

The human cost of textile recycling

Case study Pakistan




The fashion industry has become infamous for its environmental footprint and poor working conditions.¹ In response to growing criticism, new legislation and pressure from civil society, fashion brands are increasingly considering sustainability and adopting circular business models.^{i 2}

Several brands have started to offer 'take-back' schemes, enabling customers to hand in their unwanted garments. Others offer repair services to extend the lifecycle of garments. Some have also launched online resell platforms or even offer second-hand clothes in stores.³ Multiple brands are also promoting their 'sustainable' collections that make use of recycled materials, such as recycled cotton or polyester.⁴

At first glance, the various brands' efforts might seem like a green and sustainable way to reduce the industry's environmental footprint and waste. Unfortunately, it is not that simple. Not only do recycling and circularity initiatives fail to address the underlying problem of fast fashion's negative impacts – namely, the overproduction of cheap, low-quality clothes – but brands' recycling and circular economy strategies largely overlook a key factor: the rights and well-being of workers in the recycling industry.⁵

i In a circular business model, emphasis lies on keeping products and materials in circulation through processes like reuse, repair and recycling.

This is particularly relevant in countries like Pakistan, which imports hundreds of millions of kilogrammes of used clothing from around the world annually.⁶ Pakistan's export garment and textile industry also generates large volumes of textile waste. Pakistan has an established textile recycling industry, with many workers involved in processing imported used textiles and domestically generated textile waste. The sector is largely informal, with workers remaining unregistered and invisible.⁷ Informality in work brings risks of exploitation, poor working conditions and limited social protections.⁸

 Read on to explore the realities workers in Pakistan's textile recycling industry face – a crucial yet largely neglected aspect of the global fashion supply chain.

Textile waste and recycling in Pakistan

In 2023, Pakistan imported over 800 million kilogrammes of textile waste, mostly used clothing. In addition, the domestic garment and textile industry generated another 887 million kilogrammes of textile waste, also called pre-consumer waste or post-industrial waste. Another 270 million kilogrammes of textile waste resulted from domestically discarded used textiles.⁹

The different types of textile waste can be either reused, recycled or downcycled. Imported as well as locally discarded used clothing that is still rewearable can be sold in second-hand markets in Pakistan after being sorted, repaired and cleaned. Items that are not fit for reuse can be recycled. A fair share of the imported rewearable used clothing gets re-exported again after sorting according to the various destination countries' demands. Textile waste that is of such low quality that it cannot be recycled is downcycled into lower-value items such as wiping cloths, padding and insulation.^{ii 10}

The largest textile recycling hub in Pakistan is Faisalabad, in Punjab province. The city and district are said to house 175 to 225 recycling units that process mostly pre-consumer textile waste. Satiana, close to the city, is a key recycling hub. Estimates indicate that 10,000 to 15,000 people work in recycling units in this area alone. However, as the industry is largely informal, accurate workforce numbers are difficult to determine. Smaller textile recycling clusters occur in other cities in Punjab province and in the provinces of Sindh and Khyber-Pakhtunkhwa. In total, an estimated 350 to 450 recycling units in Pakistan are involved in activities such as waste collection, sorting and recycling.¹¹

Textile recycling in Pakistan usually consists of several stages:

- ➔ Sorting the waste material based on colour, type of material and size.
- ➔ Separating clothing fit for reuse for export or for sale in second-hand domestic markets.
- ➔ Where clothing is unfit for reuse, removing non-textile items like zippers and buttons.
- ➔ Cutting the textiles into smaller pieces of fabric (often but not always done).
- ➔ Shredding the material into fibres.

The fibres are packed into bales and sold to spinning mills or garment and textile factories that have their own spinning unit in-house. A substantial part of the materials that are recycled in Pakistan are bleached during the process, which makes the fibres easier to blend with virgin cotton fibres to improve quality.

ii Downcycling refers to recycling processes in which the end product has lower value than the original item.

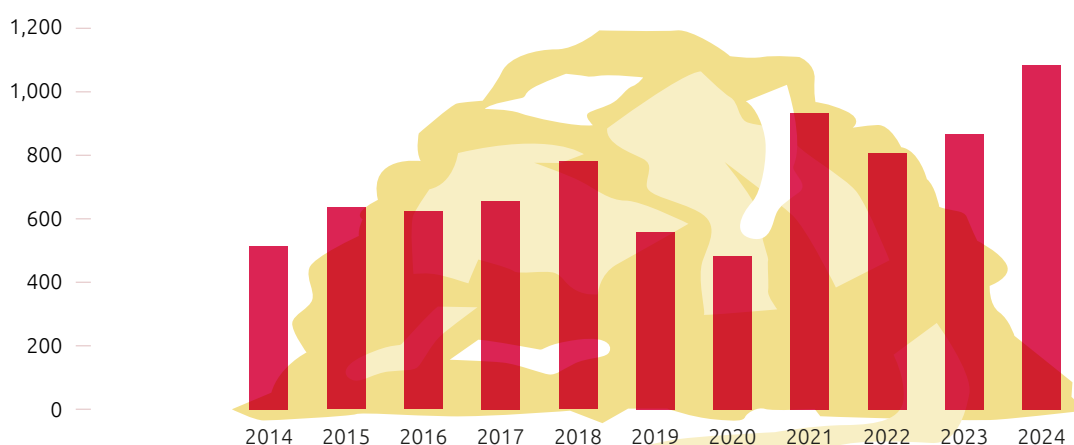


Main textile recycling hubs in Pakistan

About imported textiles

For years, Pakistan has been the world's largest importer of worn clothing, receiving used clothes from all over the world. In 2024, the country imported more than one billion kilogrammes of worn clothing, almost five times the volume of Malaysia, the second largest importer. Pakistan's imports of worn clothing have steadily increased over the years and have doubled since 2014.^{iii 12}

Figure 2 Pakistan's imports of used clothing by weight
In 1,000 kg



Source: Based on data retrieved from UN Comtrade, accessed April 2025

iii Shippers of any goods are obliged to use codes to clarify their shipments' content. The import of used clothing and other textile waste is classified under two different shipment codes. Used clothing may at times be shipped under the code meant for other textile waste. Therefore, shipment data may not perfectly reflect the reality.

The majority of the used clothing comes from the United States, which is responsible for approximately 50 per cent of Pakistan's total worn clothing imports. A large share of also originates from European countries such as France, Germany, Italy, the Netherlands and the United Kingdom.¹³



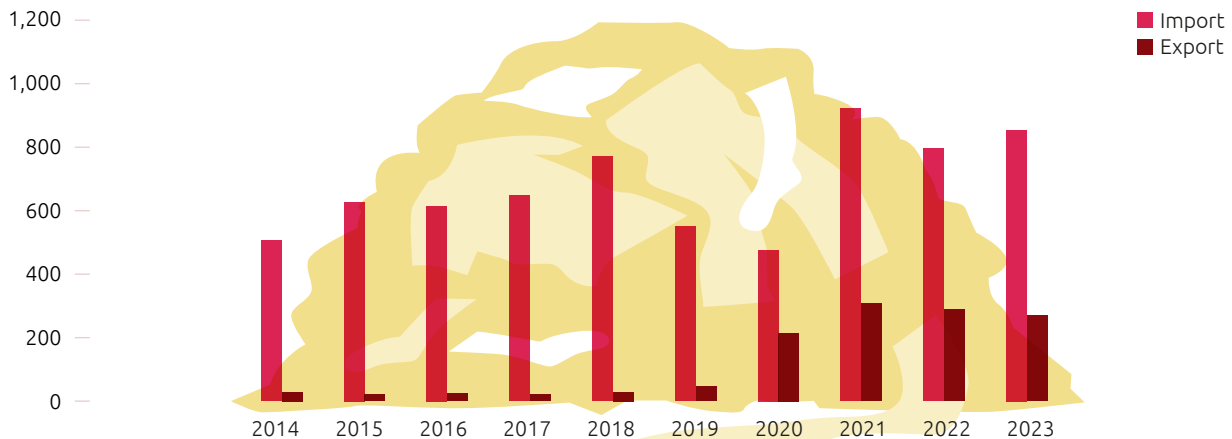
What happens in Pakistan with all this imported worn clothing?

Most imports and exports of used clothing in and out of Pakistan flow through the southern coastal port city of Karachi in Sindh province. The Karachi Export Processing Zone (KEPZ) is the major centre for processing used clothing in Pakistan, with 70 to 80 licensed companies handling imported textile waste.^{iv} Used clothes are sorted into different categories such as blouses or jeans, after which they are further segregated based on style, gender and size, along with a quality check. Any clothing that is fit for reuse is sold in larger regional or smaller local second-hand markets around the country.¹⁴

A substantial share of the used clothing Pakistan imports does not enter the domestic market but is re-exported to various other countries. While total imports of worn clothing have doubled in the past 10 years, Pakistan's exports of worn clothing have grown exponentially, transforming the country into a major international import-export hub for this commodity. In 2024, Pakistan was the world's sixth largest used clothing exporter.¹⁵

^{iv} An export processing zone is a specific area where a business can import material, process it and export it internationally, with most trade barriers greatly reduced or eliminated.

Figure 4 Pakistan's imports and exports of used clothing by weight
In 1,000 kg



Source: Based on data retrieved from UN Comtrade, accessed April 2025

The majority of worn clothing that Pakistan re-exports – approximately 63 per cent – ends up in African countries such as Kenya, Mozambique and Tanzania. The country also exports worn clothing to other Asian countries, such as Afghanistan and Thailand, and smaller amounts to Europe, North America, South America and Oceania, as the graphic below shows.¹⁶



About Pakistan's pre-consumer textile waste

Pakistan is home to a large textile and garment industry, with domestic subsectors ranging from cotton farming to textile production. The largest share of garment production takes place in Karachi. The cities of Lahore, Faisalabad and Multan in Punjab province also comprise a significant cluster of garment and textile production. Garments and textiles are the second biggest economic sector in the country, with an estimated 10,000 manufacturers.¹⁷

The various stages of garment and textile production create all kinds of waste, from leftover yarn, thread and larger pieces of fabric to fabric cuttings and defective and excess garments. While leftover garments can be resold as wearables, waste such as from spinning, weaving and cutting is often fit only for recycling. Recyclers may buy this mixed waste directly, or Pakistan's estimated 2,500 to 3,000 waste handlers may collect it, and then have the waste sorted manually by workers. After the collected waste is sorted, the handlers sell it to recyclers. After sorting, the waste is often washed, bleached and dried before being mechanically recycled into new yarns.¹⁸

Some women operate smaller-scale recycling initiatives in informal home-based enterprises. These women repurpose discarded fabrics into bags, patchwork quilts and upcycled fashion.¹⁹

Ground realities of textile recycling in Pakistan

While the used textiles value chain creates much employment, its informal nature also makes it prone to worker exploitation. For example, studies have found a lack of basic health and safety protocols for workers handling pre- and post-consumer waste.²⁰ In addition, informality often comes with an absence of workers' representation and unionisation, which are important ways for workers to raise their voice against human and labour rights abuses in work environments.²¹

What worsens this situation is that most workers who find themselves in exploitative work situations are members of marginalised communities. They depend on their jobs for survival and often cannot speak up for fear of losing their livelihood.²²

To gain more knowledge about the ground reality for textile recycling workers in Pakistan, a field study was executed in November and December 2025. This was an initial small-scale study to gain workers' perspectives on the industry and their situation in it. We conducted interviews with 12 workers and three employers at textile recycling units in Faisalabad and with eight workers and one employer at workshops that sort imported used clothing in Karachi. Site visits, observations and informal talks also took place. The following overviews and stories are based on the information gained and findings from this research.

Faisalabad–Satiana area

The Satiana industry and types of processing^v

The Satiana textile recycling area holds around 150 registered recycling units of different sizes. All are set up in roughly the same manner and engage in similar types of processing, although only about 35 of them add a bleaching and washing stage. Both pre- and imported post-consumer textile waste is handled in the area.

Satiana recycling units buy pre-consumer waste in bales pre-sorted by material type and colour. They source these bales, which include materials such as cotton, nylon and polyester, from factories across the country, both nearby and in major production hubs like Karachi. The units process waste into

^v Information based on site visits, observations and informal talks.

recycled fibres through stages such as bleaching, drying and shredding. When there is no bleaching, the final fibre colour is determined directly by the input material.

Units sell the recycled fibres to a range of buyers, including large export-oriented factories and mills that spin the fibres into recycled yarn for use in garment and textile production. The materials are also exported.

The recycling units handle imported post-consumer textiles in several ways. They may cut them up and process them into fibre, or leave them in cut pieces and export them to other countries for use as quilt filling. Intermediaries and traders play a key role in facilitating the purchase of input materials and the sale of recycled outputs.

Most workers in the textile recycling units are migrants, mostly ranging from 20 to 60 years of age. However, children and older workers, far beyond retirement age, can also be observed working in the units. Both male and female workers are present.

Several serious environmental and health risks are visibly present in and around the recycling facilities. Areas surrounding the units are covered in a layer of greyish dust, as large, flexible ducts extending from the outer factory walls discharge dust waste into the open air. Units also discharge wastewater, including chemically contaminated water used in bleaching, into nearby open channels. The chemicals seep into the soil and surrounding environment, negatively affecting agricultural activities. Surrounding communities collect drinking water from nearby sources, which are also likely to be contaminated.



Dust waste surrounding the textile recycling units in Faisalabad

A closer look at a recycling unit^{vi}

One recycling facility our research team visited consists of a large walled courtyard where bleached pieces of pre-consumer fabric dry in the sun. Piles of textile waste, bleaching bins and barrels of chemicals occupy different sides of the yard, while inside rooms house the processing areas and an office. The unit is part of a family-owned business running several small-scale recycling operations.

About 70 per cent of the material the unit processes is pre-consumer waste sourced mainly from factories in Lahore and Karachi that produce such items as jeans, towels, T-shirts hosiery and socks. The remaining 30 per cent of the waste processed is post-consumer waste.

The pre-consumer waste is first tested to determine whether it can be bleached: a small fabric sample from each bale is dipped into a container of bleaching chemicals. If the dye dissolves, the bale is approved; if not, it is returned to the supplier, and the owner is reimbursed for that portion of the waste. Workers conduct these tests bare-handed beside open barrels with a strong chemical smell.

Textiles suitable for bleaching are cut into smaller pieces using an uncovered rotating saw and then fed into a separating machine that prepares them for bleaching. The bleaching area contains about 10 large concrete bins filled with water and chemicals. The fabric moves gradually through the sequence over six to seven days, longer for dark colours, shorter for light ones, until fully bleached. Workers stir the bins with large wooden sticks. It is unclear how they transfer material between bins.

After bleaching, the fabric is re-sorted to remove any imperfectly bleached pieces. Workers sit next to the concrete bleaching bins where they handle the wet material with bare hands despite residual chemicals and a persistent chemical smell. They then spread bleached pieces in the yard to dry.

When completely dry, the material is shredded into fibres. The shredding machines are installed in a separate room on the premises with open doors. These machines generate significant noise and dust. Textile fibres cover nearly every surface in the room – walls, ceiling, doors and equipment. Workers may wear only basic face masks that cover their mouths and noses to limit dust inhalation.

Workers use a machine to press the shredded fibres into bales ready for sale. In the shredding room, an air hose is used to clean the machines, and a separate water hose is available for fire emergencies. The shredded material is highly flammable, and fire incidents occur almost every week in the unit.

The imported post-consumer textile waste processed in this unit is converted into stuffing material for quilts. Some recycling facilities operate seasonally, as demand for quilt stuffing increases during the winter. This particular unit exports the cut-up post-consumer waste to Russia throughout the year. The waste mainly consists of bathrobes, onesies, and similar clothing and materials. In the first step of the process, women workers remove zippers, buttons, labels and tags from the garments using a folding blade. It remains unclear how the removed materials are further handled.

The unit employs 62 workers on an informal basis. Women primarily sort materials, while men operate the machines and do the bleaching. Most workers leave before reaching their 50s, as the job often leads to health problems. Common issues include nausea from exposure to chemicals, respiratory and skin conditions, eye irritation, and allergies caused by constant exposure to dust. Workers also frequently suffer cuts on their hands. They earn about PKR 26,000 per month (EUR 79.45), which is below the legal minimum wage in Punjab.^{vii}



A worker dipping a piece of textile in bleaching chemicals to test if the material is fit for bleaching

Employers' and workers' perspective on textile recycling work^{viii}

Employers' perspective

"Our units are medium-sized registered factories. We employ 55, 40 and 32 workers respectively and process around 3,000 to 3,500 kilogrammes of textile waste per day. Imported garments as well as factory waste are handled in our units. We engage in sorting, cutting and fibre production and the cleaning of clothes that are meant for resale in second-hand markets. Large exporting factories are among our buyers, although we do not have long-term contracts with them.

"We recruit workers via contractors or family members or we look for workers ourselves. The workers do not have a written contract and are not registered for social security. About 25 to 30 per cent of the workers at our three units are female. Working hours are eight to nine hours per day, six days per week. Wages are PKR 1,000 to 1,200 [EUR 3.06 to 3.67] per day. Workers are paid weekly or monthly in cash. We provide a weekly day off. We all have machinery in our operations. Yet only one of us provides health and safety training for workers. Sometimes we give masks and gloves as personal protective equipment (PPE) to the workers. There have been accidents affecting workers.

"Unusable waste is either discarded or sold to factories that use it as boiler fuel. We realise that the business is harmful to the environment. With adequate support, we are willing to make changes to create a more environmentally friendly workplace that also promotes better health for our workers.

^{viii} Based on interviews with three employers and 12 workers (six male and six female) at the employers' three units. We have summarised and combined what the employers and the workers told us as two separate extended quotations. Like the other quotations below, these represent what stakeholders told us as accurately as possible but not necessarily using their original words and combining different people's accounts in some places. Some of the conversations and interviews were not in English.

"We all face problems related to electricity, water and gas.^{ix} Our biggest challenges are the production costs, decreasing demand, not receiving any government support and waste collection. Finding reliable intermediary suppliers can be difficult, and we cannot purchase the material directly from factories. Prices of raw materials increase while shortages of materials may also occur.

"We need the government to be more involved in improving the sector and to bring real change by investing in research and development. The government should work with us and provide financial support for pollution control and worker safety. The Labour Department should organise training for workers and factory owners to enhance their skills. We would like to collectively raise our voice to the government on this."



Pieces of fabric being bleached at a textile recycling unit in Faisalabad

Workers' perspective

"Our work experience varies from two to 19 years. We do different tasks. Most of us do sorting work; others engage in drying pieces of cloth, cutting, spinning, bleaching and shredding. One of us has a supervisory role where he checks the work of other sections. Around a quarter of workers in our units are female. One of us is a migrant worker; the rest of us come from this area. Our ages range from 35 to 51 years old.

"We are hired by contractors. We do not have any written contracts or other proof of employment. There is also no social protection arranged. We work on a daily-wage basis; only the foremen and clerks are salaried employees. They also receive paid leave, whereas ours is unpaid.

"Working eight hours per day is common, yet three of us have usual workdays of at least 12 hours. We get paid in cash, by contractors. Wages vary from PKR 4,200 to 10,000 [EUR 12.83 to 30.56] per week for eight hours' work per day. Men and women are not paid equally. Female workers earn on average around PKR 1,000 [EUR 3.06] less per week than male workers. The lowest-paid among us, who earns PKR 4,200

^{ix} In Pakistan, electricity and gas shortages are a big problem for small- and medium-size industries. Large industries usually install their own power plants or convert some power generation to solar panels. However, the textile recycling industry depends on state provision of electricity and gas. Due to shortages, machines cannot work continuously. In Faisalabad, the underground water is not drinkable in most areas and it is not feasible for recycling businesses to purify it. This is solved by bringing in drinking water by tanker, which increases costs.

[EUR 12.83] a week, is a female worker. The supervisor, a male worker, receives the highest pay. His wages are sufficient to meet his family needs, since he works 12 hours per day and therefore receives PKR 15,000 (EUR 45.84) per week. For the rest of us, the wages are not enough to meet our expenses, even when working 12 hours per day.

"Our workplaces are dusty and hot, with a lot of noise from the machinery. There are many chemicals present, which smell badly and pose risks to our health. Some of us work with sharp tools that may cause injuries. In most cases, there is no protective equipment available to us. All of us have experienced health issues due to our work. We inhale dust all day. The bleaching work causes harm to our liver, respiratory issues and eye diseases, and has us worried about cancer. Those of us who do sorting work suffer from respiratory infections, throat issues, flu and sneezing. Lung diseases are prevalent among workers who operate the shredding machines.

"If we get injured, in some workplaces the owner provides first aid, while in others we have to go and get treatment ourselves. Sometimes when we get sick, we just take medication and go back to work. A few months ago, a young worker died after getting caught in a machine and medical aid was not provided in time.

"We had to take on this work due to poverty, even though we do not want to do it. Our families need the income, so we have no choice. Some of us are our family's sole earner, and one of us is a widower with five children to support. We all have around five family members to provide for. Four of us have no more than primary education, and five of us are illiterate. This leaves limited options for better work. There are also limited employment opportunities nearby. We do not want our children to do this work when they are grown up.

"If changes could be made in the workplace, we would like it to be cleaner and less dusty, so that the air is easier to breathe and less unhealthy. We would like access to proper medical treatment when needed, safer working conditions, less noise, fair wages, access to social entitlements and eight-hour workdays for everyone.

"We do not know of any workers' organisations or community groups in this area that could help us raise our voices."



An operating shredding machine in a textile recycling unit in Faisalabad

Workers' quotes

What do you like most about your work?

- "Nothing"
- "Nothing"
- "Nothing"
- "Nothing"
- "Nothing"
- "Break time"
- "Break time"
- "Break time"
- "When able to go home on time"
- "When able to go home on time"

What do you dislike most about your work?

- "Everything"
- "Picking up the material"
- "Dust is everywhere"
- "Dust inhalation"
- "Dust and noise"
- "Heat, noise and dust"
- "Overpowering smell"
- "Working hours are too long"
- "Working seated on the floor all day"

Karachi

Textile waste processing in Karachi

In Karachi, the handling of imported used clothing is a significant industry, with many workshops that sort the imported clothing and sell it on according to buyers' demands. As home to the Karachi Export Processing Zone (KEPZ), the city serves as Pakistan's principal entry point for used clothing imported from around the world – primarily from the United States, China, the United Kingdom and other European countries. Containers of waste may be released and sorted within the KEPZ or transported to neighbourhoods across Karachi, where they are processed in workshops.

Each imported container contains approximately 30,000 to 40,000 garments, which are then sorted into quality categories ranging from A to D, with category A representing the best quality. Category A garments are re-exported, mainly to countries in Europe and to Asian countries such as Iran, Afghanistan and elsewhere in Central Asia. Category B and C items are sold in local shops and markets across Pakistan, while lower-quality goods (categories C and D) are sold in Sunday bazaars and by street vendors in Karachi and other major Pakistani cities.

The composition of shipments varies seasonally. Used clothing imported from the United States is considered higher quality, containing more category A pieces, while shipments from other regions often include a higher proportion of waste, thus yielding lower profit margins. Unusable materials are mostly sent to Faisalabad for recycling or used as fuel in brick kilns. Some waste is also processed into cleaning wipes. Higher-quality waste materials are exported for recycling abroad, as Pakistan lacks modern machinery for advanced textile recycling.

The discarded clothing business in Karachi operates within a rigid hierarchy dominated by container owners, large traders, agents and contractors. Small- and medium-scale entrepreneurs rely on these powerful actors to gain access to imported stock, market information and export channels. This structure concentrates profits at the top. Further, the small- and medium-sized businesses often face limitations such as banking restrictions and lack of authorisation to open letters of credit.^x

A major hub for processing used clothing in the city is the Sher Shah Lunda Market. Facilities there vary in size, from small shops of 60 to 120 square metres to large units spanning 1,000 to 5,000 square metres. The work is highly fragmented, with different stages of sorting, cutting, resale and storage taking place across small scattered units rather than in consolidated factories. After sorting, agents purchase the goods from these facilities and distribute them further.

Sorting is the most common activity in Karachi's used-clothing industry. Experienced workers at sorting facilities earn between PKR 50,000 and 60,000 per month [EUR 152.79 - 183.35], while ordinary workers receive PKR 35,000 to 40,000 (EUR 106.96 to 122.23). During busy periods, when container volumes increase, temporary workers are hired on a per-kilogramme basis at rates of PKR 25 to 30 (EUR 0.08 to 0.09) per kilo, or on daily wages.

Sorting work is considered highly skilled, as workers must accurately classify garments by type, quality and potential resale value; misclassification can affect profitability. By contrast, cutting work (removing zippers, buttons and preparing fabric for recycling) is limited in Karachi, with textile waste processing for recycled fibres located primarily in Faisalabad.



Piles of imported used clothing at a sorting facility in Karachi

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- x A letter of credit is a kind of loan banks give to importers of goods. The banks pay in foreign currency to sellers from other countries and get payment in national currency from domestic buyers. Due to issues of foreign debt, foreign reserves and impacts on currency exchange rates, Pakistani banks restrict the letters of credit they issue, and this mostly affects small- and medium-size importers.

A closer look at a sorting facility^{xi}

The sorting facility our research team visited is located in Shargaz, a neighbourhood in Karachi close to the port. This area hosts numerous similar workshops involved in sorting used clothing. The facility is an open indoor space, where piles of second-hand garments are spread across the floor. Male workers sort the clothing manually, piece by piece, placing items into separate piles according to type and quality. Among the workers are underage boys.

The facility receives imported used clothing from the United Kingdom and the United States. Shipping containers arrive regularly and are transported by truck to the sorting unit, where the garments are unloaded and sorted into 52 different categories. One of these is clothing made from 100 per cent angora wool, which is then exported to Italy, where specialised machines recycle this material into fine threads.

Once sorted, the clothing is exported to various countries, each with its own specific market demands. The owner of the facility specialises in trade with Iran and Afghanistan. He notes that it took him 11 years to fully learn the categorisation system and the complex dynamics of the industry. Buyers collect their sorted goods directly from the facility.

A portion of the sorted clothing remains in Pakistan. Rewearable items enter the domestic second-hand markets, while non-reusable textiles are sent to Faisalabad for recycling.

Employer's and workers' perspective on the work in the sorting facilities^{xii}

Employer's perspective

"I own a small registered workshop in Karachi that specialises in sorting imported used clothing. I buy shipping containers of second-hand garments from container owners, with materials sourced from various countries, including those in Europe and the United States. Each container contains different categories of clothing, sorted according to customers' demands."

"We sort the material in two to three ways before selling it to local markets and contractors. Buyers usually inspect the material in advance, but we do not have any long-term contracts with them. The sorting process takes time and may take several months to complete. Earnings amount to approximately PKR 1,000,000 to 1,500,000 [EUR 3,054.69 to 4,582.04] per container. Local market buyers typically purchase material worth PKR 50,000 to 100,000 [EUR 152.73 to 305.47] per week from us."

"There is usually only a small amount of unusable waste, which we either provide to brick kiln owners to use as fuel or discard."

"There are four male workers employed here and no females. The workers were recruited either directly by me or through family connections. I also participate in the work. There are no written employment contracts, and workers are not registered for any social security schemes."

"We work around eight to nine hours per day, sometimes six to seven hours, six days per week. The monthly wages range from PKR 30,000 to 60,000 [EUR 91.64 to 183.28], depending on a worker's experience. Payments are in cash. In case of overtime, the payment is more."

"We occasionally provide PPE. The only machinery we use is for packing. No accidents or work-related illnesses were reported in the past year, and workers can take leave when needed."

"We face challenges with electricity and water supply, as well as with low demand. The government does not offer support, such as with registration processes needed to independently import or export materials."

xi Information based on a visit to one sorting workshop with informal conversations with workers and the owner.

xii Information based on interviews with one employer and eight male sorting facilities workers in Karachi.

As a result, we rely on contractors for buying and selling. With proper government support, I could further develop the business to make it more worker-friendly and environmentally sustainable.”

Workers' perspective

“We work in sorting facilities as sorters and packers of imported used clothing. Most of us have been here for one to three years, although one worker has as many as 15 years’ experience. The number of workers at our respective workplaces ranges from three to eight, and all of us are men. We are both migrants and local workers. None of us studied beyond primary school. We heard about these jobs through neighbours or family members when we were looking for work. We do not know whether our workplaces are formally registered.

“After sorting, the clothing is resold in local markets or exported to countries such as Iran and Afghanistan. We are not fully aware of the entire supply chain, as our employers or contractors handle sales and distribution. Contractors and intermediaries act as links between our workplaces and the buyers. Buyers also come from cities like Islamabad and Faisalabad to purchase material. Clothing that is unsuitable for reuse is sometimes cut into rags for cleaning cars and engines, or it is burned.

“None of us have written contracts or receive any form of social security. Most workers have eight- to nine-hour workdays, though two of us work between 10 and 12 hours a day. We all work six days per week, and during the summer the workday may extend about an hour as the sun sets later. We do not work when it is dark outside since this causes safety risks. We have breaks for lunch and prayers. When there is less work, we stay at the workplace; when it is busy, we work faster. We can take short breaks when needed.

“Our monthly wages range from PKR 25,000 to 35,000 [EUR 76.37 to 106.91] for eight- to nine-hour workdays, paid in cash by our employers. Income may be a bit higher if the material has a good rate or if there is additional work. However, our wages only partially meet our families’ living expenses. Sundays are off, and we get one or two paid days of leave per month. Any leave exceeding this is deducted from our wages.

“We occasionally receive safety equipment, or we use a piece of cloth to cover our mouths to protect ourselves from dust. The workplace is noisy, dusty and filthy, and chemicals used for washing clothes pose health risks. Injuries are uncommon in our line of work. Any medical expenses are paid out of our own pockets.

“There are no cooperative groups or collective bargaining efforts among workers to demand better wages or working conditions. The nature of the work is similar across all facilities. We are not sure we would want our children to do this work in the future. It would be better for them to get a job with higher earnings.”



Discarded used clothing at a brick kiln, to be used as fuel

Summarising workers' situations and concluding remarks

The textile recycling industry in Pakistan is dominated by deep informality, leaving workers unprotected, underpaid and exposed to exploitation. As in other countries, this informal structure denies workers legal recognition and access to basic rights such as minimum wages, health insurance, safe working conditions and pension schemes. As a result, job insecurity and rights violations are persistent across the sector.

In Faisalabad, Pakistan's main recycling hub, work is labour-intensive, repetitive and physically demanding. Long working hours are normalised, especially in peak seasons, while wages fall below the legal minimum. For most workers, full-time employment does not ensure economic security, forcing households into debt and increasing risks of child labour. The gender pay gap reveals systemic undervaluation of women's work.

Health and safety risks are prominently present in Faisalabad: dust, chemicals and lack of protective gear have created an occupational health crisis, with virtually no safety standards in place. Workers express high dissatisfaction and see no future for their children in this line of work, a clear marker of the sector's exploitative nature.

In Karachi, profits and wages are slightly higher, but work is more irregular and dependent on fluctuating container flows from the global market, which reinforces employment precarity. Most jobs are unstable, temporary and piece-rate based, leaving workers without income stability. Although occupational health risks are somewhat lower than in Faisalabad, exposure to dust and chemicals remains present, and safety regulations are equally absent. Notably, we found no women workers in Karachi, highlighting a gendered division of labour within the industry.

Across both cities, workers are generally poorly educated, restricting their mobility towards safer or better-paid jobs. People of all ages were observed working in the textile recycling facilities, including children and elderly workers. When compared to Pakistan's formal garment and textile industry, where workers are usually from a younger age group, textile recycling work can be seen as a long-term livelihood sector, especially for workers who have limited alternatives.

There is a complete absence of worker organisation or collective bargaining. Employers highlight economic and regulatory challenges but show little engagement with labour rights. While employers face genuine economic pressures, the burden of adjustment to such pressures is entirely shifted onto workers' bodies, health and livelihoods.

Despite the promotion of textile recycling as an environmentally responsible solution to global textile waste, Pakistan's recycling sector is highly polluting. Bleaching water is released into open drains, affecting drinking water, soil and agricultural activities. Residual dust is spread across lands, and unusable waste is burnt as fuel or dumped, creating toxic emissions and air and soil pollution. These practices are harmful both to the environment and to nearby communities.

As a crucial node in the global circular economy, Pakistan's textile recycling industry absorbs waste from the Global North and redistributes both economic value and environmental harm downstream. Yet it continues to operate with minimal oversight, leaving informal workers to bear the costs of economic instability and regulatory neglect. A truly just transition must therefore recognise recycling workers as essential to the industry and ensure social protection, living wages, safe workplaces and the right to organise. Without these guarantees, textile recycling risks reproducing the same extractive models of the fashion industry on workers in the Global South.

Call to companies

Companies that use recycled textile content in their products, and those that promote textile recycling in their supply chains, need to apply a social lens to this part of their business, next to the widely adopted environmental view. They should be aware of the human and labour rights violations that affect textile recycling workers processing pre- and post-consumer waste. They should ensure that their human rights due diligence extends to textile waste processing and recycling in their supply chains.

Simply having recycled content in your garment or textile products – or knowing that your suppliers recycle pre-consumer waste – does not automatically mean that you sell responsible products to customers. Workers' rights are violated and they risk their health in processing the recycled content. Brands should map their supply chains to include the recycling facilities that create the recycled content in their products or recycle their suppliers' pre-consumer waste and ensure the workers in these supply chain tiers have decent and healthy working conditions, with the freedom to stand up for their rights.

To make a genuinely just transition to a fairer and cleaner fashion industry, companies should fully consider the situation of textile recycling workers. Business plans and initiatives involving recycling or circularity should look at the on-the-ground reality and how it affects workers, and ensure full respect for recycling workers' labour and human rights. If not, no fashion industry transition towards sustainability will be truly just.



Bales of recycled fibres at a textile recycling unit in Faisalabad

Notes

- 1 Business of Fashion and McKinsey & Company, The State of Fashion 2022, 2022, <https://www.mckinsey.com/~media/mckinsey/industries/retail/our%20insights/state%20of%20fashion/2022/the-state-of-fashion-2022.pdf> ; Sarah Butler, "Fashion retailer Shein finds child labour in its supply chain", 23 August 2024, The Guardian, <https://www.theguardian.com/business/article/2024/aug/23/shein-fashion-retailer-child-labour-supply-chain>.
- 2 Business of Fashion and McKinsey & Company, The State of Fashion 2022, 2022, <https://www.mckinsey.com/~media/mckinsey/industries/retail/our%20insights/state%20of%20fashion/2022/the-state-of-fashion-2022.pdf>.
- 3 George Williams, "Circular Fashion: Committing to transparency and human rights from the outset", 22 April 2025, Ethical Trading Initiative, <https://www.ethicaltrade.org/resources/blog/circular-fashion-committing-to-transparency-and-human-rights-outset> ; Sophie Benson, "Fast Fashion Brands Launching Resale Platforms: Circular or Cynical?", 2 August 2022, Good on You, <https://goodonyou.eco/fast-fashion-resale/>.
- 4 Charlotte Pointing, "Recycled Polyester Doesn't Fix Fast Fashion's Over-Production Problems", 19 January 2023, Good on You, <https://goodonyou.eco/recycled-polyester-fast-fashion/>.
- 5 Charlotte Pointing, "Recycled Polyester Doesn't Fix Fast Fashion's Over-Production Problems", 19 January 2023, Good on You, <https://goodonyou.eco/recycled-polyester-fast-fashion/> ; Anniina Nurmi, "Circular Economy and Human Rights in the Fashion Industry", 2025, EETTI, <https://eetti.fi/en/sisallot/circular-economy-and-human-rights-in-the-fashion-industry-a-guide-for-companies/> ; George Williams, "Circular Fashion: Committing to transparency and human rights from the outset", 22 April 2025, Ethical Trading Initiative, <https://www.ethicaltrade.org/resources/blog/circular-fashion-committing-to-transparency-and-human-rights-outset> ; Lucianne Tonti, "The missing link: is textile recycling the answer to fashion's waste crisis?", 18 October 2023, The Guardian, <https://www.theguardian.com/fashion/2023/oct/18/the-missing-link-is-textile-recycling-the-answer-to-fashions-waste-crisis>.
- 6 UN Comtrade database, data for product groups with HS code 6309, <https://comtrade.un.org/>.
- 7 National Textile University and Reverse Resources, Comprehensive Overview of the Pakistan Textile Waste Industry, March 2025, https://www.researchgate.net/publication/390355342_Comprehensive_Overview_of_the_Pakistan_Textile_Waste_Industry#:~:text=It%20highlights%20that%20Pakistan%20produces,technologies%20and%20weak%20policy%20support ; Shahid Sattar and Noreen Akhtar, The European Union's Textile Waste and Used Clothing in Pakistan, 2023, <https://pide.org.pk/research/the-european-unions-textile-waste-and-used-clothing-in-pakistan/>.
- 8 International Labour Organization, Resolution concerning decent work and the informal economy, 2002, <https://webapps.ilo.org/public/english/standards/relm/ilc/ilc90/pdf/pr-25res.pdf>.
- 9 National Textile University and Reverse Resources, Comprehensive Overview of the Pakistan Textile Waste Industry, March 2025, https://www.researchgate.net/publication/390355342_Comprehensive_Overview_of_the_Pakistan_Textile_Waste_Industry#:~:text=It%20highlights%20that%20Pakistan%20produces,technologies%20and%20weak%20policy%20support.
- 10 National Textile University and Reverse Resources, Comprehensive Overview of the Pakistan Textile Waste Industry, March 2025, https://www.researchgate.net/publication/390355342_Comprehensive_Overview_of_the_Pakistan_Textile_Waste_Industry#:~:text=It%20highlights%20that%20Pakistan%20produces,technologies%20and%20weak%20policy%20support.
- 11 National Textile University and Reverse Resources, Comprehensive Overview of the Pakistan Textile Waste Industry, March 2025, https://www.researchgate.net/publication/390355342_Comprehensive_Overview_of_the_Pakistan_Textile_Waste_Industry#:~:text=It%20highlights%20that%20Pakistan%20produces,technologies%20and%20weak%20policy%20support.
- 12 UN Comtrade database, data for product groups with HS code 6309, <https://comtrade.un.org/>.
- 13 UN Comtrade database, data for product groups with HS code 6309, <https://comtrade.un.org/>.
- 14 Shahid Sattar and Noreen Akhtar, The European Union's Textile Waste and Used Clothing in Pakistan, 2023, <https://pide.org.pk/research/the-european-unions-textile-waste-and-used-clothing-in-pakistan/> ; Circle Economy and Ministerie van Infrastructuur en Waterstaat, Destinations of Dutch Used Textiles, December 2023, [https://cdn.prod.website-files.com/5d26d80e8836af2d12ed1269/65ccae211be28d8531289d05_20240213%20-%20EN%20-%20Rijkswaterstaat%20-%20210x297mm%20bleed%205mm_converted%20\(1\).pdf](https://cdn.prod.website-files.com/5d26d80e8836af2d12ed1269/65ccae211be28d8531289d05_20240213%20-%20EN%20-%20Rijkswaterstaat%20-%20210x297mm%20bleed%205mm_converted%20(1).pdf).
- 15 UN Comtrade database, data for product groups with HS code 6309, <https://comtrade.un.org/>.
- 16 UN Comtrade database, data for product groups with HS code 6309, <https://comtrade.un.org/>.
- 17 Arisa, Overworked and underpaid: Excessive hours, wage theft and poor working conditions in Pakistan's garment export factories, July 2025, <https://arisa.nl/wp-content/uploads/Overworked-and-Underpaid-2025.pdf>.
- 18 National Textile University and Reverse Resources, Comprehensive Overview of the Pakistan Textile Waste Industry, March 2025, https://www.researchgate.net/publication/390355342_Comprehensive_Overview_of_the_Pakistan_Textile_Waste_Industry#:~:text=It%20highlights%20that%20Pakistan%20produces,technologies%20and%20weak%20policy%20support.

- 19 Zainab Naeem, "Margins to mainstream", 8 March 2025, SDPI, https://sdpi.org/9048/news_detail.
- 20 Arisa and Sympany, Textile recycling unravelled: Exploring post- and pre-consumer textile recycling value chains in Panipat, India, June 2020, <https://arisa.nl/wp-content/uploads/TextileRecyclingUnravelled.pdf> ; Sven Buchholz, "From Faisalabad to Sustainability: The Untold Story of Pakistan's Textile Recycling Revolution", 18 December 2024, Asia Garment Hub, <https://asiagarmenthub.net/content/2024/from-faisalabad-to-sustainability>.
- 21 International Labour Organization, Resolution concerning decent work and the informal economy, 2002, <https://webapps.ilo.org/public/english/standards/relm/ilc/ilc90/pdf/pr-25res.pdf>.
- 22 Ethical Trading Initiative, Base Code Guidance: Caste in Global Supply Chains, 2019, https://www.ethicaltrade.org/sites/default/files/shared_resources/ETI%20Base%20Code%20guidance%2C%20caste%20in%20global%20supply%20chains.pdf.

The human cost of textile recycling

Case study Pakistan

Arisa, The Netherlands, January 2026

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About Arisa

Arisa – Advocating Rights in South Asia – works to improve respect for human rights and labour rights in global supply chains. Working with civil society partners in India, Bangladesh and Pakistan, among other countries, we expose human rights and labour abuses in the production of garments, leather, natural stone and vegetable seeds, and we call on companies and governments to ensure that rights are respected. We prioritise the position of the people in the most vulnerable situations in global supply chains and work to eliminate child labour, forced labour and caste discrimination. Arisa is member of Clean Clothes Campaign.

For more information, see www.arisa.nl

This publication was developed as part of Clean Clothes Campaign's Fashioning a Just Transition (2024-2027) project.

The stories in this publication are based on interviews and informal conversations with various stakeholders and rightsholders.

The photographs used in this publication are to illustrate the stories. They do not reflect the workplaces or workers quoted in the stories.



Co-funded by
the European Union

This publication was co-funded by the European Union. Its contents are the sole responsibility of Arisa and do not necessarily reflect the views of the European Union.