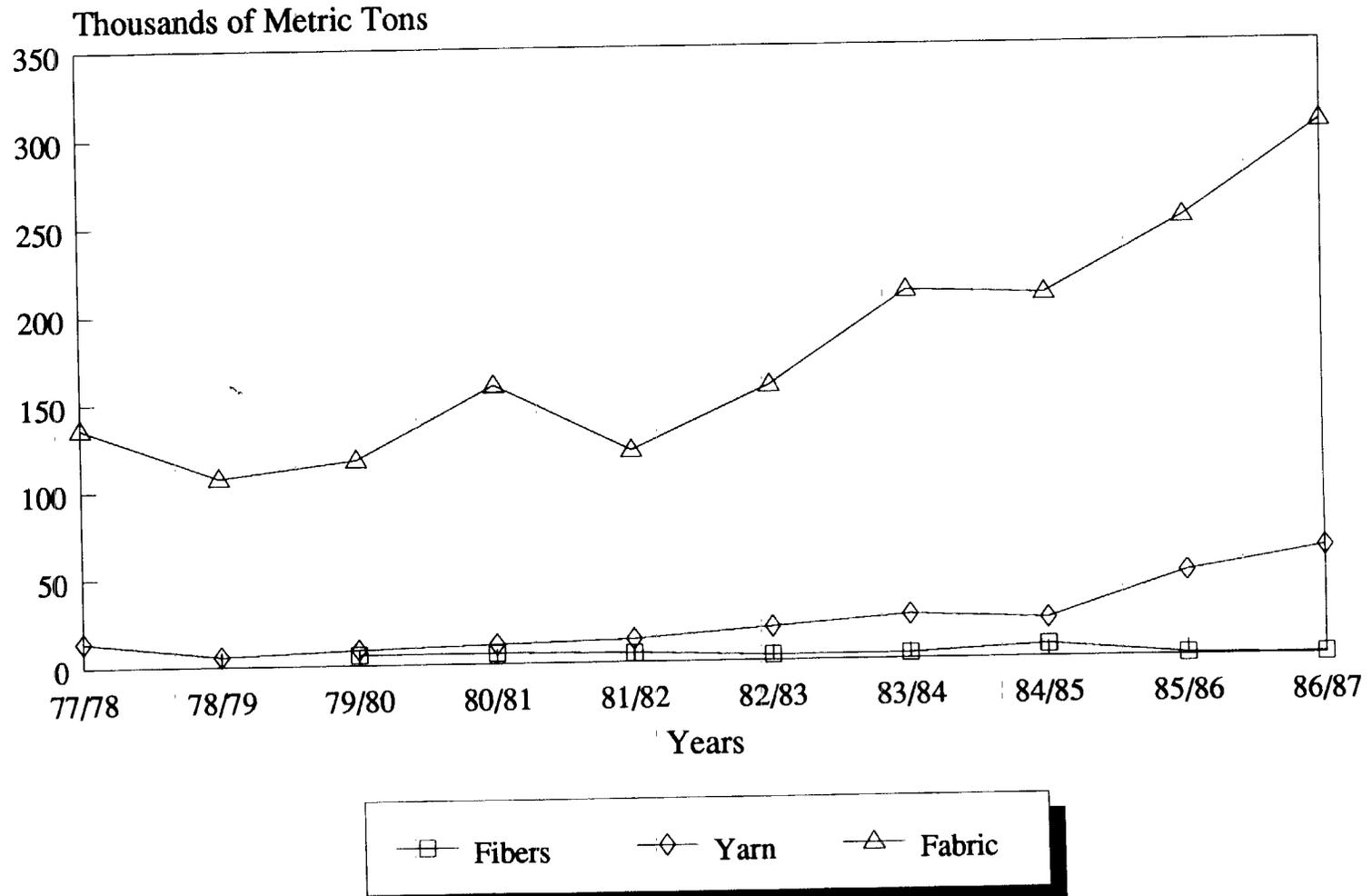
As with any agricultural product, cotton is not a homogeneous product. Cotton is traditionally classified by staple length, micronaire and grade, the latter being a composite judgment of color, foreign matter content and preparation, based on a comparison with referenced cottons. Cotton fibers are frequently blended prior to spinning in order to achieve a more uniform yarn as an end product. Nonetheless, quality has become an important factor in determining the market price of cotton fibers.

Quality of African Cotton

Traditionally, most cottons from Africa are rated high on the quality scale. The process of handpicking, the low risk of adverse weather conditions, the limited number of varieties cultivated, and the successful breeding of quality varieties have all contributed to its high quality. For example, In Mali and Cote d'Ivoire, lint cotton is classified into three types (superior, intermediate, inferior), the superior type representing 90 percent of total cotton production in Cote d'Ivoire. However, some African cotton suffers from infestation by whiteflies and aphids which deposit honeydew, a sticky substance, on the cotton. The stickiness causes problems at textile mills. Because no proven method has been developed to detect sticky cotton prior to delivery, most textile buyers rely heavily on the past reputations of their suppliers.

Although African Cotton, especially from Cote d'Ivoire, can appear to be very clean upon superficial visual inspection, it can contain a high level of seedcoat fragments, which presents a problem for fine-count spinners. Research results indicate a genetic deficiency

Exhibit 7
U.S. Cotton Imports



Source: International Cotton Advisory Committee, 1989.

as the factor most responsible for this phenomenon. The addition of jet cleaners and new milling operations will be required to reduce the seed content of cotton.

African cotton has also been found to yellow when storage time is increased after harvest. One possible cause is excessive storage time under unsuitable conditions at ports of embarkation. Most African cottons are shipped in containers to ports in Europe where they are unpacked for inspection and then sent to customers by conventional means of transport. House-to-house delivery in containers has become an established practice for many cotton producing countries. African countries should seriously consider the same practice in order to mitigate yellowing effects.

Comparative Costs of Production

In order for African cotton to be competitive in the export market, these countries' cotton production must be in line with the costs of other countries. As mentioned earlier, the U.S. subsidizes raw cotton exports, so that competitiveness in the export market must also account for any subsidies. It should be noted that the majority of French-speaking African countries have currencies linked to the French franc, and therefore do not have the possibility of currency devaluation.

Most African countries have a comparative advantage in their low costs for land and labor. According to the International Cotton Advisory Committee, Zambia, Malawi, Tanzania, and Burkino Faso all are categorized as having the "least costly" variable cash costs of production (costs of farm inputs paid by the farmer), ranging from 20 to 45 cents per pound. On the other hand, post-harvest costs (collection, ginning, transport to port, storage, freight, insurance and commissions) in most African countries amount to an average of 40 percent of the total costs. These post-harvesting costs are estimated to be about 70 cents per pound.

Any international comparison of cotton production costs must be approached with a degree of caution. That is, the costs are frequently produced by government sources, particularly in the African countries. Moreover, subsidies may exist (e.g., free land or other inputs) that are not reflected in the accounting.

Exhibit 8 provides an inter-country comparison of cotton production costs. Cost data are given for three different U.S. producing areas and Zambia, Malawi and Burkino Faso. U.S. producers have much higher costs per hectare (Net CASH-COSTS/ha in Exhibit 8). The net costs per hectare for Zambia and Malawi represent only 11 percent and 14 percent, respectively, of the average of the three U.S. production cost figures. The comparative costs per pound (Net CASH-COSTS/lb lint) are similar. Modern farming and harvesting techniques have combined to give the U.S. a much higher yield per acre, ranging from 355 to 1,232 kilograms/hectare, as compared with 212 to 416 kilograms/hectare in the African countries.

Exhibit 8

Inter-country Comparison of Cotton Production Costs

CASH-COSTS	United States				Zambia	Malawi	Burkino Faso
	West	Plains	Delta	S.E.			
SC yield (kg/ha)	3850	1550	2195	2134	610	1513	1207
Lt yield (kg/ha)	1232	355	722	715	212	232	476
Ginn Ratio (%)	32.0	22.9	32.9	33.5	34.8	38.0	39.4
Exchange Rate (lc/\$)	1	1	1	1	10	2.82	330
Inputs	(in \$U.S. per hectare)						
seed	24.59	20.68	17.82	17.05	--	free	1.21
fertilizers	116.73	19.64	73.14	113.42	--	--	51.82
pesticides	168.96	57.13	199.02	267.17	52.00	49.47	29.09
water	81.30	3.33	--	--	--	--	--
Total	391.58	100.78	289.98	397.64	52.00	49.47	82.12
Equipment							
power	198.92	73.76	77.37	72.08	30.00	--	6.06
Total	198.92	73.76	77.37	72.08	30.00	--	6.06
Custom/Contract	136.33	16.98	24.36	28.61	--	4.26	--
Others	77.37	22.90	34.80	30.84	--	--	--
Interest	19.25	5.38	8.15	10.58	6.56	5.30	8.87
Harvest							
manual							
Total							
Ginning							
transport							
ginning	--	--	--	--	60.00	12.41	--
Total	274.67	81.14	121.07	133.67	41.22	34.53	146.41
CASH-COSTS/ha	1098.12	300.94	555.73	673.42	188.23	117.56	279.83
CASH-COSTS/kg sc	0.29	0.19	0.25	0.32	0.32	0.17	0.23
CASH-COSTS/kg lint	0.89	0.85	0.77	0.94	0.94	0.51	0.59
CASH-COSTS/lb lint	0.40	0.38	0.35	0.43	0.42	0.23	0.27
Value of Cotton Seed	216.31	63.15	82.61	87.21	139.18	40.87	--
Net CASH-COSTS/ha	881.81	237.79	473.12	586.21	59.05	76.69	n/a
Net CASH-COSTS/kg sc	0.23	0.15	0.22	0.22	0.10	0.11	n/a
Net CASH-COSTS/kg lint	0.72	0.67	0.66	0.63	0.28	0.33	n/a
Net CASH-COSTS/lb lint	0.32	0.30	0.30	0.29	0.13	0.15	n/a
Not Included							
Power labor	115.75	41.98	42.35	38.10	--	--	22.73
Manual labor	--	--	--	--	--	63.37	--
Fixed costs							
Equipment	158.05	73.44	123.06	135.36	--	--	4.55
Land charge	295.12	64.72	114.98	92.98	--	--	--
Other	237.47	37.61	81.27	69.06	--	--	--
Management and Admin.	--	--	--	--	--	19.84	--

Note: Based on 3-year average yields.

Source: *Survey of the Cost of Production of Raw Cotton*, Prepared by the Secretariat for the 47th Plenary Meeting of the International Cotton Advisory Committee, Lima, Peru, October, 1988.

CHAPTER 5. CONCLUSIONS AND RECOMMENDATIONS

The primary conclusion of this analysis is that the U.S. is a net exporter of raw cotton, exporting as much or more than it consumes each year. Domestic surpluses and declining demand for raw cotton in the U.S. due to foreign competition and synthetics do not hold much promise for greatly expanding imports from any new sources, unless they are of high quality and locally unavailable.

In addition, there are significant trade barriers to African cotton entering the United States. While import duties on cotton are the same for all countries, the quotas on raw cotton imports are extremely low. The quotas for cotton imported from the countries covered in this study are so low that they have not been able to establish any trading relationship. As a consequence, the quotas are never filled. While the U.S. policies toward trade and protection of domestic industries are being liberalized, it is too early to tell what the net effect of changes in these policies will be on African cotton exports to the U.S.

The analysis offers a basic observation on the U.S. cotton industry and their perception of African cotton. The U.S. industry is a combination of growers, ginners, spinners, and textile manufacturers, with many of these functions overlapping. In the course of discussions with U.S. company representatives, it was extremely difficult to find an "objective buyer" who was not affiliated with some other entity that either produced or processed cotton. To obtain more objective responses, it will be necessary to test specific cottons.

Despite the limited prospects for African cotton exports to the U.S., there have been some promising signs in the growth in production and exports of the countries covered in this analysis. Because of this fact, the results of this study should not be extrapolated to other markets. Moreover, the U.S. Agency for International Development, Market Development and Investment may well have a significant role to play in providing post-harvest technical assistance to these countries for eventual export to countries outside the U.S. or in building

a capability in the value-added areas of spinning and textile manufacturing.

The principal recommendations to USAID, based on the results of this study, are as follows:

- 1) **Disaggregate the analysis to examine in greater detail the technical and marketing assistance needs of individual countries.** Special emphasis should be given to post-harvesting assistance. The French bilateral aid program in Francophone Africa is a useful example.
- 2) **Provide actual samples of African cotton fibers to U.S. companies and research facilities.** In order to accurately assess the market for various African cotton fibers in the U.S., multiple samples would be needed from each of the potential exporting countries. A.I.D. could facilitate the testing and evaluation of the study countries' cotton.
- 3) **Promote technical exchanges between U.S. and African producers to overcome U.S. industry's perceived quality concerns.** The International Cotton Advisory Committee can operate as an effective international network in this regard.
- 4) **Provide technical assistance to the study countries to increase the value-added of cotton production.** This would include growing higher-value fibers (e.g., extra-long staple) and might require establishing or enhancing milling and textile manufacturing capabilities.

APPENDICES

**APPENDIX 1. QUOTAS ON COTTON FIBERS OF STAPLE LENGTH GREATER
THAN 1-1/8 INCH**

HARMONIZED TARIFF SCHEDULE of the United States

XXII
99-30

Annotated for Statistical Reporting Purposes

Heading/ Subheading	Stat. Suf. & cd	Article Description	Units of Quantity	Quota Quantity (in kilograms)			
9904.30.50	1/	Whenever, in the respective 12-month period specified below, the aggregate quantity specified below for one of the numbered classes of articles or for the product of a specified country or area within such numbered class has been entered, no article in such class or the product of such country or area may be entered during the remainder of such period (con.):		See U.S. note 3(b) of this subchapter			
		Card strips made from cotton having a staple length under 30.1625 mm (1-3/16 inches), and cotton comber-waste, lap waste, sliver waste and roving waste, all the foregoing, the product of any country or area including the United States, entered during the 12-month period beginning September 20 in any year:			(A) Minimum Quota for certain comber wastes	(B) Unreserved Quota	(C) Total Quota
		United Kingdom.....	1/	1,307,392	653,695	1,961,087	
		Canada.....	1/	None	108,721	108,721	
		France.....	1/	68,770	34,385	103,155	
		India and Pakistan (aggregate).....	1/	None	31,582	31,582	
		Netherlands.....	1/	20,636	10,317	30,953	
		Switzerland.....	1/	13,423	6,711	20,134	
		Belgium.....	1/	11,660	5,830	17,490	
		Japan.....	1/	None	154,917	154,917	
China.....	1/	None	7,857	7,857			
Egypt.....	1/	None	3,689	3,689			
Cuba.....	1/	None	2,968	2,968			
Germany.....	1/	23,082	11,540	34,622			
Italy.....	1/	6,429	3,215	9,644			
Other, including the United States.....	1/	None	None	None			
9904.30.60	1/	Fibers of cotton processed but not spun, entered during the 12-month period beginning September 11 in any year.....	1/	Quota Quantity (in kilograms)			
				453			

1/ See chapter 99 statistical note 2.

Note: The shaded area indicates that the provision has been suspended.

APPENDIX 2. U.S. IMPORT DUTIES ON RAW COTTON

HARMONIZED TARIFF SCHEDULE of the United States

Annotated for Statistical Reporting Purposes

XI
52-3

Heading/ Subheading	Stat. Suf. & cd	Article Description	Units of Quantity	Rates of Duty		
				General	Special	2
5201.00		Cotton, not carded or combed: 1/				
5201.00.10	10 2	Having a staple length under 28.575 mm (1-1/8 inches).....	kg	Free		Free
		Harsh or rough, under 19.05 mm (3/4 inch).....	kg			
	20 0	Other.....	kg			
5201.00.20		Having a staple length of 28.575 mm (1-1/8 inches) or more but under 42.8625 mm (1-11/16 inches):.....		4.4¢/kg	Free (E, IL) 3.9¢/kg (CA)	15.4¢/kg
	10 0	Harsh or rough, having a staple length of 29.36875 mm (1-5/32 inches) or more and white in color (except cotton of perished staple, grabbots and cotton pickings).....	kg			
	20 8	Other: Having a staple length under 34.925 mm (1-3/8 inches).....	kg			
	50 1	Other.....	kg			
5201.00.50	00 5	Having a staple length of 42.8625 mm (1-11/16 inches) or more.....	kg	1.5¢/kg	Free (E, IL) 1.3¢/kg (CA)	15.4¢/kg
5202		Cotton waste (including yarn waste and garnetted stock): 1/				
5202.10.00	00 3	Yarn waste (including thread waste).....	kg	Free		Free
		Other:				
5202.91.00	00 5	Garnetted stock.....	kg	5%	Free (E, IL) 4.5% (CA)	5%
5202.99.00	00 7	Other.....	kg	Free		Free
5203.00.00	00 4	Cotton, carded or combed 1/.....	kg	5%	Free (E, IL) 4.5% (CA)	5%
5204		Cotton sewing thread, whether or not put up for retail sale:				
		Not put up for retail sale:				
5204.11.00	00 0	Containing 85 percent or more by weight of cotton..... (200)	kg	5%	2% (IL) 4.5% (CA)	25.5%
5204.19.00	00 2	Other..... (200)	kg	5%	2% (IL) 4.5% (CA)	25.5%
5204.20.00	00 9	Put up for retail sale..... (200)	kg	5%	2% (IL) 4.5% (CA)	25.5%

1/ Certain cotton, whether or not carded or combed, and cotton waste are subject to additional import restrictions (subheadings 9904.30.10 through 9904.30.60).

-ARMONIZED TARIFF SCHEDULE of the United States

Annotated for Statistical Reporting Purposes

XI
52-4

Heading/ Subheading	Stat. Suf. & cd	Article Description	Units of Quantity	Rates of Duty		2
				General	Special	
5205		Cotton yarn (other than sewing thread), containing 85 percent or more by weight of cotton, not put up for retail sale:				
5205.11		Single yarn, of uncombed fibers:				
5205.11.10	00 7	Not exceeding 14 nm: Unbleached, not mercerized.....(300)	kg.....	3.7%	1.4% (IL) 3.3% (CA)	6.9%
5205.11.20	00 5	Other.....(300)	kg.....	5.8%	2.3% (IL) 5.2% (CA)	11.9%
5205.12		Exceeding 14 nm but not exceeding 43 nm:				
5205.12.10	00 6	Unbleached, not mercerized.....(300)	kg.....	5.2%	1.7% (IL) 4.6% (CA)	10.3%
5205.12.20	00 4	Other.....(300)	kg.....	7.3%	3% (IL) 6.5% (CA)	15.3%
5205.13		Exceeding 43 nm but not exceeding 52 nm:				
5205.13.10	00 5	Unbleached, not mercerized.....(300)	kg.....	6.5%	2.2% (IL) 5.8% (CA)	13.9%
5205.13.20	00 3	Other.....(300)	kg.....	8.6%	3.4% (IL) 7.7% (CA)	18.9%
5205.14		Exceeding 52 nm but not exceeding 80 nm:				
5205.14.10	00 4	Unbleached, not mercerized.....(300)	kg.....	7.8%	3% (IL) 7% (CA)	17.3%
5205.14.20	00 2	Other.....(300)	kg.....	9.9%	4% (IL) 8.9% (CA)	22.3%
5205.15		Exceeding 80 nm:				
5205.15.10	00 3	Unbleached, not mercerized.....(300)	kg.....	9.9%	3.5% (IL) 8.9% (CA)	29.1%
5205.15.20	00 1	Other.....(300)	kg.....	12%	4.8% (IL) 10.8% (CA)	34.1%
5205.21.00	00 7	Single yarn, of combed fibers: Not exceeding 14 nm.....(301)	kg.....	5.8%	2.3% (IL) 5.2% (CA)	11.9%
5205.22.00	00 6	Exceeding 14 nm but not exceeding 43 nm.....(301)	kg.....	7.3%	3% (IL) 6.5% (CA)	15.3%
5205.23.00	00 5	Exceeding 43 nm but not exceeding 52 nm.....(301)	kg.....	8.6%	3.4% (IL) 7.7% (CA)	18.9%
5205.24.00	00 4	Exceeding 52 nm but not exceeding 80 nm.....(301)	kg.....	9.9%	4% (IL) 8.9% (CA)	22.3%
5205.25.00	00 3	Exceeding 80 nm.....(301)	kg.....	12%	4.8% (IL) 10.8% (CA)	34.1%
5205.31.00	00 5	Multiple (folded) or cabled yarn, of uncombed fibers: Not exceeding 14 nm per single yarn.....(300)	kg.....	5.8%	2.3% (IL) 5.2% (CA)	11.9%
5205.32.00	00 4	Exceeding 14 nm but not exceeding 43 nm per single yarn.....(300)	kg.....	7.3%	3% (IL) 6.5% (CA)	15.3%
5205.33.00	00 3	Exceeding 43 nm but not exceeding 52 nm per single yarn.....(300)	kg.....	8.6%	3.4% (IL) 7.7% (CA)	18.9%
5205.34.00	00 2	Exceeding 52 nm but not exceeding 80 nm per single yarn.....(300)	kg.....	9.9%	4% (IL) 8.9% (CA)	22.3%
5205.35.00	00 1	Exceeding 80 nm per single yarn.....(300)	kg.....	12%	4.8% (IL) 10.8% (CA)	34.1%

HARMONIZED TARIFF SCHEDULE of the United States

Annotated for Statistical Reporting Purposes

XI
52-5

Heading/ Subheading	Stat. Suf. & cd	Article Description	Units of Quantity	Rates of Duty		
				General	Special	2
5205 (con.)		Cotton yarn (other than sewing thread), containing 85 percent or more by weight of cotton, not put up for retail sale (con.): Multiple (folded) or cabled yarn, of combed fibers:				
5205.41.00	00 3	Not exceeding 14 nm per single yarn.....(301)	kg.....	5.8%	2.3% (IL) 5.2% (CA)	11.9%
5205.42.00	00 2	Exceeding 14 nm but not exceeding 43 nm per single yarn.....(301)	kg.....	7.3%	3% (IL) 6.5% (CA)	15.3%
5205.43.00	00 1	Exceeding 43 nm but not exceeding 52 nm per single yarn.....(301)	kg.....	8.6%	3.4% (IL) 7.7% (CA)	18.9%
5205.44.00	00 0	Exceeding 52 nm but not exceeding 80 nm per single yarn.....(301)	kg.....	9.9%	4% (IL) 8.9% (CA)	22.3%
5205.45.00	00 9	Exceeding 80 nm per single yarn.....(301)	kg.....	12%	4.8% (IL) 10.8% (CA)	34.1%
5206		Cotton yarn (other than sewing thread), containing less than 85 percent by weight of cotton, not put up for retail sale: Single yarn, of uncombed fibers:				
5206.11.00	00 8	Not exceeding 14 nm.....(300)	kg.....	10.8%	4.3% (IL) 9.7% (CA)	40%
5206.12.00	00 7	Exceeding 14 nm but not exceeding 43 nm.....(300)	kg.....	10.8%	4.3% (IL) 9.7% (CA)	40%
5206.13.00	00 6	Exceeding 43 nm but not exceeding 52 nm.....(300)	kg.....	10.8%	4.3% (IL) 9.7% (CA)	40%
5206.14.00	00 5	Exceeding 52 nm but not exceeding 80 nm.....(300)	kg.....	10.8%	4.3% (IL) 9.7% (CA)	40%
5206.15.00	00 4	Exceeding 80 nm.....(300)	kg.....	10.8%	4.3% (IL) 9.7% (CA)	40%
5206.21.00	00 6	Single yarn, of combed fibers: Not exceeding 14 nm.....(301)	kg.....	10.8%	4.3% (IL) 9.7% (CA)	40%
5206.22.00	00 5	Exceeding 14 nm but not exceeding 43 nm.....(301)	kg.....	10.8%	4.3% (IL) 9.7% (CA)	40%
5206.23.00	00 4	Exceeding 43 nm but not exceeding 52 nm.....(301)	kg.....	10.8%	4.3% (IL) 9.7% (CA)	40%
5206.24.00	00 3	Exceeding 52 nm but not exceeding 80 nm.....(301)	kg.....	10.8%	4.3% (IL) 9.7% (CA)	40%
5206.25.00	00 2	Exceeding 80 nm.....(301)	kg.....	10.8%	4.3% (IL) 9.7% (CA)	40%

18

APPENDIX 3. LIST OF CONTACTS

U.S. Government Organizations

U.S. Department of Agriculture*
Foreign Agricultural Service
Washington, D.C.
(202) 447-7832

U.S. Department of Commerce*
Import Program
Washington, D.C. 20230
(202) 377-4212

Office of the U.S. Trade Representative*
600 17th Street, NW
Washington, D.C. 20506
(202) 377-3400

U.S. Customs Service*
Entry Rulings Branch
Washington, D.C.
(202) 566-8181

U.S. International Trade Commission*
Fiber and Textile Branch
500 E Street, NW
Washington, D.C. 20436
(202) 252-1451

Congressional Textile Caucus
2266 Rayburn House Office Bldg.
Washington, D.C. 20515
(202) 225-3271

Cotton Industry Trade Groups

International Cotton Advisory Committee*
1901 Pennsylvania Avenue, N.W.
Suite 201
Washington, D.C. 20006
(202) 463-6660

American Cotton Exporter's Association
American Cotton Shippers Association
P.O. Box 3366
Memphis, TN 38173
(901) 525-2272

Cotton Council International*
National Cotton Council
1030 15th Street, NW
Suite 700
Washington, D.C. 20005
(202) 833-2943

Cotton Foundation
P.O. Box 12284
Memphis, TN 38182
(901) 274-9030

International Institute for Cotton
1511 K Street, NW
Washington, D.C. 20005
(202) 347-4220

Cotton Incorporated*
1370 Avenue of the Americas
New York, NY 10019

National Cotton Ginners Association
1850 N. Stateway Blvd.
Suite 144
Fresno, CA 93727
(214) 243-5122

Thread Institute
1101 Connecticut Avenue, NW
Washington, D.C.
Suite 300
Washington, D.C. 20036
(202) 862-0518

American Textile Manufacturers Institute
1101 Connecticut Avenue, NW
Suite 300
Washington, D.C. 20036
(202) 862-0500

Selected Members of U.S. Industry

National Spinning Co.
183 Madison Avenue
New York, NY 10016
(212) 889-3800

Dixie Yarns, Inc.*
1100 Watkins Street
Chatanooga, TN 37404
(615)698-2501

Linn-Corriher, Corp.
401 S. Main Street
Landis, NC 28088
(704) 857-1211

Dominion Textile, Inc.
1040 Avenue of the Americas
6th Floor
New York, NY 10018

Fieldcrest-Cannon, Inc.
326 E. Stadium Drive
Eden, NC 27288
(919) 627-3000

Guilford Mills*
4925 W. Market Street
Greensboro, NC 27407
(919) 292-7550

Graniteville Co.
Marshall Street
Graniteville, SC 29829
(803) 663-7231

Cone Mills, Corp.*
1201 Maple Street
Greensboro, NC 27405
(919) 379-6220

Troy Mills*
18 Monadnock Street
Troy, NH 03465
(603) 242-7711

* Public/private groups contacted