

Guidebook for Circular Textile Waste Handling in Cambodia

Full version

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FABRIC Cambodia



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Abbreviation

EPR	Extended Producer Responsibility
GRS	Global Recycled Standard
HIGG FEM	Higg Facility Environmental Module
HREDD	Human Rights and Environmental Due Diligence
ILO	International Labour Organization
MoE	Ministry of Environment
PPE	Personal Protective Equipment
TWHT	Textile Waste Handler Training
ESG	Environmental, social, and governance
DPP	Digital Product Passport
SOP	Standard Operating Procedure

Glossary

Textile waste	In this guidebook, it means post-production waste from garment and textile factories
Raw materials	Refers to unprocessed waste from the garment manufacturing process.
Semi-products	Term used for exports to define textile waste that went through some processing but not a fully transformed product
Finished products	Term used for exports to define recycled product.
Upcycling	Process through which a higher quality product is created, which may also have higher value than the original product.



GROUP PICTURE FROM THE FIRST TRAINING SESSION ON OCTOBER 18TH 2024

PURPOSE and BACKGROUND

The aim of this guidebook is to serve as a crucial resource for a sustainable textile waste management in Cambodia, targeting specifically textile waste handlers. It is the result of a textile waste handler training program commissioned by GIZ FABRIC Cambodia and implemented by Sevea from September to December 2024. Through this Training Program, the goal was to improve the current situation characterized by a lack of compliance and lack of awareness about sustainable practices in Cambodia's textile waste sector.

This guidebook focuses on post-industrial textile waste resulting from manufacturing in Cambodia. As of now, the textile waste is being managed in different ways: it is disposed of on landfill sites belonging to licensed waste disposal companies or sold to down-cyclers, recyclers or waste traders/handlers. Additionally, research into post-industrial textile waste flows in Cambodia has shown that there is still high non-transparency and lack of data about textile waste (cutting scraps are for instance being burned, both at factories and brick making sites). The Cambodian textile waste management system is also characterized by a high number of formal and informal textile waste handlers operating in the country. The increase in inappropriate waste management practices has implications for both buyers and the textile sector as a whole, and on the front line the workers.

Shifting from the current deeply embedded practices requires awareness raising and training programs on textile waste management as well as the optimization of waste flows from manufacturers to recyclers.

Therefore, GIZ implements several activities and a pilot project on post-industrial textile waste which encompass (1) improve waste management practices in factories, (2) a cotton-focused pilot project, (3) the promotion of ESG compliance of waste handlers and recyclers and (4) awareness raising and knowledge sharing. As part of the third pillar, this project aimed at supporting these businesses in improving their sustainability standards. This is particularly important due to the growing number of HREDD laws being implemented or anticipated. Proper textile waste disposal may fall under the due diligence obligations of brands, making the social and environmental compliance of waste handlers even more critical.

The objective of this project was to enhance the capacity of textile waste handlers to professionalise their business and their knowledge on social and environmental compliance. This handbook aims at summarizing the two trainings session delivered to 12 selected waste handlers in October and November 2024.

INTRODUCTION

The global textile industry is undergoing rapid transformation, driven by new regulations, shifting market trends, and innovative technologies. These changes are having significant local impacts, particularly in countries like Cambodia, where the textile sector is a crucial part of the economy. This section is dedicated to equipping textile waste handlers with essential knowledge and insights to effectively navigate this evolving landscape, ensuring they can adapt to the challenges and opportunities presented by these developments





OVERVIEW OF THE GLOBAL TEXTILE INDUSTRY

Global trends

- **Global Demand for Sustainability:** Consumers and brands are pushing for **sustainable practices** and eco-friendly materials.
- **Growth in Recycled Content:** There is a rising trend toward using **recycled materials** in fashion to reduce virgin material production. So, recyclers and waste handlers will have more chances to turn textile waste into **recycled fibres**.
- **Advances in Transparency:** Brands and consumers are asking for **waste to be tracked** from production to landfill. Innovations in **digital tracking technology** make this easier.
- **Extended Producer Responsibility (EPR):** More regions are adopting EPR policies, making brands responsible for their **products from production to landfill**.
- **Strong Decarbonisation Goals:** Efforts to reduce carbon emissions are increasing globally, with textile waste management (TWM) and circularity playing a key role in supporting these goals.

Focus on EU Regulations

- **Design for Repair and Recycling:** Clothes must be made to be easily **repaired** and **recycled**.
- **Recycled Content Requirement:** New regulations push for a **minimum level** of recycled materials in clothing.
- **Digital Product Passports (DPPs):** The EU is introducing DPPs to improve transparency in the textile industry. These records show what a product is made of, where it comes from, and its environmental impact, helping with recycling and informing consumers.
- **Microplastics Control:** New rules aim to reduce microplastics released from textiles.

Regional context

Global trends will have direct impacts in Cambodia and ASEAN region shaping local regulations, practices, and opportunities in the textile sector. Today, the regional context is characterized by:

- **Export Markets:** The majority of ASEAN textile exports go to the United States and EU, making EU Regulations and EPR policies relevant to regional industry as well.
- **Environmental Concerns:** The textile industry has been criticized for its environmental impact, leading many international brands to increasingly demand compliance with sustainability standard.
- **Diversification:** The industry is looking to diversify its product offerings beyond garments to include more value-added products, which could enhance competitiveness.
- **Investment:** There is potential for increased foreign investment in technology and infrastructure to modernize the sector.

“*The circular economy is key for helping reduce emissions, protect biodiversity, and limit pollution and waste.*”

Ovais Sarmad, UN Climate Change

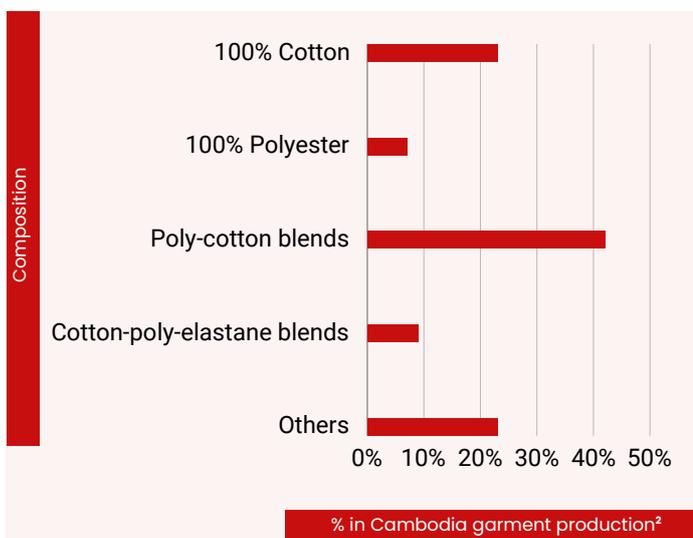
TEXTILE WASTE SITUATION IN CAMBODIA



Overview

- **High Waste Output:** Cambodia generates **136,151 tonnes**¹ of **textile waste** per year, most of which ends up in landfills or incinerated.
- **Recycling Opportunity:** Global attention on textile waste is growing. Cambodia has an opportunity to expand its recycling industry.

Textile composition types and estimated shares in Cambodia garment production



The role of waste handlers

- **Small Operators Role:** In Cambodia, small operators, such as waste handlers, manage the **collection** and sorting of textile waste.
- **Business Opportunities:** **Good collection** and **sorting** of waste from factories create business opportunities, including upcycling garments, producing **recycled yarn**, and exporting waste to other countries.

Challenges

- **Trust and Organization:** Waste handlers need to improve **safety** procedures, maintain **better organization**, and ensure a **clean environment** to build trust and appeal to brands and factories.
- **Transparency Needs:** Waste handlers must start tracking and recording waste details: **amount, type, color**, as buyers and brands face pressure for supply chain transparency.
- **Quality and types of Waste:** A major challenge is receiving **poor-quality** waste from factories (either due to high level of contamination or low-quality fabric) that cannot be resold, leading to financial loss. Additionally, recycling blended fibers, such as cotton-synthetic blends, is difficult, **often resulting in downcycling or landfill**.
- **Regulatory Compliance:** Waste handlers must adhere to **waste management regulations** and meet social and **environmental standards**.
- **Fiber Identification Issues:** Identifying fibers and blends is challenging, as the common burning test is not only unreliable but poses fire hazards when performed indoors.

¹ WASTE STREAMS MAPPING – Pathways from Key Suppliers to Landfill, 2021, GIZ Cambodia

² Source: Closed Loop Fashion, 2024, data collected through a textile waste assessment of 21 Cambodian factories.

PART 1:

SUSTAINABLE TEXTILE WASTE MANAGEMENT

Sustainable textile waste management is crucial for Cambodia, where the garment industry plays a significant role in the economy. With an increasing volume of textile waste generated, effective management practices are essential to mitigate environmental impacts and promote resource efficiency. Implementing sustainable solutions not only helps reduce pollution and conserve natural resources but also fosters local job creation and supports community resilience.

Sustainable textile waste management for waste handlers

Why is it important?

- **Supports Recycling Chain:** Waste handlers play a key role in **separating waste** and **removing contaminants**, ensuring recyclers receive **quality sorted materials** for high value **processing**.
- **Reduces Contamination:** **Effective sorting** minimizes contamination from dirt and chemicals, resulting in cleaner waste that can be utilised by recyclers.
- **Improves Fiber Quality:** Good sorted materials improves **recycling efficiency** and produces **higher quality recycled fibers**.
- **Economic Benefit:** Higher-quality waste can have higher value.

Best practices

- **Keep Your Waste Clean:** To avoid contamination and mold, textile waste should be stored in a dry, covered warehouse area.
- **Pack It Smart:** Choose the right packaging (fabric bales, foil bales, reusable bags, etc.) to prevent contamination of waste.

Key take-aways

- **Make recycling run smoothly:** Your role ensures recyclers get quality materials for processing.
- **Boost Profits:** Sorting waste efficiently can increase its value and bring you more business.
- **Keep Waste Clean:** Store and pack waste properly to avoid contamination and maintain quality.

- **Use Clear Labels:** Label bales clearly to identify their contents once packed, stored, and for tracking purposes. Store different material compositions separately.
- **Keep Waste Separate:** Store textile waste separately from other non-hazardous waste. Use different warehouses or storage areas.

Call for Action

- **Keep the Facility Clean and Organized:** Regularly clean the facility, especially at the entrance where waste piles up.
- **Implement Standard Operating Procedures (SOPs):** Develop and adhere to clear SOPs for waste collection, sorting, and processing to maintain consistency and efficiency.
- **Build a Professional Network:** Both recyclers and waste handlers should consider having a trusted network of waste collectors to represent their business effectively to garment factories.
- **Relocate Burn Tests:** Move burn tests for fibre identification outside to lower fire hazards.
- **Set Up an Office Area:** Create a small office space for tracking inventory and organizing operations.
- **Waste Agreements:** Waste handlers should set clear agreements with factories to ensure only recyclable, uncontaminated waste is sold. For example, factories could commit to providing properly sorted waste free from contaminants like plastic/paper or dirt. Waste handlers should explain that selling non-recyclable waste can harm business relationships, while factories should use licensed facilities, like Chip Mong, to avoid bad publicity and protect their reputation.

TRACEABILITY AND MONITORING

Why is it Important?

- **Enhances Transparency:** **Tracking** waste from production to disposal builds **trust** and **accountability** among brands, factories, and waste handlers. It is also important for reporting and data sharing, ensuring waste is being sent to the right place.
- **Meets Rules:** Monitoring helps follow rules like **Extended Producer Responsibility (EPR)** and **local regulations**, making brands and factories responsible for tracking their waste until its final stage.
- **Creates Business Opportunities:** **Good waste tracking** can help find new ways to recycle and reuse non-recyclable waste, creating more **business opportunities**.
- **Global Concerns:** Traceability is key for addressing waste mismanagement, as illustrated by images of waste piling up in the environment. These practices ensure proper reporting, data sharing, and waste management, holding brands accountable for where their waste ends up.
- **Improves Efficiency:** Monitoring helps **find** and **fix problems** in waste handling, leading to better use of resources.

“ *Building a transparent supply chain is about creating a culture of accountability and trust among all stakeholders.* ”

Richard Howells

Key take-aways

- **Tracking Builds Trust:** Keeping records of your waste shows partners that your operations are transparent and reliable.
- **Clean and Organized Facilities:** A tidy, well-organized facility with accurate waste tracking attracts more business and builds a strong reputation.
- **Standard Tracking Methods:** Consistent waste tracking makes operations smoother and prepares you for future legislations.

Best practices

- **Start with Basic Tracking:** Use simple record-keeping methods like keeping buying receipts using Excel for tracking **waste type, colour, and volume**. This prepares you for **future** needs for **digital tracking**.
- **Facility Layout:** Design specific zones for sorting, recycling, and storage. Divide the warehouse into sections by material type (e.g., cotton, mixed scraps, ...).
- **Implement Clear Labeling:** Use clear and consistent labels on waste bales to identify their contents, such as material type and condition, making tracking and sorting more efficient.
- **Collaborate for Transparency:** Partner with factories and recyclers to share data and develop traceable systems that ensure waste is processed responsibly and efficiently.

Going Further

- **The Global Recycled Standard (GRS)** is a full product standard to verify and track recycled raw materials through the supply chain. It also includes processing criteria to prevent the use of potentially hazardous chemicals and verifies positive social or environmental production at the facilities.
- Application for the **GRS certification will help attract more brands and textile companies.**

LEGAL, SOCIAL, AND ENVIRONMENTAL COMPLIANCE

Why is it important?

- **Improved Working Conditions:** by improving safety and adhere to labor rights.
- **Economic Benefits:** access to new markets and financial services (loans).
- **Environmental Impact:** reduce environmental pollution and hazards associated with waste dumping or burning.
- **Social Recognition:** value your role into textile waste value chain.

Fundamentals

- Brands are requesting **more compliance from their factories:** achieving certification (GRS, HIGG FEM), traceability of waste streams, careful selection of their suppliers. To do so, brands and manufacturers may determine some requirements for the organisations that will handle the waste and ask for basic legal, social and environmental standards. As a result, if waste handlers want to work with factories they need to comply with those new requirements.
- There is also a **growing pressure and push from key stakeholders** (Ministry of Environment, TAFTAC) for better textile waste management in Cambodia.

There are three main compliances required:

- (1) **Legal compliance:** business registration and all legal permits.
- (2) **Environmental compliance:** monitoring and minimizing impact on the environment.
- (3) **Social compliance:** ensuring social benefits and safety to all employees.



Legal compliance

- **Business registration:** the procedure is completed on the CamDX platform³ and aims to first reserve the business name and then obtain the Certificate of Incorporation.
- **Tax registration:** the procedure is completed on the CamDX platform and aims to receive the patent tax certificate, VAT certificate and the General Department of Tax approval letter.
- **Waste collection permit:** this permit is mandatory to conduct waste collection activity. The procedure is completed with Ministry of Environment.
- The Environmental and Natural Resources Code (applicable since June 2024) has introduced **high financial penalties for non-compliance**.
 - Article 159 bans illegal waste disposal.
 - Article 173 outlines the application process and types of waste permits required.
 - Article 176 focuses on managing environmental pollution to protect public health.
 - Article 236 governs the exportation of solid waste and raw materials.
 - Article 272 prohibits the handling of hazardous waste that threatens health, the environment, or property.

³ CamDX (Cambodia Data eXchange) is the single online platform for business registration in Cambodia.

WASTE COLLECTION PERMIT

Responsible agency: MoE – Environmental Impact Assessment Department

Documents needed:

- ✓ Business registration certificate.
- ✓ Location and layout of the sorting facility (an inspection will be conducted by MoE).
- ✓ An Environmental Planning Contract (EPC) report is necessary.

Time to completion: up to 8 weeks.

Validity: 1-5 years.

Fee: depends on the location of the facility and the number of suppliers.

Environmental compliance

Key environmental impact associated with textile waste mismanagement:

- **Pollution:** Improper disposal or processing can lead to soil and water contamination, even more if hazardous chemicals are present.
- **Air Quality Issues:** Burning textile waste can release harmful emissions and contribute to air pollution.
- **Health:** Burning textile waste is only allowed for companies with specific skills and licenses since it releases toxic smoke and dust into the air, contributing to breathing difficulties, skin irritation and other health problems.

Social compliance

Key risks of waste handling activity:

- **Exposure to Chemicals:** Textiles can contain harmful substances such as dyes, finishes, and treatments that may pose health risks if inhaled or absorbed through the skin.
- **Injuries from Sharp Objects:** Broken needles, scissors, and other sharp tools used in textile manufacturing can cause cuts and puncture wounds.

- **Physical Injuries:** Manual handling of heavy bales of textiles can lead to musculoskeletal injuries.
- **Machinery/Electrical Hazards:** when operating machinery for shredding or processing textile waste, it can pose risks of entanglement or accidents.
- **Fire Hazards:** Textiles are flammable, and improper storage or handling can lead to fire outbreaks.

Safety at work must be the priority for waste handlers.

SOCIAL COMPLIANCE CHECKLIST

- ✓ Ensure basic social compliance requirements such as: minimum wage, no child or forced labor, no discrimination as outlined in Cambodian labour law and international convention.⁴
- ✓ Train your team about fire safety.
- ✓ Identify all sources of fire and implement fire system / extinguisher.
- ✓ Respect basic electrical safety rules.
- ✓ Provide PPE to your workers.
- ✓ Provide first aid kit.
- ✓ Identify emergency exit and assembly point.
- ✓ Train your team about emergency evacuation.

Call to Action

- **Severe risks for people and environment are associated with non-compliance. Also, formalization has more benefits than costs** on the long-term: so don't hesitate to get started.
- Formalization may require **some time and resources**, so start step by step!
- **Appointing a compliance officer** – also in charge of traceability and monitoring – is the first step forward.

⁴ Following ILO Convention ratified by Cambodia: [Here](#)

PART 2:

BUSINESS DEVELOPMENT AND SCALE-UP STRATEGIES

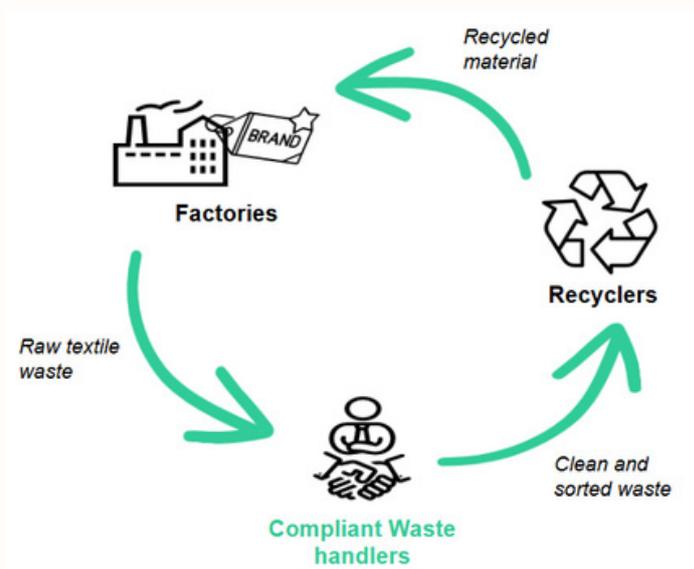
Once waste handlers formalize their operations, they will gain greater access to factories, enabling more convenient collaboration with manufacturers, brands, and recyclers. This formal recognition will facilitate stronger partnerships and streamline processes, allowing for improved communication and cooperation. As a result, they can more effectively engage in sustainable practices, enhance supply chain transparency, and drive innovation in recycling and waste management initiatives.

Working with recyclers

Overview

Collaborating with recyclers offers several benefits for local waste handlers in Cambodia:

- **Increased Income:** By partnering with more recyclers, waste handlers can access new markets for recyclable materials, leading to higher earnings from the sale of collected waste.
- **Skill Development:** Working with recyclers requires certain requirements, enabling local waste handlers to enhance their skills in waste sorting, processing, and management practices.
- **Create a Circular Value Chain for textile Waste:** Collaboration with recyclers can lead to textile-to-textile recycling, contributing to create circular loops.



Circular loops for textile-to-textile recycling

Requirements and Process

- **Higher Feedstock Requirements:** working with international recyclers means meeting higher requirement, but also open more opportunities.
- The **process** to start collaboration with recyclers is usually as follows:
 - (1) Online call to assess the fit with the supplier: available volumes, capabilities, services offered, price.
 - (2) Trial period with limited quantity to confirm the compatibility with recycling process.
 - (3) If successful, increase in quantities.
- **Challenge:** language barrier and capacity to meet recyclers' requirements.

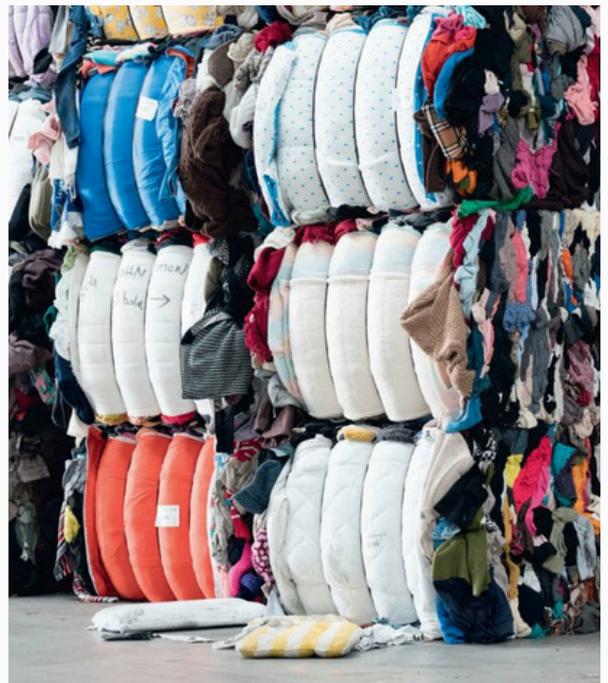


Recommendations

- **Establish Strong Communication Channels:** Foster open lines of communication with factories, recyclers, and other stakeholders to build trust and collaboration.
- **Explore New Business Opportunities:** Investigate some partnerships with international recyclers and consider exporting waste materials to expand your market reach.
- **Invest in Continuous Training:** Regularly participate in training programs to stay updated on best practices, regulatory changes, and technological progress in waste management.
- **There are also opportunities to create local hubs** by aggregating several waste handlers together, working with a bigger one managing the relationship with recyclers.

Export rules

- **Types of Waste Products:** there are three types of products, raw materials (depending on the country) , semi-products, and finished products.
- **Key Requirements Governing Waste Export:** exporting waste requires the company registration, the taxpayer identification Number (TIN), the Customs Declaration Registration and Certificates of Origin. Some additional technical requirements can also be applied such as export license and/or permit.
- **Customs Declaration:** Customs declaration are submitted through the [ASYCUDA](#) system with supporting documents. Payment of duties will be required.
- **Specific Rules:** some specific rules may apply based on the destination country. It is advised that waste handlers collaborate with specialized agencies to support them in the process.



TEXTILE WASTE BALES READY FOR EXPORTS

CONCLUSION

In conclusion, waste handlers' role in recycling of post-industrial waste is pivotal to ensuring that the process runs smoothly and efficiently, providing recyclers with quality waste materials for processing. By sorting waste effectively, they can boost its value, leading to increased profits and business opportunities. Maintaining clean and organized facilities, along with proper storage and packing techniques, prevents contamination and enhances the quality of materials, attracting more clients. Furthermore, transparent record-keeping builds trust with partners, demonstrating the reliability of your operations. Implementing standard tracking methods not only streamlines processes but also prepares your business for future regulations. Together, these practices contribute to a thriving recycling ecosystem that benefits everyone involved.

Besides, as brands increasingly demand compliance from their suppliers, the repercussions extend throughout subcontractors as well, highlighting the significant risks associated with non-compliance. However, the long-term benefits of formalizing operations far outweigh the initial costs, fostering a more robust and sustainable business model. Effective communication with factories and recyclers is crucial to establishing win-win relationships that enhance collaboration and trust. Additionally, there are ample opportunities to grow your business, such as partnering with international recyclers, exporting waste, and exploring new business activities. By embracing these changes, you can not only mitigate risks but also position your organization for future success in a competitive marketplace.

By following the recommendations from this handbook, waste handlers can improve their operational practices, ensure compliance, and position themselves for growth in the evolving waste management landscape.



TRAINING DELIVERING SESSION 02 (NOVEMBER 2024)

PREPARED BY

Sevea Co. Ltd. - Consulting Firm

Sevea is a Cambodian based firm specialized in providing strategic advisory services focused on sustainability and social impact. They work with businesses, NGOs, and public institutions to develop and implement strategies that enhance environmental performance and promote social responsibility.

Since 2023, Sevea is supporting GIZ Fabric Cambodia to build an inclusive and circular textile waste supply chain in Cambodia. After providing support to factories to implement textile waste segregation at source and monitoring, Sevea worked with waste handlers to increase their capacity and knowledge regarding sustainable textile waste management.

Sonya Parenti - Product Expert Footwear & Textiles | Educator in Eco-Practices and Material Innovation

Sonya Parenti has a solid background in the leather, footwear, and accessories industry, along with experience in the garment sector. She has deep experience in sustainable and circular design, from the initial concept to sourcing sustainable materials and developing products on-site. Sonya also helps brands and factories innovate in the fast-paced and competitive fashion industry, training staff and stakeholders on circular economy, sustainable product design, new technologies like the “digital passport”, and material innovations.

Sonya collaborated with Sevea in this project using her expertise in sustainable practices and new technologies to enhance the textile industry in Cambodia.

COMMISSIONED BY

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) FABRIC Cambodia

The textile project cluster of GIZ Cambodia comprises three projects: the regional FABRIC project (Fostering and Advancing Sustainable Business and Responsible Industrial Practices in the Clothing Industry in Asia), the bilateral textile project (Sustainable Textile Industry in Cambodia) and the global IGS project (Initiative Global Solidarity). All three projects are aimed at improving different aspects of sustainability in the textile industry and are therefore implemented by one team – the FABRIC Cambodia team. The projects are projects of the German development cooperation, act on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ) and are implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. This assignment lies within the scope of the IGS project

APPENDIX 1 – SELECTION OF LOCAL, REGIONAL AND INTERNATIONAL RECYCLERS ACTIVE IN ASIA

The list below aims at highlighting the various opportunities for waste handlers in Cambodia to work with recyclers. It is not a comprehensive mapping of all recyclers active in the region but a selection of the most relevant ones identified by the project team as per January 2025.

Name	Country	Recycling Type	Input/Feedstock	Output	Website
Local recyclers					
Shun Wei Fang Zhi Ke Ji Co., Ltd	Cambodia	Mechanical fibre-to-fibre	100% cotton, cotton-rich (>95%), cotton polyester blends	Cotton fibre/yarn	https://www.shunwei-recycle.com/
Xin Long Tai	Cambodia	Mechanical fibre-to-fibre	100% cotton, cotton-rich (>95%), cotton polyester blends	Cotton fibre/yarn	No website available (Li ly, factory focal point +85570314315)
GEELONG FIBER CO., LTD.	Cambodia	Thermo mechanical synthetic	100% Polyester Polyester-rich, knits and woven	PET pellets	https://www.shunwei-recycle.com/
Regional recyclers					
SC GRAND TEXTILES	Thailand	Mechanical fibre-to-fibre	100% cotton, cotton-rich (>95%), polyester	•Cotton fibre/yarn •PET pellets	https://www.sc-grand.com/en
PWO Industries Sdn Bhd	Malaysia	Mechanical fibre-to-fibre	100% cotton, cotton-rich (>95%), cotton polyester blends	Cotton fibre/yarn	https://leroyma7.wixsite.com/pwoindustries
Usha Yarns	India	Mechanical fibre-to-fibre	Cotton and cotton-rich textiles	Cotton fibre/yarn	https://ushayarns.com/
Kakkar Spinning	India	Mechanical fibre-to-fibre	100% cotton, cotton-rich (>95%), cotton polyester blends	Cotton fibre/yarn	https://kakkarspinning.com/
Birla Cellulose	India	Mechanical fibre-to-fibre	Cotton and cotton-rich textiles	Cotton fibre/yarn	https://www.livabybirlacellulose.com/
Cyclo	Bangladesh	Mechanical fibre-to-fibre	Cotton and cotton-rich textiles	Cotton fibre/yarn	https://www.cyclofibers.com/
Recover	Bangladesh	Mechanical fibre-to-fibre	Cotton and cotton-rich textiles	Cotton fibre/yarn	https://recoverfiber.com/
New Focus Textiles	China	Mechanical fibre-to-fibre	100% cotton, cotton-rich (>95%), cotton polyester blends	Cotton fibre/yarn	https://newfocustex.com/
SAYA	Taiwan	Chemical recycling	100% Polyester Polyester-rich, knits and woven 100% Polyamide, Nylon	• Polyester chips • Other polymers	https://sayarenew.com/
International recyclers					
Circulose	Sweden	Chemical recycling	Cotton and cotton-rich textiles	Man-made cellulosic pulp	https://circulo.se/en/about/
Ambercycle	USA	Chemical recycling	100% Polyester Polyester-rich, knits and woven 100% Polyamide, Nylon	• Polyester chips • Other polymers	https://www.ambercycle.com/
Circ. Earth	USA	Chemical recycling	Cotton and cotton-rich textiles	•Cellulose powder/pulp • PET pellets/fiber	https://circ.earth/
PURFI	Belgium	Mechanical fibre-to-fibre	Cotton, polyester, poly cotton blends, viscose, acrylic.	Cotton fibre/yarn	https://purfi.com/

APPENDIX 2

SELECTION REGIONAL WASTE HANDLERS

The list below aims at highlighting additional opportunities for waste handlers in Cambodia to work with regional waste aggregators. It is not a comprehensive mapping, but a selection of the ones identified by the project team as per January 2025.

Name	Country	Years of experience	Website
Regional waste handlers			
Nam Pong	Vietnam	Over 16 years	https://namphongindustry.com/
Á Châu	Vietnam	Over 20 years	https://moitruongachau.com/
Thanh Liêm	Vietnam	Over 20 years	No website available. (contact point Ms. Yen - email: hoangyen120995@gmail.com)
Recycle Raw	Bangladesh	Over 10 years	https://recycle-raw.com/

2025

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