The Importance of Cotton in Africa

African Cotton in Perspective

Cotton and cotton textile industries are central to the economic growth of both developed and developing countries and contribute to development that is sustainable and socially responsible. Cotton is the raw material of wealth, industrialization and development. It is a vital cash crop providing income for everything from education, health and housing to transportation and often serves as a catalyst for industrialization and rising social welfare.

In 2005/06, cotton production in Africa totaled 1.7 million tons of lint, equal to 7% of world production and worth approximately $2 billion to African economies. African cotton exports accounted for 17% of world exports. In the Francophone countries of West and Central Africa, cotton production accounted for 4% of world production and 11% of world exports. Cotton production in East and Southern Africa accounted for 2% of production and 4% of exports. In addition, mill use of cotton in African countries totaled 550,000 tons last season, about 2% of world cotton mill use, and accounted for an additional $2 billion in added value.

Employment in the cotton sector of Africa is estimated at about 20 million, but economic dependency on cotton as the only cash crop for most families would involve far more people. Cotton is the largest employer in countries such as Burkina Faso, Chad, Mali, and Togo. In Mali, direct employment in the cotton sector is estimated at 3 million, and 13 million are estimated to be economically dependent on cotton. In Sudan, more than 300,000 families depend on cotton for their livelihoods. In Zambia, about 250,000 families with 1.4 million people representing 13% of the national population are directly dependent on the cotton industry for part or all of their livelihoods. In Mozambique, an estimated 1.5 million rural citizens earn cash directly from cotton.

Cotton facilitates the development of an industrial infrastructure including gins, oil mills, warehouses and textile plants. Cotton production generates secondary economic activities in transportation, input distribution and machine shops for equipment repair. Cotton activities account for between 5% and 9% of GDP in countries of West and Central Africa, and cotton exports account for between 35% and 40% of national exports from Benin, Burkina Faso and Chad. African cotton is produced without subsidies within agronomic systems that minimize input use, water consumption and environmental load.

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1 Remarks prepared for delivery at a conference organized by the Woodrow Wilson Center, the International Food & Agricultural Trade Policy Council and the IDEA Centre on Cotton – The Next Steps for Africa, October 26, 2006, Washington, DC
Cotton is a woody perennial crop, and as such it is inherently more difficult to manage and grow commercially than most food crops, including grains, pulses and oilseeds. Cotton is susceptible to more kinds of insects, diseases and soil borne pests, and because cotton is a broadleaved plant that must be harvested cleanly, weeds can cause greater damage. Consequently, the techniques used for cotton production result in higher levels of technology on food production being used by farmers in cotton zones, resulting in higher yields and increased food production. In Mali for example, about 550,000 tons of cereals are produced each year in the cotton zone, accounting for 30% of national cereal production and helping to maintain soil fertility. Cotton farmers produce an estimated 87% of maize, the staple food, in Zambia. Cotton farmers in Zambia are more innovated than non-cotton farmers and generally are more efficient in producing all crops.

Cotton zones are also regions of dairy and livestock production to take advantage of meal produced from cottonseed.

Because of the relatively high levels of technology required to produce cotton, and the associated requirements for input supply, cotton production leads naturally to the formation of professional associations at the village and national levels. These associations are run by farmers who organize the distribution of inputs and collection of seed cotton. Some professional associations build and run schools, health centers and cooperative credit unions in cotton areas.

**African Cotton Trade Patterns**

**Slide 2**

Cotton production in Africa as a whole rose by 3% per year from 1994/95 to 2005/06, after having been flat during the 1980s and early 1990s. The growth in African production coincided with a devaluation of the CFA. However, production has not grown in all countries. Production in North Africa has changed little since 1994/95 at 380,000 tons, while production in Francophone Africa rose from 600,000 tons to 900,000 tons. Production in Southern and Eastern Africa rose from 280,000 tons in 1994/95 to 460,000 tons in 2005/06.

**Slide 3**

However the expansion in African production came mostly from increases in area devoted to cotton, rather than rising yields. During the first three seasons of the 1980s, the average cotton yield across Africa was 336 kilograms per hectare, which equaled 78% of the world yield at that time of 433 kilograms per hectare. By the early 1990s, the average African yield rose to 362 kilograms, but this was just 63% of the world yield. And, during the three most recent seasons, the average African cotton yield was barely changed at 369 kilograms per hectare, which was just 52% of the world yield of 705 kilograms. There are a number of reasons why yields in Africa have not risen in tandem with the world yield, including lack of access to inputs, weak research and extension systems in many countries, and there is very little irrigation used on cotton in Africa, while more than half of world production is irrigated. Yields in many African countries are comparable to dry land yields in other countries.

**Slide 4**

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2 Michel Déat, *The Socioeconomic and Environmental Impact of Cotton in West and Central Africa*, CIRAD
3 Cotton Development Trust of Zambia, report to the 65th ICAC Plenary Meeting in Goiania, Brazil, September 2006.
African cotton area rose from a three-year average of 3.5 million hectares in the early 1980s, representing 10% of world area, to an average of 4.9 million hectares currently, accounting for 14% of world area. Cotton area in Eastern and Southern Africa fell from 1.9 million hectares in the early 1980s to 1.1 million hectares during one year in 1993/94, before rising again to 2 million hectares currently. Area devoted to cotton in North Africa fell from 880,000 hectares during the early 1980s to about half that level currently, while cotton production in the Francophone Zone showed impressive gains, rising from 670,000 hectares in the 1980s to 2.4 million hectares currently. The devaluation of the CFA Franc in 1994 gave a boost to cotton production in the Francophone Africa region.

Slide 5
African cotton exports climbed from about 600,000 tons in the early 1980s to an estimated 1.6 million tons currently. Exports from North Africa are trending downward and are estimated at less than 200,000 tons this season. However, exports from Southern and Eastern Africa are expanding to nearly 400,000 tons this season, and exports from the Francophone Zone are forecast at a near record of one million tons. Burkina Faso is the largest exporter from Africa, accounting for 300,000 tons last season; Mali is second with 250,000 tons, and Benin, Cameroon and Egypt exporting 100,000 tons or more. In total, 24 countries in Africa export some cotton. Egypt, Morocco and South Africa are the largest importers and combine to account for about 160,000 tons.

As is the case with everyone in the world, the largest market for African cotton exports is China (Mainland), which takes between one-third and one-half of African exports. Indonesia, Bangladesh, Vietnam, China (Taiwan) and Thailand are also significant markets for African exports. India became an important importer in recent years, especially for fine cottons from Egypt.

Slide 6
The season-average Cotlook A Index, a measure of international cotton prices, rose by only 4 cents to 56 cents per pound in 2005/06. From 1973/74 through 1997/98, the average Cotlook A Index was 74 cents per pound, but average prices have been below that level continuously during the eight seasons since. During 2005/06, record imports by China (Mainland) had been expected to push prices at least to the average level of previous decades, but actual prices remained stubbornly below the long-term average. So far in the 2006/07 season that began in August, prices have been about the same as last season, indicating that prices will remain below the average level of previous decades for another year.

Several factors may account for the fact that world cotton prices remain below the long run average, including rising yields linked to new technologies, expanded area in some countries, and government measures (subsidies) on cotton.

Slide 7
Prices for African cotton rise and fall with changes in international values. However, the spread between the Cotlook A Index and African cotton prices can vary substantially. For instance, during 2003/04, the Cotlook A Index reached an 8-year high average of 68.3 US cents per pound, but the average quote for cotton from Burkina Faso was 63.5 cents, for an average discount of about 5 cents per pound. However, in 2004/05, the quote for Burkina Faso was 9 cents above the Cotlook A Index, and similar swings in price relationships are common for all cotton quoted from Africa depending on the outlook for local production and consumption.

**Global Trends in Cotton**
Production Above Trend

Slide 8
World cotton production climbed from about 14 million tons in the early 1980s to 21 million tons by 2003/04 and then leaped to 26 million tons the next season. The average rate of increase in world production is a little over 300,000 tons per year, but production seems to have reached a new, higher, level. World production is estimated at 25 million tons in 2006/07, approximately the same as in 2005/06 but 2.5 million tons higher than the trend established between 1980/81 and 2003/04. Production is expected to rise in 2007/08 to nearly 26 million tons. Consequently, for the next two seasons, as has been the case for the past two, world cotton production is forecast to remain at levels significantly higher than the long-term trend.

Slide 9
Part of the explanation for the jump in production is that world area seems to be higher at current prices than it would have been in previous decades. Since 1980/81, world cotton area has been in a channel between 29 million hectares and 36 million hectares. In previous examples when area reached the top of that channel, market prices the previous season had been relatively high. For instance, the Cotlook A Index averaged 94 cents per pound in 1994/95, and world cotton area touched 36 million hectares the next season. However, average prices were only 68 cents per pound in 2003/04, and area rose to about 35 million hectares the next season, and world cotton area has remained near the top of its range in the two seasons since even though average prices have been less than 60 cents.

Slide 10
Subsidies paid to cotton producers in some countries, notably the U.S., Europe and China (Mainland) are undoubtedly contributing to the rise in cotton area relative to market prices. During the most recent cotton season, governments provided direct benefits to cotton producers totaling about US$5 billion, representing about one-sixth of the value of world cotton production. In the United States alone, direct support to the cotton sector amounted to approximately 17 cents per pound of production or about 40% of the farm value of cotton production.

Slide 11
The world cotton yield rose by an average of 8 kilograms per hectare per year since 1980/81 and reached about 600 kilograms in the 1990s. Yields began climbing above 600 kilograms in the late 1990s but then leapt upward to 745 kilograms in 2004/05 and have remained near that level in the two seasons since. Near-ideal weather worldwide contributed to the jump in world yields in 2004/05, but yields also improved thanks to technical progress. Cotton yields in many countries are benefiting from the expanded use of existing techniques, such as integrated pest management (IPM), better water management and improved use of fertilizers, as well as new technologies (such as biotech cotton).

Slide 12
Biotech cotton varieties now account for 30% of world cotton area and about 40% of world production. By 2009/10, more than half of world production may be accounted for by biotech cotton varieties.

World Consumption Expanding

Slide 13
Global cotton mill use is also rising by a little more than 300,000 tons per year since 1980/81, but the rate of growth has not been steady. Mill use rose rapidly in the early 1980s under the influence of expanded production and use in China (Mainland). However, the world cotton market was stagnant from the mid-1980s to the late 1990s at about 18 million tons of use. Those were years in which cotton prices were generally above prices of competing fibers, and
they also included the breakup of the USSR and its former trading block, which reduced mill use in the region by about 2 million tons over 5 years.

However, since 1998/99, mill use has been rising relatively strongly again, and consumption rose by 10% in 2004/05, to 23.4 million tons and by 6% in 2005/06 to 24.8 million tons. World cotton consumption is affected by economic growth, population growth, trade rules, promotion, and fiber prices. IMF projections suggest that the world GDP will increase by nearly 5% in both 2006 and 2007, about the same as last year (4.8%). This global economic growth will continue to lift the world textile industry. In addition, cotton prices have been falling relative to polyester prices since the late 1990s, leading to expanded cotton use. The elimination of quotas under the Multifiber Arrangement at the end of 2004 led to a shift in the location of cotton textile and apparel production to lower-cost locations, leading to increased retail sales and higher cotton use. World cotton use in 2006/07 is expected to expand by 3% to 26 million tons, and by 2% in 2007/08 to more than 26 million tons.

Slide 14
Most of the increase in global mill use since 2003/04 has taken place in Asia. Combined mill use in China (Mainland), India and Pakistan rose from 12 million tons in 2003/04 to an estimated 16 million in 2005/06, and is projected to reach 16.6 million tons in 2006/07. These three countries are forecast to account for 65% of global mill use in 2006/07, up from 56% in 2003/04. In contrast, cotton mill use in the rest of the world is projected at 9 million tons in 2006/07, down 3% from 2003/04. China (Mainland) has been the driving force behind world cotton mill use in recent years. Since 1998/99, cotton mill use in China (Mainland) has increased by an estimated 5.5 million tons, or almost 130%, accounting for about 85% of the increase in global mill use.

Slide 15
In other developing countries as a group, cotton use rose during the 1980s and 1990s, but growth has not increased since 2004/05. Cotton use in industrial countries is declining.

Slide 16
African cotton mill use is not growing, and in fact the use of cotton in Africa has fallen by about 25% since the mid-1980s. Much of the decline has occurred in North Africa as the Egyptian textile industry is being privatized. Mill use is also dropping in the Francophone Zone and in East and Southern Africa. Competition with imported products, including second-hand clothing, are reducing domestic retail demand for African textile products, and the quality, speed to market and fashion requirements that mark the modern textile industry hold no advantages for African producers.

World Cotton Trade At record levels

Slide 17
In recent seasons, China (Mainland)’s cotton production, despite being the largest in the world, has been unable to meet the substantial increase in domestic cotton mill use. Chinese imports have exceeded 1 million tons each season since 2003/04. In 2005/06, they reached a record 4.2 million tons, triple imports the previous season. In 2006/07, despite a projected increase in domestic cotton production, Chinese cotton imports are expected to remain near 4 million tons, sustaining world cotton trade at more than 9 million tons.

Slide 18
The largest exporters are the United States, Uzbekistan and India. U.S. production and exports have been trending upward during this decade because of rising yields linked to technology changes, subsidies that support the cotton industry and falling domestic use, which leaves more cotton available for export. Exports are expected to account for 80% of U.S. production this season. Exports from Uzbekistan are estimated at about one million tons this season. Uzbek shipments have also been rising as domestic use declines. Record production in India in the last two seasons inflated domestic stocks and boosted exports. Indian cotton exports are expected
to continue to increase in 2006/07 to 900,000 tons. Exports from the African CFA zone are forecast at one million tons this season, about the same level as the previous three years.

**Implications for African Cotton Producers**

**Slide 19**

African cotton producers have substantial agronomic potential for expanded output, and as was demonstrated after the most recent devaluation of the CFA Franc in 1994, cotton area in Africa can respond if incentives are attractive. World cotton demand is expanding, and so markets will always exist for African cotton.

There are always opportunities for year-to-year spikes in cotton prices caused by weather or demand shocks. However, at this time, it does not appear that cotton prices are likely to return to the average level of previous decades of between 70 cents and 80 cents per pound. Thus, African cotton industries must adapt to prices that are likely to remain some 20 cents per pound lower than they were in the 1990s, either by raising yields or learning to grow cotton with fewer inputs or by securing government support to subsidize prices. If the international community chose to support African cotton production at the same level per pound of lint production as the U.S. Government provides support to farmers, the annual cost would be about $800 million dollars, a little less than the annual cost of the cotton program in the EU and far less than the cost of the program in the U.S.

From the perspective of cotton producers in Africa and other developing countries, the key issue at hand is trade distorting agricultural subsidies that continue depressing world cotton prices, hurting millions of cotton farmers in African and elsewhere. The losses in income, employment, and foreign revenues far outnumber all of the assistance committed thus far.

At the same time, the African cotton sector welcomes support from multilateral and bilateral donors to improve the efficiency and productivity of their cotton, including:

- Investment in research (especially around varieties and technological characteristics)
- Investment in training (especially for breeders and ginning)
- Support to improve quality
- Support to improve the classification system
- Help with marketing tactics and sales information
- Increases in funds for the countries who most need them

There are concerns that many of the pledges of development assistance around cotton have not actually been implemented. The gap between commitments and disbursement remains substantial and must be closed.

Recipient country governments also have a responsibility: to establish and/or strengthen institutions, through which assistance can be channeled; to increase transparency in the allocation of donor funds; and to support their own cotton sectors.

Finally, there is a need for greater understanding of other factors affecting the competitiveness of African cotton. In particular, exchange rates and on the impacts of second hand clothing on the African textile industry should be considered.