

# COTTON INDUSTRY BRIEF

## GLOBAL COTTON INDUSTRY DYNAMICS

The global cotton market has an excess of demand over supply. Cotton production is concentrated in selected countries. Demand is similarly concentrated.

### Global Cotton Supply

The United States, India, China, Australia, Brazil and Pakistan are large cotton producers. However, China does not rank amongst large exporters due to high domestic cotton consumption. It is a major textile and clothing exporter. Global cotton output was forecast at 25.5 million mt during the 2017/2018 production season. 4.5 million metric ton cotton lint production by the United States was expected during the 2017/2018 crop marketing season. India was expected to produce 38.5 million bales of cotton while China's cotton lint production is a projected 5.3 million tons. An 800,000 mt addition to global cotton stock levels is foreseen by end 2017/2018 crop season. Africa's share of global cotton output is low with the African Franc Zone being a significant producer. Burkina Faso, Mali, Ivory Coast and Togo are prominent African cotton producers. Central Asian cotton exports are expected to decline in future owing to increased domestic consumption. Cotton sales from China's cotton reserves and decisions affecting its cotton import quota impact the global cotton market. China sold 3.2 million mt of its cotton reserve stocks by September 2017 leaving reserve holding below 5.3 million mt. An import restriction waiver to facilitate reserve replenishment is anticipated.

### Global Cotton Demand

Global cotton consumption is forecast at 24.6 million mt in 2017/2018 season, which is a 2.4% growth from the previous season. China, India, Turkey, and Pakistan dominate spinning mill ownership and consume large quantities of cotton lint. Vietnam is a major importer of U.S cotton with a US\$30bn textile and clothing turnover in 2017. Over half of the turnover is orientated towards the U.S. Further, Bangladesh, Turkey and Indonesia have had structural cotton production deficits. They too have substantial spinning mill capacity. Indonesia satisfied 98% of its cotton demand through imports in 2011/2012. African Franc Zone and central Asian cotton was in high demand during the 2016/2017 season. U.S export commitments to China, Vietnam, and Mexico accounted to over 50% of its 2017/2018 season export orders by July 2017. The 2016/2017 international cotton season closing price for the Cotlook A Index was 85.00 US\$ cents per lb with an average seasonal price of 82.76 cents per lb.

## ZAMBIA'S COTTON INDUSTRY

The 'medium' staple cotton variety is produced in Zambia. It is handpicked. There are three major actors in Zambia's cotton value chain namely; the Ginners Association of Zambia which represents ginner's interests, the Cotton Board of Zambia which is a quasi-government oversight body, and the Cotton Association of Zambia which represents small holder cotton grower. A Cotton Development Trust (CDT) is established and financed by the Cotton Board of Zambia. CDT holds the parent cotton seeds. The Seed Certification Control Institute controls all seed introduction and propagation. Hybrid cotton has been tried and deemed suitable for local production. It is yet to be commercialized. Genetically modified cotton is not allowed.

## LOCAL COTTON SUPPLY

A total 254,086 farmers grew cotton during the 2016/2017 season according to the Cotton Board. Sixty five percent cotton output emanates from Eastern Zambia. The cotton was grown on 294,233 hectares. Approximately 800,000 hectares of land is suitable for cotton production. The average cotton yield is 600kg per hectare. Cotton Association of Zambia members had higher yields of 900 kg per hectare owing to the conservation farming methods that have been dispensed to them. A major constraint to increased productivity is seed development. Two local seed varieties have been produced but aren't commercialized. Hybrid cotton seed retailing is expected to commence soon. The popularity of hybrid seed is expected to exceed existing varieties. Cotton production is concentrated in Southern Western, Lusaka and Eastern provinces. Approximately 55,925 mt of cotton seed was produced in Zambia during the 2016/2017 season. The highest ever cotton seed output of 275,000 mt was produced in 2011. The projected cotton seed output for 2017/2018 season is 160,000. The crop production and marketing season takes place between September and August. Cotton harvesting commences in May. Zambia is part of the 'Better Cotton Initiative' and ACTIF Cotton House Africa. Its cotton has desired fiber properties. Zambia's cotton is of the 'medium' staple variety. The unit production cost per hectare inclusive of labor is US\$147.

## LOCAL COTTON DEMAND

Ten ginning companies are established in Zambia. The ginneries source cotton seed from farmers operating within ginnery sponsored outgrower production networks. The ginneries provide inputs to outgrower farmers whose cost is deducted from the sales price during the sales season. Zambia has a ginning capacity of 400,000 mt. Approximately 51,575 mt of cotton was received by ginneries in 2016. This underscores the low capacity utilization of ginning. Zambia has a structural cotton seed production deficit. Ginning companies do not import cotton seed for local ginning notwithstanding their low capacity utilization rates. The Cotton Board indicates that cotton seed imports are not prohibited. Ginneries have proliferated without a corresponding increase in cotton production. Ginnery ownership is characterized by high turnover. Two of the largest ginneries, NWK and CARGILL, recently changed ownership. Ginneries are forbidden from operating as cotton seed traders. They must invest in cotton seed production. Ginneries produce cooking oil, bar soap, and cake for feed production as by products. They have an average ginning cost of US\$250 per ton. Informal cotton seed exports to Malawi are undertaken.

Zambia doesn't have a domestic spinning industry. Local ginneries have sold their cotton lint at import parity prices to potential local customers. The ginneries are not compelled by law to sell a portion of their cotton lint produce within Zambia as is the case in other countries. This factor is cited as a potential constraint for the emergence of a domestic spinning industry. An initiative to promote weaving on a small scale is being championed by the Cotton Association of Zambia. However, it is incapable of absorbing a significant share of cotton lint production. A Japanese company is reportedly trying to establish a textile mill in Kabwe, Central Zambia although this couldn't be confirmed by the Cotton Board. Low volume textile activity is undertaken by Mukuba Textile Mill on the Copperbelt. Almost all cotton lint produced in Zambia is exported. It exported US\$64m worth cotton in 2016.

Zambia exports its cotton lint to Far Eastern countries. Most ginning companies are owned by people with connections to the Far East. India, China, Lesotho, and South Africa are some of the importers.

Most ginning companies are linked to spinning mills in the Far East. They do not use cotton merchants. However, non-Asian owned ginneries such as NWK use merchants. Cotton was bought at US\$0.41 per kilogram (US\$0.19/lb) during the 2016/2017 season.

Figure 1: Selected Ginneries; Operational Status & Capacity

Company	Location	Status	Capacity mt/season
NWK	Kabwe	operational	30600
	Mumbwa	operational	25300
	Gwembe	operational	25300
	Sinazongwe	under maintenance	14400
	Lundazi	operational	19000
	Katete	operational	30600
	Petauke	under maintenance	21600
	Cargill Zambia	Chipata	Operational, 3 ginneries
Alliance Cotton	Kafue	operational	22000
Continental	Sinda	operational	15000
	Kalomo	operational	10000
	Mwembeshi	operational	20000
China Africa Cotton	Chipata		23000
	Petauke		25000
Yustina (Imponga)	Chipata	operational	10000
MFGP Co	Mumbwa	operational	4500
Birchand	Chama	closed	10000
AGDC	Shibuyunji		10000
Grafax	Chibombo		10000
<b>Grand Total</b>			<b>386300</b>

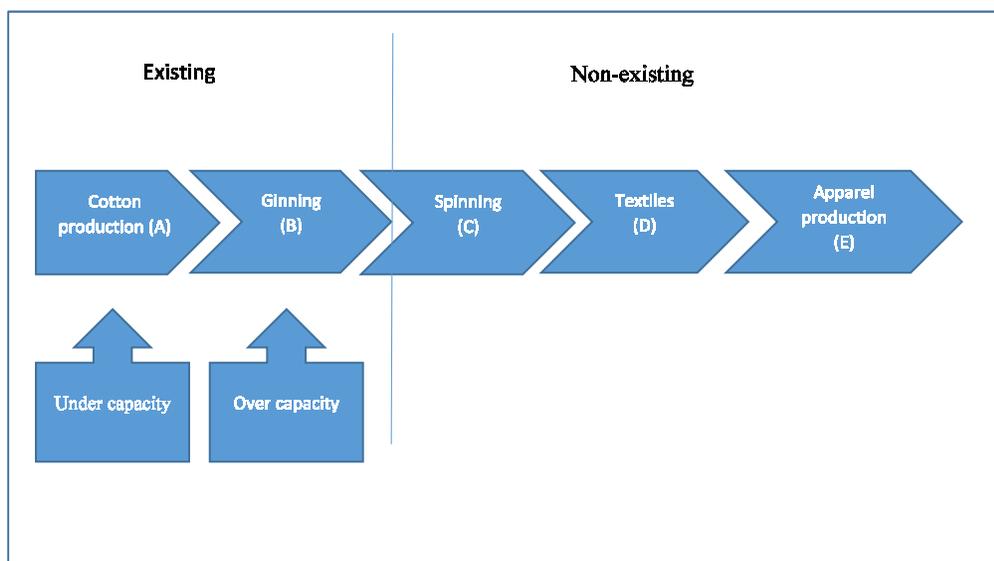
The other ginning companies are Highlands, Nexus Cotton, and Ermine. The latter is a locally owned company that operates on a ‘toll ginning’ basis. It hires space ginning capacity from existing ginneries. Continental, Highlands, and Cargill are said to be associated with Parrogate <https://www.parrogate.com/>.

Zambia is a beneficiary of the African Growth and Opportunity Act (AGOA) <https://agoa.info/about-agoa.html> which is credited with facilitating development of Lesotho’s clothing and textile industry. This implies that it can tap the U.S market for clothing and textiles if appropriate downstream industries were established in spinning, textiles, and apparel manufacturing. Lesotho imports Zambian cotton lint for downstream processing. Zambia is also eligible for preferential market access to the European Union through the ‘Everything but Arms’ initiative [http://trade.ec.europa.eu/doclib/docs/2017/july/tradoc\\_155840.pdf](http://trade.ec.europa.eu/doclib/docs/2017/july/tradoc_155840.pdf). Canada <http://publications.gc.ca/site/eng/442000/publication.html>, Japan (Japanese Market Access Initiative) and China (Chinese Market Access Initiative) also avail preferential market access to Zambian products.

## MARKET ENTRY POSSIBILITIES

Zambia's cotton and textile industry value chain primarily covers two activities only namely; cotton production and ginning (see below). Spinning to produce yarn, textiles for dyeing and related activities, and apparel production does not exist in substantive form. Establishment of downstream activities such as textiles and apparel production would be difficult without spinning.

Figure 2: Cotton & Textile Industry Value Chain



### MARKET ENTRY OPTION #1: GINNERY BROWNFIELD INVESTMENT

Overcapacity in ginning doesn't render it an attractive entry option. However, it is possible for a new entrant to enter the ginning industry with a view to rationalizing operations through a brownfield investment. The new entrant can acquire existing ginners, close redundant capacity and limit production to the capacity capable of absorbing local cotton seed supplies. Ginning capacity can be expanded (by opening closed ginners) as cotton seed production capacity and ginnery capacity utilization rises. The new entrant would essentially be buying cotton seed production capacity owned by existing ginners through outgrower production arrangements. One advantage offered by this entry mode is ease of acquiring a pre-existing cotton seed production base. Extensive training of farmers is not required. The risk is that capital investments in existing ginners are not recouped due to impeded subsector consolidation.

### MARKET ENTRY OPTION #2: TOLL GINNING COMBINED WITH OUTGROWER SCHEME ESTABLISHMENT

A new entrant can use existing space ginning capacity to process (gin) cotton seed acquired from outgrowers. It can set up its own outgrower cotton scheme. This implies identification, and training of farmers as well as providing them with farming inputs. The input costs are deducted from the cotton seed buying prices during marketing season. The new entrant pays a fee to existing ginners to process the cotton seed into lint. One advantage with this entry mode is low entry cost since the fixed capital cost of ginnery investment is not necessary. Investment is only required in working capital. The attendant risk is that ginners withhold their ginning services or capitalize on dependency by

unsustainably raising processing prices. The end product for this entry mode is cotton lint which is exported.

#### MARKET ENTRY OPTION #3: GREENFIELD ENTRY INTO SPINNING PRODUCTION

A new entrant can establish a spinning mill. The mill procures inputs (cotton lint) from local ginners. Its cotton yarn can be sold internationally or locally to emergent downstream processors. Spinning mill establishment can spur growth of textile and apparel manufacturing. The risk of establishing a spinning mill is that ginners insist on selling their lint at import parity prices which can undermine the competitiveness of locally produced yarn. The Cotton Board indicates that it can lobby government to prescribe a local sales quota for cotton lint at a price that is below import parity. It would be necessary to obtain such commitment or guarantee from government before proceeding with such an investment. Government might be favorably disposed because of the job creating potential held by downstream actors that accompany spinning mill development. The cotton yarn can be exported or sold locally to emergent downstream actors.

#### MARKET ENTRY OPTION #4: VERTICAL INTEGRATION OF SPINNING, TEXTILE, AND APPAREL PRODUCTION

This entry mode builds on market entry option #3. The spinning mill is combined with textile, and apparel production. This is achieved through ownership by one company using strategic business units spread across respective elements of the value chain. It can also be achieved through coordinated market entry with suppliers that have activities on different nodes of the value chain (so called client followership). It might be necessary to extend influence to the remaining upstream value chain nodes in order to optimize overall production costs. The output from spinning and textile feeds into local apparel production that is subsequently exported. Knowledge intensive aspects of apparel production such as design and foreign marketing are retained by the foreign investor while apparel assembly is locally outsourced.

#### MARKET ENTRY OPTION #5: INTEGRATION WITH COTTAGE WEAVERS

The Cotton Association of Zambia is promoting cottage spinning. A total of 400 spinning machines and 60 weavers have been distributed. Ethiopian style spinning machines are being replicated in Zambia. A group of trainers have been exposed to cottage weaving and spinning in India. If this initiative up scales, it might be possible for a foreign buyer to source cloth locally. The local weavers can be commissioned to manufacture prescribed designs. However, the potential of cottage production in Zambia is yet to be realized. In addition, exports might not be financially feasible due to the costs associated with low volume production.