

# Woven In or Locked Out?

The Future of Pakistan Textiles Exports  
Under the EU's New Standards

June 2026



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## Acknowledgements

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# The Pakistan Business Council:

## An Overview

The Pakistan Business Council (PBC) is a research-based business advocacy platform established in 2005. It is now supported by over 100 private sector local and multinational businesses with significant investment in, and long-term commitment to sustainable growth of the country. They come from 14 countries, have leading roles in 17 major sectors of the formal economy, generate 40% of annual exports, contribute a third of Pakistan's total tax revenues and employ three million. Their combined sales represent every 6th Rupee of Pakistan's GDP.

PBC's major objectives are to advocate policies that lead to creation of jobs, value-added exports and reduction in import reliance through improved competitiveness of manufacturing, services and the agriculture sectors. It also promotes formalization of the economy.

PBC's over-arching theme, "Make-in-Pakistan" consists of three pillars: "Grow More/Grow Better", "Make More/Make Better" and "Serve More/Serve Better." Its evidence-based advocacy is backed by over a hundred studies to date, through its full-time research team, supplemented by collaborative research with renowned industry experts and economists. Through its Centre of Excellence in Responsible Business (CERB), PBC works to build capacity and capability of businesses beyond its membership, to adopt high environmental, social and governance standards. PBC holds conferences, seminars and webinars to facilitate the flow of relevant information to all stakeholders in order to help create an informed view on the major issues faced by Pakistan. Through its presence in Islamabad and Karachi, it works closely with relevant government departments, ministries, regulators and institutions, as well as other stakeholders including professional bodies, to develop consensus on major issues impacting the economy.

PBC is a pan-sectoral, not-for-profit, Section 42 entity. It is not a trade body; therefore, it does not advocate for any specific business sector. Rather, its key advocacy thrust is on easing barriers that thwart competitiveness of businesses in Pakistan.

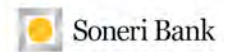
Further information on the PBC is available on: [www.pbc.org.pk](http://www.pbc.org.pk).

# The PBC's Founding Objectives

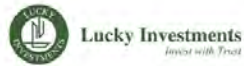
- To provide for the formation and exchange of views on any question connected with the conduct of business in and from Pakistan.
- To conduct, organize, set up, administer and manage campaigns, surveys, focus groups, workshops, seminars and fieldwork for carrying out research and raising awareness in regard to matters affecting businesses in Pakistan.
- To acquire, collect, compile, analyze, publish and provide statistics, data analysis and other information relating to businesses of any kind, nature or description and on opportunities for such businesses within and outside Pakistan.
- To promote and facilitate the integration of businesses in Pakistan into the World economy and to encourage in the development and growth of Pakistani multinationals.
- To interact with governments in the economic development of Pakistan and to facilitate, foster and further the economic, social and human resource development of Pakistan.

# The PBC Member Companies





# The PBC Affiliates



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# List of Acronyms

ADB	Asian Development Bank
AIIB	Asian Infrastructure Investment Bank
APTMA	All Pakistan Textile Mills Association
BCI	Better Cotton Initiative
BGMEA	Bangladesh Garment Manufacturers and Exporters Association
BSCI	Business Social Compliance Initiative
CBAM	Carbon Border Adjustment Mechanism
CCTS	Carbon Credit Trading Scheme
CEAP	Circular Economy Action Plan
CSDD / CSDDD	Corporate Sustainability Due Diligence Directive
CSRD	Corporate Sustainability Reporting Directive
DPP	Digital Product Passport
ECHA	European Chemical Agency
ECGT	Empowering Consumers for the Green Transition Directive
EDF	Export Development Fund
EFS	Export Facilitation Scheme
EPR	Extended Producer Responsibility
ESG	Environmental, Social, and Governance
ESPR	Ecodesign for Sustainable Products Regulation
EU	European Union
FAO	Food and Agriculture Organization
FTA	Free Trade Agreement
GFA	Global Fashion Agenda
GHG	Greenhouse Gas Emissions
GGGI	Global Green Growth Institute
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GSP+	Generalised Scheme of Preferences Plus
GSCPI	Global Supply Chain Pressure Index
GRS	Global Recycled Standard
IAEA	International Atomic Energy Agency

IFC	International Finance Corporation
ILO	International Labour Organization
LCA	Life Cycle Assessment
LEED	Leadership in Energy and Environmental Design
MOU	Memorandum of Understanding
MRA	Mutual Recognition Agreement
NCC	National Compliance Centre
NTU	National Textile University
OECD	Organisation for Economic Co-operation and Development
PEF / PEFCR	Product Environmental Footprint / Category Rules
PET	Polyethylene Terephthalate
PFAS	Per- and Polyfluoroalkyl Substances
PRO	Producer Responsibility Organisation
PSIC	Punjab Small Industries Corporation
PSDP	Public Sector Development Programme
PSW	Pakistan Single Window
PTC	Pakistan Textile Council
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RMG	Ready-Made Garments
SCADA	Supervisory Control and Data Acquisition
SLCP	Social and Labour Convergence Programme
SME	Small and Medium Enterprise
SMEDA	Small and Medium Enterprises Development Authority
SVHC	Substances of Very High Concern
UCPD	Unfair Commercial Practices Directive
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organization
WRAP	Worldwide Responsible Accredited Production
WWF	World Wildlife Fund
ZDHC	Zero Discharge of Hazardous Chemicals

# Executive Summary



# Executive Summary

The European Union (EU) is in the process of changing its textile market rules. By 2028–29, all products entering the EU will need to meet the EU's environmental and social standards. For Pakistan, which sends about €6.75 billion worth of textiles to the EU each year and for which the EU is its largest export destination, these changes mark one of the biggest shifts in trade rules in decades.

The main new rule is the Ecodesign for Sustainable Products Regulation (ESPR). By mid-2028, all textile products sold in the EU must meet minimum standards on durability, recyclability, recycled content, and chemical safety. Each product will also need a Digital Product Passport (DPP), a digital record containing verified data on materials, energy use, emissions, and labour conditions across the supply chain. The Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CSDD) require EU brands to check and reexport on all their suppliers, including Pakistani factories at every level. The REACH rules restrict harmful chemicals including PFAS, the Extended Producer Responsibility (EPR) framework sets waste management obligations, and the Carbon Border Adjustment Mechanism (CBAM) may be extended to textiles around 2030.

Pakistani companies do not have to file directly under these EU rules. However, EU buyers will require Pakistani manufacturers to meet these standards as a condition of doing business and the compliance burden falls on Pakistani factories.

This report concludes that Pakistan can protect and grow its EU market share, but only if government, industry, and international partners work together quickly. The most urgent steps include, speeding up the National DPP Platform, creating shared compliance tools for small and medium manufacturers, stabilising energy policy, fixing the EFS tax problem, and closing the gap in farm level cotton traceability. Companies that are not ready by 2027-28 risk losing EU buyers. What Pakistan does in the next two years will shape its position in the EU market for the coming decades.

# Key Findings












# Key Findings

## European Union Regulations Applicability to Pakistan

Regulation	Does it apply directly to Pakistani firms?	How does it impact Pakistan?	Who is Affected?	By When?
<b>Ecodesign for Sustainable Products Regulation (ESPR)</b>	No - but products must comply to enter EU market.	The EU buyer will make compliance a contractual requirement before the product ships.	All exporters to the EU.	Mid-2028.
<b>Digital Product Passport (DPP)</b>	No - EU importer files, but factory supplies all the data.	Buyers will not be able to sell without verified factory data.	All exporters to the EU.	Mid-2028.
<b>Per- and Polyfluoroalkyl Substances (PFAS)</b>	Yes - product must comply regardless of manufacturer location.	It will apply to the manufacturing stage, which means Pakistani factories will need to switch to alternatives.	Dye houses, finishers, synthetic fabric producers.	PFAS ban (approximately by 2028).
<b>Corporate Sustainability Reporting Directive (CSRD)</b>	Not as a reporting entity (unless >EUR 450m EU turnover from 2029).	EU buyers demand supply chain sustainability data to meet their own filing obligations.	Suppliers to large EU brands.	2029 (covering 2028 activities).
<b>Corporate Sustainability Due Diligence Directive (CSDDD)</b>	No - applies to large EU companies.	EU brands conduct due diligence audits across tier 1, 2, and 3 suppliers.	All tiers of supply chain, including ginners and spinners.	2029 (covering 2028 activities).
<b>Extended Producer Responsibility (EPR)</b>	Only if selling directly to EU consumers online.	Cost could be passed back to the supplier providing to EU buyers.	Exporters/Direct online sellers.	April 2028.
<b>Textile Labelling</b>	Yes - manufacturer is responsible for label accuracy.	Direct product requirement.	All manufacturers.	2028-2029.
<b>Carbon Border Adjustment Mechanism (CBAM)</b>	Not currently - textiles are excluded.	Possible future exposure if expanded to textiles.	Synthetic fibre producers.	Approximately 2030 (if expanded).
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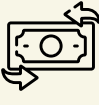


## Pakistan's Strengths

Despite the compliance pressures ahead, Pakistan has a set of advantages that set it apart from many competitors. These strengths are already visible in how leading companies operate, in the flexibility buyers have observed on the ground, and in the institutional foundations being built. The challenge is to make them work for the whole sector, not just the top tier.

Strengths	
	<p><b>1. Pakistani Manufacturers Are Quick to Adapt</b> EU buyers say Pakistani manufacturers are faster and more flexible at adjusting to new regulations than suppliers in India or Bangladesh. This responsiveness matters when buyers are making long-term sourcing decisions.</p>
	<p><b>2. Cotton Is a Natural Fit for EU Rules</b> Around 75–80% of Pakistan's textile exports are cotton-based. Cotton is easier to trace, releases fewer microplastics, and aligns better with EU rules on recycling and eco-design than synthetic fabrics. Countries with more polyester or blended products will face harder compliance challenges.</p>
	<p><b>3. Leading Companies Are Already Ahead</b> Companies like Interloop, Sapphire, Naveena, and Soorty already have taken steps towards working systems for traceability, Digital Product Passports, carbon tracking, and chemical compliance. These companies can serve as models for the rest of the industry if their systems are properly supported and scaled.</p>
	<p><b>4. GSP+ Gives Pakistan a Trade Advantage</b> Pakistan's GSP+ status removes import duties on about 66% of EU tariff lines, making Pakistani goods cheaper for EU buyers. Bangladesh is now gradually losing similar advantages as it moves out of its Least Developed Country status. Pakistan's GSP+ runs until 2027 and renewal talks are underway.</p>
	<p><b>5. The National Compliance Centre</b> The National Compliance Centre (NCC), launched in May 2024, is developing a national Digital Product Passport platform, running an 11-sector advisory council, and building support programmes for smaller manufacturers. Over PKR 10 billion in projects have been submitted for funding, and the NCC is actively coordinating with international partners including ILO and the EU.</p>
	<p><b>6. International Funding Is Available</b> Multiple funding sources are accessible, including GIZ (Germany's development agency), ILO, EU-linked programmes, the World Bank quality infrastructure funding, and the State Bank of Pakistan green financing instruments. A PKR 3 billion SME training programme is being developed through SMEDA and the Export Development Fund.</p>
	<p><b>7. Cotton Traceability Labs Are Being Built</b> APTMA is setting up a cotton DNA testing lab to trace cotton back to its original farm. A national cotton traceability lab is also being established at the National Textile University (NTU) and is expected to be operational by end-2026.</p>
	<p><b>8. Denim Sector</b> Pakistan's denim sector is innovation-focused and is hard for low-cost competitors to replicate quickly. Naveena Group already produces denim using 20% recycled cotton, and all production for Inditex includes 20-30% recycled cotton and 100% recycled polyester. Pakistani denim manufacturers are already meeting or exceeding the recycled material levels that EU rules are likely to require as a normal part of production.</p>
	<p><b>9. Local Sustainability Tools Are Emerging</b> Fruit of Sustainability has developed Pakistan's first third-party grievance system, including a mobile app and a digital sustainability reporting platform supported by WWF Pakistan.</p>










## Pakistan's Gaps

The following gaps were consistently raised across multiple stakeholder interviews. They represent the structural barriers that Pakistan must address to stay in the EU market after 2028.

Gaps	
	<p><b>1. Compliance Costs Are Too High for Most Companies</b></p> <p>One large company manages around 55 to 60 different compliance certifications every year, each with its own fees, preparation work, and staff time. As EU rules add new requirements for chemical safety, Digital Product Passports, carbon reporting, and sustainability disclosures, these costs are rising. EU buyers are simultaneously pushing for lower prices. Large firms can absorb these, but medium and smaller companies cannot. Currently, there is no government support, no subsidies, tax relief, or shared compliance programmes to help reduce the burden.</p>
	<p><b>2. Too Many Overlapping Audits</b></p> <p>Every EU buyer uses its own separate audit system. One buyer may require a Higg FEM environmental audit, another may use SLCP for social and labour standards, a third may ask for SBTi emissions targets, while yet another follows Better Work guidelines. Even though these systems check largely the same issues, factories go through multiple audits every year under different names and formats. Some brands also apply stricter standards to Pakistani factories than to suppliers in other countries, creating unfair pressure.</p>
	<p><b>3. No National Chemical Framework</b></p> <p>The EU's REACH regulation has been in place for nearly 30 years. Pakistan has no equivalent domestic framework for monitoring or regulating industrial chemical use. Large exporters follow ZDHC and REACH standards because EU buyers require it, not because local law enforces it. When the EU updates chemical restrictions, Pakistani manufacturers receive no domestic guidance and have to interpret the changes themselves. This creates an uneven market, compliant exporters bear full costs, while domestic-only producers face no requirements at all.</p>
	<p><b>4. Supply Chain Is Too Fragmented</b></p> <p>Pakistan's textile value chain consists of many separate, independent businesses. Tier 2 and Tier 3 suppliers such as spinners, dye houses, chemical suppliers are required to provide verified environmental and production data, but most still use manual records and spreadsheets. There is no shared digital system across the supply chain.</p>
	<p><b>5. Cotton Cannot Be Traced Back to the Farm</b></p> <p>Most cotton in Pakistan is purchased through ginners who collect raw cotton from many different farms but do not record which specific farm the cotton came from. This is the most critical gap in Pakistan's traceability system. Digital Product Passport rules will eventually require data all the way back to the farm, including how the cotton was grown.</p>
	<p><b>6. Energy Costs Are High and Policies Keep Changing</b></p> <p>Pakistan's industrial electricity prices are among the highest in South Asia. The bigger problem, however, is instability. Solar net metering rules have changed multiple times. Biomass fuel prices have jumped without warning. Pakistan also lacks a wheeling policy, so factories cannot buy electricity directly from remote renewable energy plants through the national grid. This makes long-term investment in renewable energy riskier in Pakistan than in competing countries, and companies find it hard to plan capital investments needed to meet sustainability targets.</p>
	<p><b>7. Cash Flow and Working Capital</b></p> <p>Exporters face delays of six to seven months in receiving sales tax refunds, which ties up working capital at a time when local interest rates remain high. On top of this, shipping times to Europe have increased from around 40 days to nearly 60 days due to disruptions in the Red Sea and the Strait of Hormuz. This delays payment further. Smaller companies, which have lower financial buffers, are most affected by this combination of delayed refunds, longer shipping times, and high borrowing costs.</p>
	<p><b>8 SME Digital Readiness Gap</b></p> <p>Compliance software is expensive to buy, licence, and operate, and requires trained staff. Most small and medium manufacturers do not have the money to invest in these systems, and even those who can afford the software often lack the technical capacity to run it. Without external financial support or training, many SMEs may simply be unable to meet the EU's upcoming digital compliance requirements.</p>
	<p><b>9. The EFS Tax Structure Is Unfair to Compliant Producers</b></p> <p>Under the Export Facilitation Scheme (EFS), imported chemicals benefit from duty exemptions while compliant local chemical manufacturers do not receive the same treatment. Combined with known under-invoicing of chemical imports, this creates an uneven playing field that disadvantages companies doing things properly. Authorities are aware of the problem but enforcement has not been consistent.</p>

## Recommendations

Pakistan has a window of opportunity, and the steps below are what government, industry, and international partners need to take.

Recommendations	
	<p><b>1. Create a Single Compliance Framework</b> Every EU buyer runs its own audit system, forcing factories to repeat the same checks multiple times a year at their own cost. A shared compliance framework agreed between manufacturers, industry bodies, government, and buyers would cut duplication and reduce the burden, especially for smaller companies.</p>
	<p><b>2. Reward Companies that Invest in Compliance</b> Companies spending money on green infrastructure, cleaner chemicals, or sustainability certifications get no support from the government at the moment. Tax rebates or incentives for compliance investment could change this. Without it, doing the right thing simply costs more and that discourages the rest of the sector from following.</p>
	<p><b>3. Stabilise Energy Policies</b> Pakistan's electricity prices are among the highest in South Asia, and the rules keep changing. Net metering policies have shifted multiple times. There is no clear wheeling policy, factories cannot buy power directly from renewable plants. Companies cannot plan long-term investments in clean energy without stable, predictable policy. The government needs to fix this and commit to it.</p>
	<p><b>4. Fix the EFS Chemical Tax Problem</b> The Export Facilitation Scheme gives duty exemptions to imported chemicals but not to locally produced ones. This makes it cheaper to import than to buy from compliant local suppliers. Under-invoicing makes it worse. The fix is straightforward: equalise the tax treatment and enforce it properly.</p>
	<p><b>5. Build Shared Facilities for Smaller Manufacturers</b> SMEs cannot afford their own effluent plants, testing labs, or traceability systems. Shared infrastructure across factory clusters or special economic zones brings the cost down dramatically. Seven Centralised Effluent Treatment Plants in Karachi have been approved since 2010 and are still stuck. Steps need to be taken to address these issues.</p>
	<p><b>6. Fast-Track the National DPP Platform</b> A centralised, digitised platform for ESG data reporting and supply chain traceability is needed. Currently companies cannot reach Tier 2 and Tier 3 suppliers digitally and they still rely on manual data sheets. The NCC's national DPP dashboard should be fast-tracked, formally funded, and integrated with the Pakistan Single Window system at minimal transaction cost to SMEs.</p>
	<p><b>7. Give SMEs Financial and Technical Support</b> SMEs that cannot afford the initial investment for compliance software or infrastructure should receive financial support through available funds, green loans or other handholding financial support.</p>
	<p><b>8. Expand Chemical Testing Labs</b> Most SMEs have no testing facilities on site, and sending samples abroad is slow and expensive. Pakistan needs more accredited, affordable testing labs that smaller companies can actually use.</p>
	<p><b>9. Link Compliance to Business Volume</b> Brands and buyers should have a dialogue with their suppliers making clear that if suppliers comply, buyers will buy more from them. It should be linked directly to more business. Industry bodies should represent Pakistan as a compliant market through platforms like the NCC.</p>

Chapter 1

# EU Apparel Market Structure and Pakistan's Export Position

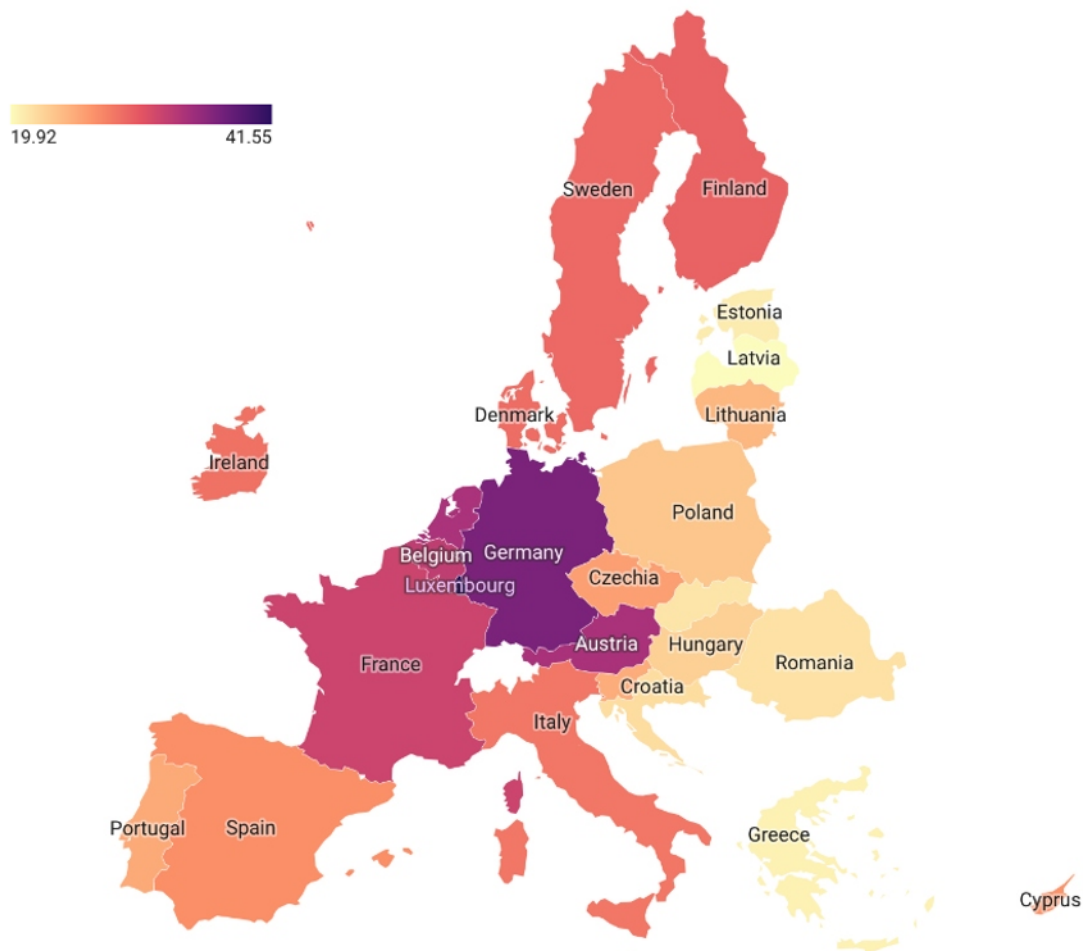


# EU Apparel Market Structure and Pakistan's Export Position

The European Union consists of 27 member countries and has a population of nearly 450 million, representing around 5.5% of the global population. It spans roughly 4 million km<sup>2</sup> in area. Within the EU, Germany is the most populous country, while France has the largest land area. Malta, on the other hand, is the smallest member state in terms of both population and land area.<sup>1</sup>

The figure below presents a map of the European Union with heatmap colours indicating adjusted gross disposable income of households per capita<sup>2</sup> in 2024. Darker regions represent higher disposable income per capita, while lighter regions indicate lower income levels (Data for Bulgaria was unavailable on the Eurostat portal).

**Figure 1.1: European Union Adjusted Gross Disposable Income of Households Per Capita in 2024**



Source: Eurostat

1. Facts and figures on the European Union

2. Adjusted gross disposable income of households per capita in PPS measures how much money people have available to spend or save, after adjusting for differences in price levels between countries. It is calculated by taking households disposable income, adjusting it for purchasing power, and dividing it by the population, allowing fair comparisons of living standards across countries.

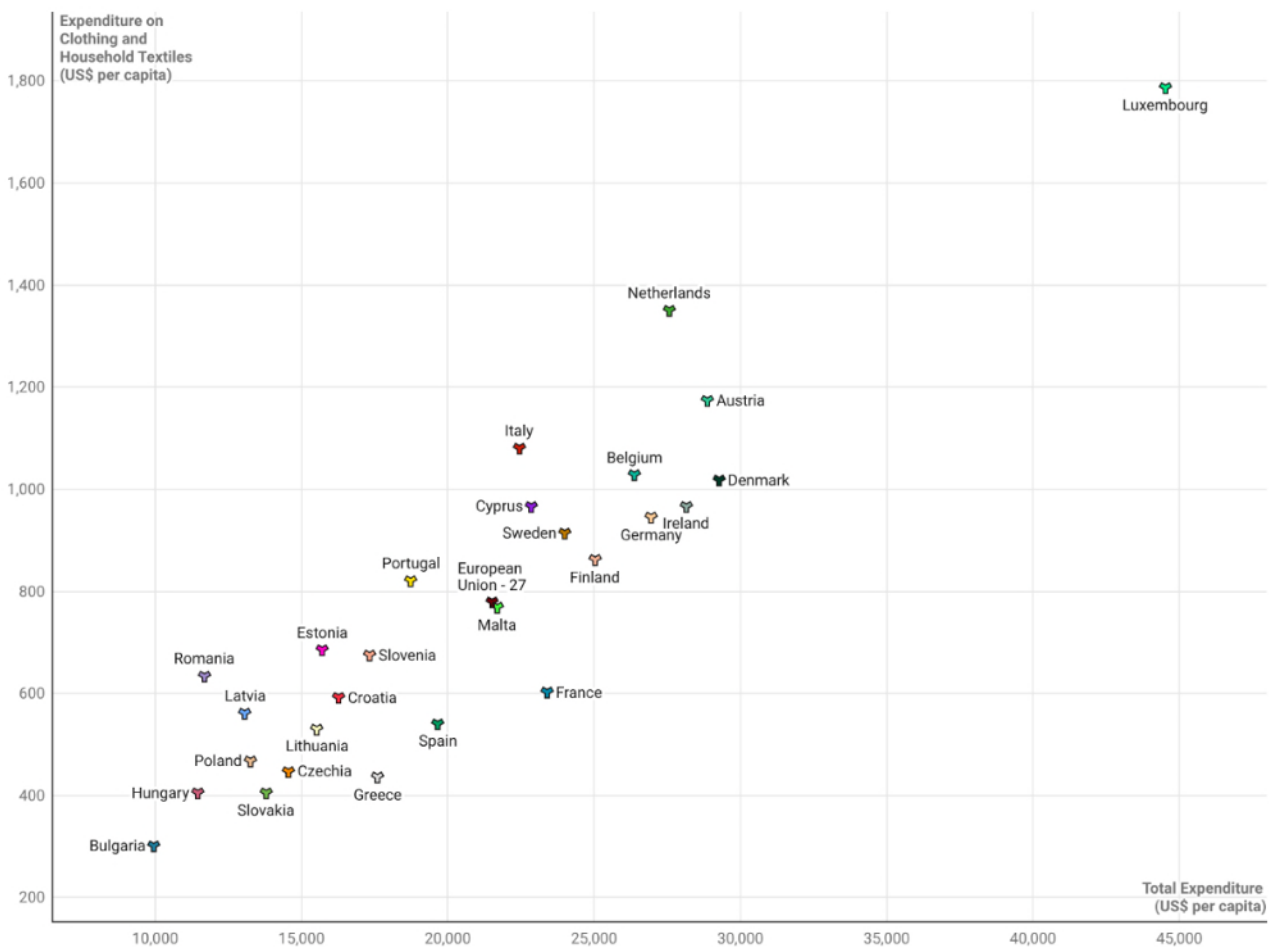
## European Union Apparel Consumption/Demand

The figure below presents data from the Eurostat portal, which categorizes the apparel industry into two components, clothing and household textiles. It shows per capita expenditure by country on textiles (clothing plus household textiles) vs. total expenditure per capita.<sup>3</sup>

Despite having one of the smallest populations in the EU, Luxembourg recorded the highest per capita expenditure on clothing, at approximately \$1,787. Its total per capita expenditure was around \$44,527, of which clothing accounted for about 4%. This was well above the European Union average clothing expenditure of roughly \$779 per capita. In contrast, Bulgaria had the lowest spending on clothing, at around \$301 per capita.

These differences largely reflect variations in income levels across countries. As shown in Figure 1, Luxembourg, Germany, and Austria have the highest adjusted gross disposable income of households per capita. However, higher income does not always translate into a proportionate increase in clothing expenditure. For example, although Sweden's per capita expenditure exceeded that of Finland by around \$1,039, clothing expenditure did not increase correspondingly, instead, the share of clothing in total expenditure declined from 3.81% to 3.44%. These patterns suggest that while clothing is a normal good across the EU, cultural factors and welfare disparities contribute to spending variations between countries.

**Figure 1.2: Expenditure on Textiles vs. Total Expenditure of European Economies in 2024**



Source: Eurostat

3. Euro-denominated consumption expenditure per capita data from Eurostat was converted to US dollars using annual average EUR–USD exchange rates from the European Central Bank.

## Major Textile Suppliers to the European Union

The table below presents the top 20 suppliers of textiles (HS Codes 50-63) to the European Union market in 2025, with China exporting €38.32 billion, followed by Bangladesh, Turkey, India and Pakistan. Pakistan supplied €6.75 billion worth of textiles to EU and held a 5.50% share. Over the five year period from 2021 to 2025, China and Turkey experienced a decline in their market share of 1.77% and 3.19%, respectively. Pakistan has improved its exports slightly over the years compared to Bangladesh, which has significantly increased its exports over the years, in 2021 Bangladesh had €14.74 billion in exports and it recorded €19.86 billion in 2025.

**Table 1.1: Top Textile Supplying Markets to the European Union in 2025**

All figures are reported in euro.



Countries	2021-2025	% Share in 2025	Change in Share (2025-2021)	CAGR (2025-2021)
China	35.05  38.32	31.25%	-1.77%	2.25%
Bangladesh	14.74  19.86	16.20%	2.31%	7.73%
Turkey	14.59  12.95	10.56%	-3.19%	-2.94%
India	6.08  7.21	5.88%	0.15%	4.36%
Pakistan	5.05  6.75	5.50%	0.74%	7.50%
Vietnam	3.42  5.3	4.32%	1.10%	11.60%
Cambodia	2.41  4.55	3.71%	1.44%	17.24%
United Kingdom	3.17  3.07	2.51%	-0.48%	-0.76%
Morocco	2.63  2.9	2.37%	-0.11%	2.49%
Tunisia	2.14  2.5	2.04%	0.03%	4.01%
Myanmar	1.68  2.02	1.65%	0.06%	4.70%
United States	1.39  1.88	1.53%	0.23%	7.92%
Sri Lanka	1.26  1.44	1.17%	-0.02%	3.31%
Switzerland	1.33  1.25	1.02%	-0.24%	-1.64%
Indonesia	1.21  1.16	0.95%	-0.19%	-1.05%
Egypt	0.69  1.08	0.88%	0.23%	11.84%
Japan	0.72  0.97	0.79%	0.12%	8.02%
South Korea	1.01  0.8	0.65%	-0.31%	-5.84%
Serbia	0.55  0.63	0.52%	0.00%	3.45%
Thailand	0.62  0.63	0.51%	-0.07%	0.47%

Source: Eurostat

China and the EU in the recent past have developed strained relations, and are currently engaged in retaliatory trade measures. For instance, the EU claims that China provides subsidies to key exports such as electric vehicles, which can have a detrimental impact on local industries. In retaliation, the EU imposed tariffs on Chinese EVs in 2024 as a protective measure for its industry, while China, in response, imposed anti-dumping duties on EU exports of pork and brandy<sup>4</sup>. Moreover, China's support for Russia in the Ukraine war has further strained relations. This has likely contributed to a decline in EU - China trade values<sup>5</sup>. Meanwhile, Bangladesh has significantly increased its share over the years by 2.31%. Bangladesh is one of the leading global suppliers of textiles, largely due to low production costs and an abundant skilled labour force, especially its female workforce. Turkey, India, Pakistan, Vietnam, and Cambodia have also increased their shares. In the case of India, the European Union and India have finalised a Free Trade Agreement (FTA)<sup>6</sup>. Turkey's exports to the EU have been declining in recent years, especially in the textile sector, mainly because of rising competition from low-cost producers like Bangladesh and China. These countries are able to offer cheaper production costs, which makes them more attractive to European buyers. As a result, Turkey has been losing market share in Europe's textile imports. At the same time, inflation in Turkey, rising production costs, and currency depreciation have also weakened competitiveness.<sup>7</sup>

## Textile Products Imported from Pakistan by the European Union

The pie chart shows the top five textile products supplied by Pakistan to the EU. These include other made-up textiles (HS-63), with exports of around €2,231.91 million, followed by articles of apparel (knitted or crocheted) (HS-61) at approximately €1,935.8 million. This is followed by articles of apparel (not knitted or crocheted) (HS-62), with exports of about €1,914.97 million. In comparison, cotton and man-made staple fibres (HS-52 and HS-55) account for relatively smaller shares, valued at around €464.41 million and €143.24 million, respectively. Globally, the demand for man-made fibres has increased, while Pakistan still lags behind as competitors such as China, Bangladesh, India and Vietnam have increased their share of exports of man-made fibres<sup>8</sup>

Between 1996 and 2023, synthetic fibre production rose from 22.2 million tonnes to 89.6 million tonnes, capturing about 72.7% of the global fibre market. In contrast, cotton production grew only marginally, from 19.6 million tonnes to 24.7 million tonnes over the same period. According to UNCTAD, global fibre production reached approximately 132 million tonnes in 2024 and is projected to increase to 169 million tonnes by 2030, largely driven by virgin synthetic fibres. Recycled fibres accounted for just 7.6% of total production, with only 1% coming from recycled textiles. Despite their dominance, synthetic fibres pose significant environmental concerns. Materials such as polyester are petroleum-based, non-biodegradable, and contribute heavily to greenhouse gas emissions, making MMFs more environmentally damaging than natural fibres.<sup>9</sup>

According to the OECD-FAO Agricultural Outlook (2025–2034), global raw cotton consumption is forecast to expand at an annual rate of 1.2%. This growth is primarily driven by escalating textile demand within emerging and low-income economies. While Vietnam, Bangladesh, and India are expected to lead in production, the landscape for cotton processing is shifting. Although China is projected to maintain its position as the world's largest processor through 2034, its overall market share is anticipated to decline as India emerges as a primary competitor. However, these projections remain subject to external

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4. CNBC

5. Quincy

6. Global Bankinf & Finance Review

7. Fibre2Fashion

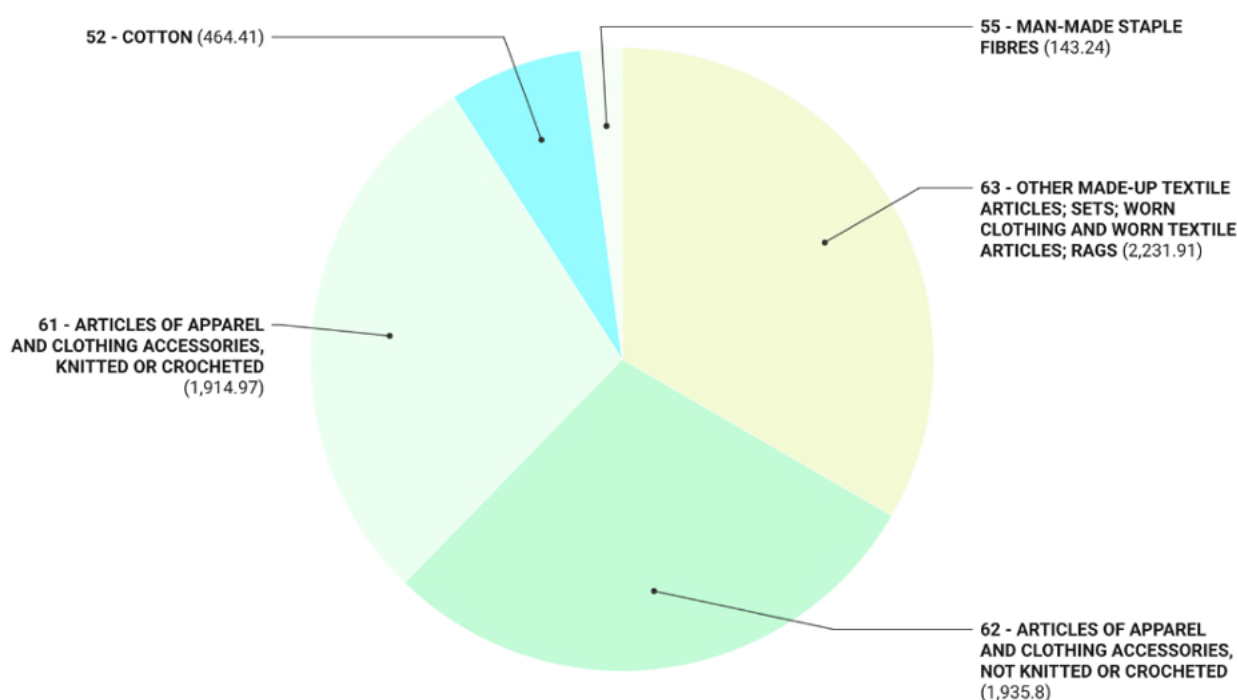
8. Tribune

9. Textile Exchange

variables, specifically shifting consumer preferences toward circularity, organic cotton, textile recycling, and the burgeoning second-hand apparel market. As global demand for sustainable cotton is projected to rise, nations that have already institutionalized large-scale sustainable farming methods such as Brazil are expected to significantly boost their production capacity.<sup>10</sup>

**Figure 1.3: Top HS codes Imported by European Union from Pakistan in 2025**

All figures are reported in euro millions.



Source: Eurostat

The table below shows the top 10 EU markets for Pakistan. Germany, Spain, the Netherlands, Italy, and France are the leading markets importing textiles from Pakistan. Germany and Spain alone imported around €1,522.90 million and €1,248.14 million worth of textiles from Pakistan, respectively.

**Table 1.2: Pakistan's Top Textile Importing Markets in 2025**

Importer	Value (Euro Millions)	Quantity (Million kg)
European Union - 27	6,729.08	876.05
Germany	1,522.90	164.42
Spain	1,248.14	144.79
Netherlands	848.22	121.93
Italy	707.03	112.90
France	582.51	75.73
Poland	359.36	51.73
Belgium	265.13	39.95
Denmark	218.80	21.87
Portugal	160.94	33.55
Sweden	121.37	12.61

Source: Eurostat

Most of Pakistan's textile exports to the EU benefit from zero tariffs under the GSP+ scheme. These include products such as men's or boys' trousers, cotton bedlinen, women's or girls' trousers, toilet linen, and printed cotton bedlinen. The leading product category accounts for €981.55 million in imports, followed by €602.39 million and €481.45 million, respectively.

**Table 1.3: Pakistan's Textile Products Imported by European Union in 2025**

HS - Code	Product Name	2021	2022	2023	2024	2025
		Million Euros				
620342	Men's or boys' trousers, bib and brace overalls, breeches and shorts, of cotton (excl. knitted or crocheted, underpants and swimwear)	654.98	954.23	805.78	874.55	981.55
630231	Bedlinen of cotton (excl. printed, knitted or crocheted)	428.74	591.99	469.51	514.37	602.39
620462	Women's or girls' trousers, bib and brace overalls, breeches and shorts of cotton (excl. knitted or crocheted, panties and swimwear)	378.96	461.27	377.3	442.7	481.45
630221	Printed bedlinen of cotton (excl. knitted or crocheted)	428.43	486.1	402.52	418.77	456.34
611020	Jerseys, pullovers, cardigans, waistcoats and similar articles, of cotton, knitted or crocheted (excl. wadded waistcoats)	270.93	417.31	348.81	401.36	422.88
630260	Toilet linen and kitchen linen, of terry towelling or similar terry fabrics of cotton (excl. floorcloths, polishing cloths, dishcloths and dusters)	270.46	423.77	406.45	420.62	420.19
630210	Bedlinen, knitted or crocheted	171.53	220.39	180.43	242.22	261.01
610910	T-shirts, singlets and other vests of cotton, knitted or crocheted	107.90	148.53	137.49	169.3	216.37
611595	Full-length or knee-length stockings, socks and other hosiery, incl. footwear without applied soles, of cotton, knitted or crocheted (excl. graduated compression hosiery, pantyhose and tights, women's full-length or knee-length stockings, measuring per single yarn < 67 decitex, and hosiery for babies)	115.27	194.17	161.14	191.13	193.15
610462	Women's or girls' trousers, bib and brace overalls, breeches and shorts of cotton, knitted or crocheted (excl. panties and swimwear)	100.74	149.88	115.6	149.85	178.58
610342	Men's or boys' trousers, bib and brace overalls, breeches and shorts of cotton, knitted or crocheted (excl. swimwear and underpants)	82.63	136.52	103.22	129.70	154.34
630232	Bedlinen of man-made fibres (excl. printed, knitted or crocheted)	98.67	148.94	122.84	143.11	145.39
630222	Printed bedlinen of man-made fibres (excl. knitted or crocheted)	70.78	87.54	66.54	87.86	94.79
611030	Jerseys, pullovers, cardigans, waistcoats and similar articles, of man-made fibres, knitted or crocheted (excl. wadded waistcoats)	75.79	160.81	98.12	90.73	78.16
520812	Plain woven fabrics of cotton, containing >= 85% cotton by weight and weighing > 100 g to 200 g/m <sup>2</sup> , unbleached	102.57	113.63	76.27	75.94	72.11
620343	Men's or boys' trousers, bib and brace overalls, breeches and shorts of synthetic fibres (excl. knitted or crocheted, underpants and swimwear)	33.10	61.18	49.64	58.59	68.53

HS - Code	Product Name	2021	2022	2023	2024	2025
		Million Euros				
610343	Men's or boys' trousers, bib and brace overalls, breeches and shorts of synthetic fibres, knitted or crocheted (excl. swimwear and underpants)	23.00	46.16	43.01	51.22	61.80
630291	Toilet linen and kitchen linen of cotton (excl. of terry fabrics, floorcloths, polishing cloths, dishcloths and dusters)	36.56	63.23	53.49	55.94	59.15
610463	Women's or girls' trousers, bib and brace overalls, breeches and shorts of synthetic fibres, knitted or crocheted (excl. panties and swimwear)	53.49	93.92	53.84	59.16	56.28
611610	Gloves, mittens and mitts, impregnated, coated or covered with plastics or rubber, knitted or crocheted	56.28	66.13	54.46	56.88	54.51
610711	Men's or boys' underpants and briefs of cotton, knitted or crocheted	44.84	57.00	48.08	50.92	50.34
520819	Woven fabrics of cotton, containing $\geq 85\%$ cotton by weight and weighing $\leq 200$ g/m <sup>2</sup> , unbleached (excl. those in three-thread or four-thread twill, incl. cross twill, and plain woven fabrics)	55.80	92.70	57.56	49.57	46.74
610990	T-shirts, singlets and other vests of textile materials, knitted or crocheted (excl. cotton)	24.90	38.57	43.42	43.52	44.08
610120	Overcoats, car coats, capes, cloaks, anoraks, incl. ski jackets, windcheaters, wind-jackets and similar articles of cotton, for men or boys, knitted or crocheted (excl. suits, ensembles, jackets, blazers, bib and brace overalls and trousers)	21.89	36.96	28.06	35.8	43.76
630239	Bedlinen of textile materials (excl. of cotton and man-made fibres, printed, knitted or crocheted)	28.50	49.04	39.19	42.14	40.11

Source: Eurostat

Chapter 2

# European Union Textile Regulations



# European Union Textile Regulations

## Textile Industry Overview

The textile and garment industry are among the world's oldest economic activities, with archaeological evidence such as linen fragments discovered in ancient Egyptian sites, dating the sector's origins back to antiquity<sup>11</sup>. Historically, the region comprising modern-day Pakistan has been a central hub for textile production since the Indus Valley Civilization, where homespun cotton was first utilized for global trade.<sup>12</sup> In the modern era, textiles have transitioned from a basic physiological necessity (as categorized in Maslow's Hierarchy of Needs) into a complex global value chain.<sup>13</sup> Today, the sector is a vital pillar of the global economy, providing livelihoods for approximately 90 million people worldwide.<sup>14</sup> Recent decades have seen a surge in textile production and consumption, driven by rapid population growth, rising global incomes, and improved living standards.<sup>15</sup> However, this expansion has led to the emergence of a disposable fashion culture. Scientific research increasingly highlights the detrimental environmental and public health impacts of this consumption model.<sup>16</sup> Discarded garments are often exported to low-income countries, where declining textile use and weak environmental regulations especially in climate-vulnerable countries like Pakistan lead to landfill accumulation. As a result, many low-income nations have become dumping grounds for fast fashion waste.<sup>17</sup>

## Evolution of Pakistan's Textile Industry

After gaining independence, Pakistan began developing its textile industry in the 1950s. The 2000s marked a period of modernization, with the textile industry expanding into the production of bed linens, towels, and branded apparel, however, the energy crisis emerged as a major challenge in the same period. In the 2010s, the industry began shifting toward sustainable practices in response to rising global demand for environmentally friendly products. In the 2020s, Pakistan has placed greater emphasis on innovation, textile technology, and sustainability, while facing growing competition from regional competitors such as India, Bangladesh, and Vietnam, along with challenges related to rising energy costs and outdated machinery.<sup>18</sup>

## Current State of Pakistan's Textile Industry

Pakistan's textile sector recorded a growth of 2.2% during July-March FY 2025, rebounding from an 8.8% contraction in the same period of the previous year. This recovery was driven primarily by growth in cotton yarn (8.4%), cotton cloth (0.8%), and terry towels and bathrobes (4.0%). Improved macroeconomic conditions and a lower policy rate reduced borrowing costs, encouraging investment and production.

External factors also supported growth. Political unrest and labor disputes in Bangladesh between December 2024 and March 2025 led to the diversion of export orders to other Asian producers,

11. Evolution in the surface modification of textiles: a review

12. The Indus Valley's Surprising Role in the History of Cotton.

13. Sustainable textile industry – wishful thinking or the new norm: A review

14. Advancing Decent Work in Supply chains

15. Sustainability trends and gaps in the textile, apparel and fashion industries

16. Fashion and textile circular economy case

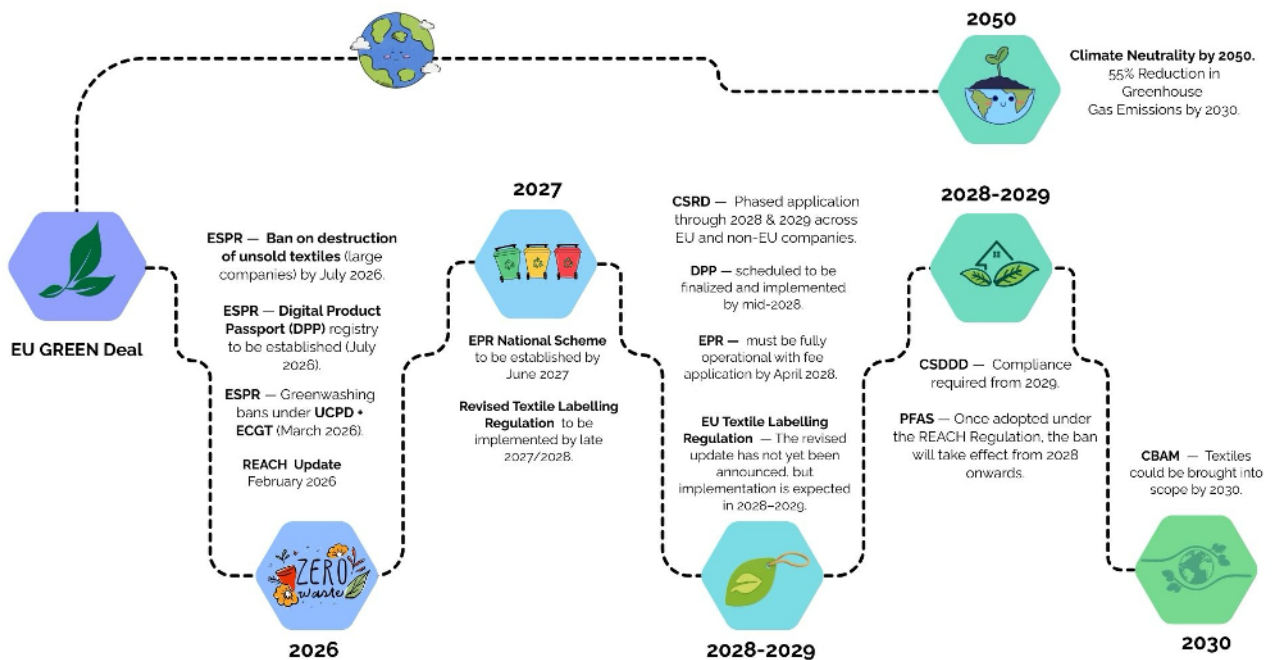
17. Greening the Textile Industry

18. Critical Evaluation of Textile Industry of

including Pakistan. Although domestic cotton production declined, increased imports of raw cotton helped bridge supply gaps and sustain output. Rising imports of textile machinery and higher working-capital borrowing further indicate the industry’s intent to modernize and expand. The apparel sector maintained strong momentum, growing by 7.6% during July-March FY 2025, compared to 5.4% in the previous period. This growth reflects improved competitiveness and rising demand, supported by a 7.8% increase in export volumes and a 19.1% rise in export values.

Overall, the textile sector contributes nearly one-fourth of Pakistan’s total industrial value added and employs around 40% of the industrial labor force. Textile products accounted for an average of 55.2% of Pakistan’s total exports during July-March FY 2025, underscoring the sector’s continued dominance in export performance.<sup>19</sup>

**Figure 2.1: New Regulations Expected Timeline**



## European Union Textile Regulations

The European Union’s textile-related regulations fall under the **EU Green Deal**, launched in 2019, this aims to achieve climate neutrality by 2050 and reduce greenhouse gas emissions by 50%. Within this framework, textile protocols align with broader sustainability and climate objectives.

A key component of the EU Green Deal is the **EU Circular Economy Action Plan (CEAP)**, which seeks to break the traditional “use-and-dispose” model by promoting products and materials that can circulate throughout their life cycle and be recycled repeatedly.

19. Manufacturing and Mining Survey

## EU's Strategy for Sustainable and Circular Textiles

Building on these initiatives, the EU's strategy for sustainable and circular textiles aims to minimize the negative externalities of textile consumption. By 2030, the strategy targets that most textiles consumed in the EU are recyclable, largely produced from recycled fibres, free from harmful chemicals, and manufactured in ways that uphold environmental and social standards. The strategy also emphasizes responsible production across the entire value chain and increased consumer awareness regarding how and where textiles are made.<sup>20</sup>

Within this framework, several key EU rules and actions are relevant to the textile sector. These include the Corporate Sustainability Reporting Directive (CSRD), the Ecodesign for Sustainable Products Regulation (ESPR), and the Unfair Commercial Practices Directive (UCPD), alongside the Empowering Consumers for the Green Transition Directive. In addition, the framework covers the Waste Framework Directive, which govern textile waste management.

Textile waste is further driven by low product durability. A significant share of clothing is discarded due to poor quality, including issues related to pilling, colour fastness, tear strength, dimensional stability, and zipper performance. Therefore, there is stronger emphasis on improving product durability.<sup>21</sup>

In support of circularity, the EU plans to establish a single market for the movement of secondary raw materials. Scheduled for adoption in 2026, this initiative aims to increase the supply of recycled materials across the EU and stimulate demand for their use.<sup>22</sup>

### **Corporate Sustainability Reporting Directive (CSRD):**

Under the Corporate Sustainability Reporting Directive (CSRD), companies are required to publicly disclose information on their environmental impacts. The objective is to ensure that consumers and investors have access to information about the sustainability performance of businesses. The directive applies not only to EU-based firms but also to non-EU companies operating within the EU. Reporting covers both the impacts of climate change on companies and the environmental risks posed by their activities, providing a standardized framework for sustainability reporting.

In December 2025, amendments to the CSRD were introduced through the Omnibus I Simplification Package. These changes aligned sustainability reporting more closely with due diligence requirements, discussed later in this section. Following the revision, reporting obligations are focused on large companies with at least 1,000 employees and a net annual turnover exceeding €450 million. Companies with fewer than 1,000 employees are no longer required to disclose this information.

For non-EU companies, CSRD requirements apply if they generate net turnover of €450 million or more within the EU. Their EU subsidiaries or branches must also comply if they individually record turnover exceeding €200 million. Non-EU parent companies meeting these thresholds will begin reporting in 2029, covering the 2028 financial year.<sup>23</sup>

### **Ecodesign for Sustainable Products Regulation (ESPR):**

The Ecodesign for Sustainable Products Regulation (ESPR), effective from 18 July 2024, aims to promote sustainable textiles by focusing on four key factors: recyclability, durability, energy use, and circularity.<sup>24</sup> The EU is currently developing product-specific rules, expected by 2027, with compliance required by mid-2028. Textiles failing to meet these requirements will no longer be allowed in the EU market. Potential parameters under consideration include product durability and reliability, design for

20. EU strategy for sustainable and circular textiles

21. ECOS

22. Circular Economy

23. Corporate Sustainability Reporting Directive (CSRD)

24. Ecodesign for Sustainable Products Regulation

recycling, use of substances of concern, incorporation of recycled materials, and overall environmental footprint, with minimum and maximum thresholds.<sup>25</sup> Manufacturers may need to assess recyclability and ensure a minimum share of recycled fibres in certain products.

To reduce waste from unsold goods, ESPR introduced new measures on 6 February 2026. Unsold textiles, which contribute 4-9% of total EU textile-related CO<sub>2</sub> emissions (approximately 5.6 million tonnes), cannot be destroyed. Companies must disclose information on destroyed inventory: large companies by July 2026, and medium-sized companies by 2030. This includes provisions for “Clarifying Derogations”, outlining when disposal is allowed, and “Facilitating Disclosure”, specifying the reporting format. These rules will be enforced from February 2027.<sup>26</sup>

Additionally, the EU’s energy labelling framework prioritizes textile products to improve product longevity, material efficiency, and reduce environmental impacts related to water, waste, climate, and energy use.<sup>27</sup> ESPR reporting requirements will align with the Textile Labelling Regulation, currently under review, to ensure consistency and transparency.

### **Digital Product Passport (DPP):**

The Digital Product Passport (DPP), introduced under the Ecodesign for Sustainable Products Regulation, will provide consumers and manufacturers with digital access to detailed product information. It will include data on components, materials, sourcing, sustainability, recyclability, and circularity, accessible via a scannable identifier.

The DPP registry is expected to be established by July 2026, with specific requirements finalized by 2027 and full implementation by mid-2028. While the exact format is yet to be confirmed, ESPR outlines potential information to be included, such as the manufacturer and production facility, importer and EU responsible person, and relevant commodity codes.

### **Unfair Commercial Practices Directive (UCPD) in combination with Empowering Consumers for the Green Transition Directive:**

The Unfair Commercial Practices Directive (UCPD), first implemented in 2005, sets out requirements to ensure that consumers are properly informed about claims regarding environmental performance, pricing, and other product attributes.

The Directive on Green Claims, originally intended to regulate unverified eco-friendly claims, was paused in June 2025. In combination with the Empowering Consumers for the Green Transition Directive (ECGT), the UCPD now prohibits companies from making eco-friendly claims without substantial evidence. Member states were required to incorporate these rules into national law by March 2026.<sup>28</sup>

The directive applies to any indication whether verbal, visual, or symbolic that suggests a product has reduced its environmental impact. Specific rules and requirements that companies must follow under this directive are outlined separately.

Following rules need to followed under this directive:

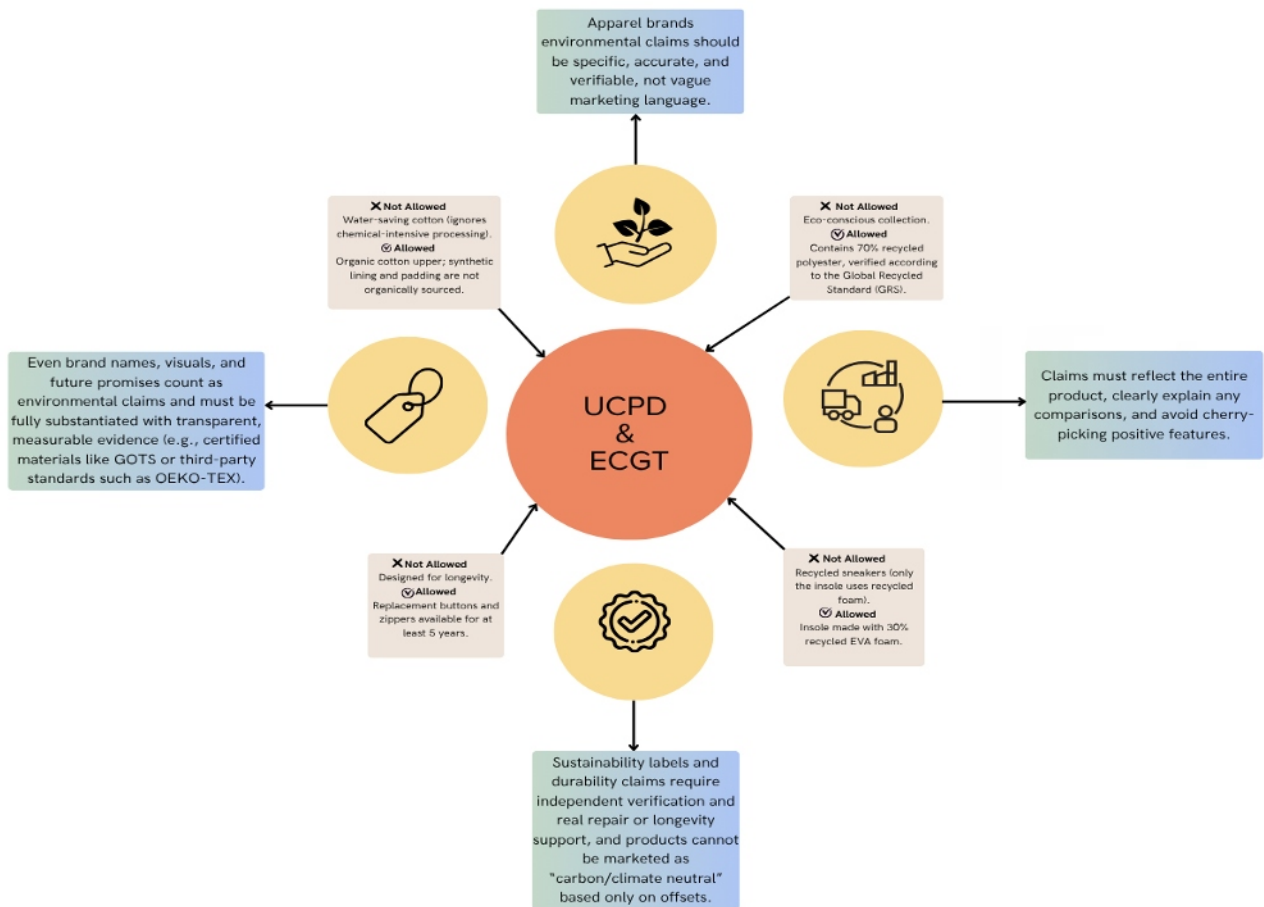
25. Weaving new rules for the textile industry

26. New EU rules to stop the destruction of unsold clothes and shoes

27. Ecodesign for Sustainable Products and Energy Labelling Working Plan 2025-2030

28. Carbon Fact

Figure 2.2: Rules Under UCPD & ECGT



Each EU member state enforces these directives through its national consumer protection authority, such as ACM in the Netherlands and DGCCRF in France. These authorities investigate violations and impose penalties under national law.

The ESPR affects all businesses along the textile value chain, including EU and non-EU manufacturers, distributors, and service providers. The EU intends to maintain partnerships with non-EU producers as long as they comply with sustainability requirements.<sup>29</sup> Products that fail to meet these standards may only be displayed at trade events under specific limitations.

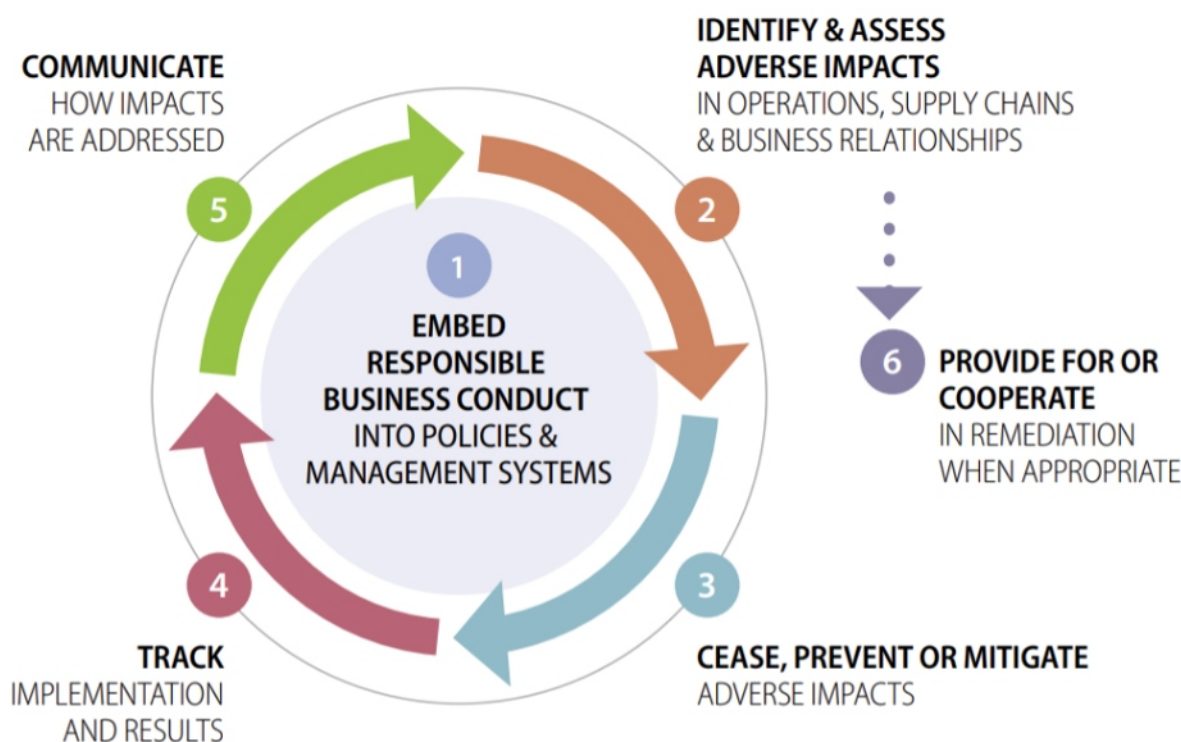
**Corporate Sustainability Due Diligence Directive (CSDD)**

This framework addresses the negative externalities of business operations and is part of the broader EU Green Deal. While based in the EU, it also applies to non-EU businesses operating within the EU. Large companies are particularly affected, as they are required to assess and mitigate risks related to human rights and environmental violations. Key areas of concern include employee wellbeing, child and forced labor, greenhouse gas emissions, waste generation, resource consumption, marine pollution, and the protection of endangered species. These obligations apply not only to a company’s direct operations but also to its subsidiaries, business partners, and suppliers.<sup>30</sup>

The directive aligns with the six due diligence principles outlined by the OECD, which guide companies in identifying and addressing these risks.

29. Circularise  
30. Circularise

Figure 2.3: Six Due Diligence Principles Outlined by OECD



Source: OECD<sup>31</sup>

Large EU companies with more than 5,000 employees and a net turnover exceeding €1.5 billion are subject to due diligence obligations. For non-EU companies, those generating over €1.5 billion in net turnover within the EU are also covered. Compliance with these due diligence requirements will begin in 2029, covering business activities conducted in 2028.

## Revised Waste Framework Directive

The Waste Framework Directive was first adopted in 2021 and revised in 2025. Under this Directive, all EU Member States are required to establish separate textile waste collection systems. Member States are expected to implement National Textile Extended Producer Responsibility (EPR) schemes by June 2027. A key principle of the Directive, which will also affect non-EU countries, is the polluter pays principle meaning that whoever generates the waste is responsible for covering the associated costs. The revised Waste Framework Directive establishes a set of rules for Extended Producer Responsibility (EPR), as outlined below.

### **Extended Producer Responsibility (EPR):**

The revised Waste Framework Directive includes Extended Producer Responsibility (EPR), which holds producers accountable for the entire lifecycle of their products, including end-of-life management. The main elements of the EPR framework are:

- Data reporting: Producers must report the production volumes and weight of textiles placed on the market.
- Lifecycle tracking: Monitoring how textiles are used, collected, and treated at the end of their life.

31. OECD

- Participation in take-back schemes: Businesses must support or implement systems for collecting textile waste.
- Fee payment: Producers pay fees per unit or weight of textiles placed on the market, which funds waste management and recycling systems.
- Eco-modulation: Products that are easier to reuse or recycle may face lower EPR fees, reflecting reduced end-of-life costs.

Under national EPR schemes, any business placing products in the EU market including non-EU companies selling online to EU customers must:

- Register as textile producers in each EU country where they sell products.
- Report the quantities of textiles placed on the market, including clothing and home textiles.
- Pay the applicable EPR fees to cover the cost of collection, sorting, and recycling.

Each Member State is required to establish a Producer Responsibility Organisation (PRO)<sup>33</sup>. Producers must register with the PRO before placing products on the EU market and provide information such as: producer identity, contact details, brand names, customs codes, and details of the PRO. The PRO is responsible for:

- Collecting textile waste.
- Informing consumers about reuse and repair options.
- Reporting data on textiles placed on the EU market, collected, reused, recycled, or exported.

Once incorporated into national law, the EPR schemes must be fully operational and applying fees by April 2028, with small companies included from 2029 onwards. Countries that have already implemented EPR requirements include France, the Netherlands, Hungary, Latvia, Italy, and Spain, each with specific national rules.<sup>33</sup>

### **EU Textile Labelling Regulation**

The EU first introduced textile labelling requirements in 2011, which mandated the disclosure of fibre content and animal-derived components. Over time, increasing sustainability and national labelling requirements have added complexity and compliance costs for producers.

Moreover, existing labels often lack information on product origin, materials, and environmental impact. To address these issues, revisions are being introduced to harmonize labelling rules, reduce compliance costs, and ensure labels provide accurate information on textile origin, materials, environmental impact, proper use, and responsible disposal.<sup>34</sup>

The revised regulation is expected to cover approximately 80% of textile fibre products. Key considerations under review include the introduction of digital labelling, visually appealing designs, and ensuring requirements are fair for SMEs. The revised rules are expected to enter into force by mid-2026, with full implementation required by 2028–2029.<sup>35</sup>

32. Weaving new rules for the textile industry

33. Overview of All Textile Extended Producer Responsibility (EPR) Laws

34. Textile Label

35. EU Textile Labelling Regulation

## Product Environmental Footprint Method (PEF for Apparel)

The Apparel Product Environmental Footprint Category Rules (PEFCRs) are built upon life cycle assessment (LCA) methodology, which aims to reduce negative environmental impacts across a product's entire life cycle from raw material extraction to waste management.

The PEFCRs provide guidance on communicating environmental impacts of products in a consistent and credible way<sup>36</sup> Based on internationally accepted ISO standards (e.g., ISO 14040 and 14044), the methodology has been endorsed by the European Commission since 2013 and is referenced in major EU policy instruments, including the Corporate Sustainability Reporting Directive (CSRD) and the European Sustainability Reporting Portal (ESPR).

The Apparel PEFCRs state how brands should measure and report the environmental impacts of everyday clothing sold in the EU, considering the garment's full life from fibre production to washing, use, and disposal. They are designed for standard consumer clothing, assessing impacts per wear over the garment's lifetime, highlighting major sources of impact, and rewarding durability and repairability. Instead of providing a single overall "eco score," brands disclose specific environmental indicators. Although voluntary, the PEFCRs help companies design better products and communicate environmental impacts more transparently, particularly in B2B contexts.<sup>37</sup>

## REACH Update

The European Chemicals Agency (ECHA) oversees the management of harmful substances, known as Substances of Very High Concern (SVHCs), under the REACH regulation.<sup>38</sup> These substances are permitted at a maximum of 0.1% of the total product weight. ECHA regulates the use of such chemicals throughout the manufacturing process, from dyeing to finishing. REACH was implemented in 2006 and currently covers a list of 253 substances, with two additional chemicals added in February 2026, as detailed below:

### 1. Bisphenol AF (BPAF)

**Reason for inclusion:** Toxic for reproduction

**Relevance to textiles:**

BPAF may be present in polyesters produced using BPAF produced polymers which is commonly used in home textiles, it may also be used in dye-fixing agents to provide long lasting colors, it's also used in coatings to ensure durability and resistance such as in rain coats.<sup>39</sup>

### 2. n-Hexane

**Reason for inclusion:** Toxic to human health

**Relevance to textiles:**

n-Hexane may be used as a processing solvent in certain textile-related applications (e.g. coatings, adhesives, cleaning processes). It is not intended to remain in finished textile articles, but controls are relevant for manufacturing and supply-chain compliance.<sup>40</sup>

Under the REACH regulation, the EU aims to reduce microplastic pollution from textiles. Intentionally added microplastics, such as glitter, are immediately banned, while synthetic fabrics like polyester and nylon responsible for about 35% of ocean microplastics will face eventual restrictions to limit fiber

36. Product Environmental Footprint (PEF)

37. EU Textiles Ecosystem Platform

38. ECHA

39. Reducing Bisphenol Risks in Sustainable Textile Production

40. ECHA Publishes February 2026 REACH SVHC Update

shedding during washing.<sup>41</sup> This encourages brands to develop more durable, low-shedding textiles. The upcoming ESPR (expected by 2027) may introduce shedding thresholds, standardized testing, improved product design, pre-market washing with filtration, and advanced effluent treatment in manufacturing. Measures such as tighter yarns, denser fabrics, industrial pre-washing, washing-machine filters, gentler laundry cycles, and improved dryer technology can further reduce microplastic release throughout a garment's life cycle.<sup>42</sup>

### **Revision of EU PFAS Restriction Proposal**

The European Union is developing a comprehensive restriction on per- and polyfluoroalkyl substances (PFAS), known as “forever chemicals”, under the EU REACH Regulation, which would largely prohibit the manufacture, use, and sale of PFAS in the EU and the European Economic Area, including in imported products.

The proposal regulates all PFAS as a single chemical group and is based on the view that these substances are extremely persistent and pose long-term risks for which no safe exposure level can be established. Consumer products such as apparel and textiles are expected to face strict controls and short transition periods. The restriction would impose enforceable concentration limits and place compliance responsibility on manufacturers, importers, and first EU market entrants, requiring supply-chain transparency and, in some cases, ongoing reporting and management obligations.

The revised proposal was published by the European Chemicals Agency in 2025 and is under scientific review, with final opinions expected in 2026, once adopted, a general 18-month transition period will apply, meaning the ban is likely to affect many consumer products from around 2028 onwards.<sup>43</sup>

## **Carbon Border Adjustment Mechanism (CBAM)**

The EU's Carbon Border Adjustment Mechanism (CBAM) is a new customs-based climate policy that places a carbon cost on certain imported goods to match the price paid by EU producers under the EU Emissions Trading System, with the aim of preventing carbon emission. From 1 January 2026, CBAM requires importers of covered goods to report embedded emissions and purchase CBAM certificates, turning carbon emissions into a direct financial liability at the EU border.

While textiles, fabrics, and finished garments are currently excluded, the mechanism is explicitly designed to expand, and the European Commission has indicated that chemicals and polymers may be brought into scope by around 2030. This would directly affect synthetic fibres such as polyester, nylon, acrylic, and elastane, which are central to modern textiles and produced through carbon-intensive processes. If expanded as planned, CBAM would make carbon emissions a price factor for textile imports, require verified factory-level emissions data, and expose brands without transparent supply chains to higher default carbon costs, effectively making carbon compliance a condition for EU market access.

41. EU Regulation Forces Synthetic Fabric Redesign to Cut Microplastic Pollution

42. EU Should Seize Opportunity to Curb Microplastic Pollution From Apparel

43. Revision of EU PFAS restriction proposal- New approach or continuity?

## Impact on Pakistan

By 2028, selling textiles to the EU will require Pakistani manufacturers to provide verified digital data on their materials, chemicals, water use, carbon emissions, and labour practices. It will require products to be free of PFAS and other restricted substances. It will require labels to be accurate and traceable. And it will expose every tier of the supply chain, not just the final exporter.

None of this requires a Pakistani company to file anything but it does require Pakistani companies to have the systems, the data, and the certified supply chain infrastructure that EU buyers will demand as a condition for doing business. The regulations are EU law, and the compliance burden is on Pakistan.

**Table 2.1: EU Regulations Applicability to Pakistan**

Regulation	Does it apply directly to Pakistani firms?	How does it impact Pakistan?	Who is Affected?	By When?
<b>Ecodesign for Sustainable Products Regulation (ESPR)</b>	No, but products must comply to enter the EU market.	EU buyers will make compliance a contractual requirement before products are shipped.	All exporters to the EU.	Mid-2028
<b>Digital Product Passport (DPP)</b>	No - EU importer files, but factory supplies all the data.	Buyers will not be able to sell without verified factory data.	All exporters to the EU.	Mid-2028.
<b>Per- and Polyfluoroalkyl Substances (PFAS)</b>	Yes. Products must comply regardless of manufacturer location.	It will apply to the manufacturing stage, which means Pakistani factories will need to switch to alternatives.	Dye houses, finishers, synthetic fabric producers.	PFAS ban (approximately by 2028).
<b>Corporate Sustainability Reporting Directive (CSRD)</b>	Not as a reporting entity (unless >EUR 450m EU turnover from 2029).	EU buyers demand supply chain sustainability data to meet their own filing obligations.	Suppliers to large EU brands.	2029 (covering 2028 activities).
<b>Corporate Sustainability Due Diligence (CSDD)</b>	No - applies to large EU companies.	EU brands conduct due diligence audits across tier 1, 2, and 3 suppliers.	All tiers of supply chain, including ginners and spinners.	2029 (covering 2028 activities).
<b>Extended Producer Responsibility (EPR)</b>	Only if selling directly to EU consumers online.	Cost could be passed back to the supplier providing to EU buyers.	Exporters/Direct online sellers.	April 2028.
<b>Textile Labelling</b>	Yes - manufacturer is responsible for label accuracy.	Direct product requirement.	All manufacturers.	2028-2029.
<b>Carbon Border Adjustment Mechanism (CBAM)</b>	Not currently - textiles are excluded.	Possible future exposure if expanded to textiles.	Synthetic fibre producers.	Approximately 2030 (if expanded).

Chapter 3

# Pakistan's Textile Industry: Structural Realities



# Pakistan's Textile Industry: Structural Realities

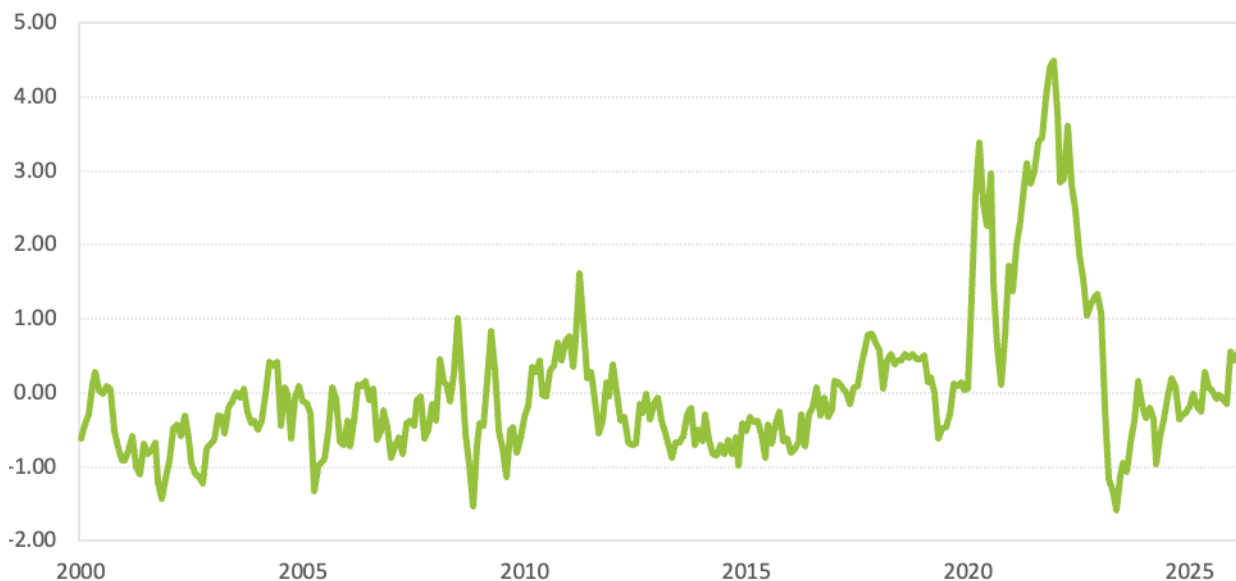
Pakistan's textile industry contributes approximately 8.5% to GDP and accounts for nearly 55% of total export earnings. The country is the 6th largest cotton producer globally, with nearly half its industrial workforce engaged in textile-related activities.

## Energy Usage

Pakistan's textile sector is responsible for nearly five percent of total industrial greenhouse gas emissions, average energy consumption is 54.1 GJ per tonne, while carbon emissions amount to 2-5 tonnes of CO<sub>2</sub> per tonne of product and the carbon intensity of production is high, factories emit an average of 3.3 tonnes of CO<sub>2</sub> for every tonne of textile product they produce. A large part of this comes from the dyeing and finishing stage, which requires large amounts of heat, water, and chemicals. The sector also consumes roughly 28 percent of all industrial electricity in Pakistan and 28.6 percent of industrial natural gas. Because grid electricity is unreliable, many large mills generate their own power using fossil fuels, which pushes emissions higher. Moreover, Pakistani manufacturers pay substantially more for electricity than their counterparts in Bangladesh.<sup>44</sup>

The situation has been further complicated by the US-Iran conflict and its impact on the Strait of Hormuz, through which Pakistan's oil and LNG imports travel. The Global Supply Chain Pressure Index<sup>45</sup>, which measures disruption across international supply chains relative to historical norms where zero represents normal conditions, positive values indicate greater pressure, and negative values indicate

**Figure 3.1: Global Supply Chain Pressure Index (GSCPI)**



Source: Federal Reserve Bank of New York, 2026

44. Energy Efficiency and Decarbonization Opportunities (EE&D)

45. It is constructed by combining two broad categories of data: shipping and transportation costs, and manufacturing survey responses. On the shipping side, it draws from the Baltic Dry Index (cost of shipping bulk goods by sea), the Harpex Index (cost of renting container ships), and air freight cost data from the US Bureau of Labor Statistics. On the manufacturing side, it uses Purchasing Managers' Index (PMI) surveys from seven major economies, the US, China, the Eurozone, Japan, South Korea, Taiwan, and the UK, focusing on things like delivery delays, input shortages, and order backlogs

smoother-than-average flows. The value reached 0.68 in March 2026, its highest reading since 2023. Rising input costs, disrupted logistics, higher shipping expenses, and energy insecurity are threatening the competitiveness and output of an industry that Pakistan's economy cannot afford to lose.<sup>46</sup>

Against this background, the sector's transition toward renewable energy has been substantial. According to Pakistan's economic survey, based on statistics from March 2025, the total installed capacity of hydel, nuclear and renewable energy sources totalled up to 44.3%, this is up from previous years while share of thermal power declined to 55.7%. While in terms of generation, Pakistan produced 53.7% of electricity through hydel, nuclear, and renewable energy resources in July-March FY 2025.<sup>47</sup>

## Chemical Usage

Textile manufacturing is among the most chemically intensive industries in the world. The sector relies on over 80,000 types of chemicals across its production processes, of which more than 20,000 are in common use. Many are hazardous. Volatile organic compounds evaporate during production. Toxic heavy metals, including cadmium, are present in certain dyes and inks. Microfibers and microplastics from chemical inputs frequently enter water bodies. The health risks are documented: formaldehyde, widely used in textile finishing, is associated with leukaemia, lung cancer, and skin and eye conditions. Fixatives such as ammonia cause damage to aquatic life. Polybrominated diphenyl ethers, used as flame retardants, are associated with liver disease and thyroid disruption. Many of these hazardous substances are regulated under the EU's REACH framework.<sup>48</sup>

## Sustainability Practices in Pakistan's Textile Sector

While Pakistan's textile sector continues to face structural and institutional challenges, a number of leading manufacturers have made significant progress in sustainability over the past decade. According to APTMA and the Pakistan Textile Council (PTC), many export-oriented firms have invested in environmental, social, and governance (ESG) initiatives that increasingly align with international standards.

### Environmental and Energy Investments

Several firms have set Science-Based Targets for emissions reductions aligned with the 1.5°C pathway, committing to cuts of between 50% and 55% across Scope 1 and 2 emissions by the early 2030s, with net-zero pathways by 2050. On water, advanced dyeing and finishing technologies now in use at several facilities reduce water consumption by up to 90% per processing cycle compared to conventional methods, while wastewater recycling rates of 76% to 90% are reported at multiple sites. Several companies have obtained or are pursuing Alliance for Water Stewardship certification, independently audited by bodies including TUV Rheinland. LEED Platinum certification, once exceptional in Pakistan, is now held by more than one major facility.

### Social and Governance Standards

Pakistan Textile Council member companies collectively report formal policies on child and forced labour, anti-harassment, and freedom of association, alongside structured grievance mechanisms. Several have implemented the ILO Better Work Programme. Women representation in leadership is improving: one major manufacturer reports 44% female board representation and over 200 women in STEM roles, and a number of firms have signed the UN Women Empowerment Principles. Independent

46. Global Supply Chain Pressure

47. Energy Survey

48. Greening the Textile Industry





third-party certification across social standards including SA8000, WRAP, BSCI, and the Higg Facility Social and Labour Module is widespread across the sector's leading exporters.<sup>49</sup>

This progress is concentrated among the larger, export-oriented firms with the financial capacity to absorb certification costs and invest in infrastructure.

## Traceability Infrastructure

Traceability has historically been among the weakest points in Pakistan's textile supply chains. However, several companies have deployed digital traceability systems enabling cotton tracking from farm to finished product, including DNA-based fibre authentication. One such system integrates over 58,000 farmers. Others have implemented blockchain-enabled platforms. The table below outlines the main traceability platforms currently active in Pakistan's textile supply chain.

**Figure 3.2: Traceability Platforms Active in Pakistan**

	Traceability Platform	Description
	FibreTrace	Embeds a permanent luminescent tracer into raw fibre at source, enabling real-time verification of material identity at any point in the supply chain. The marker lives within the material itself and can be linked to any digital platform. Adopted in Pakistan by Diamond Denim of Sapphire, Artistic Apparels, AGI Denim. <sup>50</sup>
	Haelixa DNA Tracing	Uses DNA markers applied as a liquid to raw or recycled fibre before processing. The markers survive spinning, dyeing, and garment manufacturing, allowing forensic verification of fibre origin at any stage of production. Active in Pakistan through a partnership with Soorty, one of Pakistan's largest vertically integrated denim manufacturers, where it is used to trace recycled cotton under Soorty's SecondLife initiative. Garments carry a scannable QR code linking to sourcing history. Partnership began in 2019 and has expanded in 2025. <sup>51</sup>
	Looptrace	Looptrace is Interloop's in-house traceability platform. It tracks cotton at every step, from the farm and gin all the way through spinning, dyeing, and finishing, as such, each batch can be followed as it moves through production. <sup>52</sup>
	TraceBale (Cotton Connect)	CottonConnect uses its TraceBale platform to trace cotton from farm group through the supply chain. In 2024–25 it traced 152,174 metric tonnes of lint cotton digitally, hitting its 2025 goal of 100% traceability across REEL Cotton programmes.

Source: FibreTrace, WWD, GenuTrace, CottonConnect

## Cotton Traceability in Pakistan

Pakistan is the 6th largest producer of cotton in the World, and holds the 3rd biggest cotton spinning capacity in Asia. However, the traceability and sustainability credentials attached to that cotton vary widely across programmes.

49. Pakistan Textile Council

50. Fibre Trace

51. Women's Wear Daily

52. Genu Trace

## Better Cotton Initiative

Better Cotton Initiative (BCI) was initiated by WWF (World Wildlife Fund) with the help of organisations such as the International Federation of Agricultural Producers (IFAP), International Finance Corporation (IFC), and Addidas etc. They provide trainings to the farmers to produce cotton in a way which is not harmful for the environment and improves yield.



Farmers are allowed to sell their cotton as BCI cotton which improves market access for them. A study was conducted on green house gas emissions over 200,000 farms consisting of 3 seasons during the period of 2015-16 to 2017-18 which showed that comparatively Better Cotton produced 19% less emissions than non-Better Cotton produce. BCI exists in Pakistan as Pakistan is the 6th largest producer of cotton in the World, Pakistan also has the 3rd biggest cotton spinning capacity in Asia. BCI cotton is grown majorly in Punjab and Sindh, and there are 313,033 licensed farmers which is 19% of the Better Cotton Farmers, and 461,918 metric tonnes of BCI cotton being produced in Pakistan.<sup>53</sup> Within their 2030 strategy, BCI launched its traceability system which can trace the country of origin and is under development for tracing back to the farm, 50% of the BCI cotton can be traced back to the country of origin.<sup>54</sup> As per the prospects for the coming 10 years, India, China, Brazil, United States and Pakistan are expected to be the top cotton growing regions.<sup>55</sup> For Pakistani exporters, BCI membership is increasingly not just a sustainability credential but a market access prerequisite.

BCI platform links mills, traders, spinners, ginners, garment manufacturers to buy and sell BCI cotton. It records the volumes of purchased cotton via Mass Balance (BCI cotton mixed or substituted by spinners or traders with non BCI cotton provided that the amount of BCI cotton being sold doesn't surpass the BCI cotton purchased, which means BCI cotton may or may not be present in the end product).

**Figure 3.3: Mass Balance in BCI Cotton**



Source: Better Cotton Initiative (BCI)

While physical BCI is traceable cotton, there are further three categories within the physical sourcing. In segregation within the country, BCI cotton and non BCI cotton is not mixed while in segregation within multiple countries, the BCI cotton of two countries can be mixed to make a product, while in controlled blending BCI cotton and non BCI cotton is segregated until production level.<sup>56</sup> It is traceable at the country level, and proportion of BCI cotton is also tracked.

53. Better Cotton Initiative in Pakistan

54. Traceability

55. 2030 Strategy

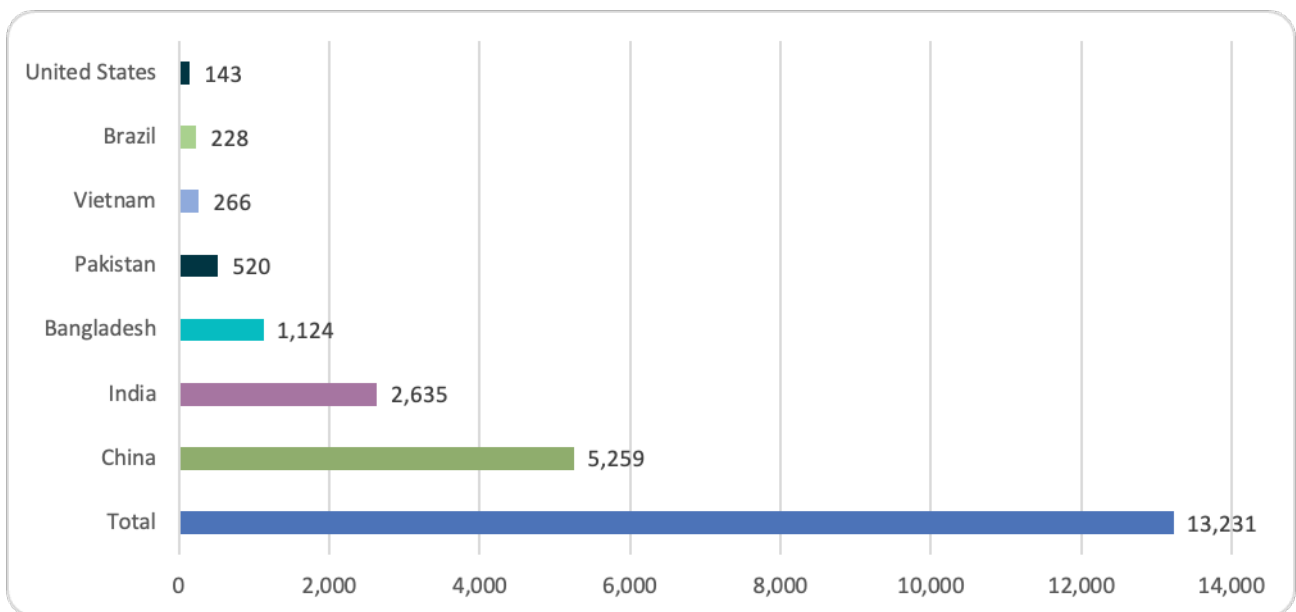
56. Sourcing Physical BCI Cotton

Total suppliers under BCI platform in Pakistan are 520. As shown in the figure below, in Pakistan either Mass Balance or Mass Balance & Physical chain of custody model is used with a greater number of suppliers using 312 Mass Balance while 208 use both Mass Balance & Physical. There is further distinction in number of suppliers possessing access to BCI platform and some being members of the BCI. Out of which 208 are certified via third party.

EU brands operating under the Corporate Sustainability Due Diligence Directive (CSDD) and the Ecodesign for Sustainable Products Regulation (ESPR) are required to verify sustainable sourcing claims at raw material level across their supply chains, and BCI certification provides one of the few internationally recognised frameworks for doing so at the cotton input stage.

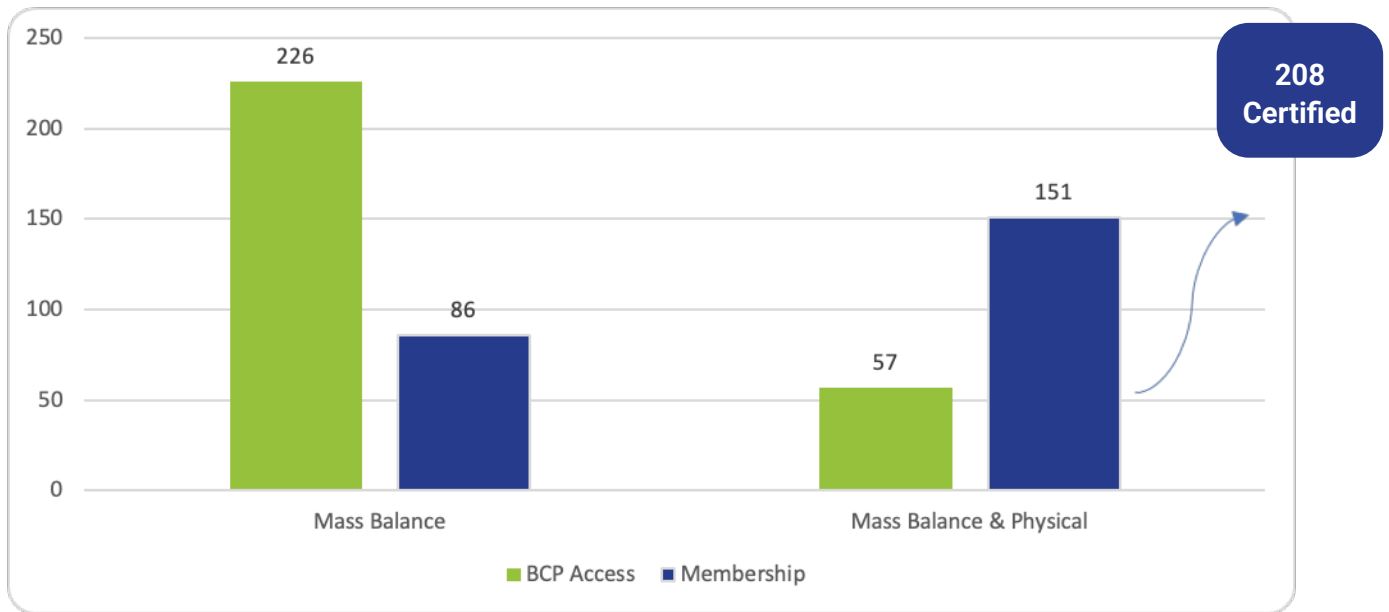
Pakistan has a large and established BCI presence. Most of Pakistan's 520 registered suppliers use Mass Balance, meaning BCI cotton is not physically separated throughout the supply chain and cannot be traced to a specific product. Only 208 suppliers use the Mass Balance & Physical model, which is what EU regulations like ESPR and the Digital Product Passport will increasingly demand. Of those, only 208 are third-party certified, which is the standard EU buyers will ultimately require for audit purposes.

**Figure 3.4: Number of BCI Registered Companies**



Source: Better Cotton Initiative (BCI)

Figure 3.5: Pakistani Companies with BCP Mass Balance & Physical BCI Cotton



Source: Better Cotton Initiative (BCI)

### CottonConnect in Pakistan - Organic Cotton Programme

CottonConnect has been running its Organic Cotton Farmer Training Programme in Pakistan since 2021–22. The aim is to eliminate chemical pesticides, synthetic fertilisers, and use less water. Pakistan produces a tiny fraction of the world’s organic cotton despite being one of its largest cotton producers overall.



In 2023–24, 137 farmers across seven villages in the Dera Ghazi Khan District joined the programme. In the first year, yields were lower than conventional farms, as expected with any transition to organic. But input costs dropped by 39% and farmers got a small price premium. By the second year the numbers looked much better. Even with yields still lower, organic farmers were making 35.3% more profit than their conventional neighbours, because input costs had fallen by nearly half and the price premium on organic cotton had reached 7%. On the environmental side, synthetic chemical use was eliminated entirely, water consumption per acre dropped by 21.6%. CottonConnect uses its TraceBale platform to trace cotton from farm group through to the supply chain.<sup>57</sup>

### Interloop Regen Kapas

Regen Kapas is Interloop’s regenerative cotton programme running in southern Punjab, in partnership with REEDS<sup>58</sup> Pakistan. It currently covers over 6,000 acres and works with 1,000 smallholder farmers. Last year, it produced over 1,700 tonnes of traceable cotton lint. Interloop already has EU organic certification for its cotton, but Regen Kapas focuses on restoring soil health, cutting water use, and bringing down



57. IMPACT REPORT 2025  
 58. Rural Education and Economic Development Society

farmer costs rather than just managing inputs. Hugo Boss is now bringing Regen Kapas cotton into its supply base. The cotton from this programme feeds into Looptrace, Interloop's traceability platform, which tracks each batch from farm all the way through to the finished product.<sup>59</sup>

These programmes show that traceable, certified, commercially viable sustainable cotton is possible within Pakistan's smallholding farming structure. The technology exists but both are concentrated in specific pockets of Pakistan and involve a fraction of Pakistan's total cotton farming population. Scaling these programmes is the bigger challenges at hand.

## Textile Waste and Recycling

Pakistan's textile industry generates substantial waste volumes across the supply chain. Pre-consumer waste, which is waste produced during manufacturing before a product reaches the consumer, amounts to approximately 887,000 tonnes per year. Of this, spinning waste is the largest component at 402,000 tonnes, followed by RMG (ready-made garment) waste at 202,000 tonnes and mill waste at 180,000 tonnes. An estimated 68% of this waste is cotton-based. Local post-consumer waste amounts to a further 270,000 tonnes annually. Pakistan also imported 809,000 tonnes of second-hand clothing in 2023, valued at \$390 million, re-exporting approximately 280,000 tonnes to African markets.

**Table 3.1: Amount of Textile Waste**



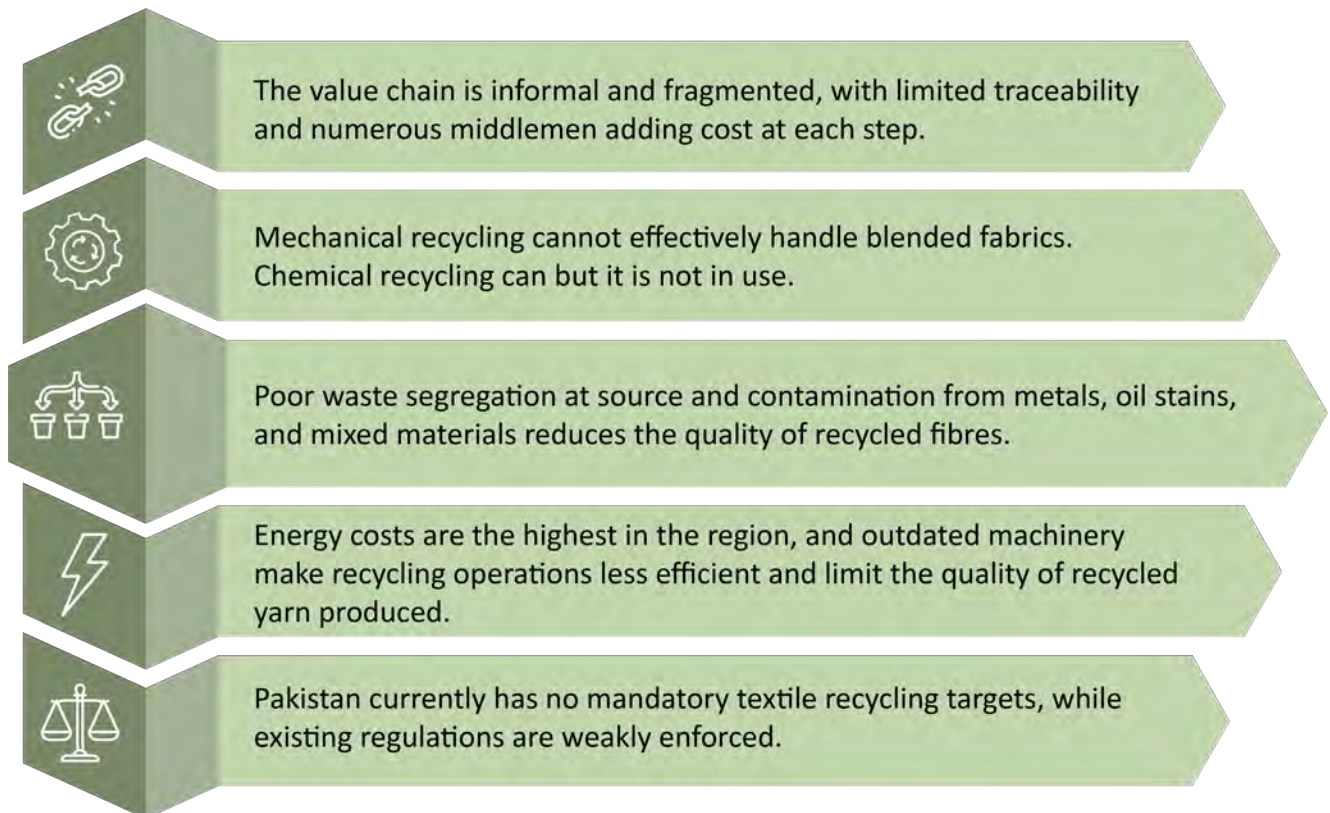
Source: ReverseResources

Pakistan has managed textile waste for over fifty years, with Faisalabad as the primary recycling hub and Karachi as the main gateway for imported second-hand clothing. Recycling relies almost entirely on mechanical methods: the dominant approach is bleaching waste to produce neutral fibres for blending with virgin cotton in open-end spinning. Bleached fibres command \$0.8–1.60 per kilogram compared to \$0.3–0.5 per kilogram for coloured fibres, and bleached fibres account for 85–90% of recycled fibre production from pre-consumer waste.<sup>60</sup>

59. Genu Trace

60. Comprehensive Overview of the Pakistan Textile Waste Industry

The Reverse Resources and NTU study identify several challenges in the current system:



## Policy and Institutional Landscape

### Textile and Apparel Policy

The draft Textile and Apparel Policy 2025–30 directly acknowledges that over-reliance on cotton has left the sector exposed, and lays out a plan to move toward synthetic fibres, blended fabrics, and technical textiles. It also proposes integrated textile parks with recycling units and accredited testing facilities.

However, this pivot comes with its own complications. Synthetic fibres, primarily polyester are petroleum-based, non-biodegradable, and among the more environmentally damaging materials in the textile supply chain. Tightening restrictions under REACH and PFAS regulations, combined with growing buyer preference for recycled or bio-based alternatives, mean that simply scaling up synthetic capacity may not secure long-term EU market access. Pakistan could find itself investing heavily in a fibre category that is itself coming under regulatory pressure. The more viable path and the one the EU's framework is pushing the entire industry towards is recycled synthetics and circular production models. The policy's inclusion of recycling units in textile parks gestures in this direction, but the specifics remain vague.<sup>61</sup>

61. Pakistan's Textile Policy 2025-30

## Climate Change Mitigation Efforts

There is a strong effort being put by the ministry of climate change in afforestation to tackle greenhouse gas emissions. There is Upscaling of Green Pakistan Program which aims to reduce deforestation.<sup>62</sup>

Furthermore, GGGI (Global Green Growth Institute) in a recent meeting extended their hand in support of development of infrastructure for climate financing. There were talks on monitoring, reporting and verification mechanisms as well as the Global Clean Hydrogen Programme which would help Pakistan in switching to renewable energy resources and transformation to net-zero emissions.<sup>63</sup>

At COP29, Pakistan and several international organisations including the IAEA, FAO, and WTO acknowledged that the country's cotton sector is increasingly exposed to climate shocks such as floods, heatwaves, and droughts. Azerbaijan which was quoted as an example has successfully doubled its cotton yields using IAEA-supported nuclear agricultural techniques. According to IAEA Director General Rafael Mariano Grossi, these techniques improve water efficiency, enable sustainable pest control, enhance soil health, track water and soil pollution, and measure emissions from farming and textile production processes, helping identify where carbon output can be reduced. Speakers at the COP29 agreed that transferring these tools to Pakistan, alongside science-based soil mapping, could help its farmers produce more sustainably and better align with the environmental traceability standards that EU textile regulations are increasingly demanding.<sup>64</sup>

A recent development shows that the Asian Infrastructure Investment Bank (AIIB) and Asian Development Bank (ADB) are in favour of Pakistan's Panda Bond which aims to direct funds/investments for sustainable infrastructure building. This ensures Pakistan has access to external financing, improved market access, and investor confidence is restored. This would ensure that Pakistani textile companies have access to finance to support their transition to sustainable practices.<sup>65</sup>

## SMEDA: Circular Economy Initiative

SMEDA (Small and Medium Enterprises Development Authority) has recently launched an initiative to advance towards circular economy by converting banana waste into textiles, a large amount of the banana crop is thrown away or burnt which can be used to obtain raw bananas fibre which can be utilized in the making of textile products. This initiative was launched in partnership with the Food and Agriculture Organization (FAO) funded by GEF (Global Environment Facility) under the program Elimination of Hazardous Chemicals from Supply Chains Integrated Programme.<sup>66</sup>

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62. Business Recorder

63. Dawn

64. Ministry of Climate Change

65. Asian Infrastructure Investment Bank

66. Business Recorder

## Case Study: Buyer-Enforced Sustainability and Institutional Exploitation in Pakistan's Textile Supply Chain

A study by Khan and Halme (2025), published in *Business Strategy & Development*, examined sustainability management in Pakistan's textile sector through qualitative interviews with managers at 17 manufacturing factories and five industry stakeholders, including auditors, trade organization representatives, and academics.

### Finding 1: Sustainability as Compulsion



Nearly all interviewed suppliers described sustainability practices as dictated and defined by the brands, governing decisions from raw materials through to packaging. Suppliers treated compliance not as an internal value but as a condition for staying in business. The risk of non-compliance was concrete: loss of customers, reputational damage, or outright exclusion from supply chains.

### Finding 2: Shifting the Financial Burden onto Suppliers



Certification fees, audit expenses, and implementation costs fall on the supplier side, with fees flowing to Western certification bodies and no cost-sharing by brands. Suppliers described managing several overlapping reporting platforms from different buyers at once, each with its own fees and audits, even when the underlying data requirements were largely the same.

### Finding 3: Exploitation of Weak Institutional Conditions



The outcome is a reactive compliance culture, where suppliers focus on satisfying immediate buyer requirements without integrating genuine sustainability practices. One factory manager noted that wastewater treatment facilities were switched on mainly when auditors visited.

### Implications for EU Textile Regulation



Their findings point to the need for fairer cost-sharing between buyers and suppliers, simpler and more consistent sustainability requirements, and a shift away from top-down enforcement toward genuine collaboration. Without this shift, new EU textile regulations are at risk of repeating the same patterns.

Source: Khan, I.S. & Halme, M. (2025)<sup>67</sup>

## Chapter 4

# How Competing Countries Are Preparing for EU Textile Protocols



# How Competing Countries Are Preparing for EU Textile Protocols

This chapter looks at how Pakistan's main regional competitors are responding to new EU textile rules, especially around sustainability, traceability, and Digital Product Passports. It compares what China, Bangladesh, Turkey, and India are doing to prepare, including their systems for tracking products, managing waste, and reporting emissions. It also shows how advanced or early each country is in putting these systems in place.

## China

### Digital Product Passport Implementation in China

In March 2026, NAFFIC and Dutch traceability platform AWARE developed what is reported as the first China-Europe Digital Product Passport for a textile product, covering a recycled polyester supply chain from raw material collection through to a finished garment exported to a European brand. Each step is recorded on a blockchain and accessible via QR code, with carbon footprint data drawn from verified production records rather than estimates.<sup>68</sup>

### China's 15th five-year plan (2026-30)

This includes a call to replace coal-fired boilers and industrial kilns in the textiles sector with cleaner alternatives, targeting reductions equivalent to 30 million tonnes of coal consumption per year across covered industries. China's former vice minister of finance has also indicated the country is on track to peak emissions before its 2030 deadline, with carbon emissions reported to have dropped by 1% over the past year.<sup>69</sup> That said, China remains the world's largest carbon emitter, accounting for roughly a third of global emissions, and its overall climate policies are currently rated as "highly insufficient" by Climate Action Tracker.<sup>70</sup>

## Bangladesh

### Project by SMEP (Sustainable Manufacturing and Environmental Pollution Programme)

Conducted a pilot project at Fakir Knitwear in Bangladesh, where a wastewater treatment plant was deployed to reuse 50% of the industrial wastewater, this was a small scale and a specific project which achieved GHG reductions 17.8 to 30.3 kgCO<sub>2</sub>e per cubic metre of treated water. Over the 7-year programme, total savings are estimated at 46,202 to 78,521 tCO<sub>2</sub>e.<sup>71</sup>

### Memorandum for Digital Product Passport

Bangladesh's garment industry association (BGMEA) has signed an MOU with Dutch tech platform Aware to implement blockchain-based Digital Product Passports (DPP). The system will generate QR-linked digital records covering raw material origin, production processes, and environmental impact, with pilot projects with spinning mills and manufacturers scheduled to begin immediately. However, implementation remains at an early stage and financially constraining. As the BGMEA president pointed out buyers continue to push for lower prices even as compliance costs rise.<sup>72</sup>

68. Textile Today

69. Carbon Brief

70. EcoTextile

71. Decarbonising The Textile Sector In Bangladesh

72. Bangladesh: Textile Leaders Moves Toward DPP Amidst Rising Maritime Pressure

### Textile Waste Recycling - SWITCH2CE

Post-Industrial Textile Waste Recycling under the SWITCH2CE initiative led by UNIDO, a pilot with BESTSELLER, BGMEA, and Reverse Resources showed growing recycling infrastructure in Bangladesh. Supplier participation expanded from 7 to 20 factories, segregated waste volumes rose from 129 tonnes to over 16,000 tonnes, and waste handlers and recyclers grew from 2 to 27 and 26 respectively. Material classification improved to up to 20 composition categories, enabling better feedstock assessment for recyclers. However, domestic textile-to-textile recycling capacity remains limited, currently absorbing only around 10% of segregated material, and recycled fibre costs continue to exceed virgin alternatives in the absence of supportive policy frameworks.<sup>73</sup>

## Turkey

### Kipas Textiles - fibR-e

Last year, Kipas Textiles launched fibR-e for polyester recycling. It comprises of 70% of polyester garments which are then converted to recycled polyester (PET) chips/pellets which are certified by GRS. Further, Kipas Textiles converts them to filament yarns or staple fibres. This also reduces carbon emissions by 74%. The production would be traceable and since Kipas Textiles would utilize it in its supply chain, it would offer more competitive pricing.<sup>74</sup>

Figure 4.1: Recycled Polyester (PET) Chips



Source: MTRoyal

### Circular Fashion Partnership

Global Fashion Agenda (GFA) recently launched the Circular Fashion Partnership to improve textile waste management and promote circularity in the country's textile and apparel sector. The programme aims to help factories better manage and trace their textile waste, connect manufacturers with recyclers, and provide training and technical support to meet emerging sustainability requirements.<sup>75</sup>

## India

### ReFiber and OterRI

India has taken a step towards waste recycling, ReFiber initiative was launched to collect textiles via the OterRi app where Indians could donate their old clothes and garments. These materials would then be upcycled to create new products which would then be presented on ReFiber Upcycled Products Marketplace. This would create job opportunities for females and signifies that a significant step towards circularity has been taken.<sup>76</sup>

73. Transforming Post-Industrial Textile Waste in Bangladesh

74. KIPAS Launches fibR-e

75. GFA launches textile waste recycling initiative in Türkiye

76. Textile Commissioner Vrunda Desai launches ReFiber & OterRi Initiative

Figure 4.3: Textile Circularity



Source: OterRi

### Katsuri Cotton

India is actively working to reposition its cotton in global markets through the Kasturi Cotton Bharat initiative, launched by the Ministry of Textiles in collaboration with industry bodies. The programme aims to compete with internationally recognized brands like Supima and Giza. The initiative uses QR code certification and blockchain technology to provide end to end supply chain visibility, precisely the kind of documentation that EU buyers will increasingly require under the Digital Product Passport framework and broader ESPR obligations. Indian exporters operating under this system will be better positioned to meet those requirements. Certification is currently limited to a small number accredited laboratories, creating delays as the production of varieties grows.<sup>77</sup>

### Kosha

A startup company which helps identify textile materials such as fiber composition via a near-infrared photonic scanning device which is connected to Kosha Trace to record scanned information. It is in equal competition with global service providers such as Textile Genesis and TrusTrace. It is slightly costly which makes accessibility an issue.<sup>78</sup> In India there are a lot of entrepreneurs and there is government support in promoting Indian produced goods, which exists on a small scale in Pakistan.

### Carbon Credit Trading Scheme (CCTS)

India has recently brought the textile sector under the wing of CCTS, companies now would be formally required to reduce their greenhouse gas emissions to a certain allowed level but this is on a beginning level.<sup>79</sup>

### Digital Product Passport Implementation

Sutlej Textiles has developed Digital Product Passports for selected yarn and fabric products, capturing material composition, manufacturing location, and environmental impact data. Built with sustainability platform GreenStitch, the system runs structured Life Cycle Assessments and monthly GHG tracking, with outputs used for buyer disclosures and regulatory reporting.<sup>80</sup>

77. Lack of Testing Labs

78. Kosha

79. India Brings Textiles Under Carbon Market Compliance

80. Sutlej Textiles advances sustainability measurement

## Implications for Pakistan

The regional comparison shows that most competing countries are still in early or uneven stages of aligning with EU textile requirements such as the Ecodesign for Sustainable Products Regulation (ESPR) and Digital Product Passports (DPP). China is in early implementation stage while Bangladesh is in pilot phases, India has a mix of early operational systems, and Turkey is relatively more advanced in circular production practices. However, no country in the region has as yet achieved fully scaled, end-to-end compliance across the textile value chain.

For Pakistan, this creates both pressure and opportunity. The uneven progress among competitors gives Pakistan a chance to position itself as a fast adopter. It can align with EU systems early instead of having to fix or upgrade older systems later. This is especially important for Digital Product Passports, where early adoption can lower future compliance costs.

Second, Pakistan's main advantage will depend on how well it scales what already exists. There are some traceability pilots, recycling projects, and early compliance systems, but the bigger issue is coordination and standardisation across the sector. Without wider, system-level adoption, these isolated efforts will not improve export competitiveness.

## Chapter 5

# Input from Stakeholders



# Input from Stakeholders

The following section covers awareness of EU regulations, current compliance actions, challenges being faced on the ground, and views on what government, industry, and international partners would need to do for Pakistan's sector to remain competitive in the EU market through 2027 and beyond.

## Industry Awareness

Pakistan's textile sector does not have a uniform level of awareness of, or preparation for, the EU's new regulatory framework. There is a structural divide running through the industry, the largest exporters, those with long-standing and direct relationships with major EU brands are reasonably well-informed and actively preparing. Below that tier, awareness level is low and preparation is largely absent.

Companies that supply directly to brands like Inditex (Zara, Pull & Bear, Massimo Dutti), Marks & Spencer, Next, Mango, and the Bestseller Group have been receiving compliance requests from those buyers for a decade or more, and have built internal systems in response. Companies that export through intermediaries, or whose EU exposure is more indirect, have had far less regulatory pressure channelled to them, and have had correspondingly less urgency to act.

The domestic market is increasingly requesting chemical compliance as well including functional finishes such as anti-mosquito and anti-odour treatments. Local brands that previously did not raise compliance questions are now asking. This trend is growing, though at a slower pace than export market requirements.

## What the Large Exporters Are Already Doing

### Digital Product Passport (DPP)

Sapphire displayed working Digital Product Passports at Heimtextile 2026, the world's leading international trade fair for home and contract textiles, held in Frankfurt. Sapphire developed and tested DPPs for 8 to 10 major products before exhibiting them, and is now in the process of progressively rolling out the DPP framework across its entire value chain, from the farm level to the finished product. A follow-up display is planned for Heimtextile 2027. The data collection effort behind this includes energy data, waste data, water consumption, machine-level productivity data, and carbon emissions, all of which are being mapped as data points across the supply chain.

Naveena Group, a vertically integrated denim manufacturer, partnered with FibreTrace, an Australian traceability technology company, to embed physical tracers directly into fabric at the manufacturing stage. These microscopic tracers allow any party in the supply chain or the end consumer to scan a product and retrieve a full product passport which can include fibre origin, production location, chemical inputs, and environmental metrics. Naveena Group has also implemented SCADA (Supervisory Control and Data Acquisition) systems across its factory floor. SCADA is an industrial software platform that provides live, real-time monitoring of how much energy, water, and chemicals each fabric batch is consuming. This means Naveena can generate verified, batch-level data for DPP requirements without relying on retrospective estimates.

APTMA reports that some of its largest member companies are going even further in improving traceability and compliance. For example, Interloop, one of Pakistan's major textile exporters, has set up a separate IT company called Octans Digital to manage and track its entire supply chain from start to finish. Other APTMA members are also working with external specialist firms that help them meet compliance requirements and prepare for Digital Product Passports (DPP). In addition, some exporters are using technologies like FibreTrace and other blockchain-based systems, which create secure digital records of every stage in the supply chain for both cotton and synthetic materials.

Archroma Pakistan has also developed an online tool through which customers can access chemical compliance data for any product which can help with DPP requirements.

### **Chemical Compliance**

Sapphire is also registered with international chemical compliance systems such as BHive and ZDHC (Zero Discharge of Hazardous Chemicals). ZDHC Level 3 is the highest level, meaning all chemicals used in production are checked and verified by independent third parties as safe and environmentally compliant. The company also carries out random third-party testing for microplastic levels and checks chemical outputs against Bluesign and ZDHC standards in its R&D labs. These practices are not required under Pakistani law but are mainly driven by EU buyer requirements.

Similarly, Naveena Group maintains an approved list of chemicals identified by CAS numbers, which are unique codes for each chemical. Their procurement system is designed so that only chemicals from this approved list can be purchased. Their wastewater is also tested by international buyers, including surprise inspections by Inditex, to ensure no banned chemicals are released. The company also undergoes ZDHC-related audits twice a year.

Afroze Textile does not use PFAS-based chemicals in its main cotton towel products. However, for specialized products that require functional finishes, the company is gradually shifting toward PFAS-free and REACH-compliant alternatives.

APTMA also notes that many dye houses and integrated manufacturers are now aware of EU REACH regulations and are working to replace chemicals that do not meet stricter discharge limits, even after wastewater treatment. Pakistan is also developing its first national chemical management framework under the Ministry of Climate Change, although it is still in the early stages.

Meanwhile, Archroma operates testing laboratories in Pakistan that also serve companies from other countries, including Bangladesh, Turkey, Japan, and Europe. Test results from these labs are widely accepted under Mutual Recognition Agreements (MRAs).

### **Renewable Energy and Carbon Tracking**

Sapphire has been increasing its use of renewable energy since 2021, adding more each year. Right now, around 35–40% of its total energy comes from renewable sources, and some machines also run on biomass. The company is also calculating its carbon footprint across all 12 factories, including direct emissions (Scope 1), emissions from electricity use (Scope 2), and indirect emissions across its supply chain like suppliers and transport (Scope 3). Based on this, Sapphire is building a five-year ESG plan (Environmental, Social, and Governance) to reduce emissions over time. It is also preparing for the EU's Carbon Border Adjustment Mechanism (CBAM), which may put a cost on carbon-heavy exports in the future, especially as the rules expand around 2030.

Naveena Group gets about 20% of its electricity from renewable sources, mainly solar, and uses biomass for steam production. It also operates a wind farm in Jhimpir, Sindh, and is working on ways to use that power more directly in its operations so it can show stronger clean energy usage in its reporting. However, Pakistan currently does not have a wheeling policy, which means companies cannot easily buy electricity from remote renewable plants through the national grid, limiting full use of such projects.

In Pakistan's textile hubs like Karachi, Nooriabad, Hyderabad, and Kotri, many APTMA members are installing both solar panels and wind turbines because of strong wind conditions in Sindh. In Punjab, where wind is weaker, companies are shifting more toward solar energy combined with battery storage systems to store power for later use.

### Regenerative Cotton and Upstream Traceability

Sapphire runs a regenerative cotton program in partnership with WWF Pakistan. In this program, small farmers are trained and guided to use farming methods that improve soil health, reduce chemical use, and save water. Sapphire works closely with these farmers as partners instead of just buyers, which makes it easier to track data and provide proper training. WWF Pakistan helps with field visits, monitoring, and monthly reviews to check progress and improve results. The program is expected to grow over the next five years and is important for future Digital Product Passport (DPP) rules, which will require verified information about where cotton comes from and how it is grown.

APTMA is also working on setting up Pakistan's cotton DNA testing lab. This will help identify the exact origin of cotton and confirm its fibre quality using scientific methods. This is important because Pakistan uses cotton from many countries, including the US, Brazil, East and West Africa, Greece, Australia, as well as local sources. At the same time, a national cotton traceability lab is also being established at the National Textile University (NTU) with government support and is expected to become operational soon. These steps will improve transparency, quality control, and compliance with global traceability standards.

## Where the Gaps Remain

The picture changes substantially when looking beyond the leading tier of exporters. Across SMEs and mid-sized manufacturers, the following patterns were consistently flagged across multiple interviews.

A number of companies still confuse "due diligence" with regular compliance checks. Under EU rules like CSRD (Corporate Sustainability Reporting Directive) and CSDDD (Corporate Sustainability Due Diligence Directive), due diligence means something much broader. It requires companies to actively identify, assess, and manage human rights and environmental risks across the entire supply chain on an ongoing basis. Compliance audits, on the other hand, are just occasional checks to see if set standards are being followed at a specific point in time. Treating both as the same creates a major gap in readiness for EU requirements.

A field review of SMEs showed another gap between paperwork and reality. Many factories had fire safety certificates, but still did not have proper fire extinguishers installed on the ground. This shows that having documents does not always mean real safety systems are in place.

When a Digital Product Passport was scanned at one company during a site visit, the product displayed did not meet DPP standards. Across different sub-sectors such as spinning, weaving, home textiles, garments, most companies do not yet have a working understanding of what eco-design or a genuine DPP requires. It is often understood in theory, but not properly applied in practice.

Pakistan's textile supply chain is also very fragmented. Spinning, dyeing, weaving, and garment production often work as separate businesses instead of being fully integrated. This makes end-to-end traceability difficult. Even companies trying to implement DPP systems struggle because their suppliers are not digitally connected, limiting how much they can track and verify across the full chain.

## Challenges

The challenges highlighted were broadly similar across companies of different sizes and types. However, the intensity and urgency of these challenges varied.

**Table 5.1: List of Challenges**

Challenge	Description
<b>Cost of Compliance</b>	<p>Certification and audit costs are becoming a major burden for exporters. One large company reported managing around 55 to 60 different compliance certifications every year, each requiring fees, preparation work, and staff time. These costs are increasing as EU rules add new requirements like chemical safety compliance, Digital Product Passport (DPP) systems, carbon reporting, and sustainability disclosures. At the same time, EU buyers are pushing for lower prices, which squeezes companies from both sides.</p> <p>Large firms are able to absorb these costs, but medium and smaller companies struggle to keep up. There is currently no government support such as subsidies, tax relief, or shared compliance programs to help reduce the burden. In comparison, countries like India support industry costs through energy policies like wheeling arrangements, while Bangladesh benefits from government and donor-funded compliance programs. In Pakistan, companies that try to comply are often at a disadvantage compared to those that do not invest in these systems, because there is no support structure in place.</p>
<b>Audit Fatigue</b>	<p>Each EU buyer uses its own separate audit and compliance system. For example, one buyer may require Higg FEM (a tool that measures a factory's environmental performance), another may use SLCP (a standard for social and labour conditions), a third may ask for SBTi (a framework for setting emissions reduction targets), while another follows Better Work guidelines. Although these systems often check similar issues, they use different formats and reporting methods.</p> <p>As a result, factories end up going through multiple audits every year for the same set of requirements, just under different names and systems. Since buyers do not coordinate with each other and are not fully aligned on newer EU regulations due diligence laws that are meant to streamline these requirements, duplication continues.</p> <p>It has also been observed that some brands apply different compliance expectations depending on the country. In certain cases, Pakistani factories are held to stricter standards than suppliers in countries like Bangladesh. This uneven approach creates additional pressure on some suppliers and can even lead factories to look for informal workarounds.</p>
<b>No National Chemical Framework</b>	<p>The EU's REACH regulation has been in place for nearly 30 years, but Pakistan does not have a similar national system to monitor or regulate industrial chemical use. As a result, large exporters follow standards like ZDHC and REACH mainly because EU buyers require them, not because local law enforces it.</p> <p>This creates an uneven situation in the local market. Companies that export and comply with international standards have to bear the full cost of switching to safer chemicals, while businesses that only serve the domestic market are not required to meet the same rules.</p> <p>It also means that when the EU updates chemical restrictions, Pakistani manufacturers do not receive clear domestic guidance. Instead, they have to interpret the changes themselves and adjust independently. In addition, some imported chemical products come with certificates that are not fully traceable or verified through proper audits. Buyers sometimes use these products until issues arise, after which they switch back to trusted, fully verified suppliers.</p>

Challenge	Description
<b>Supply Chain Fragmentation and Data Gaps</b>	<p>Pakistan's textile value chain is made up of many separate, independent sectors. Tier 2 and Tier 3 suppliers, such as spinners, dye houses, and chemical suppliers, are required to provide verified environmental and production data, but most still rely on manual records and spreadsheets.</p> <p>There is no common digital system for sharing data across the supply chain. Different companies use different formats, software tools, and reporting methods, this makes it difficult to combine or verify information properly.</p> <p>At the same time, EU certification bodies are moving away from accepting manual data sheets submitted through portals. They now expect fully digital, software-based reporting. This means a major transition is required across the industry, but most of it is still unfunded and difficult for companies to implement on their own.</p>
<b>Farm Level Traceability</b>	<p>Most cotton in Pakistan is bought through ginners, who collect and process raw cotton from many different farms. However, they usually do not keep records of which specific farm the cotton originally came from. This creates the biggest gap in Pakistan's traceability system.</p> <p>Digital Product Passport (DPP) rules will eventually require information all the way back to the farm, including how the cotton was grown. Without proper farm-level data that is collected, verified, and digitised, it is not possible for Pakistani exporters to provide a fully complete product passport for cotton-based products.</p>
<b>Energy Costs and Policy Instability</b>	<p>Pakistan's industrial electricity costs are among the highest in South Asia, especially when compared with countries like Bangladesh and India. However, the bigger issue is not just cost, but instability.</p> <p>Energy policies such as solar net metering have changed several times, creating uncertainty for businesses. At the same time, biomass fuel prices have increased suddenly, adding further pressure on operating costs. Pakistan also does not have a wheeling policy, which means factories cannot directly buy electricity from remote renewable energy plants.</p> <p>Because of this lack of a stable and long-term energy policy framework, investing in renewable energy becomes riskier in Pakistan than in competing countries. As a result, companies find it difficult to plan long-term capital investments needed to meet net-zero and sustainability targets.</p>
<b>Cash Flow and Working Capital</b>	<p>Exporters are facing delays of six to seven months in receiving sales tax refunds, which ties up their working capital at a time when local interest rates are already high.</p> <p>At the same time, shipping times to Europe have increased from about 40 days to nearly 60 days because of disruptions in the Red Sea and the Strait of Hormuz. These further delay when companies actually receive payments for their shipments.</p> <p>For businesses working on tight margins and fixed order prices, the combination of delayed refunds, longer shipping times, and high borrowing costs is creating serious cash flow pressure. Smaller companies are affected the most, as they have less financial buffer to absorb these delays.</p>
<b>SME Digital Readiness Gap</b>	<p>Compliance software is costly to buy and license, difficult to set up, and requires trained staff to manage it properly. Most SMEs do not have enough money to invest in these systems, and even if they do, they often lack the technical skills to operate them.</p> <p>Without external support or funding, many small and medium-sized companies may struggle to meet the EU's upcoming digital compliance requirements.</p>
<b>EFS Sales Tax structure</b>	<p>The Export Facilitation Scheme (EFS) sales tax system creates an uneven playing field for local chemical manufacturers who follow compliance rules, as imported chemicals often benefit from duty exemptions. At the same time, under-invoicing is a known problem in the market. Although authorities are aware of it, enforcement is not consistent, which weakens fair competition between compliant and non-compliant players.</p>

## Strategic Advantages

Alongside the challenges, Pakistan also has real strengths that are not fully utilized or widely recognized.

**Table 5.2: List of Advantages**

Advantage	Description
<b>Adaptability</b>	Pakistani manufacturers are often seen by EU buyers as more flexible and quicker to adjust to new regulations compared to suppliers in India and Bangladesh. Buyers notice this and it influences long-term sourcing decisions.
<b>Cotton as a Natural Advantage</b>	Around 75–80% of Pakistan's textile exports are cotton-based. Cotton is easier to trace, has lower microplastic impact, and fits better with EU rules on recycling and eco-design. In contrast, countries with more polyester or blended fabrics face more compliance challenges.
<b>Existing Pioneer Companies</b>	Companies like Interloop, Sapphire, Naveena Group and others have already taken steps towards having working systems for traceability, digital product passports, and monitoring. These can serve as early models that the rest of the industry could scale if properly supported.
<b>GSP+ Transitional Window</b>	<p>Pakistan's GSP+ status removes tariffs on about 66% of EU tariff lines, giving exporters easier access to the European market. India did not have this kind of benefit for around 11 years, and Bangladesh is now gradually losing similar advantages as it moves out of LDC status.</p> <p>The current GSP+ arrangement for Pakistan runs until 2027, and efforts are ongoing to extend it further, including engagement with EU officials in Islamabad.</p>
<b>National Compliance Infrastructure</b>	<p>The National Compliance Centre (NCC), which became operational in May 2024, is working on several key initiatives. It is developing a national Digital Product Passport (DPP) dashboard, coordinating an 11-sector compliance advisory council, and launching projects on traceability, workplace safety, and certification systems.</p> <p>It is also setting up support mechanisms for SMEs, including green financing and subsidised compliance software. So far, projects worth over PKR 10 billion have been proposed for funding through the Export Development Fund (EDF) and the Public Sector Development Programme (PSDP).</p> <p>In addition, the Ministry of Commerce has introduced an SRO requiring importers to prove that goods are free from child labour at the source, adding a new layer of traceability at the import stage.</p>
<b>Access to International Funding</b>	Multiple international funding streams are available, GIZ (Germany's international development agency), ILO, EU-linked programmes, World Bank quality infrastructure funding, the Export Development Fund, and State Bank of Pakistan's green financing instruments. A PKR 3 billion EDF-funded SME training programme is in development through SMEDA. GIZ's engagement with Pakistan includes projects exceeding PKR 6 billion.
<b>Cotton DNA Testing Labs</b>	APTMA's cotton DNA testing lab directly targets the biggest gap in Pakistan's Digital Product Passport (DPP) readiness, which is tracing cotton back to its original farm. A national cotton traceability lab is also being set up at the National Textile University (NTU) with funding support and is expected to become operational by the end of 2026.
<b>Strength in Denim</b>	<p>Pakistan's denim sector is fairly innovation focused and not easy for low-cost competitors to copy quickly. For example, Naveena Group already produces denim using 20% recycled cotton from its own shredding facility. In addition, all production for Inditex includes 20–30% recycled cotton and 100% recycled polyester.</p> <p>This means leading denim manufacturers in Pakistan are already meeting or even exceeding the recycled material levels that EU rules like ESPR are likely to require in the future. Importantly, they are doing this as part of normal production, not just to meet compliance needs.</p> <p>Because of this, denim is considered one of the least vulnerable sectors to competition from India's EU trade advantages.</p>
<b>Sustainability And Transparency Tools</b>	<p>Fruit of Sustainability has developed Pakistan's first third-party grievance system. It includes a mobile app and a SaaS hotline that connects workers, factories, brands, and retailers. It has also created a local digital sustainability reporting platform, supported by WWF Pakistan.</p> <p>Green Story, a global company working on Digital Product Passports (DPP), is also represented in Pakistan through Fruit of Sustainability as a partner.</p>

## The National Compliance Centre: What Has Been Built and What Remains

The National Compliance Centre (NCC), established under the Ministry of Commerce, is Pakistan's primary institutional response to the convergence of EU regulatory requirements. It is a relatively new body, operationalised in May 2024 but has moved quickly across several areas that are directly relevant to EU market access.

## Projects Submitted and Under Development

The NCC has submitted multiple projects to the Export Development Fund (EDF) and the Public Sector Development Programme (PSDP), totalling over PKR 10 billion across sectors including textiles, surgical instruments, leather, and rice. Key projects in progress include:

- A national DPP platform for the textile sector, developed through a task force led by the NCC alongside the Ministry of Commerce's textile wing and private sector partners. Gap analysis has been completed, and the project has been formally submitted for funding approval. The NCC's planned national DPP dashboard is designed around a specific architectural principle: decentralisation of data with centralised visibility. Individual companies retain ownership and control of their own compliance data on their own servers or through their chosen software providers. The platform can also be linked with PSW (Pakistan Single Window), which means DPP data and trade documentation could eventually be integrated into a single export process rather than requiring separate systems. The per-transaction cost of using the platform would be minimal.
- A traceability platform being developed in partnership with ILO, which will provide SMEs with structured data collection and reporting tools. For SMEs, the NCC is developing a package that includes:
  - Green loans through State Bank of Pakistan's instruments (already issued in partnership with the World Bank) to fund initial compliance infrastructure investment.
  - Subsidised access to traceability and sustainability software, or support for SME clusters to jointly commission shared digital systems.
  - Capacity-building and training, delivered in collaboration with SMEDA (Small and Medium Enterprises Development Authority), and provincial government departments including Environment, Labour, and PSIC (Punjab Small Industries Corporation).
  - A certification incentive programme being run through SMEDA, and a three-year SME training programme through EDF and SMEDA.

## Key NCC Initiatives



## Two Policy Risks

### GSP+ Renewal

The current GSP+ extension for Pakistan runs until 2027. If it is not renewed and Pakistan moves back to standard EU tariffs, exporters estimate that duties on key product categories could rise by around 10–12%. This would make Pakistani products more expensive and could lead buyers to shift orders to competing countries.

The Ministry of Commerce is already preparing the renewal documents and has officially requested an extension from the EU Commission. Talks are still ongoing, but no final decision has been made yet.

The National Compliance Centre (NCC) is also involved in this process. It is helping gather and organise compliance data and documentation to show that Pakistan is meeting GSP+ requirements, which will support the case for extending the scheme.

### India's EU Free Trade Agreement

India's new EU Free Trade Agreement will give Indian textile exporters zero-tariff access to the EU, which is similar to Pakistan's current GSP+ advantage. General view is that most see the threat as less severe than it looks on paper. India still has strong non-tariff barriers, strict quality rules, and structural hurdles that make it difficult for foreign companies to fully access its market. Even major exporters like Switzerland, Germany, and Japan have faced these challenges despite trade agreements. As a result, the real impact of the EU - India FTA may be more limited than expected.

The higher risk is in home textiles (such as towels, bed linen, and basic fabrics) and standard garments, where competition is mainly based on cost and volume. Pakistan's exports are also concentrated in a few categories: denim, home textiles, workwear, and sportswear. Pakistan may miss out on new categories because it is not present or competitive in those segments.

## Recommendations

The recommendations for helping Pakistan comply with the EU's new protocols as they relate to Pakistan's textile exports to the EU are summarized below.

**Table 5.3: List of Recommendations**

Recommendation	Description
<b>Unified Compliance Framework</b>	A standardised compliance and auditing system aligned with EU requirements needs to be developed. Its cost should be shared between manufacturers, the export industry, government of Pakistan, and buyers. Since regulations change every year, there needs to be a unified sustainability and compliance framework that follows industrial standards and EU requirements.
<b>Incentives for Compliance Investment</b>	Companies that invest in green initiatives and sustainability face higher costs but do not receive any compensation or support. There should be tax benefits or rebate incentives for companies that implement such initiatives. At present, no such mechanism exists.
<b>Long-Term Energy Policy</b>	Energy policies change too frequently, and there is no long-term stability in energy pricing. This makes it very difficult for companies to plan capital investments. The government needs to provide long-term stability in energy pricing so companies can make sustainable investment decisions with lower risk.

Recommendation	Description
<b>Resolve EFS Sales Tax</b>	The Export Facilitation Scheme (EFS) sales tax system creates an uneven playing field. Imported chemicals benefit from duty exemptions, while compliant local chemical manufacturers and their customers are not treated equally. Authorities are already aware of this issue. It needs to be fixed so that compliant manufacturers are not disadvantaged compared to those relying on under-invoiced imports.
<b>Shared Infrastructure for SMEs</b>	Centralised Effluent Treatment Plants (CETPs) - shared wastewater treatment facilities for clusters of factories) and special economic zones with shared infrastructure would reduce the per-unit compliance cost for smaller manufacturers. Seven CETPs in Karachi have been approved but are stuck in approval processes since 2010. Government incentives for renewable energy and wastewater recycling are also needed, with Karachi in the first phase.
<b>Accelerate the National DPP Platform</b>	A centralised, digitised platform for ESG data reporting and supply chain traceability is needed. Currently companies cannot reach Tier 2 and Tier 3 suppliers digitally and still rely on manual data sheets. EU certification bodies will not accept manual data sheets from 2027 every company must have a software-based mechanism. The NCC's national DPP dashboard should be fast-tracked, formally funded, and integrated with the Pakistan Single Window system at minimal transaction cost to SMEs.
<b>SME Financial and Technical Support</b>	SMEs that cannot afford the initial investment for compliance software or infrastructure should receive financial support through available funds, green loans or other handholding financial support.
<b>Upgraded Chemical Testing Infrastructure</b>	Upgraded chemical testing labs are needed for the sector. Most SMEs do not have appropriate testing facilities in their own factories and sending tests outside Pakistan is costly. A national-level investment in accessible, affordable testing infrastructure would reduce dependence on expensive third-party or overseas testing.
<b>Link Compliance to Business Volume</b>	Brands and buyers should have a dialogue with their suppliers making clear that if suppliers comply, buyers will buy more from them. It should be linked directly to more business. Industry bodies should represent Pakistan as a compliant market through platforms like the NCC.

# List of Interviewees




## List of Interviewees


Name	Designation
Ijaz Khokhar	Managing Director - Ashraf Industries
Dr. Nabeel Amin	Head of Compliance - National Compliance Centre
Irfan Chawala	CEO - Archroma
Sarim Mehmood	Founder & CEO - Fruit of Sustainability
Syed Irtaza Hussain	Corporate Head Sustainability & Compliance - Sapphire
Dr. Muzzamil Hussain	Secretary General - Towel Manufacturer's Association
Aman Tata	Director - Naveena Exports Limited
Kamran Ashraf	Chairman - All Pakistan Textile Mills Association
Mazhar Aziz Khan	Senior Manager Laboratory, (R&D) and Processing - Afroze Textile Industries






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