

## Constraints along the Cotton Textile and Apparel Value Chain in Kenya

By Lawrence Kinuthia Njoroge and Wario Malicha

### Overview

The cotton-textile and apparel industry is recognized as one of the industries with potential to absorb skilled, semi-skilled, and non-skilled workers within its chain of production. In 1986, the cotton textile and apparel (CTA) industry was at its peak with 52 operational mills employing 42,000 people and close to 200,000 households engaged in cotton farming, making it second after the civil service industry in terms of employment ability<sup>1 2</sup>. However, the industry collapsed after 1984, with Global Economic Reforms of 1990s Structural Adjustment Programmes (SAPs), trade liberalization policies, embezzlement, and mismanagement at the Cotton Board of Kenya. In addition, the absence of an effective institutional arrangement to address constraints within the value chain presents a great risk to the industry's ability to contribute to the economy. In addition, poor institutional arrangements further impede the ability of Kenya's CTA value chain to compete globally with other countries such as China, or regionally with nations such as South Africa and Egypt posing a substantial growth threat to the industry.

In the last decade, there has been an intermittent revival and improved performance within the CTA industry owing to the regionalization of cotton farming and the development of the African Growth and Opportunity Act, 2000. In addition, job creation and growth through development of CTA industry is one of the key flagship projects prioritized under the "Big Four" agenda, which

aims to achieve Kenya's Vision 2030. Against the above policy direction, the government has initiated the setting up of textile and apparel manufacturing industries, revival of ginneries, and revitalization of Rift Valley Textiles. Currently the industry engages 21,000 people indirectly in formal employment, over 30,000 in informal setting and 40,000 households take part in cotton growing<sup>3</sup>. Nevertheless, the industry still has potential to generate income for the large base of cotton growers through its significant linkages with other industries such as transport, chemical producers, oil factories, design and marketing. Therefore, it is important to enhance efforts towards exploiting its full potential.

This policy brief provides an analysis of the activities, constraints, skill gaps and employment potential across various nodes of the CTA value chain. The analysis is based on data from Kenya Integrated Household Budget Survey (KIHBS) 2005/06 and 2015/16; World Bank Enterprise survey 2018; Economic Survey and International Trade Centre (ITC).

### Constraints to Growth of CTA Value Chain in Kenya

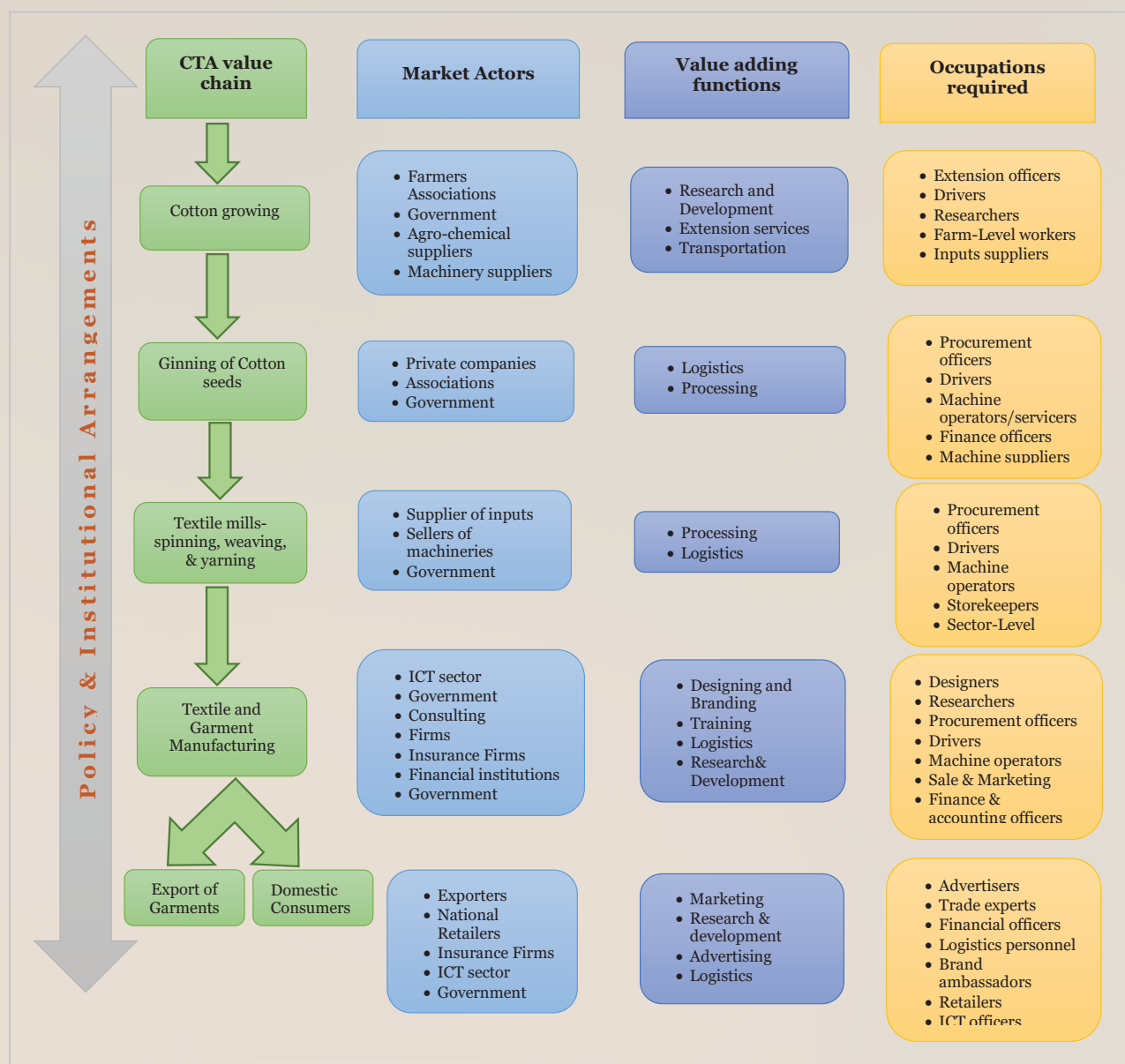
From the value chain development, the key nodes of the CTA value chain were identified as: cotton growing; ginning; milling and spinning; manufacturing; and sale of outputs both in the local and export market, various stakeholders, activities, and jobs created were also mapped in the chain development (Figure 1). Despite the

1 Chemengich, M., Vaid-Wazir, V., Olweny, H. and Karuiki, F. (2013a), Policy research on the Kenyan textile industry: Findings and recommendations". *African Cotton & Textile Industries Federation*, <http://agoa.info/images/documents/5264/ACTIF%20Report%20on%20Policy%20Research%20on,20>.

2 Ikiara, M. and Ndirangu, L. (2003), *Developing a revival strategy for Kenya's cotton-textile industry: A value chain approach*. Nairobi: Kenya Institute for Public Policy Research and Analysis.

3 Kenya Association of Manufacturer (2018), *Manufacturing in Kenya Under the 'Big 4 Agenda: A sector deep-dive report*. Retrieved from <http://kam.co.ke/kam/wp-content/uploads/2018/10/KAM-Manufacturing-Deep-Dive-Report-2018.pdf>

Figure 1: The CTA value chain, actors, value adding functions, and jobs created



Source: Author's conceptualization

potential to create jobs, the sector is confronted with various constraints that characterize the nodes in the value chain.

### a) Growing of cotton

Farmers have cited that poor-quality seed, high input costs, weather, and low farmgate prices that prevent re-investment as key contributors affecting cotton farming<sup>4</sup>. Additionally, lack of access to funds to improve farming has made farmers fail to meet the market demands for both yield and quality, perpetuating low incomes and preventing investments in higher quality inputs. Besides, limited public capacity for extension services excludes farmers from climate-smart

agriculture practices that could offset costs, improve yields and build resilience<sup>5</sup>. To unlock the full potential of the CTA industry, the cotton seed production process has to improve to supply the required quality and quantity of seeds demanded in the production process.

Moreover, the youth who constitute the majority population are not involved in the growing of cotton, further affecting the CTA value chain given the potential they have in improving productivity at the farm level. Likewise, the majority of the farmers have low education attainment (primary school level education), which limits their ability

4 Kenya Integrated Household Budget survey 2015/16.

5 Kenya Integrated Household Budget survey 2005/06.

to improve farming due to lack of requisite skills and knowledge.

#### **b) Ginning**

Poor quality production of cotton limits the quality and quantity of cotton lint produced by ginneries. This translates to low quality domestic fabric that is not fit for export, which inhibits the growth of the CTA industry. The low quality and quantity of lint is also exacerbated by the use of old and inefficient ginning equipment. Thus, unlocking of the CTA industry's potential will only be achieved if the updated processing technology is utilized and the correct quantity and quality of seeds is supplied to local cotton farmers.

#### **c) Textile milling**

Low productivity in textile milling is attributed to the use of outdated technology in the textile mills and low levels of skilled labour supply. It is therefore imperative to address the two issues as a means of unlocking the full potential of the CTA value chain for job creation and economic progress.

#### **d) Manufacturing of textile and garments**

The challenges faced by manufacturers are: high cost of energy; competition from informal establishments; access to finance; the increased cost acquiring business permits after devolution; the unfavourable fabric/apparel import export trade; importation costs of firm raw materials for production; unfavourable transport, customs, and trade regulations; lack of research and development; outdated technology; lack of skilled manpower; crime, theft, and disorder; taxation; corruption; political instability; labour regulations; and administration of justice<sup>6 7 8</sup>.

As a result, policy reforms in the concerned sectors of government are necessary to unlock the full potential of the CTA industry.

#### **e) Domestic market**

New clothes are imported in disguise as mitumba<sup>9</sup> and get into the market without paying the required taxes. This in turn makes it hard for the local textile producers to find a domestic market for their products. Likewise, the continued importation of mitumba from the mid 1980s into the local market, which retail at low

prices compared to the locally manufactured products further constrains the growth of the local value chain<sup>10</sup>. The reverse of this trend is far from realization as Kenya's efforts to phase out mitumba importation in 2017 was not actualized.

#### **f) Export market**

While Kenya enjoys access of the US market, the extent to which it has been exploited is yet to be optimized by local manufacturers and exploiting other international markets. Kenya over-relies on the US market for textile apparel exports. Such a market if diversified could earn the country more foreign exchange. Given that the country's potential in the CTA industry is unexploited to its full potential, it is thus possible to overcome the constraint at optimal operation that will yield high quality and high quantity products for the export market<sup>11</sup>.

In addition, Kenya's CTA industry export trade performance results to a negative balance of payment thus denying the country net export income compared to Bangladesh and Sri Lanka, which enjoy a favourable balance of payment from the industry<sup>12</sup>.

### **CTA Value Chain Labour Skills Requirement to Reach its Employment Potential**

There was no existing skills gap<sup>13</sup> in the CTA industry but rather the existence of a skills surplus across all the education categories. The most skill surplus (3,041,059) is within the category of the unemployed youth who have primary level of education as the highest education attainment followed by those with no education at 1,618,652. Those with secondary education were 1,375,615 in surplus. The least surplus was among those with college education while none of those with university education were reported to be working in the CTA industry. This could be explained by the fact that for the

6 The World Bank Enterprise Survey 2018.

7 ITC data 2018.

8 Konisha, Y., Mogollon, M.P., Adamali, A., Ramakrishnan, K. and Barma, M. (2015), *Kenya Apparel and Textile Industry, Diagnosis, Strategy and Action Plans*.

9 Mitumba is a term used to refer to second hand clothes in Kenya.

10 Export Processing Zones Authority - EPZA (2005), *Kenya Apparel and Textile Industry* Retrieved from file:///Users/user/Downloads/kenya-s-apparel-amp-textile-industry.pdf.

11 Feed the Future (2018), *Enhancing investment attractiveness in Kenya's cotton sector*. Washington: Feed the Future.

12 East Africa Trade Investment Hub (2018), *Overview of the cotton, textile and apparel sectors in East Africa region (Kenya, Uganda, Tanzania, Ethiopia, Madagascar and Mauritius) and benchmarking with Sri Lanka and Bangladesh*. Nairobi: East Africa Trade Investment Hub.

13 Skills gap computation is achieved by comparing the stock of skills in the wider target population of the unemployed youth to those required by the sector proxied by the distribution of employment in the sector by skill level. Education attainment is used as the proxy to determine the skill requirement of the sector as it easier to determine from available data. See Bhorat, H., Asmal, Z., Hill, R.D. and Rooney, C. (2020), *Employment creation potential, labour skills requirements, and skill gaps for young people: A methodological framework*.

**Table 1: Estimating the industrial skills gap for the CTA industry**

	No Education	Primary Education	Secondary Education	College Education	University Education
<b>Skill Supply</b>	<b>1,646,159</b>	<b>3,101,625</b>	<b>1,408,104</b>	<b>238,676</b>	<b>81,010</b>
<b>Skill Requirement</b>	<b>27,507</b>	<b>60,566</b>	<b>32,489</b>	<b>24,413</b>	<b>-</b>
Fibre Preparers	682	-	-	-	-
Weavers, Knitters and Related works	3,464	2,844	913	936	-
Tailors, Dressmakers and Related Workers	18,733	55,010	31,290	21,676	-
Textile Preparing, Spinning and Winding Machine Operators	-	651	286	-	-
Weaving, Knitting and Sewing Machine Operators	3,276	2,061	-	363	-
Textile Bleaching, Dyeing and Cleaning Machine Operators	1,352	-	-	1,438	-
<b>Skill Gap</b>	<b>1,618,652</b>	<b>3,041,059</b>	<b>1,375,615</b>	<b>214,263</b>	<b>81,010</b>
<b>Skill availability ratio</b>	<b>59.85</b>	<b>51.21</b>	<b>43.34</b>	<b>9.78</b>	<b>0</b>

Source: KHIBS 2015/2016

identified occupations in the data set, none required university education (Table 1).

Moreover, the skill availability ratio<sup>14</sup> across all the first three categories of education was more than 10 indicating that the unemployed youths can be attracted to the CTA industry. Those with college education can also be attracted to the industry, however, not in comparison with the aforementioned education categories. In addition, those with university education are not likely to be attracted to the identified industry's of the CTA industry as shown in Table 1.

There was no occupational skills gap<sup>15</sup> for textile bleaching, dyeing and cleaning machine operators. Occupational skills gap was more among fiber preparers; weavers, knitters and related works; and weaving, knitting and sewing machine operators' occupations. Besides, relative occupational skills gaps were also identified among tailors, dressmakers and related workers and among textile preparing, spinning and winding machine operators' occupations.

14 This ratio measures the skills that exist in the unemployed youth population against the skills required in the sector for each of the skills categories. It is a measure of the extent to which the required skill exists in the target population. See Bhorat, H., Asmal, Z., Hill, R.D. and Rooney, C. (2020), *Employment creation potential, labour skills requirements, and skill gaps for young people: A methodological framework*.

15 For the occupational skills gap, mapping was based on the Kenya National Occupations Classification Standard (KNOCS) of year 2000. In this case, the occupational skills gap was calculated as the difference between skills requirement for a given occupation based on KNOCS and the national modal education level, as measured by years of schooling of the unemployed youth. See Bhorat, H., Asmal, Z., Hill, R.D. and Rooney, C. (2020), *Employment creation potential, labour skills requirements, and skill gaps for young people: A methodological framework*.

**Table 2: Occupational skills gap for the unemployed youth by years of schooling**

Occupation	Skill supply	Skill requirement	Skill Gap
Fibre Preparers	0	14	-14
Weavers, Knitters and Related Works	0	14	-14
Tailors, Dressmakers and Related Workers	8	14	-6
Textile Preparing, Spinning and Winding Machine Operators	8	14	-6
Weaving, Knitting and Sewing Machine Operators	0	14	-14
Textile Bleaching, Dyeing and Cleaning Machine Operators	14	14	0

Source: KHIBS 2015/2016

Kenya has nine (9) universities and 27 Private Middle Level Colleges (PMLC) and technical training colleges that offer skills and training on textile-related courses<sup>16</sup>. These institutions do not offer enough training with regard to operation of textile machines leading to the prevalence of skills gaps in this area. This can be linked to inadequate facilities and textile equipment available within the institutions.

## Policy Recommendations

### i) Farm level-cotton production

For the cotton industry to roll back to its historical times of prosperity and employing more people,

16 Nguku, E. (2012), *Analysis of textile and clothing training institutions in the East-Southern Africa*. Nairobi: ICIPE.

it is recommended that the Ministry of Agriculture, Livestock, Fisheries and Irrigation strategizes on enhancing greater cotton output whether under rain-fed condition or irrigation cotton farming. This can be achieved through researching and providing improved cotton seeds to farmers for increased yields, providing access to affordable finance to farmers and providing extension services to the farmers.

The Ministry of Agriculture, Livestock, Fisheries and Irrigation can further pursue innovative ways of attracting the youth and other educated Kenyans in cotton farming to increase production for domestic and export use. This will enable the local ginneries to revive and operate at full capacity and the local textile mills. The increase in production will also ensure that importation of cotton lint is reduced from the current 93% importation rate.

### **ii) Institutional and policy frameworks**

A comprehensive national policy framework is required to guide the development of the CTA industry along the entire value chain. A resolute effort championed by the Ministry of Agriculture, Livestock, Fisheries and Irrigation may consider a policy approach that focuses on addressing the constraints that span across the vertical and horizontal continuum of the CTA value chain. These constraints entail the challenges related to farm gate price of cotton outputs, improving the quality of cotton fibers to make it globally competitive, shielding the garment manufacturing industry from mitumba imports, high energy cost and incentives to facelift cotton related extensions. Addressing these constraints would make the industry attractive to investors and youths, thus increasing the potential of the industry's employability.

Further, it is important to strengthen and synchronize CTA agencies particularly, cotton farmers at county levels and the national level, thus the need to establish an apex body (Reporting to the Ministry of Agriculture, Livestock, Fisheries and Irrigation) that will act as a focal point for CTA stakeholders to heighten horizontal, vertical, backward and forward linkages for industrial growth.

### **iii) Textile and apparel manufacturing**

The productivity of the CTA industry is impeded by the use of outdated technology from the ginning stage to garment manufacturing stage. There is therefore a need to establish

a technology upgrading fund through the Ministry of Industry, Trade and Co-operatives in collaboration with the Ministry of Agriculture, Livestock, Fisheries and Irrigation to enhance financing of technology upgrade among textile and apparel manufacturing firms. To start with, after establishing the Technology Upgrading Fund, the Government can provide capital to firms to upgrade their existing technology, with an agreed repayment period, say ten-year repayment period inclusive of two years of moratorium. This will give textile firms an ample time to potentially increased capacity and improve energy costings. Such kind of policy arrangement has been recognized to be effective in economies such as India and has potential to spur textile and apparel industry growth.

The Ministry of Education to contribute through research and development customized technology for the local firms. This will further create a possibility of exporting the technology to the international market in the future.

Apart from experiencing losses due to power outages, textile and apparel firms also complain of high energy tariffs locally. There is need to improve the local energy infrastructure to ensure continued power supply to firms without fluctuations. This will ensure that firms will no longer suffer losses attributable to power outages.

The Ministry of Energy can consider developing a pro-industry power policy that will reduce power tariffs and remove some energy levies, thus enabling productivity among CTA firms. In addition, this may also incentivize foreign investors to relocate their firms into the country, thus spurring development and the creation of additional employment. Subsidies can also be an instrument of revitalizing the industry by, for instance, offering a 3% power subsidy to firms with export earnings of Ksh 300 million to Ksh 500 million and 5% for companies with earnings surpassing Ksh 500 million.

Majority of the firms are not involved in research and development, coupled with the challenge of an inadequately educated labour force. It is recommended that firms set aside funds for research and development activities to improve productivity. Moreover, this will also enable the firms to capacity build their employees with requisite skills.

Majority of the firms were affected by the prevailing tax rates. It is recommended that the tax rate on firm inputs and the value added tax on finished products be reviewed by the State Department for Finance. This may be done by zero rating firm inputs and firm products to increase competitiveness in the market. This will encourage productivity and price competitiveness in both the local and international market in the long run.

The firms highlighted that the administration of justice; crime, theft, and disorder; corruption; and political instability hindered their operations. To improve their productivity, it is prudent that the Ministry of Interior and Coordination of National Government; Ethics and Anti-Corruption Commission; the Judiciary; and the legislature at all levels to combine efforts to address these challenges. The existing laws and regulations should be implemented to the latter with no

favours coupled with the amendment of those that require restructuring in consultation with all the affected stakeholders.

There is a surplus of skills supply from the unemployed youth with notable occupational skills gap. It is recommended that the Ministry of Education in collaboration with other stakeholders, spear head occupational capacity development among unemployed youth. The Ministry to ensure that the training offered in institutions of higher learning and vocational training centres is current and the technology employed in the training. Moreover, the training should aim at offering high level multiple skills pegged on production technology and equipment. There is therefore a need to link training and capacity development in academic institutions with industry needs, which not only caters for current requirements, but future needs.



## ABOUT THIS POLICY BRIEF

This policy brief is based on a KIPPRA Discussion Paper No.229 of 2020 on “Assessing the Cotton, Textile and Apparel Sector Employment Potential in Kenya”. By Lawrence Kinuthia Njoroge and Wario Malicha

### About KIPPRA Policy Briefs

KIPPRA Policy Briefs are aimed at a wide dissemination of the Institute’s policy research findings. The findings are expected to stimulate discussion and also build capacity in the public policy making process in Kenya.

KIPPRA acknowledges generous support from the various partners who have continued to support the Institute’s activities over the years.

### For More Information Contact:

Kenya Institute for Public Policy Research and Analysis  
Bishops Road, Bishops Garden Towers  
P.O. Box 56445-00200, Nairobi  
Tel: 2719933/4, Cell: 0736712724, 0724256078  
Email: [admin@kippra.or.ke](mailto:admin@kippra.or.ke)  
Website: <http://www.kippra.org>  
Twitter: [@kippra.kenya](https://twitter.com/kippra.kenya)