

# Textile dyeing, printing and processing sector of Pakistan

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**Textile sector is considered the backbone of Pakistan economy as it is the most important industrial sector in terms of export and labour force employment. Around 1,500 textile processing units are currently working in the country. These units carry out various textile processes, ranging from desizing and bleaching to calendaring. Textile and its made-ups account for more than 60% of the total exports.**

## Textile processing

There are large numbers of mechanical and chemical processes involved in the textile industry and each process has a different impact on the

environment. Today's textile printing technology facilitates the precise and exact placing of prints on a garment and enables the manufacturers to decrease or increase the size of the print, modify the background tones, produce optical illusions, print advanced graphics, and offer the best translation of every single design.

Apparel represents the largest fabric usage and nowadays consumers are more concerned about the green products and choose products that are non-toxic and cause no harm to both humans and the environment. This trend for eco-friendly products has been extended to home textiles and apparel products, particularly those products which directly come into

**Table 2: Import of Organic Chemicals in Pakistan**

Year	Value (US \$ Million)
2012-13	2,128
2013-14	2,216
2014-15	1,997
2015-16	1,864
2016-17	2,116

Source: State Bank of Pakistan - Annual Reports

contact with the skin for prolonged periods.

To enhance and sustain the textile exports of Pakistan it is essential to address the associated environmental problems on urgent basis. The new regime of international trade under World Trade Organization (WTO) demands that the production of textile products should comply with local environmental standards.

The textile processing industry is characterized not only by the large volume of water required for various unit operations but also by the variety of chemicals used for various processes. There is a long sequence of wet processing stages requiring inputs of water, chemical and energy-generating wastes at each stage. The other feature of this industry, which is a backbone of fashion garment, is a large variation in demand of type, pattern and colour combination of fabric resulting into significant fluctuation in waste generation volume and load.

**Table 1: Import of Dyes and Pigments in Pakistan**

Quantity: in Tonnes  
Value: Rs. in Million

Description	2015 - 16		2016 - 17	
	Quantity	Value	Quantity	Value
Disperse Dyes	10,457	3,074	7,257	2,898
Acid Dyes Premetalise	4,301	1,591	3,241	1,663
Basic Dyes	2,714	890	1,705	897
Direct Dyes	2,097	419	1,539	361
Vat Dyes Indigo Blue	6,167	2,569	5,154	2,699
Other Vat Dyes	567	1,071	555	1,059
Reactive Dyes	19,281	8,657	19,295	8,914
Pigments Preparation	5,162	3,006	5,344	3,006
Dyes Sulphur	1,578	1,412	7,916	1,319
Other Dyes synthetic	291	216	240	21
<b>Total</b>	<b>52,615</b>	<b>22,905</b>	<b>52,246</b>	<b>22,837</b>

Source: Pakistan Bureau of Statistics.

## Import of dyes and chemicals

Textile industry uses a variety of chemicals during the production of fabric or cloth. These chemicals are unique and are very specific to the particular application during the manufacturing processes of textiles. The textile chemicals help in minimizing the bottlenecks by optimizing the cycle time and improving the overall efficiency of manufacturing processes

Many chemicals used in the textile industry cause environmental and health problems. These problems may occur during the production process, with respect to emissions or occupational health problems. However, worldwide environmental problems associated with the textile industry are typically those associated with the water pollution caused by the discharge of untreated effluent and those because of use of toxic chemicals, especially during processing.

In recent years the usage of natural dyes and colours for fabric dyeing has witnessed a revival due to the hazardous effects of synthetic dyes and chemicals. The natural dyes are eco-friendly, harmless and non-toxic. Furthermore, the usage of renewable sources of energy in textile and apparel industry has been increased due to many advantages associated with it.

The finishing operations entail production of finished textile fabric from greige goods. The finishing process is predominantly wet operations requiring large amounts of thermal energy for water heating and drying as well as dyes and chemicals. These chemicals can harm the consumer if retained in the fabric.

The import of various types of dyes and pigments in Pakistan decreased from Rs 22.9 billion in 2015-16 to Rs 22.8 billion in 2016-17. Table 1 highlights the import of dyes and pigments in Pakistan.

On the other hand import of organic chemicals in Pakistan decreased from the US \$2.22 billion in 2013-14 to the US \$ 2.12 billion in 2016-17, thus showing a decline of 5%. Imports of organic chemicals in Pakistan can be seen in Table 2.

**Table 3: Production of Cloth (category wise)  
000 sq meters**

Year	Blended	Grey	Bleached	Dyed and Printed	Total
2011-12	58	569	87	310	1,024
2012-13	59	571	88	311	1,029
2013-14	58	531	86	361	1,036
2014-15	57	573	90	317	1,037
2015-16	56	565	80	338	1,039

Source: i) Pakistan Bureau of Statistics.  
ii) All Pakistan Textile Mills Association.  
iii) State Bank of Pakistan.

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## Production of cloth

The weaving and made-up sectors have three different subsectors in weaving viz. integrated, independent weaving units and power loom sector. The cloth is being produced in both mill and non-mill sectors, with fabrics ranging from coarse to superfine varieties.

There are a large number of vertically integrated units, where production is controlled from fibre to the end product, and marketed abroad directly. The production of cloth (mill sector) increased from 1,024 million square meters in 2011-12 to 1,039 million square meters in 2015-16. Out of total cloth production during 2015-16 in mill sector, 56% produced in grey form, and 30% dyed and printed, and 14% blended and bleached. The production data regarding the cloth produced in the mill sectors is given in Table 3.

## Import of dyeing and finishing machinery

The textile policy 2014-19 allows various incentives including concessional financing to encourage capital investment in the value-added textile sector. The government of Pakistan has also announced incentives worth Rs 180 billion in January 2017 in a bid to boost Pakistan's sagging exports.

The package includes the removal of customs duty and sales tax on the import of cotton. The import of textile dyeing, drying, bleaching and finishing machines increased from Rs 5.79 billion in 2014-15 to Rs 6.48 billion in 2015-16, thus showing a remarkable increase of 12%. The import data regarding textile dyeing, bleaching and finishing machinery is given in table 4.

## Future prospects

Pakistan's textile industry is facing tough competition from the regional competitors. The cost of doing business in Pakistan is high as compared to other

Machines	2015-16		2016-17	
	Quantity	Value	Quantity	Value
Drying machines	368	389	563	476
Bleaching machines	3	297	22	454
Dyeing machines	309	1,587	663	9,44
Coating or laminating machines	1,310	212	1,343	225
Dressing finishing machines	64	291	40	162
Mercerizing machines.	23	212	83	637
Stentering machines.	121	981	42	588
Other drying and finishing machines.	1,161	2,515	1,765	2,808
<b>Total</b>	<b>3,359</b>	<b>6,484</b>	<b>4,521</b>	<b>6,294</b>

**Source: Pakistan Bureau of Statistics.**

regional competitors. The problems with energy sector are particularly significant and are taking a toll on textile sector productivity. The constrained energy sector also increases the cost of production of textile commodities. But there is no denying the fact that there exists the immense potential for growth and development in the textile industry.

Pakistan textile sector is expected to grow at a good pace, as European Union (EU) has supported Pakistan by granting Pakistan's reduced tariffs under the EU's Generalised System of Preference (GSP) from the year 2013-14.

This allows almost 20% of Pakistani exports to enter the EU at zero tariffs while a further 70% is allowed to enter at preferential tariff. Pakistani textile and clothing exports to Europe have surged since the country was granted preferential access to EU markets.

Pakistani exporters appear to be taking full advantage of these opportunities provided by preferential access. They are capturing a bigger share of the EU textile and clothing import market and are now targeting EU

countries at the expense of the US market.

Pakistan's exports are dominated by textile and clothing, up to the value of 2.6 billion Euros while EU imports textiles and clothing with a value of 3.5 billion Euros annually; therefore, chances of growth of textile sector are bright in near future.

In view of the anticipated competition with rival countries, efforts are being made to make textile and clothing sector more dynamic and competitive as per targets set in economic growth framework strategy. To sustain its position and increase its share and to move into high value-added products, that are environmentally friendly, and yet sustainable in this highly competitive global scenario.

## References

1. All Pakistan Textile Mills Association (APTMA).
2. Pakistan Bureau of Statistics.
3. State Bank of Pakistan-Annual Reports.
4. Trade Development Authority of Pakistan. ♦

