



Textile recycling unravelled

Exploring post- and pre-consumer textile recycling value chains in Panipat, India



Colophon

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Authors: Arisa & Sympany

Design/graphics: Studio Visser-Knof

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Arisa

Arisa (Advocating Rights in South Asia) is an independent non-governmental human rights organisation aiming to support and strengthen the defence of human rights in South Asia with local NGOs and trade unions. The work focuses on labour rights of vulnerable groups in international supply chains. To achieve this, Arisa has adopted the following strategies: strengthening cooperation and networking; knowledge building through research and focussing on specific long-term thematic issues, and advocacy towards policy makers and companies. Arisa is an active member of networks such as the Stop Child Labour coalition, the Clean Clothes Campaign, the International Dalit Solidarity Network and the Dutch CSR Platform.

Sympany

Sympany is one of the largest textile collection organisations in The Netherlands, collecting around 22 million kilograms of post-consumer textiles in 92 municipalities. Sympany's ambition is to contribute to a circular textile value chain. All the textiles collected has a sustainable destination either by extending its lifecycle (reuse) or processing it into a raw materials (recycling). Sympany invests in making the post-consumer textile value chain more transparent, as without that, a circular textile value chain is impossible. To achieve its ambition, Sympany cooperates with governments/municipalities, companies, and civilians.

Research agencies:

ASK



The Association for Stimulating Know-How (ASK) is a not-for-profit development organisation with extensive experience over the course of 25 years in working with NGOs, Government institutions, national and international development agencies, and corporate bodies on labour and workplace issues. ASK undertakes multi-disciplinary research including traceability studies on issues related to supply chains across various sectors, including agriculture, apparel, textile, footwear, food & beverages, electronics, sports goods, and stones & minerals. ASK also designs and implements innovative interventions with primary producers in various parts of the country. ASK is a general body member of Sustainable Agriculture Network (SAN). ASK was established in 1993 and is based in Gurgaon, India.

FFact



FFact management consultants (FFact) is a limited company, established in 1998 because of the increasing demand for high quality consultancy services in sectors with environmental issues. They have assisted local governments and private companies in their efforts to achieve sustainable goals and missions. Their main expertise is the development of producer responsibility systems, e.g. for cars, tyres, batteries, packaging, or textiles. In 2014, FFact assisted the Dutch Ministry to construct the mass balance of used textiles from The Netherlands. FFact repeated the survey in 2020. During this study FFact cooperated with companies that collect and sort the used textiles and concluded that 87% of recyclable textile is exported to India for further treatment.

The project and studies were realised in cooperation with Humana People to People India (HPPI)¹ and with the financial support of the Dutch Fund against Child Labour (FBK), managed by The Netherlands Enterprise Agency (RVO).

¹ Humana People to People India is a non-political, non-religious development organisation working for the holistic development of the under-privileged and marginalised people in rural and urban India through social development and poverty alleviation interventions by coordinated, strategic approaches focussing on education, life skills, improved livelihoods, health and sanitation, the empowerment of women and environment protection. Source: <https://www.humana-india.org/>.

Foreword

This report is based on data collected in 2018 and 2019, before the COVID-19 crisis. The studies presented in this report intend to create awareness on the less visible parts of textile supply chains, by focussing on recycling discarded textiles in Panipat, India. We want to inform stakeholders of the importance of incorporating social issues in the concept of textile recycling, to continue the dialogue, and to address the most important issues: the elimination of child labour in the textile recycling industry in Panipat and improved working conditions for the people in the textile recycling supply chains.

We are aware of the enormous and unprecedented consequences of the COVID-19 crisis. This crisis reveals once again the workers' vulnerable position. In India, the lockdown is having devastating effects on the economy as a whole and on the people working in the textile sector, particularly on migrant workers. These workers are among the hardest hit by this crisis, many of them women who are their families' primary wage earner. Very few workers have ever been able to accumulate any savings; in fact, many are in debt.

Arisa and Sympany aim to work on improvements in the textile recycling industry. By engaging in reports like this, we want to increase awareness of the risks and labour rights violations in the textile recycling sector. It is a call for action, as we neither want companies to disengage from their suppliers and stop sourcing in India, nor public procurers to exclude India as a sourcing country in their tenders as a result of this report.

We know the issues presented in this report will not be solved overnight, they require concerted efforts of companies, industry associations, labour unions, civil society organisations, and local and national governments. We also know that the current COVID-19 crisis will affect the way business will be done. We are convinced this crisis can be used as an opportunity to implement the necessary changes to create sustainable supply chains with decent working conditions for the people working in these supply chains.

We trust you will read this report with interest and use the information for further improvements. In case of any questions please do not hesitate to get in touch with Arisa.

Sandra Claassen, director Arisa

Erica van Doorn, director Sympany

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List of abbreviations

BCI	Better Cotton Initiative
BSCI	Business Social Compliance Initiative
CITU	Centre of Indian Trade Unions
CLFZ	Child Labour Free Zone
CMT	Cut Make Trim
CSR	Corporate Social Responsibility
EHI	Essential Household Items
EPF [or PF]	Employees' Provident Fund
ESI (Act)	Employees' State Insurance (Act)
EUR	euro (€)
FBK	Fonds Bestrijding Kinderarbeid - Fund against Child Labour
GRS	Global Recycle Standard
HPPI	Humana People to People India
HS-codes	Harmonized System codes
ICRC	International Committee of the Red Cross
IFRC	International Federation of Red Cross and Red Crescent Societies
ILO	International Labour Organization
INR	Indian Rupee (₹)
KASEZ	Kandla Special Economic Zone ²
MSI	Multi-Stakeholder Initiative
NCR	National Capital Region ³
NGO	non-governmental organisation
OECD	Organisation for Economic Co-operation and Development
PPE	Personal Protective Equipment
QSE	Quality, Social and Environmental
RBC	Responsible Business Conduct
RTE	Right to Education Act, 2009
RVO	Rijksdienst voor Ondernemend Nederland - Netherlands Enterprise Agency
SAN	Sustainable Agriculture Network
SEZ	Special Economic Zone
UN	United Nations
UNGM	United Nations Global Marketplace
UNGP	United Nations Guiding Principles on Business and Human Rights
UNHCR	United Nations High Commissioner for Refugees

² The Kandla Special Economic Zone is situated in Gujarat, India, and refers to a special economic zone (SEZ) which is a geographical area that has more liberal economic laws than a country's domestic economic laws. India has specific laws for its SEZs.

³ The National Capital Region in India is a metropolitan area which encompasses the territory of India's capital Delhi and includes several neighbouring cities from the States of Haryana, Uttar Pradesh, and Rajasthan.

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1. Introduction

1.1 Background

Panipat, a city 90 kilometres north of Delhi in the state of Haryana, is known as the largest textile recycling hub in India.^I Using discarded machinery from Prato, an industrial town in Italy, textile recycling in Panipat was a blooming industry in the 1990s, with annual revenues of over 300 million US dollars^{II}. Imported used clothing, or 'post-consumer textile'⁴, mainly from Europe and North America, is shipped to this 'city of weavers', as Panipat is referred to,^{III} and used as raw material to create new products.^{IV}

Estimates of the number of people who work in the Panipat textile recycling industry vary from 20,000 to at least 70,000.^V The number of workers may be even higher than the latter estimate, especially considering the amount of textile that is being imported and processed in Panipat. Since this industry is highly informal by nature and inward and outward migration is common for migrants who are often not registered, obtaining accurate numbers of workers in this industry is challenging.

Since 2015, the Dutch textile collector and social entrepreneur Sympany supports educational projects for 'out of school' children in Panipat. Based on the learnings and insights obtained through these projects – such as children not going to school and children working in textile factories and units⁵ – Sympany, in collaboration with Arisa and local partner organisations, decided to expand the project activities in Panipat. A project proposal was developed and granted by the Fund against Child Labour



Street scene Panipat source: Arisa

⁴ Post-consumer textile refers to the worn clothing and other used textiles that are discarded by its owner, being the consumer.

⁵ Unit refers to a physical location where the processing or production of textile takes place. This may be a smaller type of factory, a home-based unit, or another site.

of the Netherlands Enterprise Agency (RVO), to work towards so-called 'Child Labour Free Zones' in selected neighbourhoods in Panipat. This Child Labour Free Zone project in Panipat is implemented by HPPPI^{VII}, with technical support of MV Foundation.



photo: MV Foundation

Child Labour Free Zone (CLFZ)

A CLFZ is a defined area, such as a village or a plantation, where everyone is convinced that 'no child should be working, every child should be in school!' Teachers, local authorities, village leaders, employers, parents, and children in these zones work together to get children out of work and into school. Child labour is no longer accepted because all children are entitled to formal, full-time education.

In a CLFZ, no distinction is made between different forms of child labour; every child is entitled to an education. The focus is not on child labour in specific sectors or the 'worst forms of child labour', but on all children who work and do not go to school.

The CLFZ concept was developed by MV Foundation: <https://mvfindia.in/>.

1.2 Objectives

As part of the project, several researches were conducted to gain insight into the textile recycling industry in Panipat and to understand how and under which circumstances textile is being processed. Sympany aims for transparency in its value chain and wants to clarify and work towards a situation in which there is no child labour in its post-consumer value chain. Therefore, Sympany looked at its own value chain of collected and traded used textiles for any connections with Panipat. This led to more general insights into the textile recycling industry in Panipat. Arisa researched the processing of pre-consumer residual textile⁶ to gain information on the handling of this type of material and to see if it is traded to Panipat for recycling as well. Gaining information on child labour and working conditions in the textile recycling industry in Panipat was part of this effort. Arisa also conducted a shipment data analysis, to understand which types of products are being produced and exported from Panipat, and to know which international companies are linked to the textile industry in Panipat. This report presents the results of these researches.

So far, the recycling of post- and pre-consumer textile in this context has received little attention, especially from a human rights and labour rights perspective, as recycling is mostly linked to environmental issues such as the scarcity of natural resources and environmental pollution.^{VIII} As Panipat receives the vast majority of worldwide discarded post-consumer textile and has been linked to informal contract labour, low wage payments, 'sweatshop' conditions, the clear presence of child labour, and hazardous working conditions,^{IX} this city provides a valid setting to look into this aspect of textile recycling.

⁶ Pre-consumer residual textile is the residual textile that is generated through the various stages of garment production.

Pre-consumer residual textile is still an unknown territory, yet inextricably linked to garment production as it is generated through the manufacturing of textile and garments. In this regard, it can be considered a part of the supply chains of garment brands. Knowledge on the handling of the pre-consumer residual textile is necessary to increase the awareness of what happens in these tiers of global supply chains.

1.3 Previous research

Several studies have been done on the global trade of used textiles. The report on the Exports of Nordic Used Textiles^x, for example, published in 2016, looks into the trading of used clothing that was collected in Nordic countries.⁷ It shows to which countries the used clothes are first traded, and zooms in on specific destination countries by providing three country studies. Specifics on India were not part of this report.

Researcher Lucy Norris executed field research on the recycling of post-consumer textile in India.^{xi} She points to ethical issues within the trading of used clothes from Northern Europe to destination countries such as India and displays the highly informal nature of the second-hand clothing business in India, including the recycling of textiles in Panipat. Norris highlights three characteristics of Panipat's textile recycling industry^{xii}: the presence of perfectly wearable clothing for which there is no local market, which makes recycling the more profitable option; poor working conditions and environmental standards; and low quality end-products, e.g. blankets for Indian purposes or relief blankets.

In 2018, a study of the pre-consumer residual textile generated in the Delhi area was published.^{xiii} It presents technical information on the various types of pre-consumer residual textile and on certain stages of handling the residual textile, such as collecting and sorting. This study was executed from an environmental point of view, related to waste minimisation. No other study on the specific handling of pre-consumer residual textile was found.

The studies presented here all relate to this report. However, many gaps in the knowledge of the value chains of used textiles still remain, especially from a human rights point of view, as mentioned above. This report aims to contribute to insights on this part of the textile industry, by clarifying supply chains of both post- and pre-consumer textile, processed in the largest recycling hub in India, Panipat.

1.4 Report outline

This report presents the researches highlighted in paragraph 1.2. First, chapter 2 describes the methodology of the researches. Four researches were executed and will be introduced briefly, including their research limitations. The same chapter also explains the review procedure followed during the development of this report. Chapter 3 presents the findings of Sympany's post-consumer textile researches in section 3.1, referred to as research 1 and 2 in the methodology chapter. Section 3.2 covers the research findings of the handling of pre-consumer residual textile, referred to as research 3. Subsequently, chapter 4 highlights the findings on working conditions and the prevalence of child labour, also part of research 3. The findings of the shipment analysis, referred to as research 4, are presented in chapter 5. Chapter 6 explains which companies and organisations were approached for review and contains the information that was provided by companies and organisations in the review procedure. After this, chapter 7 offers a concluding summary, followed by several recommendations.

⁷ Nordic countries refers to the countries Denmark, Sweden, Finland, and Norway.

2. Methodology

Sympany and Arisa developed four areas for research. Based upon the learnings of the initial project in Panipat (2015-2018), Sympany decided to explore its value chain to find out if any of its collected post-consumer textile ends up in Panipat. Since Panipat is a large centre for recycling textile and Delhi is one of the main garment hubs in India close to Panipat, the question arose if pre-consumer residual textile generated in garment factories in Delhi is being processed in Panipat as well. In addition, the prevalence of child labour and other labour rights violations in the textile industry in Panipat would be assessed. Lastly, researching the international buyers of exported products from Panipat would bring information as to which international companies are connected to Panipat's textile industry.



Sorting centre in Panipat, source: Arisa

2.1 The four research areas

The four areas of research are explained below. Research 1 and 2 were conducted by FFact, a consulting agency in The Netherlands commissioned by Sympany. Research 3 was executed by ASK, a research agency in India commissioned by Arisa. Arisa carried out Research 4.

1) Research on the mass balance of post-consumer textile collected and traded by Sympany, to understand whether part of the textile collected by Sympany is processed in Panipat.

In cooperation with Sympany, FFact investigated the mass balance of post-consumer textiles collected by Sympany and tracked the sorted fractions downstream. 'Mass balance' refers to the total post-consumer textile collected by Sympany in a certain timeframe. By means of a questionnaire, sixteen of Sympany's direct buyers were asked for information on their downstream buyers and destinations of the textile collected and traded by Sympany. These buyers were selected because they were known to buy fractions of sorted used textiles suitable for recycling. The questionnaire also explained the objective of the project and confirmed third parties that the research and reporting would be confidential, using anonymous and aggregated data. Telephone calls were made to the buyers when the questionnaire generated no response. Of the sixteen buyers, four buyers responded to the request. Three of these buyers indicated that their companies do not trade to India. One buyer in Lithuania, the largest one - purchasing 10-20% of the used textiles collected by Sympany - stated that it is trading to India. This major buyer has been very cooperative in providing the requested information, which has helped to reveal the post-consumer textile value chain towards India. Research 1 was executed in 2018.

2) Research on the post-consumer textile recycling in Panipat by following Sympany's value chain, to clarify what happens with the textiles that Sympany collects and ships to Panipat, and to gain a better understanding of the textile recycling industry in Panipat in general.

For the second research, Sympany's value chain of textiles collected and traded towards India was further investigated. The research was conducted in cooperation with the first buyer in India - an Indian company that purchases used textiles from Sympany's Lithuanian buyer and imports textile in the main ports in Gujarat, India. This Indian buyer had over 30 years of experience in textile recycling and shared part of its trade network in Panipat for this research. Based upon the information of this buyer on imports to India and the recycling industry in Panipat, specific desk research was carried out, including shipping documents provided by the Indian buyer. Based on this desk research, which was commented on by the Indian buyer, a plan for a field study was prepared. The field study took place in November 2018.

The buyer in India introduced the research team to four of its buyers in Panipat and to the All India Woollen and Shoddy Mills Association in Panipat. Visits and extensive interviews to these companies and Association provided insights into the recycling industry in Panipat and India. The interview outline for these visits can be found in **Annex I**. Furthermore, the research team visited smaller sorting factories in another area of Panipat. These were briefly visited and interviews were held, but the visits and interviews were not prepared beforehand. FFact also visited two spinning factories that receive sorted clothing - imported by the Indian buyer - from one of the sorting factories visited. It was not possible to trace all transports that might be of Sympany origin. An overview of the number of companies visited can be found in **Annex II**.

3) Research into the pre-consumer textile, to identify whether this material is processed in Panipat as well, how it is being processed, and whether there is a link with the processing of post-consumer textile in Panipat, including a specific focus on the prevalence of child labour and other (related) labour rights violations for all research components.

The desk research was performed by Arisa, which confirmed that research into pre-consumer residual textile is a rather unknown territory. As part of the website search for information, several people and initiatives were approached to gain more information on the pre-consumer residual textile value chain,

with a focus on cuttings.⁸ This included conversations with researchers engaged in the textile recycling industry in Delhi and Panipat, initiatives targeted at using residual textile for creating new products such as clothing and accessories, and several Indian initiatives and charities engaged in recycling and sustainability. Communication took place via email and Skype calls.

ASK took the following steps to research the processing of pre-consumer residual textile:

1. **Review of literature** to identify stakeholders and issues.
2. **Connecting with textile and garment export factories (Cut Make Trim (CMT) factories)** to understand the generation and trade of pre-consumer residual textile.
3. **Field visits to the three largest markets for fabric waste in Delhi/NCR⁹** to understand the processes followed, the conditions of work (including child labour), and the trade of pre-consumer residual textile towards Panipat.
4. **Connecting with NGOs and Government departments** working on the issues identified in the pre-consumer residual textile supply chain, to gain further understanding on key issues such as child labour, and the initiatives and interventions undertaken by them to address these issues.
5. **Identifying relevant textile recycling units in Panipat** to gain information to prepare field visits.
6. **Field visits and engagement with recycling units and home-based units in Panipat** to understand the processes and working conditions, including the prevalence of child labour.

Annex III contains a more extended description of these steps taken by ASK, as well as an overview of the number of factories and small production units that were visited and respondents that were interviewed for this research.

Additional research was carried out to learn how and during which stages of the recycling process post- and pre-consumer textile might be mixed, and why. Research 3 was executed in the period October 2018 until March 2019.

4) Research on which products are exported from Panipat and to identify buyers of products produced in Panipat, to gain an understanding of the kind of products produced in Panipat and its international buyers.

To gain insight into the export of products produced in Panipat and their buyers, shipment data were gathered and analysed in 2019. For India, the shipment data from 1 January 2016 to 31 May 2019 of all types of transport were analysed at the start of the research. Since this report is published in 2020, additional data analysis was conducted in the beginning of 2020, to present updated data for the entire year 2019.

The shipment data were analysed in a variety of ways, e.g. by name of shipper or trading partner, through HS-codes¹⁰, and by consignee countries. Using a variety of searches, relevant information regarding products shipped from Panipat and their buyers came to light.

⁸ Cuttings are a type of pre-consumer residual textile and refer to the leftover fabric trims that are generated after cutting fabric for garments. They are also called *katran* or *chindi*.

⁹ NCR refers to the National Capital Region in India. It is a metropolitan area which encompasses the territory of India's capital Delhi and includes several neighbouring cities from the States of Haryana, Uttar Pradesh, and Rajasthan.

¹⁰ HS-codes, or Harmonized System codes, refers to an internationally standardised system of names and numbers to classify traded products.

2.2 Research limitations

The research is of an explorative nature, to gain insights into Panipat's textile recycling industry in India. The findings must be viewed in this context, as the scope for the field studies undertaken is limited and does not include the entire textile recycling industry of Panipat. A more extensive study is necessary to grasp all aspects of this industry. Specific limitations and challenges are highlighted below.

Research on post-consumer supply chain in Panipat

The second research served to identify Sympany's supply chain of collected post-consumer textiles to Panipat, and the markets for the products. This means that the findings cannot be considered a complete analysis of value chains and markets in Panipat. The results regard findings of a focussed desk study and structured visits to four larger companies, making the scope of the research limited but appropriate for its aim.

Desk research involved United Nations (UN) statistics of imported textile towards India from different countries per HS-codes. These data have limitations regarding the cover of the number of imported products.

Research on pre-consumer residual textile

Pre-consumer residual textile is a new area for research and has received little attention so far. Therefore, this study attempts to collect information on what happens with this residual textile generated in factories, as a sectorial approach. The study focusses on cuttings generated by garment factories. The paragraph on 'child labour and working conditions' recorded in chapter 4 is based on findings from this research.

Furthermore, gaining access to recycling units in Panipat proved to be a challenge. Not all unit owners were open to conversations with the local research team, and to allow the research team entry to their recycling facilities.

Shipment data analysis

The shipment data do not provide information on the situation further downstream in the supply chain of these products. While performing shipment data analysis, it was noticed any slight difference in company name recorded in the shipment data could cause one company to appear to be two different companies. Therefore, the number of shipments of specific buyers could be higher than indicated in the tables in chapter 5, as some of the shipments from one company may be accommodated under a slightly different name.

2.3 Review procedure

As part of compiling the report, a review procedure was scheduled. During this review, all companies and organisations mentioned in this report were given the opportunity to respond to the data and to clarify any misunderstandings or factual mistakes. They were also asked about the findings of the report, including the identified risks, and the steps they take or are planning to take to mitigate these risks.

The draft chapters of this research report, explaining the methodology and findings of the studies (chapters 2 to 5 of this report), were sent by email to all parties indicated in chapter 5 as buyers of products shipped from Panipat, along with a request for review. An additional email reminder was sent after 12 days if no response had been received yet. The individual responses of the international companies and relief organisations to this request are presented in a separate chapter in this report: chapter 6: Review: responses of international companies and relief organisations. In case of extensive answers, a summary of the information presented is given.

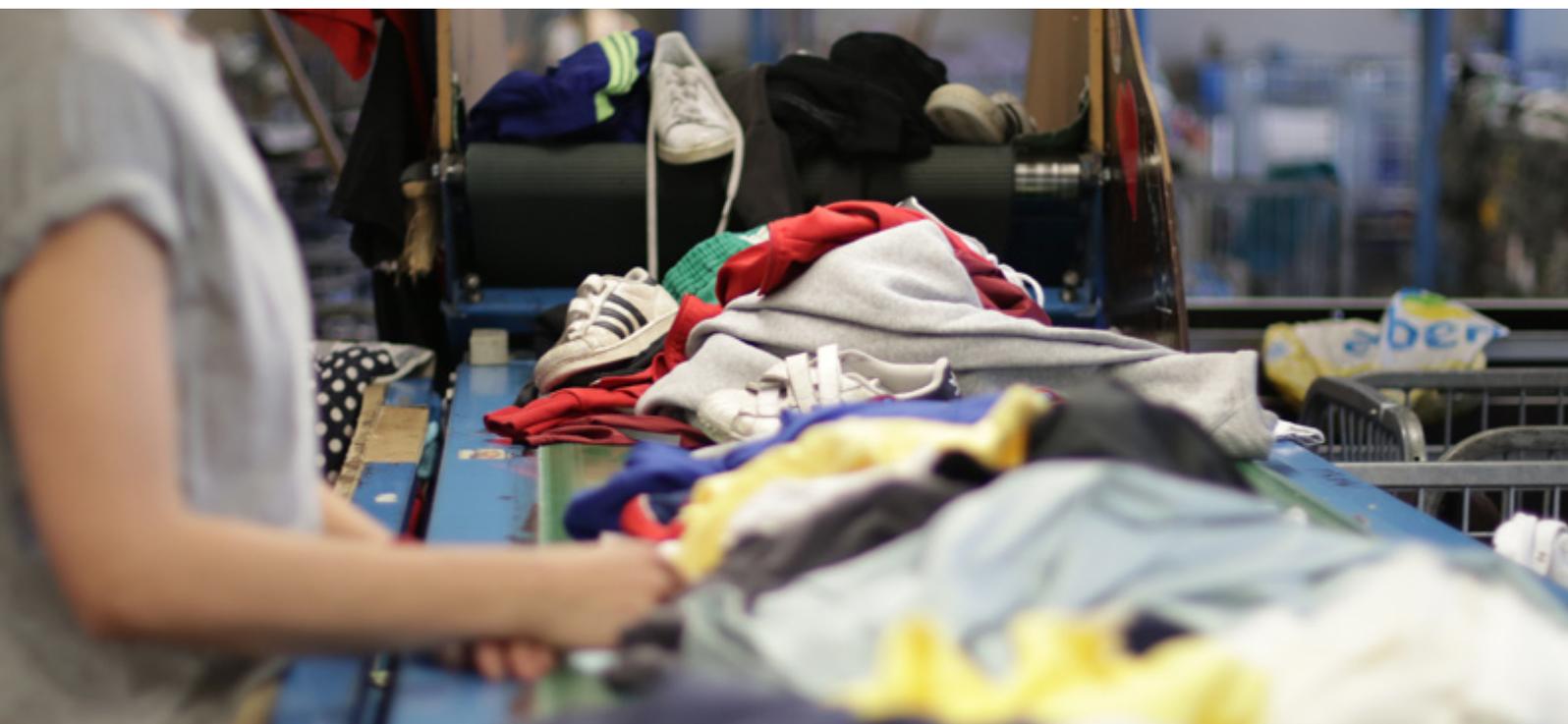
3. The textile recycling industry in Panipat

Both post- and pre-consumer textiles are being recycled in Panipat and made into new products. The following sections explain the residual textile supply chains and the processing for both types of residual textile as discovered in the research. The mass balance of textiles collected and traded by Sympany, being research 1, is presented in section 3.1. Section 3.2 covers research 2, and shows the proceeding of used textiles imported to India. A general overview of the sorting and spinning stages of the textile recycling industry in Panipat is given in this section as well. In section 3.3, the processing of pre-consumer residual textile is explained, referred to as research 3.

3.1 Textile collection and trading by Sympany

Sympany addresses adverse impacts on the environment and people in their value chain. Under the assumption that part of the non-wearable textiles - i.e. recycle qualities - collected and traded by Sympany may end up in Panipat through intermediary recycling companies, Sympany decided to investigate its value chain. As there was no direct evidence that confirmed the shipment of post-consumer textile collected by Sympany to India, Sympany contracted FFact to investigate the mass balance of their collected post-consumer textiles and track the sorted fractions of post-consumer textiles in their value chain. The research on the mass balance of the collected textiles by Sympany comprises the textiles collected by Sympany in the years 2016 and 2017.

Sympany collects discarded post-consumer textile in textile containers placed in various cities and municipalities in The Netherlands. The collected textile is transported to four sorting centres owned by Sympany and located in The Netherlands. In the sorting centres, 20% of the collected textiles is sorted in



Sympany's sorting centre in Utrecht, source: Sympany

sixteen different fractions, based on product type and quality,¹¹ and sold to traders. The remaining 80% of the collected textile is cleared of waste that citizens dispose of in the Sympany's textile containers. After the waste has been removed, this category of textile is sold to recycling companies as 'Original' – re-wearable and non-wearable textiles – in big bags or loose, in bulk. In total, Sympany collected 43 million kg of used textiles in 2016 and 2017.

The capacity of Sympany's sorting centres is limited, and therefore, the majority of the textiles is sold to other recycling companies and sorting centres. Sympany has 80 to 90 registered buyers with which it has done business during the past few years. Out of these buyers, ten large buyers purchase over 1 million kg of textile collected by Sympany per year and sixteen buyers purchase between 100,000 and 1 million kg. The remaining buyers purchase less than 100,000 kg of used textile annually. The sorting methods and standards of the buyers, e.g. the fractions determined for recycling, are similar to Sympany's sorting methods.

The 'Original' fraction as processed by Sympany is further sorted in professional and modern sorting centres. These sorting centres are located in The Netherlands, the Baltic states, Eastern Europe and Turkey. In these centres, the post-consumer textile is fine-sorted in up to 300 different fractions based on quality, product type, kind of material and colour. The fine-sorted fractions are traded to other companies for reuse, further treatment and recycling. In interviews, several buyers confirmed that approximately 25% of the sorted textile is not re-wearable and is sold for recycling to other recycling companies and textile traders. This is similar to the percentage of the collected and sorted textiles that Sympany determines suitable for recycling. The fractions that are typical for trading to India are rags and woollen or winter clothing with no reuse market, due to quality and style.

Sympany's buyers that purchase textile fractions relevant for potential sale to India and recycling in Panipat were questioned about their trading partners and the destinations of the textiles they source from Sympany. Furthermore, shipping documents of one of Sympany's major buyers in Lithuania were assessed. These showed that textiles bought from Sympany by its major Lithuanian buyer were shipped to India. The Indian buyer confirmed that they were forwarded to Panipat. Based on the buyers' information, an estimated 1 million kg of used textiles collected by Sympany – 5% of the total annual weight of collected textile – is traded to India and Panipat for recycling each year. For 11% of the total annual weight of textiles collected by Sympany no information is available and the destination remains unknown. A part of this share might be traded to India as well.

Information on the source of the used textiles was gathered during visits and interviews with factory owners in Panipat. All interviewed owners of the larger factories in Panipat have contacts with several post-consumer textile traders, among them Dutch textile traders, but do not trade directly with Sympany. During this phase of the research it became clear that some of the post-consumer textile collected in The Netherlands reaches Panipat. However, at the time it was not possible to trace textiles in the stocks back to Sympany.

¹¹ The number of fractions may differ per year, depending on the market demand.

3.2 Post-consumer textile recycling in India and Panipat

The research on the processing of post-consumer textile in Panipat mainly focusses on sorting, shredding and spinning. The data presented for the basic structure and characteristics of the textile recycling industry in Panipat was gathered through interviews and documents of four selected companies in Panipat, being two cleaning and sorting companies and two large spinning mills.

Import of post-consumer textile in India and Panipat

Textile recycling companies in India import used textiles directly or through traders from the US, Canada, South Korea, the United Arab Emirates, and European countries such as The Netherlands, the United Kingdom, Poland, France, Belgium, Bulgaria, Hungary, Slovakia, and Germany. When imported, the used textiles arrive in Kandla, a port in Gujarat state. Usually, the used textiles are baled in containers. After arrival, the Indian importers or the larger spinning mills in Kandla Special Economic Zone (KASEZ) and/or Panipat transport the containers by lorry or train to Panipat.

Kandla and Mundra, another port close to Kandla, are upcoming areas for textile recycling, where larger companies import used textiles and have their own warehouses, sorting centres, and logistic arrangements. Some of these facilities are located in KASEZ. The most common qualities or fractions of used textile that are imported are: 1) sweaters (wool, acrylic, cotton); 2) wool body (jackets, trousers, skirts, etc.); 3) denim (jeans and jackets) and 4) textile remains - the textile that remains after it has been separated from the first three fractions. Clothes from US are the best quality for wool and acrylic, because of the loose texture of the clothing. Loose textured clothing facilitates the production of longer fibres and thus better yarn.

Trade statistics of Eurostat and the UN were used to gain insight in the international trade of used textiles.^{xiv} The Eurostat statistics provide information on the export of used textiles from The Netherlands to other countries. Searches were done based on HS-codes. Used clothing is filed under HS-code 6309, and rags are filed under HS-code 6310. The used clothing traded to India under HS-code 6309 consists of the left-over clothing after sorting out the reusable qualities for second-hand markets in Africa and Eastern Europe. From 2008 to 2017, on average 4.4 million kg of used clothing, and 9.3 million kg of rags were exported from The Netherlands to India each year. As a major part of the used clothing and rags are exported to India through intermediary sorting centres and textile traders located outside The Netherlands, the data do not give a full picture of the exports of used textile from The Netherlands to India.

The UN statistics provide information on the used clothing and rags imported into India from different countries. It must be noted that the researchers consider the reliability of these data doubtful because of the many gaps observed in the data and the unexplained variances that exist in the available data. The table below presents India's total import of used clothing and rags over the past 10 years.

Table 1: Exports towards India in million kg per year

HS-codes	Description of HS-code	2008-2016 (range)	2017 estimate
6309	Clothing; worn, and other worn articles	140 – 265	250
6310	Rags; used or new; scrap twine; cordage; rope, cables and worn out articles of twine; rope or cables of textile materials	74 – 130	80
Total		240 – 350	330

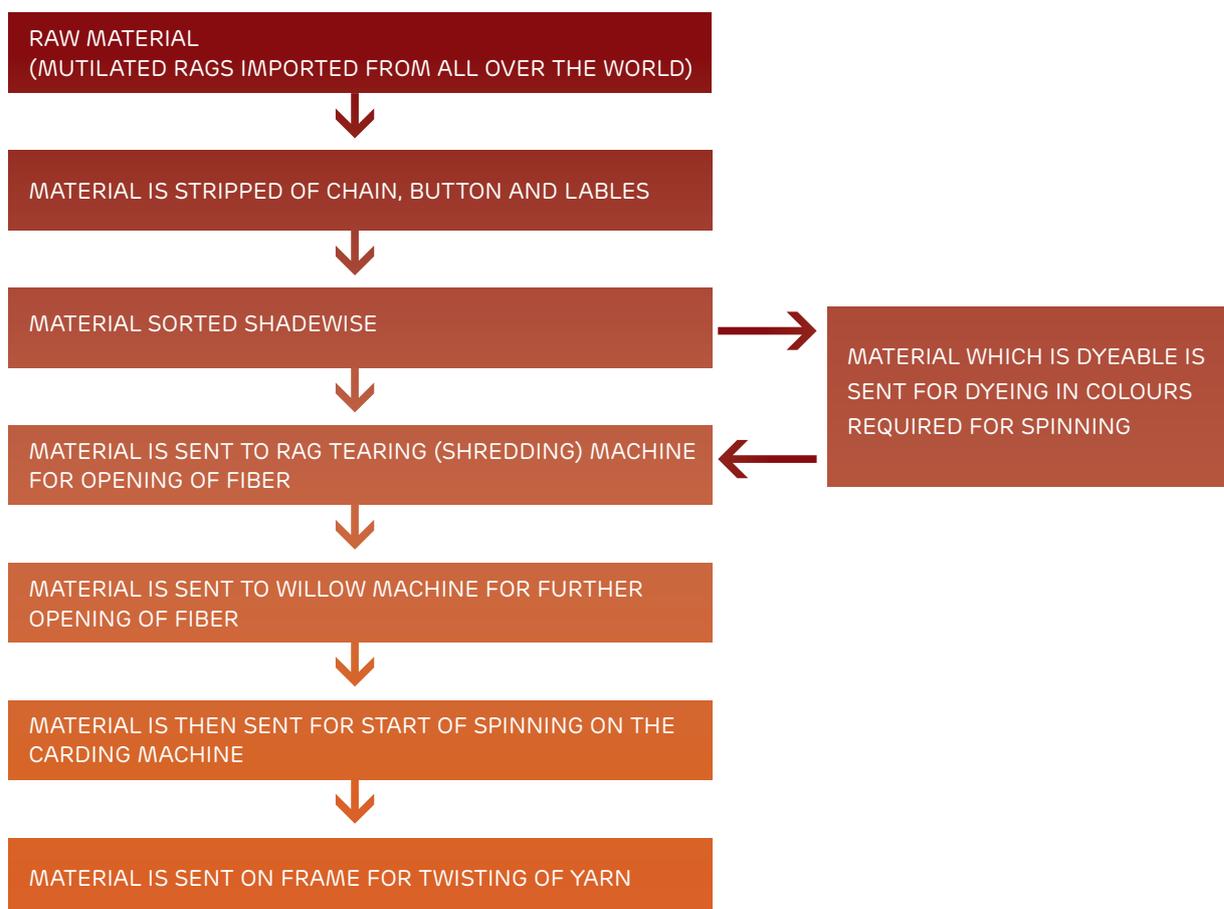
Estimates of the import of used textiles in India in 2017 are based on the available data for 2017, with an extrapolation from 2015 and 2016 in the absence of data. The data are highly influenced by the export volumes from Bangladesh to India and only few data are available for recent years. The latest data show that India imported 56 million kg of used clothing and rags in 2015. Besides Bangladesh, according to UN data the main exporting countries of used textile to India in 2017 are the USA (100 million kg), Europe (75 million kg) and South Korea (50 million kg). These numbers also came up during interviews with larger factory owners during fieldwork in Panipat.

By law, the import of re-wearable post-consumer textile is forbidden in India. Therefore, only mutilated (slashed) clothes can be imported. This mutilation is done at the border, upon arrival in India.^{xv} However, during visits to sorting units in Panipat, it was noticed that in some sorting units non-mutilated imported clothing was present and partly sold to second-hand market retailers. The owners of two sorting units explained that, when a new load of used clothing arrives in these sorting units, second-hand market retailers have first pick in gathering clothing for the second-hand market. After this, the usual sorting procedures related to recycling start. In addition, it is known that there is a business model for people who repair mutilated imported post-consumer clothes to be sold in the second-hand market in India as well.^{xvi}

Basic structure and characteristics of the textile recycling industry in Panipat

The textile recycling industry in Panipat can be divided into (i) sorting, (ii) spinning and (iii) making various products through weaving and other techniques.

Figure 1: General process of post-consumer textile recycling



Source graphic: FFact



Small-scale spinner in Panipat, source: *Sympany*

There are six larger spinning companies located in Panipat and five larger sorting companies. The larger spinning companies have machinery to colour, wash, shred, card and spin. Some of these companies also have a licence to import used textiles in KASEZ. The larger sorting companies have a warehouse for storage and spaces for cleaning, sorting and stocks. In smaller factories no machines are used in the process, spinning is done by hand, the storage space for sorted textiles is very limited, and there are separate bleaching and dyeing units.

Based on information gathered during visits and interviews, the following characteristics of sorting and spinning factories and units can be given:¹²

- Larger and medium scale recycling factories with a total workforce of approximately 15,000 workers. The larger sorting and spinning factories generally receive a much better input quality than the small-scale factories. In total, there are 140 production lines¹³ in the larger and medium-sized spinning factories. Because of the scale of their business activities and their production, the larger factories are doing relatively good business in terms of revenue. The larger companies indicated they have their own supply chain and regular workforce. Any outsourcing¹⁴ at these companies was not investigated. Consulting agency FFact visited four large companies and six smaller factories in Panipat during field work on the Sympany supply chain mapping in November 2018. One of the larger companies visited by FFact was certified for ISO 9001 and the Global Recycled Standard (GRS).¹⁵ The GRS is a standard for products with recycled content. It defines requirements on transparent supply chains, working conditions, and environmental and chemical impact.¹⁶ The other companies and factories visited by FFact did not have any of the audit schemes or certifications mentioned.
- Small-scale factories with a total workforce of approximately 12,000 workers and a large differentiation of operating conditions. They sort and clean material that is unfit for the large and main spinning industry, such as polyester jackets. The margin between in- and output prices is exceedingly small compared to the larger industry. They have low to no investment costs in machinery, they invest in housing and workforce. It can be noted that these factories are unlikely to receive imports of post-consumer textiles collected by Sympany. The input quality that was observed does not originate from the sorting plants that buy textiles from Sympany and trade to India.

¹² Figures on workforce are best estimates.

¹³ A production line consists of all stages from the supply of used textile to the spinning of yarn. A total of 50 to 90 workers can be involved in one production line.

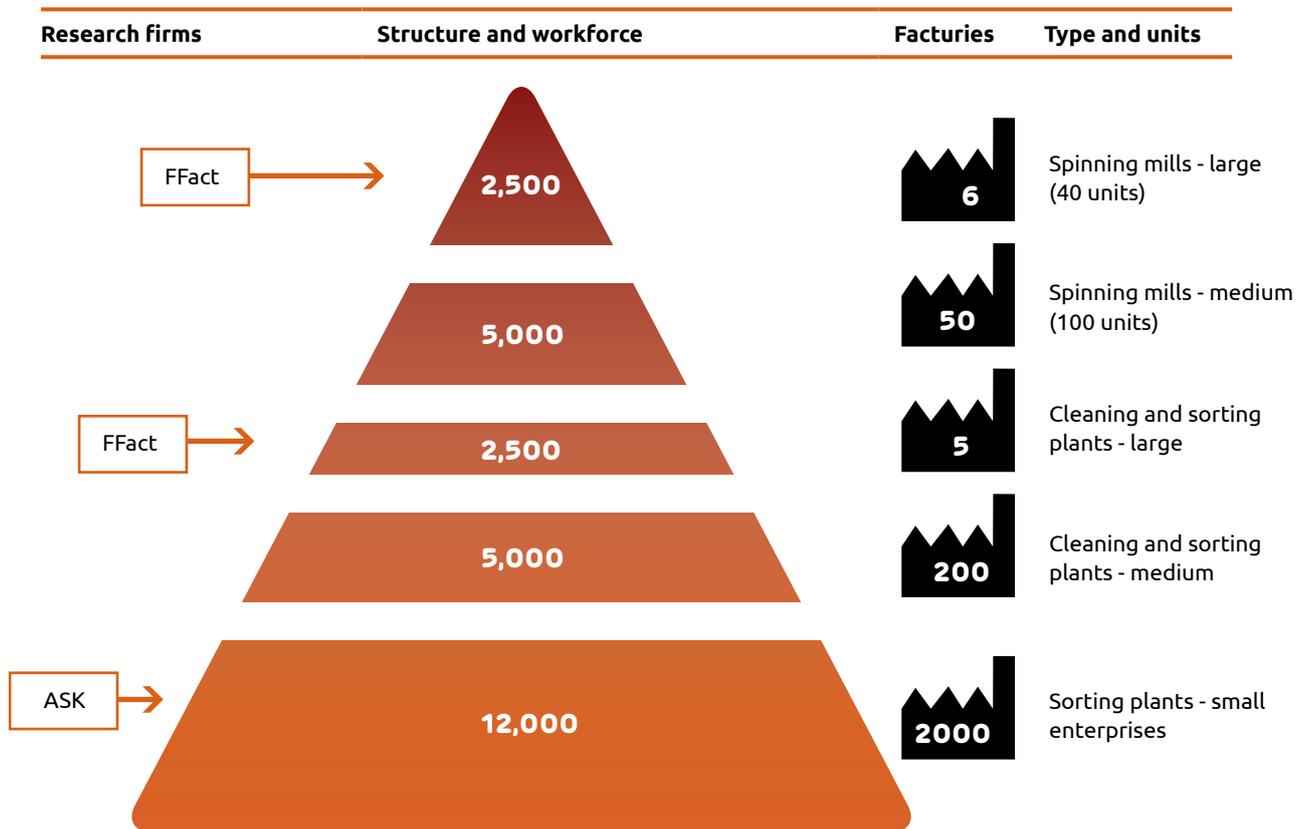
¹⁴ Outsourcing refers to companies transferring part of their activities to other units.

¹⁵ The Global Recycled Standard (GRS) is an international, voluntary, full product standard that sets requirements for third-party certification of Recycled Content, chain of custody, social and environmental practices, and chemical restrictions'. Source: <https://textileexchange.org/wp-content/uploads/2019/11/GRS-v4.2-Implementation-Manual.pdf>.

¹⁶ A check of the audit process itself was not within the scope of this research.

The graph below shows an overview of the sorting and spinning factories in Panipat described above:

Figure 2: Overview of the sorting and spinning industry in Panipat



Note: This graphic does not include numerous little units and home-based units where waste is segregated, textile is bleached or fibres are made, nor the weaving enterprises and units.

Source graphic: FFact

The graph also shows in which segments of the industry any research was conducted. It is important to mention here that weaving and other manufacturing factories and units are not included in this graph, nor the smallest units that partially clean, bleach, dye, shred, and sort textile, including home-based units. This is because none of those units are registered. These type of units were visited for the research on pre-consumer residual textile commissioned by Arisa, referred to as research 3.

Products and markets of Panipat's sorting and spinning industry

The sorting and spinning factories that process used textiles in Panipat are usually set up to produce recycled yarn. This yarn is sold to weaving companies and other manufacturing units in and outside of Panipat. The most common end-products are (relief) blankets, carpets, and household textiles. Depending on the coarseness of the recycled yarn, it is also used for making throws, rugs, doormats, bathmats, shawls, and various handloom products. The products are mainly exported to European countries, the US, Canada, Australia, and Japan, and sold at the Indian markets and for government supplies.¹⁷ The recycled yarn is exported as well, to worldwide destinations such as Kenya and Colombia, to be used in the weaving industry.

¹⁷ Information on international buyers can be found in chapter 5 of this report.

Besides being used to produce recycled yarn, left-over garments are cut into squares to be sold as industrial wipers for the paint, chemicals, and construction industry for both local and international buyers. High-quality pieces of textile are baled for export to, for instance, Prato, a textile hub in Italy. In such cases, the specific sorting - the labour-intensive precise quality assessment part of the process - is performed in India, in Panipat; the capital-intensive part, being the high-quality yarn production, is located in Italy. Shredded textile is also used to stuff pillows and mattresses.^{xvii}

Prices of products made from yarn or shredded textile vary from EUR 0, 5 per kg (pressed blanket from shredded material) to EUR 5 per kg for shawls. Blankets made from recycled yarn are sold for EUR 1 to 2 per kg and are still the main product made from yarn of recycled textiles.^{xviii}

The larger spinning factories state that the market position of yarn made out of used textile has improved from 2017 onwards and inputs have grown. The best performing factories do not complain about the market, although prices remain low because of the strong competition from fleece products. The better spinning mills are ready to invest in improved quality lines of spinning, e.g. to produce yarn that is suitable for clothing, as it is done in Prato. Also, the larger sorters see potential for improving and growing their business by producing better quality yarn.

3.3 Pre-consumer textile recycling in Panipat

Pre-consumer residual textile is the residual textile that is generated in the various stages of the manufacture from fibre to fashion. These stages include spinning, weaving, knitting, cutting, and sewing. It is also referred to as 'clean waste', or 'manufacturing waste'.^{xix} All steps in the garment making process produce their own specific residual textile. There are several types of pre-consumer textile, such as comber noil¹⁸, thread, left-over fabric, accessories, and rejected garments. There is a demand for pre-consumer textile because of the large number of applications. For example, residual textiles of different fibre categories are recycled and used in making thread, yarn, paper, tissues, surgical products such as bandages and pads, used in the automobile industry, to mix with cement to give it more strength at the time of construction, and as manure for mushrooms.^{xx} Pre-consumer textile is not only sourced and supplied all over India, but is also exported to foreign countries and imported to India.^{xxi}

Garment trims, or cuttings, are part of the pre-consumer textile^{xxii}. It is said that cuttings¹⁹, called *katran* or *chindi*, are the largest material residual textile within the textile and apparel production stages.^{xxiii} In India, there is no systematic residual textile management policy^{xxiv}, which leads to a varied handling of the material, with a self-developed, highly informal economy as a result. Research agency ASK conducted research on the pre-consumer residual textile that is processed in Panipat, referred to as research 3. The processing from garment factory to end-product as found through this research, with a focus on cuttings, is described below.

The processing of cuttings from Delhi to Panipat

India is one of the world's largest producers of garments and textiles, with Delhi/NCR being one of the major garment hubs. The waste that is generated in the process of garment manufacturing in Delhi/NCR is stored within the factories. It is sold in bulk to small and large contractors that may have hired labour, as well as independent collectors, locally known as *kabadiwalas*. After buying the cuttings from the factories, these scrap dealers take the cuttings to their storage units (in case of large collectors) or directly to the slum areas in Delhi where the cuttings are separated. In order to secure their deals, the collectors deposit money with the factories, and as they purchase cuttings, the amount is deducted from the deposit. The frequency of selling and collecting the cuttings varies greatly, from weekly, fortnightly,

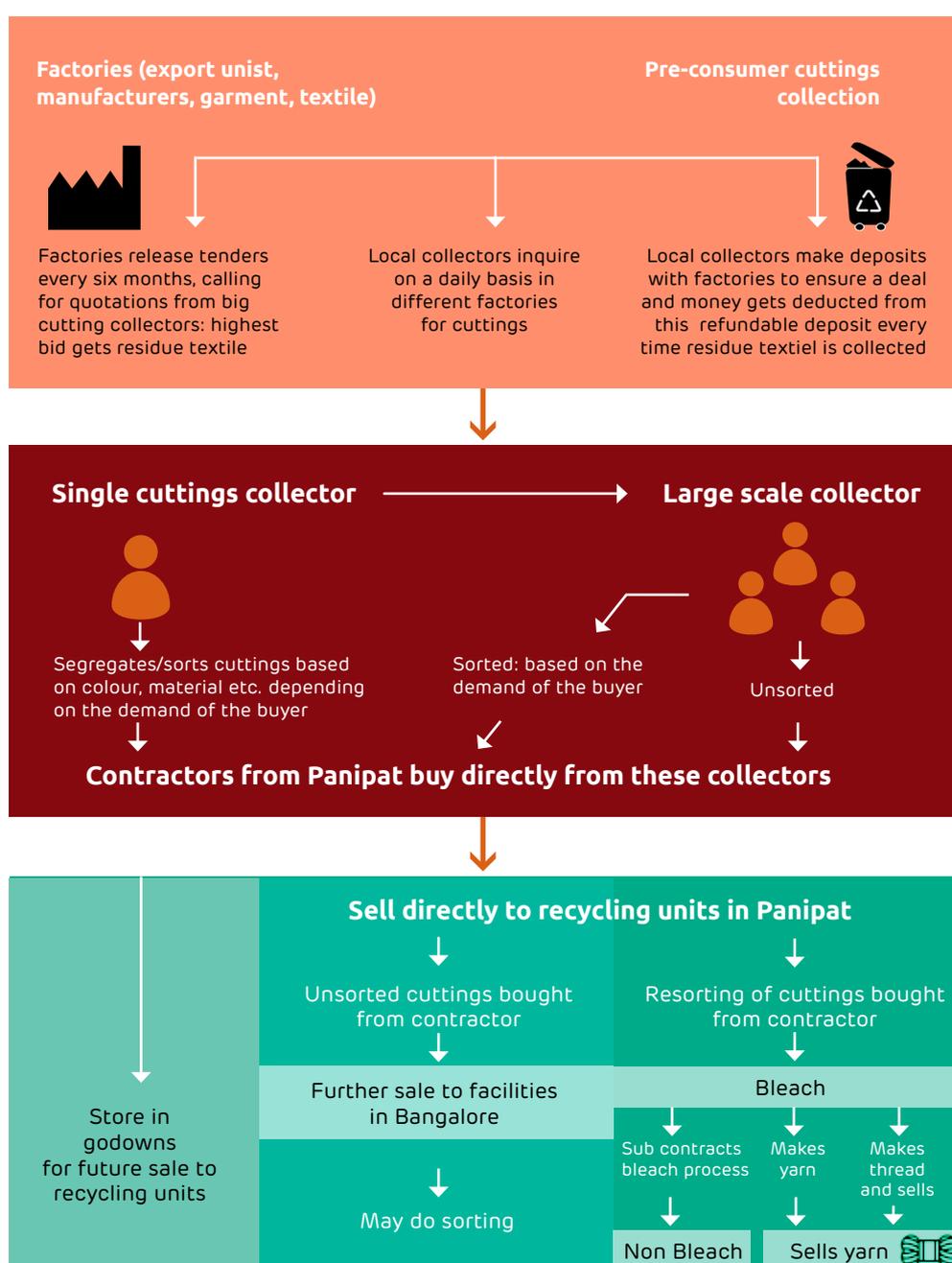
¹⁸ Comber noil is the short fibre left over from combing wool.

¹⁹ Cuttings are the leftover fabric trims that are generated after cutting fabric for garments.

monthly to six-monthly collections, depending on the size of the factory, and depending on seasonal peaks as well.

After buying the residual textile, the cuttings are sorted. Some large-scale collectors have their own rented spaces where the sorting work takes place. Smaller collectors depend on homeworkers and family members, sorting the cuttings on the side of the road in front of their houses within the communities. The cuttings are sorted based on length, size, colour, and fabric type, such as cotton, wool, and acrylic. All kinds of fabric can be found in the cuttings. Contractors or agents from Panipat buy the cuttings from the collectors in Delhi/NCR. Two supply chains were identified in the study, each having several pathways to handle the cuttings, and ways of ending up in Panipat. The identified supply chains are displayed in the following graph:

Figure 3: Identified supply chains for cuttings generated in garment factories in Delhi/NCR



Source graphic: ASK

In Panipat, the cuttings are further sorted, depending on the demand, and sold to recycling units, carpet factories, and home-based units. Recycling the cuttings constitutes of bleaching, washing, shredding, and converting the shredded material into recycled yarn. Recycling units may undertake this full process in their facilities or outsource some of the proceedings to bleaching and washing, shredding, or spinning units. The recycled yarn is mainly used for making carpets, rugs, blankets, and other home textiles, for the domestic as well as for the international market. Regarding prices, it was noted that recycled cotton yarn is one-fourth of the costs of fresh cotton yarn.



Blankets for sale in Panipat, source: Arisa

Home-based units are part of this supply chain as well, as, for example, weaving carpets takes place in carpet factories as well as in home-based units. The carpets made in home-based units may be outsourced from factories, or independently made for selling on the domestic market. Part of the yarn produced in Panipat, that may contain both pre- and post-consumer textile, is sold to textile hubs in India and exported to countries like Bangladesh, Nepal, Kenya, and Ethiopia.

There is also a local market for cuttings in Panipat. However, factory owners do not buy cuttings directly from a supplier. All purchases go through middlemen and agents, there is no direct contact between factory owners in Panipat and the garment factories in Delhi/NCR.

Not all cuttings are bleached and shredded. Part of the new cuttings are used to make a specific type of carpet, using the cuttings as raw material. This may be done in carpet-making or in home-based units.



Carpets made out of cuttings in Panipat, source: Arisa

3.4 Mixing of post- and pre-consumer textiles in recycling

At different stages of the recycling process, such as sorting and shredding, post- and pre-consumer textiles are mixed. Even though the quality of new cuttings may be assumed to be superior to that of post-consumer textile, the mixing is not meant to improve the quality of end-products but to match certain desired quantities. Therefore, cuttings are only bought if the price is similar to imported post-consumer textiles. The mixing means that the recycled yarn produced in Panipat may consist of both post- and pre-consumer residual textile. And that as a result, the products made of this recycled yarn may find their origin in both textile chains. Research and various visits to Panipat have determined that Panipat's recycling industry cannot be divided into a post-consumer and pre-consumer textile industry. Their entries come from different parts of the textile industry, yet, the two types of residual textile are part of one larger industry that comprises of all the components described in the sections above.

The larger sorting and recycling units in Panipat that buy imported clothing and cuttings may be registered, but the major part of all processes is completed in an informal sector with unregistered units and workers, that depends on agents and middlemen in local networks. The International Labour Organization states that 'without formalisation, decent work and equity in society will remain an illusion'.^{xxv} An informal economy entails risks of child labour and labour rights violations. The findings on child labour and other labour issues found within the studies addressed in this report are clarified in the next chapter.

4. Child labour and working conditions in the Panipat textile recycling industry

Research 3 on the processing of pre-consumer residual textile involved visits to sorting and recycling units and interviews with workers and factory owners, to gain insight into the trading and recycling of the cuttings. The field visits and interviews brought insight into child labour and working conditions as well. Section 4.1 briefly highlights the relevant laws regarding child labour and labour rights as applicable to the region of Delhi/NCR and Panipat, and related international standards. This serves as a contextual framework in which issues on child labour and working conditions are placed. The findings on child labour and working conditions are presented in section 4.2.

4.1 Indian labour laws and international guidelines

Indian labour laws

The Indian Constitution provides basic directions regarding conditions of employment and the right of work. The minimum wage is governed by the Minimum Wages Act, 1948. The payment of wages below the set minimum wages is regarded as forced labour.^{xxvi} The Delhi Minimum Wage Notification, 2018, has set the minimum wage for unskilled labour at Indian Rupees (INR)²⁰ 538 for an 8 hour working day.^{xxvii} For Haryana, the Indian state where Panipat is located, the Haryana Minimum Wage Notification, 2018, has set the minimum wage for unskilled labour at INR 326 for an 8 hour working day.^{xxviii}



Entrance of bleaching unit in Panipat, source: Arisa

²⁰ The amount of INR 538 is equal to 6.43960 Euros, using the currency converter of OANDA: <https://www1.oanda.com/currency/converter/>, accessed June 2, 2020.

In accordance with The Factories Act, 1948, the health, safety and welfare of workers must be ensured. The Factories Act, 1948, prescribes that a working environment must have proper lighting and ventilation (section 13 and 17) and that buildings and machinery must be safe (section 40). Workers should have access to toilets (separate toilets for men and women, section 19) and drinking water (section 18) as well. Furthermore, this Act entitles all workers to weekly holidays (one day off per week, section 52) and one day of paid leave for every twenty days of work performed, if they have worked for at least 240 days in the previous calendar year. This amounts to a legal minimum of 12 days of paid leave per year (section 79).^{xxxix}

The Employees' Provident Funds and Miscellaneous Provisions Act, 1952, entitles workers to social security benefits. Through the Employees' Provident Fund Scheme (EPF; also known as PF), a state retirement benefit or pension fund was constituted for all salaried employees working at organisations employing more than twenty people. State healthcare is provided through the Employees' State Insurance (ESI) Act, 1948. Employees' State Insurance clinics and hospitals across India provide free healthcare to employees and their families.^{xxx}

In 1979, the Indian Parliament passed the Inter-State Migrant Workmen (Regulation and Conditions of Service) Act, 1979, regarding the recruitment and employment of migrant workers. The Act focusses on the protection of interstate migrants who are recruited through contractors or middlemen, and those companies that employ five or more interstate migrant workers.^{xxxi}

In June 2017, India ratified ILO Convention No. 138 on Minimum Age and the ILO Convention No. 182 on the Worst Forms of Child Labour, and amended its laws. The Child Labour (Prohibition and Regulation) Act, 1986, now prohibits employment or work by children younger than 14 years in any occupation or process, except in family enterprises before and after school hours. The Act now also prohibits the employment of persons from 14 to 18 years in hazardous occupations and processes.^{xxxii}

To reduce the complexity of compliance that results from the multiplicity of Indian Labour Laws, labour law reforms were announced by the Indian Government in 2019.^{xxxiii} According to the Centre of Indian Trade Unions (CITU) the so-called labour law reforms, which replace the existing laws with four codes, will push back and dilute the rights and protection of workers under the existing labour laws.^{xxxiv}

International guidelines on Responsible Business Conduct

Companies and organisations that operate on international markets must follow international standards on Responsible Business Conduct (RBC). The 2011 United Nations Guiding Principles on Business and Human Rights (UNGPs) comprise the states' duty to protect human rights, the responsibility of enterprises to respect human rights, and access to remedy for victims of business-related abuses. UN Guiding Principle 17 states that one of the steps of human rights' due diligence is assessing how a company's activities and business relationships may pose risks to human rights. UN Guiding Principle 18 points out that business should draw on internal and/or independent external human rights expertise to gauge human rights risks. Furthermore, publicly disclosing relevant details such as findings on human rights risks and abuses arising in operations and steps taken towards mitigating these risks and abuses, as well as the results of audits or assessments, is required by UN Guiding Principle 21.^{xxxv}

The OECD Guidelines for Multinational Enterprises (2011) describe the expectations of government to businesses on how to act responsibly. These guidelines include business responsibility on human and labour rights, and information disclosure. The OECD Guidelines for Multinational Enterprises provides for a set of principles and standards that supports businesses in adhering to RBC. This responsibility includes performing a due diligence, understood as a process through which enterprises actively identify, prevent, and mitigate their potential and actual adverse human rights impacts. The following steps are part of the due diligence process as described in the OECD Guidelines: 1) embed RBC in policies and management systems; 2) identify and assess adverse impacts in operations, supply chains

and business relationships; 3) cease, prevent or mitigate adverse impacts; 4) track implementation and results; 5) communicate how impacts are addressed; 6) provide for or cooperate in remediation when appropriate.^{xxxvi} To provide practical support to companies on the implementation of the Guidelines, the OECD Due Diligence Guidance for RBC was released in 2018.^{xxxvii}

In 2017, the OECD Due Diligence Guidance for Responsible Supply Chains in the Garment and Footwear Sector was adopted.^{xxxviii} These guidelines detail the RBC of companies in the garment and footwear sector. The Introduction to the environmental modules (p. 159) includes the following section: "*End of life: The overall impacts of a product on the environment are also affected by whether the product goes to landfill or whether it can be reused or recycled and the ease of reuse and recycling. Additionally, products with very short use phases (e.g. worn for only 3-6 months), may contribute more to resource depletion than longer-lasting products.*" Furthermore, the guidelines encourage enterprises to consider the environmental impacts of a product across its full life cycle. No detailed guidance is provided on the responsibility of enterprises throughout the textile supply chain with regard to human rights and labour rights abuses in the recycling of post-consumer and pre-consumer textile.

However, performing due diligence in line with the OECD Guidelines applies to all companies in upstream, downstream and side-stream supply chains. Because post- and pre-consumer residual textiles are linked to the operations, products or services of companies throughout the textile supply chain, all enterprises in the textile and garments industry also have a responsibility to prevent and address human rights violations in the textile recycling chain.

4.2 Findings on child labour and working conditions in recycling units in Panipat

ASK conducted research into the processing of textile cuttings, starting from garment factories in Delhi/NCR to end-products in Panipat. See **Annex III** for an overview of units visited and respondents interviewed for this particular study. The main findings of this research regarding the background of workers, working conditions, and child labour is highlighted in this paragraph.

The first stage of the processing of textile cuttings produced by garment factories in Delhi/NCR takes place in this capital area, where the cuttings are either stored or sorted. The sorting is done in slum settlements. The workers are mostly women and their young family members living there. They are migrants from Uttar Pradesh, Bihar, West Bengal and Rajasthan, who have come to Delhi/NCR because of a lack of income opportunities in their areas of origin. The loading and unloading of textile cuttings in lorries is done by men. Wages are below minimum wage rates, with a clear gender disparity. Wages between INR 120 and 170 per day were recorded for women, and INR 400 to 500 per day for men. The minimum wage for unskilled labour set by the Delhi Minimum Wage Notification, 2018, is INR 538 per day.

In Panipat, sorting units, bleaching units, fibre making units, yarn making units, and dari²¹ and carpet making units (factories as well as home-based) were included in the research. In general, most of the sorting and recycling units in Panipat are unregistered. For all units included in this particular study there are no written employment contracts, it is all casual labour. Women comprise the largest part of the workforce. Low wages are common, with a clear gender disparity. Wages between INR 150 and 200 were recorded for women, which is below the minimum wage of INR 326 per day for unskilled labour set by the Haryana Minimum Wage Notification, 2018. The wages for men vary from INR 300 to 700 per day. Social benefits, Provident Fund (PF), ESI, and maternity leave and paid leave are also not given to the people working in these units. Constant exposure to dust and lint from the fabrics, joint pains from bad working postures, lack of lighting and ventilation, and no access to drinking water or toilet facilities are common issues. Children and young workers of 14 to 18 years of age were found in various stages of the

²¹ A dari is a thin flat-woven rug or carpet.

recycling process, from sorting to bleaching to carpet weaving in home-based units. The processes are operational seven days of the week.

No Personal Protective Equipment (PPE) is provided to the workers of the units visited, which is especially noteworthy regarding workers in bleaching units. The involvement of chemicals and acid in the bleaching process provides specific hazardous circumstances within these units. Bleaching is done by soaking the fabrics in a mixture of acid and bleach in large cement tanks placed in the open air. Chemicals are stored near the working area in open containers without any cover. No chemical safety-related measures are available in the unit, and workers are not trained in how to handle the chemicals. Wastewater is released in open drains, as there is no system for safe wastewater disposal. At times, workers are forced to leave their living accommodation near the work area and move to the other side of the unit because of the release of poisonous gas during the bleaching process.

The workers across all units visited come from poor socio-economic backgrounds, both in Delhi/NCR and in Panipat. In Delhi/NCR, all workers found in the study are interstate migrants, whereas in Panipat, both local and interstate migrants work in this particular supply chain.

The table below provides an overview of the most prevalent labour rights violations found per type of unit (a more extensive overview is inserted as **Annex IV**):

Table 2: Overview of identified labour rights violations

	Child labour	Casual labour/ no written employment contract	Non-payment of minimum wages	Health & safety					Limited or no provision of social benefits
				Exposure to dust/lint	No drinking water and toilet	No PPEs	Exposure to chemical substances	No proper lighting & ventilation	
Sorting in Delhi	x	x	x	x	x	x			x
Sorting in Panipat	x	x	x	x	x	x		x	x
Bleaching unit	x	x	x			x	x		
Fibre & yarn making unit	x	x	x	x	x	x		x	x
Carpet making unit	x	x	x	x		x		x	
Home-based carpet and rug making unit	x	(outsourced labour from factories)	x			x			

As can be seen from the data presented above, the units visited for research 3 are unregistered and do not provide formal employment contracts. The units do not fall under the existing laws that cover the organised sector, as they are part of an informal economy, comprising a range of labour rights violations. Child labour is prevalent in all types of unit. Low wages and the lack of PPE are found in all units visited.

5. Products exported out of Panipat, and its international buyers



Blankets produced in Panipat, source: Arisa

To understand which kinds of product are exported out of Panipat and who the buyers of these products are, a shipment data analysis was executed, using export data²².

5.1 Details on exported products from Panipat and its main receivers

Export shipments in quantity, value, and type of products

In 2019, around 33,000 shipments were sent from Panipat to buyers worldwide, with an indicated value of 1.4 billion US dollars. The data collected for this analysis show that there is a yearly increase in the total number of shipments within the available timeframe (covering 2016 to 2019), except for 2019. The value of exports increased for all available years. The export activities out of Panipat seem to be active and growing. A top five of exported products out of Panipat can be identified, constituting the vast majority of products shipped from Panipat. The products are categorised under HS-codes²³, described in the table below:

Table 3: Main products exported from Panipat

HS-code	Description
5702	Carpets and other textile floor coverings; woven (not tufted or flocked), made up or not, including kelem, schumacks, karamanie and similar hand-woven rugs
5703	Carpets and other textile floor coverings; tufted, made up or not
6304	Furnishing articles excluding those of heading no. 9404
5705	Carpets and other textile floor coverings; not elsewhere classified in chapter 57, made up or not
9404	Mattress supports; articles of bedding (for instance mattresses, quilts, eiderdowns, cushions, pouffes and pillows), fitted with springs or stuffed, covered or not

²² Export data was obtained through the global trade data platform Panjiva.

²³ HS-codes, or Harmonized System codes, refer to an internationally standardised system of names and numbers to classify traded products.

As shown above, carpets and household textiles are the most shipped products. The Netherlands received 451 shipments from Panipat in 2019, with an indicated value of 8.8 million US dollars. The top five export products shipped to The Netherlands equal the worldwide shipments, although in a slightly different order.

Main receiving countries and buyers

The US are by far the largest receivers of shipments sent from Panipat, for all three relevant years. A total of 10,084 shipments were sent to the US in 2019, which is about a third of all shipments sent from Panipat for this particular year. A similar growth to that of the general export data could also be seen, indicating a growing demand in the US for products shipped from Panipat. To understand which countries are mostly linked to the textile industry in Panipat based on shipment data, the main receiving countries for 2019 are displayed below:

Table 4: Main receiving countries of products exported from Panipat

2019	
Name of country	Number of shipments sent from Panipat
US	10,084
Nepal	5,091
UK	2,422
Australia	1,951
Germany	937
France	878
Canada	859
Italy	739
Japan	711
Poland	466
The Netherlands	451

The Netherlands is eleventh on this list with 451 shipments for 2019. Although the number of shipments clearly is much lower than the number of shipments sent to the US, it still represents a fair quantity of products and a clear link to the textile export industry in Panipat.

The following tables present the main consignee companies of textile shipments from Panipat in 2019, first for worldwide destinations, followed by the main receivers for The Netherlands:

Table 5: Main consignee companies of products exported from Panipat, worldwide destinations

2019	
Name of consignee company	Number of shipments received
Williams-Sonoma, Inc. (US)	2,296
Kmart Australia Ltd. (AUS)	1,091
HomeGoods (US)	618
Winners Merchants International LP (CAN)	613
Wal-Mart Stores, Inc (US)	546
Next plc (UK)	538
N.A. Trading Company (US)	490
H&M Group (SE)	479 ²⁴
TJX Companies, Inc. (US)	385
Cumi (Australia) Pty Ltd (AUS)	334

Table 6: Main consignee companies for The Netherlands

2019	
Name of consignee company	Number of shipments received
H&M Group	183 ²⁵
EBRU	23
Blyco Textile Group BV	23
Janssens Oriënt Carpets Holland	17
Primark US Corp.	14
Konimpex BV	13
Jacaranda Carpets Limited	13
Zeeman	12
By Boo	11

²⁴ This number was adjusted after review by H&M. The original number was 1907 shipments, yet H&M explained the dissimilarity in numbers and based on this knowledge, the adjustment was made. The clarification by H&M is noted in Chapter 6: Review: responses of international companies and relief organisations.

²⁵ This number was adjusted after review by H&M. The original number was 118.

5.2 Blankets from Panipat for international relief organisations

In 2012, researcher Lucy Norris stated that over 90% of the relief blankets bought by international relief organisations used in global disaster situations consisted of products made by the textile recycling industry of Panipat.^{xxix} From the shipment export data, it was clear that several delegations of the International Federation of Red Cross and Red Crescent Societies (IFRC), the International Committee of the Red Cross (ICRC), and the United Nations High Commissioner for Refugees (UNHCR), purchased blankets shipped from Panipat in 2018. Northwest Woolen Mills, a company and blanket manufacturer located in the US, bought woollen blankets shipped from Panipat. Besides having their own mills produce blankets in the US, part of their woollen blankets are bought from Panipat. According to their website, they supply blankets to relief organisations, and their blankets have been involved ‘in almost every disaster and emergency relief effort around the world’^{xi} since 1977. These are some examples of how relief organisations purchase blankets from Panipat. A more extensive study is needed to obtain further information on the link between Panipat and international relief organisations.

6. Review: responses of international companies and relief organisations

This chapter describes the responses of international companies and relief organisation to the request of reviewing the draft chapters. Section 6.1 provides an overview of all companies and organisations that were approached for review. Section 6.2 describes the individual responses of the companies and relief organisations. Where large pieces of information were given by the companies or organisations, a summary of the given responses is presented. In section 4.1 relevant Indian labour laws and international guidelines were described. The review and responses below must be regarded in this context.

6.1 Overview of companies and organisations approached for review

For the review, all companies and organisations mentioned in the report were approached to respond to the draft version of chapters 2 to 5 of this report, and asked about the steps they plan to undertake to address the existing risks. The list of addressees comprised 20 companies and three relief organisations that source products from Panipat. The Dutch Agreement on Sustainable Garments and Textile²⁶ was informed of this review as well, as one of the brands approached for review is a member brand of this Multi-Stakeholder Initiative (MSI).

The following companies and organisations were requested to respond to draft chapters of the report:

Blyco Textile Group BV
By Boo
Cumi (Australia) Pty Ltd
EBRU
H&M Group
H&M Group Netherlands
HomeGoods
International Committee of the Red Cross (ICRC)
International Federation of Red Cross and Red Crescent Societies (IFRC)
Jacaranda Carpets Limited
Janssens Oriënt Carpets Holland
Kmart Australia Ltd.
Konimpex BV
N.A. Trading Company
Next plc
Northwest Woolen Mills US
Primark US Corp.
TJX Companies, Inc.
United Nations High Commissioner for Refugees (UNHCR)
Walmart Stores, Inc.
Williams-Sonoma, Inc.
Winners Merchants International LP
Zeeman

²⁶ The Dutch Agreement on Sustainable Garments and Textile is a Multi-Stakeholder Initiative that includes branch organisations, NGOs, and trade unions. The businesses and organisations that sign the agreement commit themselves to fighting discrimination, child labour and forced labour. Source: <https://www.imvoconvenanten.nl/en/garments-textile>.

Two of these companies, HomeGoods and Winners Merchants International LP, are accommodated under TJX Companies, Inc. No email addresses were found for HomeGoods and Winners Merchant LP, only online contact forms. Therefore, the review request for these two companies was sent to TJX Companies, Inc.

For the H&M Group, the department in The Netherlands was approached separately, as they were among the largest buyers of The Netherlands. The department in The Netherlands indicated that they had sent the request to the Social Sustainability team in Stockholm. The H&M Group in Stockholm reacted to both requests for review, for The Netherlands as well as worldwide, in one response. In this regard, the number of companies and organisations determined for type of response will be set at 22 from this point on.

Out of the 22 addressees, 10 did not respond to the request, no reply of any sort was given. Another three did respond, but did not provide substantial information. They were confirmations of receipt or notifications that the request was sent to the appropriate person in the company or organisation. No further response was given after this. This leaves nine companies that took the opportunity to review and provided feedback on the report.

Table 7: Type of response per company/organisation approached for feedback

No response	Confirmation or notification	Feedback on report
Blyco Textile Group BV	IFRC	EBRU
By Boo	TJX Companies, Inc.	H&M Group
Cumi (Australia) Pty Ltd	Williams-Sonoma, Inc.	ICRC
HomeGoods		Jacaranda Carpets Limited
Janssens Oriënt Carpets Holland		Konimpex BV
Kmart Australia Ltd.		Primark US Corp.
N.A. Trading Company		UNHCR
Next Plc		Walmart Stores, Inc.
Northwest Woolen Mills US		Zeeman
Winners Merchants International LP		

6.2 Individual responses

EBRU

EBRU indicated that they have two suppliers in Panipat that they have been engaged with for many years. They pointed out that no recycled material is being used in the products that they buy from Panipat. Polyester, viscose, and wool are used to manufacture their products. EBRU does have carpets made of recycled material in their collection, but these are being produced elsewhere in India. Lastly, it was indicated that there is no connection to child labour for the products EBRU buys from Panipat.

Arisa responded to this information with several questions regarding the used materials, supply chain mapping beyond suppliers, and possible risk assessments made. EBRU provided no further response or additional information.

H&M Group

The Sustainability Department of the H&M Group in Sweden pointed out that the number of shipments from Panipat to H&M, displayed in the tables in chapter 5, differ from the number of orders placed. Since this was substantiated well, the numbers were adjusted in the report. H&M indicated that orders are partially shipped out of Panipat to: 'help the supplier not having to wait for the whole order to be finished before they can ship'. According to H&M, the number of its orders from Panipat in 2019 was 479. Of these 479 orders, H&M noted that 70 were produced using recycled material.

Regarding the number of shipments from Panipat to H&M in The Netherlands, H&M indicated that these were slightly higher than found through data analysis, 183 instead of the 118 found during analysis. They did not have any explanation for this difference. As stated in the research limitations in section 2.2, a slight difference in recording company names may provide for a lower number in shipments. This may explain this particular difference in the number of shipments of H&M.

H&M's response comprised feedback on the shipment data. Clarifications on steps towards mitigating possible risks were not given. Information on mapping supply chains related to Panipat and on performing risk assessments on possible labour rights violations in these chains was requested, but no further information was received.

International Committee of the Red Cross (ICRC)

The ICRC confirmed that they had purchased part of its blankets from Panipat and wrote that these were synthetic blankets made of non-recycled material. They declared that they had implemented several 'best practices' regarding their manufacturers, such as Quality, Social and Environmental (QSE) audits for their manufacturers, sharing corrective action plans, coaching the manufacturers on continuous improvement, and proactive sourcing. They pointed out that the ICRC is recognised as a leader in this domain. The manufacturer of synthetic blankets in Panipat sourced by ICRC had been audited on QSE requirements in February 2018.

The ICRC included several documents that can be found on their website, e.g. the Reference of manufacturing standards for relief items production^{xii} and the document on 'Doing business with the ICRC' that can be found through the latter webpage. In these documents, the process of selecting suppliers and preconditions of doing business with the ICRC are described. References are made to international standards such as ISO 26000, ISO 14001, ISO 9001 and SA 8000, and guidelines such as the Universal Declaration of Human Rights, and ILO's Fundamental Conventions and Declaration on Fundamental Principles and Rights at Work.

They have a collection of documents underlining the importance of the QSE approach in their processes, e.g. videos on good and bad practices at factories, QSE reports, leaflets, and PowerPoint presentations. A presentation on the QSE process was shared with us. The best QSE practices developed by ICRC are shared with main humanitarian organisations. Representatives from those main organisations have participated in the QSE audits of the ICRC in India and in other countries. The ICRC developed a course on how to incorporate sustainability into humanitarian action.^{xliii}

Since it could be seen in the export data that blankets containing 80% cotton and 20% polyester were being sourced by ICRC, additional questions regarding the use and origin of the cotton used in these blankets were sent to the ICRC. The ICRC confirmed that these blankets were bought, and that they were produced by the same manufacturer in Panipat that produces the 100% synthetic blankets. The manufacturer informed the ICRC that the cotton that is used for the blankets comes from Indian plantations.

Additional questions were also sent regarding mapping the supply chains of ICRC beyond the first suppliers/manufacturers, as the QSE approach was targeted at these first suppliers/manufacturers. The ICRC indicated that mapping entire supply chains could be difficult to achieve without impacting their objective of auditing every manufacturer of Essential Household Items (EHI), of which blankets are part. However, they were interested in how to include such an effort, as additional improvement of their approach, and requested further information on this. They stated that: 'it could help us to increase the visibility on specific production lines and it could be an added value to our processes'. Regarding kitchen sets, the ICRC has been engaged in such an exercise, which has led to more sustainable ways of manufacturing and testing the kitchen sets.

Jacaranda Carpets Limited

Jacaranda Carpets pointed out that they import from two factories in Panipat and that these factories are registered with GoodWeave.²⁷ They stated that the yarn that is used in the products that Jacaranda Carpets sources from Panipat is not recycled yarn. The majority is TENCEL™, manufactured by Lenzing in Austria, and Jacaranda holds a certification of the audited supply chain. The balance is high quality new wool.

Jacaranda Carpets also made clear that they do not recognise their business practices in the information presented in the report, nor the statements made regarding child labour and working conditions. They indicated that they are taking various efforts in making sure that the circumstances under which their carpets are made are fair and involve no child labour. They insist that their suppliers allow random, unannounced GoodWeave inspections to audit this.

Konimpex BV

Konimpex indicated that they buy certified BCI Cotton, not recycled cotton, and that they buy from Sedex and/or BSCI audited manufacturers. Konimpex stated that they have their own inspector that checks the production, and that there were no incidences of child labour found during these inspections. An audit report conducted with the supplier in Panipat and a certificate of purchase of certified cotton were sent with their response.

The export data showed that the products Konimpex bought from the supplier in Panipat in 2019 also

²⁷ 'The GoodWeave label means that no child, forced or bonded labour was used in the making of a certified product, and that the purchase of a product that holds this label supports programs that educate children and ensure decent work for adults'. Source: <https://goodweave.org/about/goodweave-label/>.

contained polyester. Therefore, an additional question was sent to Konimpex on which steps Konimpex takes to trace the origin of the polyester that is used to manufacture the products. Konimpex did not respond to this question.

Primark US Corp.

In their response, Primark referred to one homeware product that they import from Panipat, which is claimed not to be made with recycled materials. They pointed out they have a Code of Conduct that prohibits the use of child labour, that prescribes that the products of Primark must be made in factories with good working conditions, and that prohibits unapproved subcontracting. All of Primark's suppliers must adhere to this Code of Conduct, and they must implement the Code of Conduct among their own suppliers.

To receive specific information regarding mapping supply chains in Panipat and performing risk assessments in these supply chains, additional questions were sent to Primark. Furthermore, the shipment data showed several clothing items that are shipped from Panipat with Primark as the consignee. This was also presented to Primark and the company was asked to confirm. Primark responded that they could not confirm if any of these products were procured by Primark, as there was not sufficient information to identify them in any of their systems. More extended shipment data were sent to Primark with the same request for confirmation. Primark responded that according to their data, no such products were sourced from Panipat.

United Nations High Commissioner for Refugees (UNHCR)

The UNHCR noted that they have *General Terms and Conditions* included in any frame agreement between any supplier and the UNHCR. These *General Terms and Conditions* contain provisions that prohibit child labour and other unethical labour practices. In addition, suppliers that want to do business with UNHCR are required to adhere to a Supplier Code of Conduct which includes several conditions related to human rights. If a supplier is found to not comply with these requirements, a record is made and filed in the United Nations Global Marketplace (UNGM), for inclusion in the UN Ineligibility List.

The UNHCR pointed out that they audit their suppliers and manufacturers, and that they have been doing this since 2012. These audits are conducted by a specialised and independent service provider and overseen by UNHCR. Child labour and other proscribed labour practices are part of the factory audit programme. All factories producing relief items located in India were audited in 2014. A re-audit of the manufacturers in India was planned for the second quarter of 2020. Due to the COVID-19 situation, this has been postponed and will be conducted as soon as possible. In case the audit confirms instances of child labour or other proscribed practices, the UNHCR stated that they will immediately take corrective actions. The audits in India will cover several new manufacturers that were not audited in 2014 as the UNHCR concluded frame agreements with them in 2015.

The UNHCR confirmed that they source blankets from Panipat. They indicated that no supplier with whom they do business had been found to employ child labour during previous factory audits and none of them were reported as blacklisted by UNHCR or another UN agency in UNGM. All vendors are duly registered in the UNHCR vendor data base and have accepted the UN Supplier Code of Conduct.

Walmart Stores, Inc.

Walmart's response consisted of a reflection of their **Responsible Sourcing program**, based on their Standards for Suppliers:^{xliii} 'Suppliers, their facilities and agents are expected to comply with these standards throughout the product value chain. Among our requirements are no involuntary or underage labour, providing a safe work environment and following all applicable laws and agreements regarding

compensation and work hours'. Walmart pointed out they conducted audits and investigated certain alleged violations.

Additional information was requested on specific steps Walmart is planning to undertake to clarify their supply chains related to Panipat and to investigate these chains on the risks that are highlighted in this report. No additional information was received.

Zeeman

Zeeman clarified that they work with five suppliers in the Panipat region. These suppliers have been audited and are regularly being visited by Zeeman. Recently, Zeeman joined GoodWeave, that is running a programme in this region aimed at more transparency regarding working conditions further down the supply chain, including possible sub-contractors. In this programme, GoodWeave, Zeeman, and the suppliers work together to improve working conditions. One of Zeeman's suppliers was already part of this programme, Zeeman stated. Zeeman also pointed out that it is a member of both the Agreement on Sustainable Garments and Textile and the Fair Wear Foundation.²⁸ With these memberships, Zeeman is obliged to continuously identify risks in its supply chains.

²⁸ The Fair Wear Foundation is a Multi-Stakeholder Initiative that includes businesses, NGOs and trade unions. It is committed to making the garment industry more ethical. Brand performance checks, factory audits, factory training, and a complaint helpline for workers are means that they use to create 'a fair fashion norm'. Source: <https://www.fairwear.org/>.

7. Conclusions and recommendations

7.1 Concluding summary

Four studies were conducted with relation to the textile recycling industry in Panipat, India. The studies provide initial insights into the textile recycling industry in Panipat, a city known for its recycling of imported used clothing. Value chains of post- and pre-consumer residual textiles that end up in Panipat were investigated, as well as the processing of these textiles in Panipat, including the end products made out of the recycled material. Information on the prevalence of child labour and labour rights violations within this industry was gained and international buyers of products exported from Panipat were identified.

In 2016 and 2017, Sympany collected 43 million kg of used textiles. Of the collected textiles, 80% is sold to recycling companies in The Netherlands, the Baltic states, Eastern Europe and Turkey, where it is further sorted. Approximately 25% of the sorted textile is not re-wearable and sold for recycling to other recycling companies and textile traders. The fractions that are typical for trading to India are rags and woollen or winter clothing with no reuse market. It was found that about 5% of the textiles collected by Sympany - about 1 million kg per year - ends up in India through trading companies in Eastern Europe. At least part of this is further shipped to Panipat.

Based on trade statistics, around 330 million kg of worldwide used textiles were estimated to have been imported by India in 2017, and on average 13.7 million kg of used textiles are exported to India from The Netherlands each year. The most common qualities or fractions of used textile that are imported by India are: 1) sweaters; 2) wool body; 3) denim; and 4) textile remains. Import of re-wearable clothing is forbidden in India. Therefore, clothes are mutilated (slashed) upon arrival. However, it was noticed that non-mutilated imported clothing was sorted in Panipat and sold to second-hand market retailers.

Figures on the number of factories and units of this industry, and on the size of the workforce occupied in textile recycling in Panipat, prove to be challenging to determine due to the informal nature of the economy. Estimates given on the workforce range from 20,000 to 70,000 workers, noting that the number could even be higher than 70,000.

In general, the textile recycling industry in Panipat can be divided into sorting, shredding, spinning, and making various new end-products of the recycled yarn. The larger and medium scale recycling factories comprise a total workforce of approximately 15,000 workers, and usually receive better input material than the small-scale factories. The small-scale factories comprise a total workforce of approximately 12,000 workers. They sort and clean material that is not fit for the large and main spinning industry, such as polyester jackets. The margin between in- and output prices is exceedingly small compared to that of the larger factories. In addition to these factories, there are many more unregistered units, such as bleaching, dying, and shredding units, of which the number of workers cannot be clearly set. The most common end-products are blankets, carpets, and household textiles.

Gaining knowledge on the pre-consumer residual textile is part of the studies addressed in this report. Cuttings are a type of pre-consumer residual textile, being a by-product of the garment industry. The processing of cuttings generated in garment factories in Delhi/NCR and recycled in Panipat was displayed. The general stages of processing comprise sorting, bleaching, shredding, and spinning yarn. The cuttings are also used to make a specific type of carpet. Post- and pre-consumer textile are mixed in different stages of the recycling process.

In addition to the technical and quantitative information, characteristics of the textile recycling industry, and the existing working conditions are given. Based on these findings, combined with information from previous studies and articles, the textile recycling industry in Panipat can be regarded as highly informal, with only a small number of larger factories and units that constitute this industry being officially registered. Casual labour is common, with no formal written employment agreements. For the smaller units that were part of the pre-consumer textile research, including home-based units and sorting areas in Delhi/NCR, labour rights violations have been determined. Child labour and young labour - 14 to 18 years of age - is also prevalent. Low wages are common, especially for female workers who often earn below legal minimum wages according to the applicable Indian state laws. Combined with health and safety issues such as constant exposure to dust or chemicals and non-presence of PPE found in all types of smaller recycling units, these are frequently occurring labour rights violations.

Information on import and export activities is gained from the shipment data, including the amount and origin of textile being shipped to Panipat. The type of products exported by Panipat and its international buyers were determined as well. It is clear that the export industry of Panipat is active and growing, with about 33,000 shipments to worldwide destinations in 2019, with an indicated value of 1.4 billion US dollars. The most frequently shipped products from Panipat are carpets, furnishing articles, and bedding articles.

The main receiving countries of products shipped by Panipat in 2019 are the United States, Nepal, United Kingdom, Australia, and Germany. The Netherlands takes eleventh place on this list. For both worldwide shipments and shipments to The Netherlands, a top ten of buyers is given for the year 2019. Williams-Sonoma, Kmart Australia, and HomeGoods are the three main receivers of shipments from Panipat to worldwide destinations for this particular year. H&M Group is the main receiver for The Netherlands.



Steps taken by Sympany

The effort taken by Sympany in mapping their supply chain towards Panipat in collaboration with its main buyer and the importer in India can be seen as a first step in Sympany's due diligence process. Sympany has committed itself to further explore its value chain to Panipat beyond the stages that have been clarified so far.

Following the initiatives of Sympany, with the ongoing projects in Panipat, a responsibility system for used textiles might introduce a change in ethical and sustainable production standards in the supply side of used textiles. Such a system is being explored at this moment (see section 7.2 Recommendations for additional clarification on the need for a responsibility system).

7.2 Recommendations

Laws and standards on child labour and labour rights exist at an international, national, company, and organisation level. Having laws and standards in itself does not guarantee that those laws and standards are met at ground level. The recommendations underneath are given to governments and businesses with the aim to address child labour and labour rights violations in value chains of post- and pre-consumer textile. As stated at the beginning of the report, this report is a call to action and should not be used as a reason to stop trading with or sourcing from Panipat

Due diligence

All businesses in the garment and textile industry, including brands, retailers, collectors and traders of used textiles and textile recyclers should commit themselves to conduct due diligence in line with the OECD Guidelines for Multinational Enterprises. Conducting due diligence involves having a human rights policy or incorporate human rights in a more general CSR policy; identifying adverse impacts on RBC issues; ceasing, preventing, or mitigating the adverse impacts; tracking implementation and results of their measures; communicating on how adverse impacts are addressed.

- ➔ International buyers of products exported from Panipat, should commit themselves to **supply chain mapping** beyond tier 1 in order to create transparency on the origin and processing of the products they source. Likewise, collectors of used textiles need to invest in **mapping their value chains**, and determine where the textiles they collected end up.

International buyers and collectors of used textiles need to perform a **risk assessment** throughout their entire value chains, to identify possible risks on child labour and labour rights violations.

- ➔ International buyers should adopt **purchasing practices** that steer towards enhancing working conditions and application of international standards in supply chains in Panipat. These practices include engaging in dialogue with suppliers about responsible business practices in their supply chains and paying fair prices for the products they source.
- ➔ International buyers should **not 'cut & run'** in case of non-compliance or occurring labour rights violations, yet engage in dialogue to address any issue in a joint way. Only when no agreement can be found, a responsible exit strategy can be considered as a last resort. Such a strategy needs to be implemented in a way that possible adverse impacts are kept to a minimum, and that occurring adverse impacts are addressed.
- ➔ International buyers and collectors of used textiles should **include local stakeholders and rights holders** in any risk assessment, and in the process of mitigating identified risks. In addition, they can link with local initiatives to have more impact.
- ➔ To address workers' needs and complaints, effective **grievance mechanisms** should be established at the level of buyers and suppliers.
- ➔ International buyers should **include homeworkers in their Code of Conduct**, stating the valuable contribution of homeworkers in supply chains, and discuss the possible engagement of homeworkers with their suppliers to seek agreement on including homeworkers in a decent way.
- ➔ International buyers that may source a limited number of products from Panipat can seek cooperation with other buyers, to increase **leverage** in negotiations with their suppliers.

- ➔ **Pre-consumer residual textile**, e.g. cuttings, needs to be acknowledged as part of garment supply chains and related mapping exercises as described above. When garment brands conduct due diligence into their supply chains, the cuttings, or pre-consumer residual textile, should be recognised as part of this chain, and included as such.
- ➔ International buyers of recycled products need to be **aware of the social aspect in textile recycling**. Recycling is often connected with good environmental practices, however, the need for clarifying the origin of recycled materials and under which circumstances the material was processed is necessary to identify possible social issues.
- ➔ **International relief organisations**. Especially for organisations that are committed to humanitarian aid and improving the lives of people in distress, the presence of child labour or other labour rights violations in their supply chains is contradictory to their values. We urge them, like the parties addressed above, to take up the issues known to the textile recycling industry of Panipat and to make sure their entire supply chains comply with international standards on human and labour rights.
- ➔ Textile factories and units in Panipat need to pro-actively engage in **eliminating child labour**. They should assure that they do not hire any children below the legal minimum working age of 14 years. They can further contribute to this outcome by joining the CLFZ project in Panipat^{xliii} or other local initiatives.
- ➔ Textile factories and units in Panipat should pay their workers at least **minimum wages** based on the job level.
- ➔ Textile factories and units should ensure that workers have **access to, and are educated on entitlements** such as social benefits, EPF, ESI, and maternity leave. Workers should be informed on how to access these entitlements.

Law enforcement

Labour laws and human rights laws and regulations in both India and buying countries need to be developed and enforced in order for working environments to be free from child labour and to create decent working conditions and access to remedy for the workers in the textile recycling industry in Panipat and India.

National and State Governments of India

- ➔ The Indian National and State governments must enforce and monitor the implementation of laws regarding child labour and labour rights in the textile recycling industry in Panipat and India, and in doing so, contribute to the elimination of child labour and address existing labour rights violations.
- ➔ Indian National and State laws regarding labour rights should be adapted to be applicable to the number of unregistered smaller units and home-based units that are part of the textile recycling industry of Panipat, in order for the workers in these units to have access to the same rights as the workers in registered units.
- ➔ The Indian State Governments need to enforce the Child Labour (Prohibition and Regulation) Act, 1986, to make sure children below the age of 14 are not engaged in any work, including in family enterprises if this prevents them from attending school. Also, the prohibition of hazardous work for youth in the age group 14 to 18 years must be enforced and monitored.

- ➔ The Indian State Governments need to enforce the Right to Education Act (RTE), 2009, which entails the right to free and compulsory education for all children between 6 and 14 years of age,^{xlv} to make sure all children in this age category are attending school.
- ➔ The Indian State Governments should commit themselves to ensuring there are sufficient schools with child friendly educational programmes and competent teachers, to make sure all children in Panipat have access to formal full-time education of good quality. Since there are many migrant children in Panipat, access to quality education for these children should be ensured as well, without any administrative barriers.

Governments of buying countries

- ➔ Governments of buying countries need to make sure that buying companies and organisations in their jurisdiction adhere to Responsible Business Conduct, and respect human rights throughout their entire supply chains.
- ➔ Governments of buying countries need to act on realising, designing and implementing due diligence laws to make sure companies comply with international guidelines on labour rights.
- ➔ Governments of buying countries should commit to conduct due diligence into their own activities, e.g. public procurement with regard to corporate clothing and home textiles used in public buildings.

Disposal fee

Businesses in the garment and textile industry need to recognise of the impact of their used textiles and take responsibility in making sure that their business activities do not contribute to the prevalence of child labour and labour rights violations in the stages after consumption of the clothing and textiles. The Dutch Government, textile collectors, garment brands, branch organisations, retailers, municipalities, and other relevant stakeholders in The Netherlands need to develop a disposal fee system for garments and textiles in The Netherlands. The possibility to set up a disposal fee system that manages collection as well as recycling, is being explored in research at this moment. Such an undertaking must recognise and include the labour rights and human rights in textile recycling value chains.

Recommendations for further research

Further mapping the textile recycling industry of Panipat

Further research on mapping the textile recycling industry of Panipat is required to better understand how the different factories and units and the formal and informal part of this industry are interconnected. The research can help to clarify and establish an overview of the interlinkages of the two types of industry. This may contribute to mapping supply chains of companies related to the Panipat recycling industry, such as garment brands and international buyers.

Research on child labour and working conditions in Panipat

The studies presented in this report, combined with previous publications, indicated the vast prevalence of child labour and labour rights violations in the textile recycling industry in Panipat. To better understand the details and scale of these issues in Panipat and the part of the industry these can be linked to, a more extensive research is required. It is not just recycled wool or cotton that is being processed and made into new products in Panipat. A broader outlook on its textile industry is necessary when engaging in such a study, one that considers the processing of virgin materials and man-made fibres as well.

Research into business opportunities in the textile recycling industry in Panipat

There is increased attention towards circularity. The production of higher quality yarn, suitable to make garments, may therefore be a business opportunity for the recycling industry in Panipat. Research on the feasibility and ways to approach this aim is necessary to develop possible strategies.

Research on home-based workers

The research on pre-consumer residual textile gave initial insights on the presence of home-based workers in the textile recycling industry in Panipat. Further research is required to better understand the position of home-based workers in this industry, as well as their working and living conditions.

Endnotes

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Annex I

Interview outline for visited factories regarding research 2

We prepared the visits to the factories with the following outline:

Describe the textile recycling market of Panipat in terms of:

- companies involved (workforce, sales, mass, products)
- mass input and output
- stakeholders (investments, customers and suppliers)
- working conditions (type of labour)
- pricing by type of textile, markets
- quality of in- and output textiles
- legislation (economic, tax, environment)
- logistic chain from Kandla to Panipat
- mass balance (kg in/out, € (Rp) in/out))

Describe your type of factory: workforce, products, processes

Who are your suppliers and customers?

What is your position in the market (Panipat, India)?

From which country is the input coming? How can you determine?

- Is it a specific type of clothing (woollen, winter, other)?
- What is the percentage of this type of input?

What quality do you need as input and what is asked as a product?

- Are you using other workforce or supplying companies?
- How do you inspect the quality and conditions?

How do you achieve the quality (work conditions) and what could be improved?

How do you contract? Is there inspection? Auditing, certification?

What is your opinion on certification or schemes for better quality and conditions?

Annex II

An overview of the units visited during fieldwork of the research into post-consumer textile recycling

Process	Process units	No of units assessed
Cleaning and sorting of imported used textiles	Large cleaning and sorting companies	2
Colouring, washing, shredding, carding, and spinning	Large spinning mills	2
Various separate stages of the recycling process	Smaller recycling units	6

Annex III

An overview of the steps taken for the research on the processing of pre-consumer residual textile:

- 1. Review of literature:** The secondary data available on pre-consumer textile was reviewed to gain the first insight on various processes, identify the stakeholders involved in the supply chain and the issues which have been identified in a similar context leading from different parts of the NCR and Southern India to the Panipat region.
- 2. Connecting with textile and garment export factories (CMT factories):** Through existing contacts, some units in Delhi/NCR that generate residual textile were identified. Visits to these units helped understand how pre-consumer residual textile is generated by the production process. This helped identify the next step of the supply chain: the contractors/agents and collectors that purchase the pre-consumer residual textile (the cuttings) and where they are located.
- 3. Field visits to the three largest markets for fabric waste in Delhi/NCR:** The outcome of the engagement with the exporting units and desk research helped identify the locations where the cuttings are collected. ASK visited Sanjay Colony, Mangolpuri Market, Saleempur, and home-based units in Tughlakabad. The research team engaged directly with the traders and workers to understand their processes, their conditions of work, payments received, the concerns and challenges they face in their work, and the possible involvement of children, including the reason why, if any. The visits also clarified how the cuttings were sold on to contractors and recycling units in Panipat. The respondents consisted of local residents, local businesses owners, a school principal and teachers in the area, and a tutor familiar with the families and children.
- 4. Connecting with NGOs and Government departments working on the issues identified in the supply chain, such as child labour:** Through desk research, NGOs and Government departments were identified and contacted to gain their permission to conduct a telephone or personal interview to further explore their knowledge on key issues identified, such as child labour, and the initiatives and interventions undertaken by them to address these issues.
- 5. Identifying relevant units in Panipat:** Through literature review, interviews with exporting factories in NCR/Delhi, and interviews with collectors and contractors in both the Delhi region and Panipat, recycling units in Panipat were identified, such as carpet making factories, and yarn and thread making factories. Further interviews were conducted with government officials of the Industry Health and Safety Department and Labour and Child Protection Department in Panipat. In addition, telephone interviews were conducted with a local NGO in Panipat.
- 6. Field visits and engagement with recycling units and home-based units in Panipat:** Through snowball and purposive sampling, different types of recycling units and home-based units were visited. The team engaged with business owners and workers to understand the processes and the working conditions, and to gain insight into the prevalence of child labour, including why the children are involved, if any.

An overview of units visited and respondents interviewed regarding the research on pre-consumer residual textile

Process	Process units/Stakeholders/Workers /Other sources/Assessed/Interviewed/Community discussions	No. of units assessed/Worker interviews/Community discussions/Other sources/ Interviews and discussions
Pre-consumer residual textile generating units in Delhi/NCR	Garment/textile export units (CMT units)	2
Pre-consumer residual textile collectors in Delhi/NCR	Residual textile collectors	Total: 20 Male: 19 Female: 1
Pre-consumer textile sorting units in Delhi/NCR	Sorting units	20
	Workers in sorting	Total: 103 Male: 10 Female: 90 Child: 3 Out of these migrant workers: 98
Other sources of data collection in Delhi/NCR	Schools Local communities interviews and discussions	1 School: Interview of the school principal and teacher Local Business owners: 4 Local community discussions: 3
Pre-consumer residual textile wholesalers in Delhi/ NCR and Panipat	Wholesalers based in Delhi (from Panipat, but the business unit is in Delhi)	Total: 1 Male:1
	Waste wholesalers based in Panipat	Male: 2
Pre-consumer residual textile sorting units in Panipat	Sorting unit assessed	7
	Owners of sorting units	3
	Workers in sorting units	Total: 30 Male: 4 Female: 20 Young workers: 5 (female) Child: 1 (male) Community discussions: 4 Locals: 18 Migrant workers: 8
Bleaching units in Panipat	Bleaching unit assessed	1
	Workers in the bleaching unit	Total: 6 Male : 3 Female: 1 Child: 2
Fibre making units in Panipat	Owners of fibre making units	1
	Workers in fibre making units	Total: 10 Male: 7 Female: 3 Community discussions: 1 Migrant workers: 7 (all male)

Yarn making units in Panipat	Yarn making units	1
	Workers in yarn making units	Total: 7 Male: 4 Female: 3 Community discussions: 1 Migrant workers: 4 (all male)
Dari making units in Panipat	Dari making units	Factory: 2 Home-based units: 4
	Owners of dari making units	3
	Workers in dari making units	Total: 22 Factories: Male: 3 (all migrants) Home-based units: (all locals) Male: 7 Female: 5 Young labour: 4 (all male) Child: 3 (1 male, 2 female) Community discussions: 1
Carpet making units in Panipat	Carpet making units	2
	Owners of Carpet making units	1
	Workers in Carpet making units	Total: 3 Male: 3 (all migrants)
Other sources interviewed	Government Officers	Government officers: 3
	Local communities	Local communities: 10 interviews
	NGO worker	NGO worker: 1

Annex IV

An overview of the identified specifics and issues per type of unit, as found within the research on pre-consumer residual textile

Stage of recycling process	Specifics and issues identified
Sorting in Delhi slums	<ul style="list-style-type: none">• Independent, small, and large scale collectors• No registration or licence• Casual labour, no written employment contract• Daily wage workers from poor socio-economic background, belonging to Other Backward Castes or Scheduled Castes• Inter-state migrants• Earning less than legal minimum wages, which is INR 538 per day in Delhi for this category of workforce• Gender disparity in pay: women are paid INR 150-200 and men INR 400-500 per day• No benefits such as paid leaves, maternity benefits, ESI, PF• Breathing problems and eye irritation due to constant exposure to dust and lint particles• Working in the open in all weather conditions• No availability to toilet and drinking water• No PPEs• Child labour in case of independent collectors who undertake the sorting process on their own with support of family members
Sorting units in Panipat	<ul style="list-style-type: none">• Casual labour, no written employment contract• Earning less than legal minimum wages, which is INR 326 per day in Haryana• Gender disparity in pay: women are paid INR 150-170 and men are paid INR 400-500 per day• No benefits such as paid leaves, maternity benefits, ESI, PF• Breathing problems and eye irritation due to constant exposure to dust and lint particles• Joint pain due to long hours of sitting on the floor• Working in the open in all weather conditions for most units• No proper lighting and ventilation in inside units• No availability to toilet and drinking water• No PPEs• Young workers aged between 12 to 16 were working in these units, working full eight to nine hour working day, earning the same wages as women
Bleaching units	<ul style="list-style-type: none">• All workers are inter-state migrants and stay in living accommodations provided for by the employer• Earning less than legal minimum wages• Gender disparity in pay: women are paid INR 150-160 and men are paid INR 500-600 per day

- Skin irritation, difficulty of breathing and nausea due to exposure to chemicals
- Colds and fever because of constantly working in water in all weather conditions
- Exposure to pungent gas released from the bleach and acid solution
- No PPEs
- Children as young as six years old are working with their parents in these unit

Fibre and yarn making units

- Earning less than legal minimum wages
- Gender disparity in pay: women are paid INR 120-160 and men are paid INR 500-700 per day
- No benefits such as paid leaves, maternity benefits, ESI, PF
- Breathing problems and eye irritation due to constant exposure to dust and lint particles
- Back and joint pain due to constant sitting on the floor
- No proper lighting and ventilation
- No drinking water or toilet facilities in most of the units
- No PPEs
- Men operate heavy machinery
- Young labour present, operating heavy machinery
- No fire related safety measures

Carpet making units in Panipat

- Earning less than legal minimum wages
- Wages on piece rate basis; INR 50 to 100 per piece depending on the type, size, and design of the carpet. If working for 8 hours, the worker can earn INR 300 to 500 per day
- Breathing problems and eye irritation due to constant exposure to dust and lint particles
- No PPEs
- Men operate heavy machinery
- Young labour present, operating heavy machinery
- No proper lighting and ventilation
- No fire related safety measures

Home-based units making carpets and rugs

- Factories outsource work to these home-based units; many work independently and sell rugs and carpets in the domestic market
 - Earning less than legal minimum wages
 - Gender disparity in pay: women are paid INR 150 per day, men earn INR 50 to 100 per piece depending on the type, size, and design of the carpet. If working for 8 hours, the worker can earn INR 300 to 500 per day (as in the factory units)
 - Parents do not send their children to school, instead teach them the family business of rug making
 - No PPEs
 - Children as young as five to six years old work with their parents in these units
-