



SHOVON KNITWEAR LTD.

Manufacturer & Exporter of Quality Knitwears.

(A CONCERN of SHOVON Group of Companies Limited)

SCOPE 3 EMISSIONS

SCIENCE-BASED TARGETS SETTING

REPORT

2025



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SCOPE OF THE PROJECT

This report is prepared to support **Shovon Knitwear Ltd.** for shifting towards sustainable manufacturing through setting **Science-Based Targets for Scope 3 emissions** including capacity building in resource efficiency and adoption of sustainable practices. This report also includes GHG inventory of Scope 1 and 2 emissions. Engineering Resources International (ERI) Ltd. is the consulting company supporting the implementation of this programme.

The report is generated based on available documents, consultations with the factory staff and management, direct measurements and analysis, and the data generated by the consultants and the factory. In the absence of the metered data, the consultants in collaboration with the factory personnel made the best estimates of the section-wise resource consumption or distribution. The information is time-dependent; and the relevance of data, conditions of the site, and the observations may change. The report presents in good detail the current resource usage, consumption, emission reduction, and outcomes of **Shovon Knitwear Ltd.** -through assessments, intervention, and implementation challenges in **Shovon Knitwear Ltd.**

The SBTi targets setting process has been based on the following guidelines:

1. APPAREL AND FOOTWEAR SECTOR SCIENCE-BASED TARGETS GUIDANCE
2. SBTi CORPORATE NEAR-TERM CRITERIA
3. SBTi CORPORATE NEAR-TERM TOOL

This report is to be distributed only to the authorized personnel and/or parties and should be treated as containing commercially sensitive information.



List of Acronyms

SKL	Shovon Knitwear Ltd
ERI	Engineering Resources International
GHG	Green House Gas
kg	Kilogram
kW	Kilo Watt
kWp	Kilowatt Peak
kg/Hr	Kilogram per Hour
kWh	Kilo Watt Hour
L	Liter
m ³	Cubic Meter
NG	Natural Gas
RMG	Ready-made garments
tCO ₂ e	Ton of carbon-di-oxide equivalent

EXECUTIVE SUMMARY

This report presents the findings and recommendations based on the comprehensive assessment conducted at **Shovon Knitwear Ltd. (SKL)**. This assessment aimed at identifying opportunities for enhancing energy & water efficiency, reducing operational costs, and mitigating environmental impacts while sustaining or improving the production levels.

SKL is a ready-made garment manufacturing facility with a yearly turnover of approximately 36 million USD. Established in 2012, this factory encompasses an area of about 25,167 square meters. Its esteemed clientele includes renowned brands like Siplec, Auchan, Hema, Tema, TJX. The factory's primary source of electricity is grid connection, with 3 diesel generators with a combined capacity of about 2.4 MW. The factory has one natural gas boiler with a capacity of 2000 kg/hour for steam requirements in the facility.

Science-Based Targets Setting for SKL

Science-based targets provide a clearly defined pathway for companies to reduce greenhouse gas (GHG) emissions, helping prevent the worst impacts of climate change and future-proof business growth. Targets are considered 'science-based' if they align with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to 2°C above pre-industrial levels.

Considering Scope 1, 2, and 3, the total GHG emissions for **SKL** in 2023 is 17,446 tCO_{2e}. The following is a breakdown of total emissions:

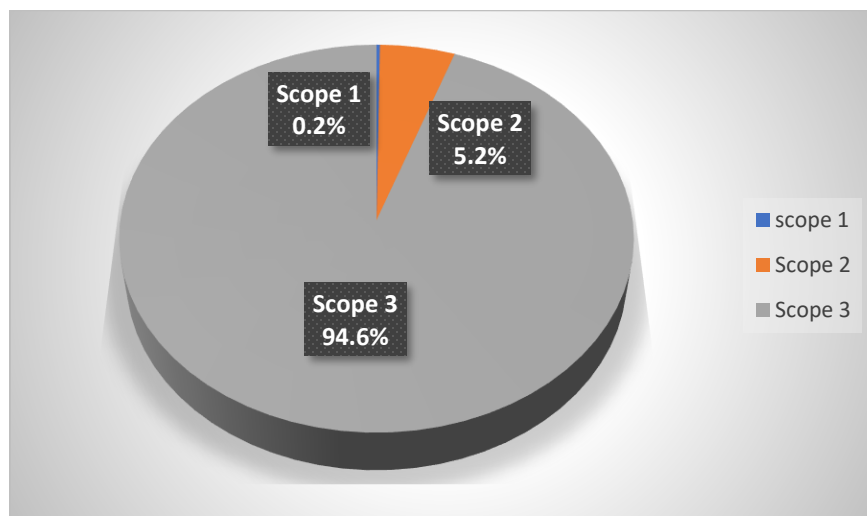


Figure 1: GHG Emissions across Scope 1, 2 & 3 (2023)



The company has scope 3 emissions of more than 40%. Abiding by SBTi guidelines, **SKL** needs to set targets for Scope 3 emissions. The following table shows the targets across the scopes along with the baseline and recent year:

	Baseline Year	Recent Year	Target Year	Reduction Target aligned with 2°C
GHG Emissions Scope 3	2023	2023	2030	25%

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1. GHG Inventory: Introduction

A GHG inventory is a systematic record of greenhouse gas emissions from various sources, providing crucial data to monitor, analyze, and manage the impact of human activities on climate change. It helps factories to track their emissions, set reduction targets, and develop strategies to mitigate the effects of global warming. This part of the report is focused on Scope 1 and Scope 2 GHG emissions. GHG inventory is prepared based on primary fuel consumption, purchased electricity from the grid and fuel consumption of the factory.

1.1 Major Sources of GHG Emissions (Scope 1 & 2)

For SKL, the following table shows the sources and share of emissions for the year 2023:

Table 1: GHG Inventory (Scope 1 & 2) for 2023

Fuel	Consumption	Units (e.g., kg or kWh)	GHG Factor	All GHGs (tonnes CO ₂ e)	%
Natural Gas (heat)	17,511	m ³	0.001925976	34	3.6%
Diesel (Power)	2,591	Ltr	0.002714774	7	0.4%
Purchase electricity	1,183,577	kWh	0.00076194	902	96%
Total GHG emissions from scope 1 (tonnes CO ₂ e):				41	4%
Total GHG emissions from scope 2 (tonnes CO ₂ e):				902	96%
Total GHG Emission (Scope 1 & 2)				943	100.00%

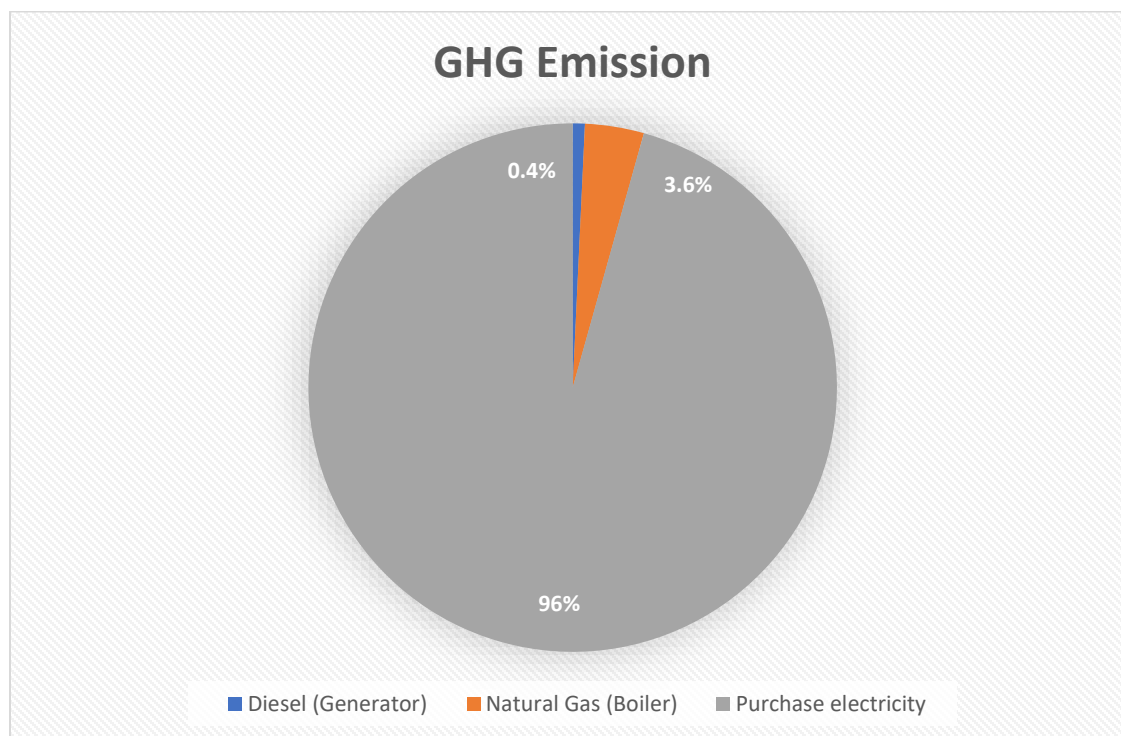


Figure 2: GHG Emissions Sources (Scope 1 & 2) (%) (2023)

Targets (Scope 1 & 2) setting using SBTi Tool:

Enter your company name	Shovon Knitwear Limited	
Target setting method	Absolute Contraction Approach	<i>This approach is not applicable to power generation emissions</i>
SDA scenario		<i>Not applicable</i>
SDA sector		<i>Not applicable</i>
Base year	2023	<i>Select a base year</i>
Base year Activity output		
Base year Scope 1 emissions	41	<i>tCO₂e</i>
Base year Scope 2 emissions	902	<i>tCO₂e</i>
Target year	2030	<i>Select a target year</i>
Target year Type of activity projection		
Target year Activity output		
Most recent year (MRY)	2023	<i>Select most recent year of available emissions&activity data</i>

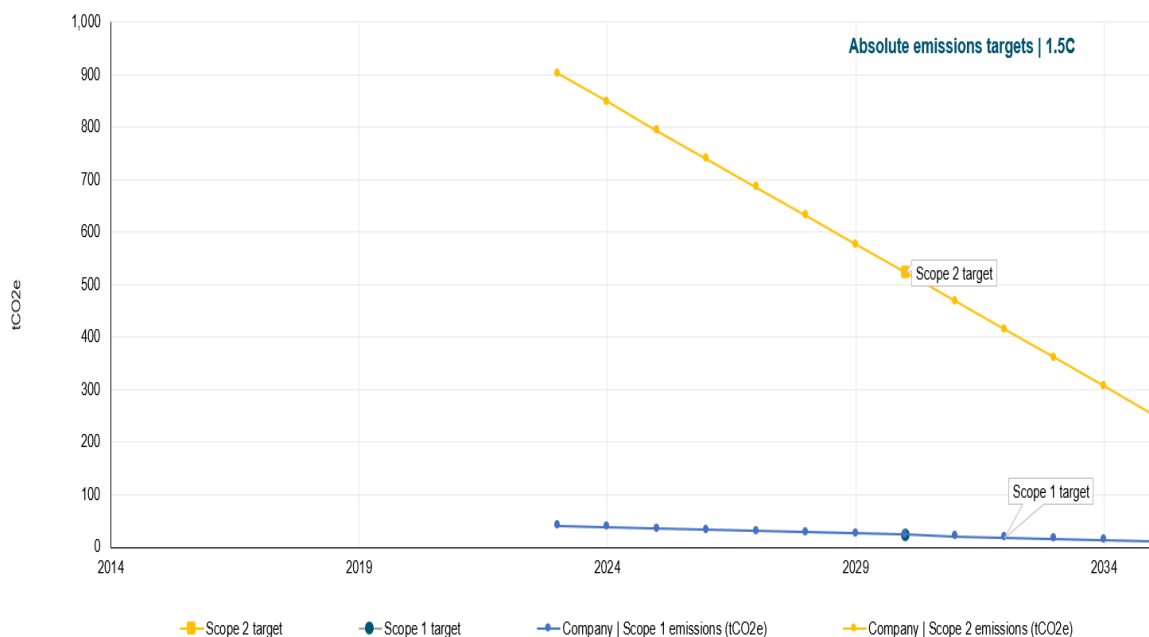
Scope 3 Emissions Targets Setting Report



1.5 degree scenario (1.5C)

[Review all target modelling data](#)

	Base year (2023)	Most recent year (2023)	Target year (2030)	% Reduction to date	% FLA Adjustment	% SBT reduction		
Scope 1 emissions (tCO ₂ e)	41	---	24	---	Not required	42.00%	Near-Term Scope 1 SBT Formulation	Shovon Knitwear Limited commits to reduce Scope 1 emissions 42% by 2030 from a 2023 base year.
Scope 2 emissions (tCO ₂ e)	902	---	523	---	Not required	42.00%	Near-Term Scope 2 SBT Formulation	Shovon Knitwear Limited commits to reduce Scope 2 emissions 42% by 2030 from a 2023 base year.
Scope 1+2 emissions (tCO ₂ e)	943	---	547	---	---	42.00%	Near-Term Scope 1+2 SBT Formulation	Shovon Knitwear Limited commits to reduce Scope 1+2 emissions 42% by 2030 from a 2023 base year.



	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Absolute contraction 1.5C	41.00	38.54	36.08	33.62	31.16	28.70	26.24	23.78	21.32	18.86	16.40	13.94	11.48
Scope 1 emissions (tCO ₂ e)	41.00	38.54	36.08	33.62	31.16	28.70	26.24	23.78	21.32	18.86	16.40	13.94	11.48
Scope 2 emissions (tCO ₂ e)	902.00	847.88	793.76	739.64	685.52	631.40	577.28	523.16	469.04	414.92	360.80	306.68	252.56
Scope 1+2 emissions (tCO ₂ e)	943.00	886.42	829.84	773.26	716.68	660.10	603.52	546.94	490.36	433.78	377.20	320.62	264.04

****Shovon Knitwear Limited commits to reduce Scope 1 emissions 42% by 2030 from a 2023 base year.**

**** Shovon Knitwear Limited commits to reduce Scope 2 emissions 42% by 2030 from a 2023 base year.**

**** Shovon Knitwear Limited commits to reduce Scope 1+2 emissions 42% by 2030 from a 2023 base year.**

2. Scope 3 Emissions: Overview

Scope 3 emissions refer to indirect greenhouse gas (GHG) emissions that occur in a company's value chain, outside its direct operations. For a textile manufacturing facility, these emissions typically make up the largest portion of its carbon footprint, encompassing activities such as raw material production, transportation, product use, and end-of-life disposal. Addressing Scope 3 emissions is crucial for the textile industry, given its complex supply chains and significant environmental impact. These emissions are categorized into **15 distinct categories**, split into **upstream** and **downstream** activities (Figure 3).

2.1 Upstream Emissions (Before the Company's Operations)

1. **Purchased Goods and Services** – Emissions from the extraction, production, and transportation of raw materials, products, and services bought by the company (e.g., fabrics, dyes, and chemicals in textiles).
2. **Capital Goods** – Emissions from producing physical assets such as machinery, buildings, and equipment used in operations.
3. **Fuel- and Energy-Related Activities (Not Included in Scope 1 or 2)** – Emissions from the production and transportation of fuels and electricity before they are consumed (e.g., upstream emissions from power plants supplying electricity to the facility).
4. **Upstream Transportation and Distribution** – Emissions from transporting goods and materials to the company (e.g., shipping of textiles from suppliers).
5. **Waste Generated in Operations** – Emissions from waste disposal and treatment (e.g., textile waste, chemical waste, and wastewater from production).
6. **Business Travel** – Emissions from corporate travel by air, rail, road, and hotel stays.
7. **Employee Commuting** – Emissions from employees traveling to and from work using personal or public transport.
8. **Upstream Leased Assets** – Emissions from assets leased by the company but not included in Scope 1 or 2 (e.g., leased office spaces, warehouses).

2.2 Downstream Emissions (After the Company's Operations)

9. **Downstream Transportation and Distribution** – Emissions from delivering finished products to customers, including retail distribution and storage.
10. **Processing of Sold Products** – Emissions from further processing of sold goods before they reach consumers (relevant in cases where products require additional manufacturing).
11. **Use of Sold Products** – Emissions generated during product use by consumers (e.g., energy use in washing and drying clothes).
12. **End-of-Life Treatment of Sold Products** – Emissions from waste disposal and recycling of sold products (e.g., landfill emissions from discarded clothing).
13. **Downstream Leased Assets** – Emissions from assets owned by the company but leased to others (e.g., rented-out production facilities).
14. **Franchises** – Emissions from franchise operations not included in Scope 1 or 2.
15. **Investments** – Emissions from investments, including financing, loans, and equity stakes in other companies.

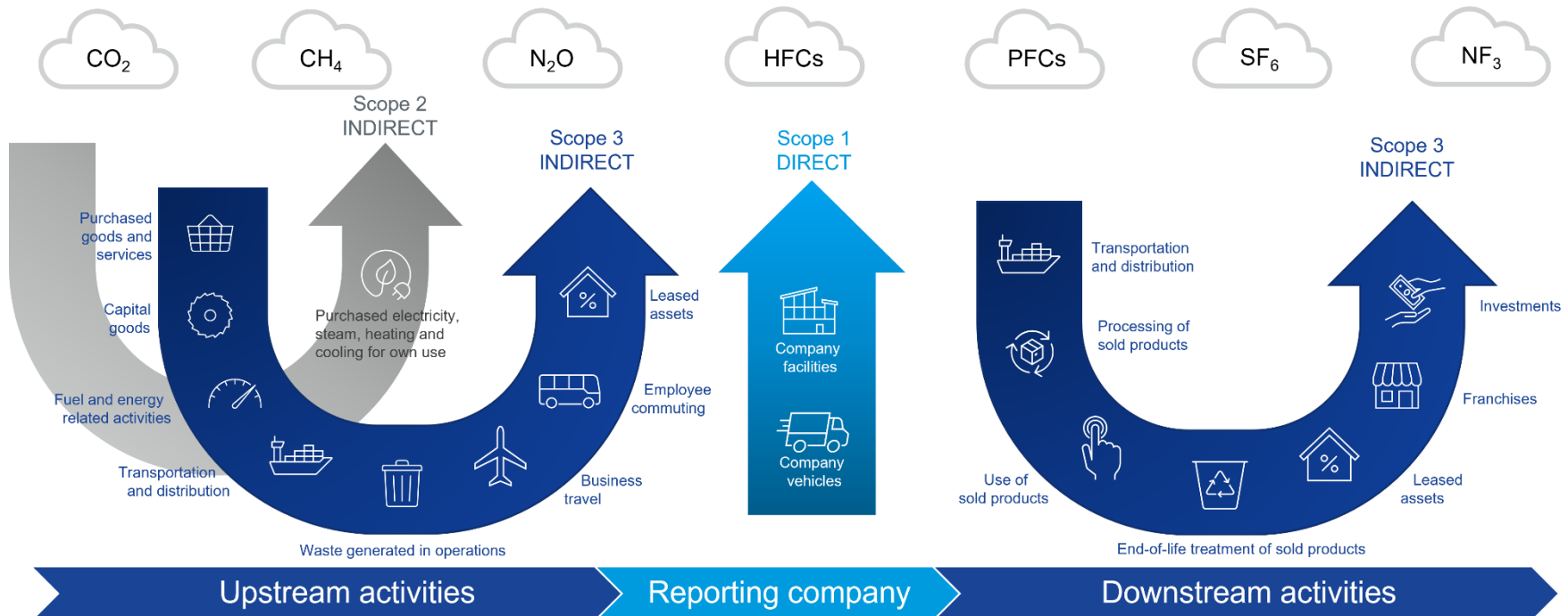


Figure 3: Scope 3 Emissions Overview (15 Categories)



2.3 Major Sources of Scope 3 Emissions

Resources	GHG Emissions (tCO ₂ e)	%
Purchased goods and services	16,164	97.943%
Upstream Transportation	1	0.005%
Downstream Transportation	176	1.069%
Business Travels	0.8	0.0046%
Employee Commuting	71	0.430%
Waste generations	61	0.367%
Fuel and energy related actions	30	0.181%
TOTAL	16,503	100.000%

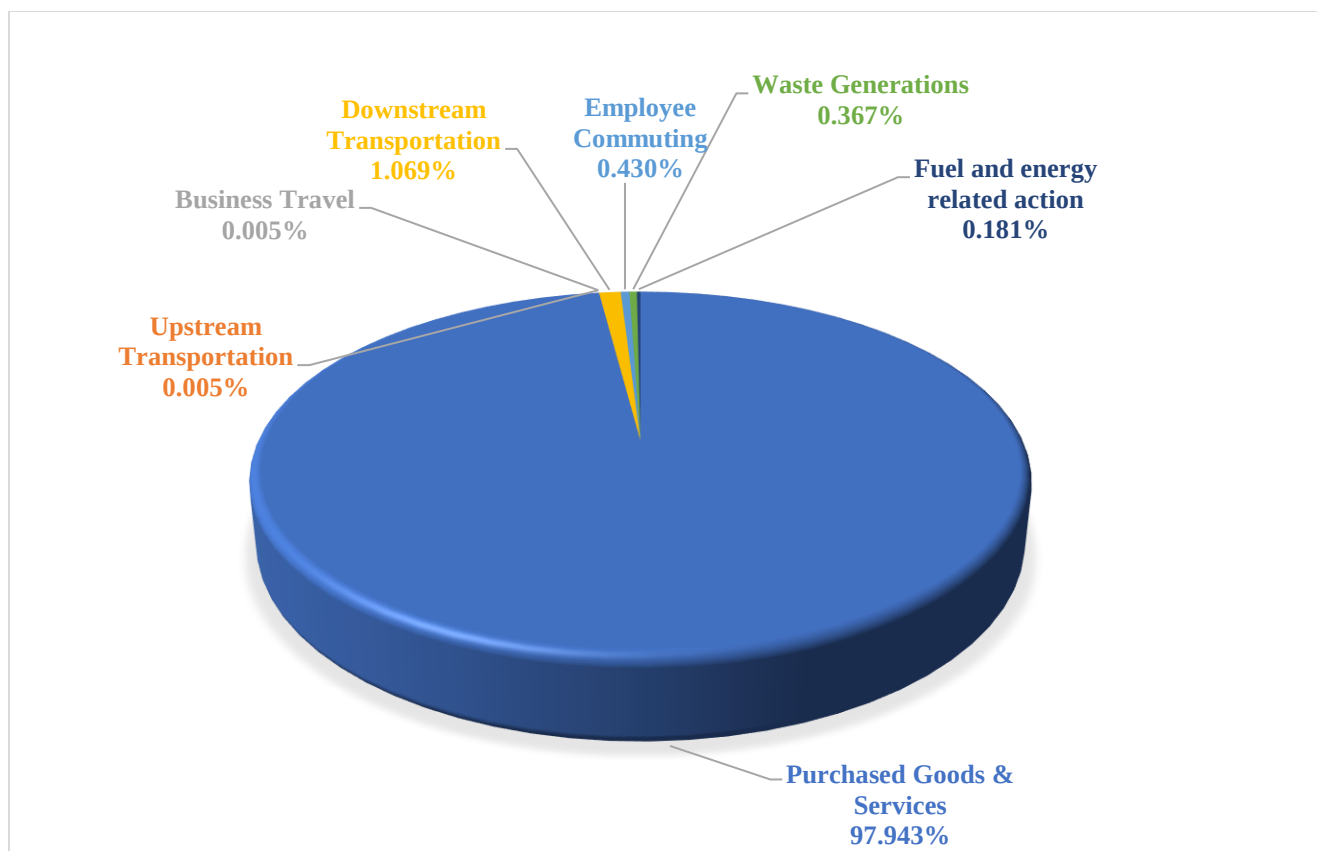


Figure 4: Sources of Scope 3 Emissions (2023)

2.4 Total GHG Emissions (Scope 1, 2 & 3)

Considering Scope 1, 2, and 3, the total GHG emissions for SKL in 2023 is 17,446 tCO₂e.

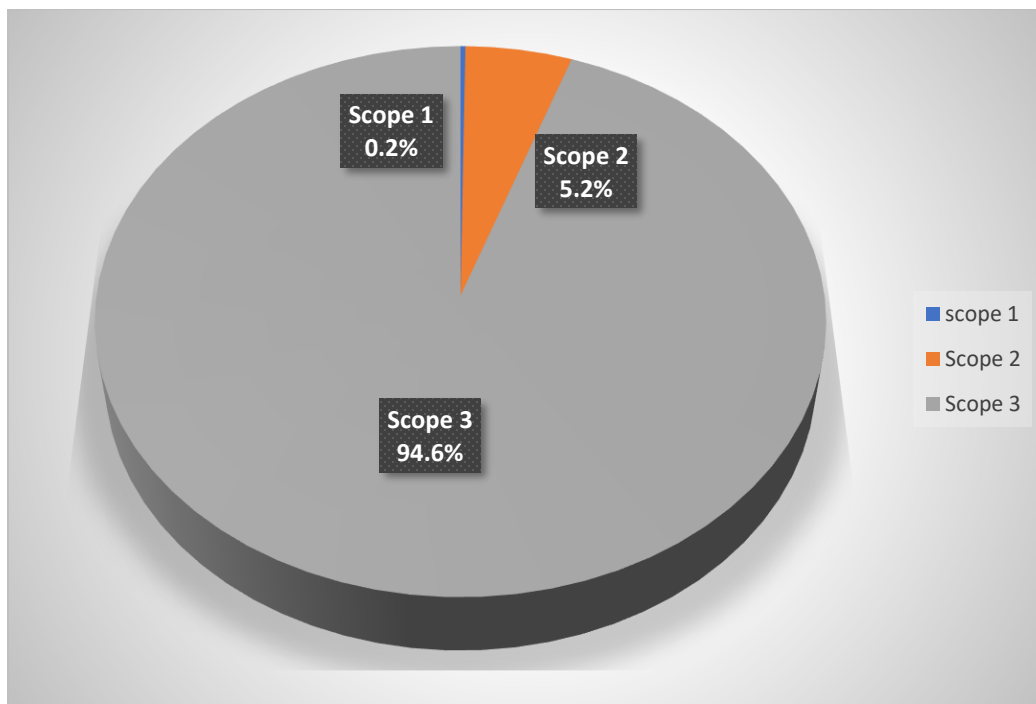


Figure 5: GHG Emissions for Scope 1, 2 & 3 (2023)

2.5 Scope 3 Emissions Reductions Target

A company sets a Scope 3 emissions reduction target as a corporate goal to reduce indirect greenhouse gas emissions throughout its value chain. These emissions include those generated by suppliers, customers, and other external activities, such as transportation, product use, and waste disposal, which the company does not directly control but influences. Setting a Scope 3 target helps organizations address a significant portion of their overall environmental impact, often much larger than Scope 1 and Scope 2 emissions combined. Achieving these reductions typically involves collaboration with partners, innovation in product design, and adjustments in supply chain management.

To meet a more ambitious target of reducing Scope 3 emissions by at least 25% by 2030 for **SKL**., we will adjust each category's reduction target. A 30% reduction across total Scope 3 emissions (16,503 tCO₂e) requires a total reduction of approximately 4,950 tCO₂e by 2030.

Table 2: Summary of Scope 3 Emissions Reduction Target

Sl No	Category	2023 Emissions (tCO ₂ e)	Target Reduction (%)	Estimated Reduction (tCO ₂ e)	Approach Summary
1	Purchased Goods & Services	16,164	30%	4,849	Material Substitution, Supplier Engagement, Sustainable material adoption, alternate sourcing
2	Upstream Transportation	1	30%	0.3	Route Optimization, Greener Vehicles, Low emission provider
3	Downstream Transportation	176	30%	52.8	Sustainable Distributors, Eco-packaging
4	Business Travel	0.8	30%	0.24	Virtual Meetings, Travel Policy Updates, Carbon Offsets
5	Employee Commuting	71	30%	21	Carpooling Programs, Electric Vehicles, Public Transport Support
6	Waste Generation	61	30%	18	Zero Waste Initiative, Recycling Infrastructure, Composting, Supplier Packaging Returns
7	Fuel and Energy Related Action	30	30%	9	Energy Efficiency, On-site Renewable Energy, Behavioural Changes
	Total	16,503	30%	4,950	



2.5.1 Targets Setting for Scope 3 Emissions using SBTi Tool:

Section 1. Input data

Enter your company name	Shovon Knitwear Limited	
Target setting method	Absolute Contraction Approach	Please review the latest version of the SBTi Guidance and Corporate Near-Term Criteria
Base year	2023	Dropdown
Target year	2030	Dropdown
Base year output		
Target year output		
Scope 3 emissions (total or specific categories)	16,503	tCO2e

Section 2. Cross-sector absolute reduction / Absolute contraction approach (ACA)

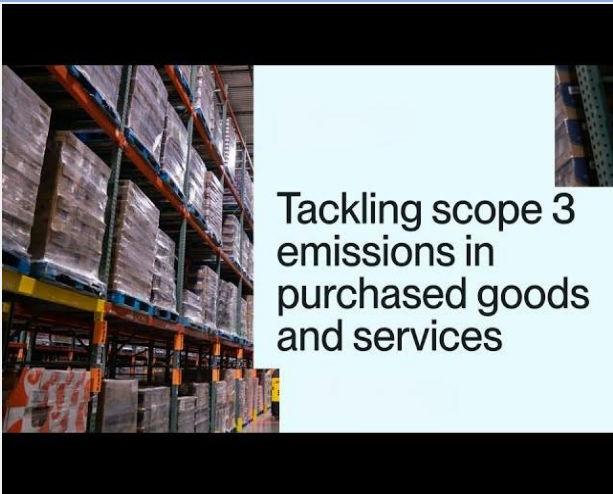
	Base year (2023)	Target year (2030)	% SBT reduction	
Absolute emissions - WB2C (tCO2e)	16,503.0	12,377.3	25.00%	Near-Term Scope 3 SBT Formulation - WB2C

**** Shovon Knitwear Limited commits to reduce Scope 3 emissions 25% by 2030 from a 2023 base year.**

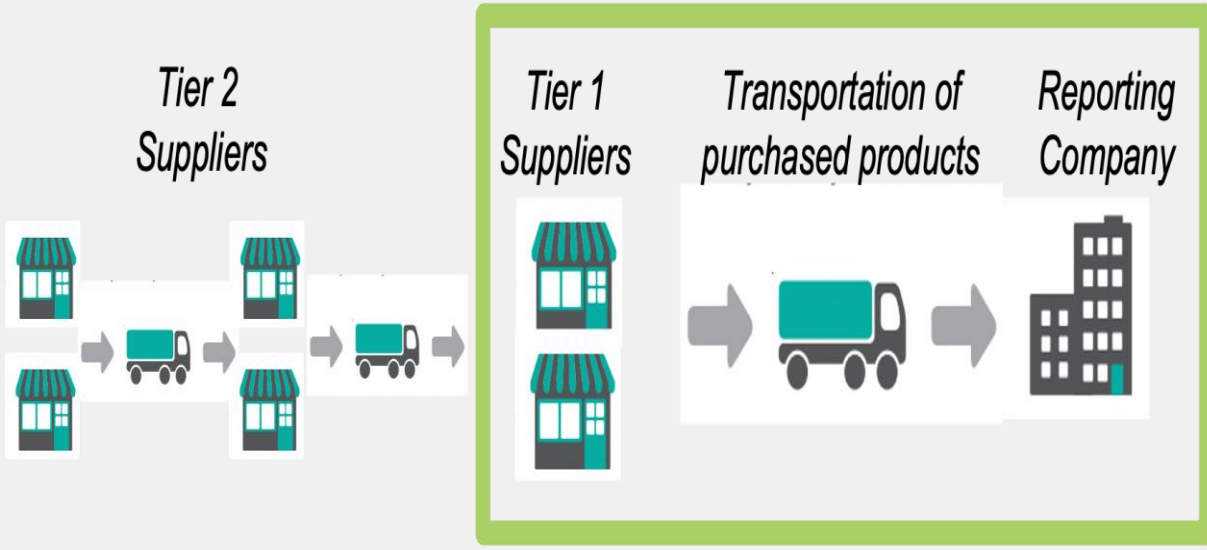


SCOPE 3 Emissions Reduction ACTION PLAN

2.6 Purchased Goods & Services

Description		Details			
					
Target		Reduce by 30% by 2030			
Approach		• Sustainable Sourcing: Prioritize suppliers offering low-carbon, sustainable raw materials, such as replacing 60% raw materials with recycled cotton results in almost 30 % reduced GHG emissions. • Collaborative Innovation: Partner with suppliers to co-develop innovative low-carbon production methods. Examples include waterless dyeing and renewable heat sources. • Supplier Standards: Introduce supplier sustainability scorecards and link procurement contracts to meeting predefined emissions benchmarks.			
Material Type	Baseline (2023) - Sourced Material (Virgin) (tons)	Baseline GHG Emissions (tonnes CO ₂ e)	2030 Target - Sourced Material (Recycled) (tons)	2030 GHG Emissions (tonnes CO ₂ e)	GHG Emissions Reduction (tonnes CO ₂ e)
Cotton	1,902	12,366	1,141	3,995	8,371
GHG Emissions (2023)		16,164 tCO ₂ e			
Estimated GHG Emissions Reduction by 2030		4,849 tCO ₂ e			

2.7 Upstream Transportation

Description	Details
	
Target	Reduce by 30% by 2030
Approach	• Low-Carbon Logistics: Shift to transportation modes using alternative fuels such as electric, biofuels, or LNG-powered trucks. • Route Optimization: Implement advanced route planning software to reduce total travel distance and fuel consumption. • Logistics Partnerships: Partner with logistics companies committed to reducing emissions and adopting net-zero goals.
GHG Emissions (2023)	1 tCO ₂ e
Estimated GHG Emissions Reduction by 2030	0.3 tCO ₂ e

2.8 Downstream Transportation & Distribution

Description	Details
<i>How to account for scope 3 emissions from transportation & distribution of sold products...</i>	Reporting Company Transportation of sold products Retailer Consumer 
	<i>...if the company does not pay for transportation of sold products to retailer</i> Scope 1 & 2 Scope 3 category 9 Scope 3 category 9
	<i>...if the company does pay for transportation of sold products to retailer</i> Scope 1 & 2 Scope 3 category 4 Scope 3 category 9
Target	Reduce by 30% by 2030
Approach	▪ Sustainable Distribution: Encourage distributors to adopt low-carbon vehicles or hybrid fleet options. ▪ Shipping Consolidation: Collaborate with retail partners to consolidate shipments, reducing the overall frequency of transport. ▪ Green Packaging: Shift to lightweight, recyclable packaging materials to reduce emissions associated with transport weight.
GHG Emissions (2023)	176 tCO ₂ e
Estimated GHG Emissions Reduction by 2030	52.8 tCO ₂ e

2.9 Business Travel

Description	Details
	
Target	Reduce by 30% by 2030.
Approach	▪ Virtual Meetings: Expand the use of video conferencing and digital collaboration tools to replace non-essential business trips. ▪ Travel Policies: Implement a low-emission travel policy that prioritizes sustainable airlines and mandates participation in carbon offset programs for any unavoidable air travel. ▪ Carbon offset: Implement carbon offset contributions for business flights.
GHG Emissions (2023)	0.8 tCO ₂ e
Estimated GHG Emissions Reduction by 2030	0.24 tCO ₂ e

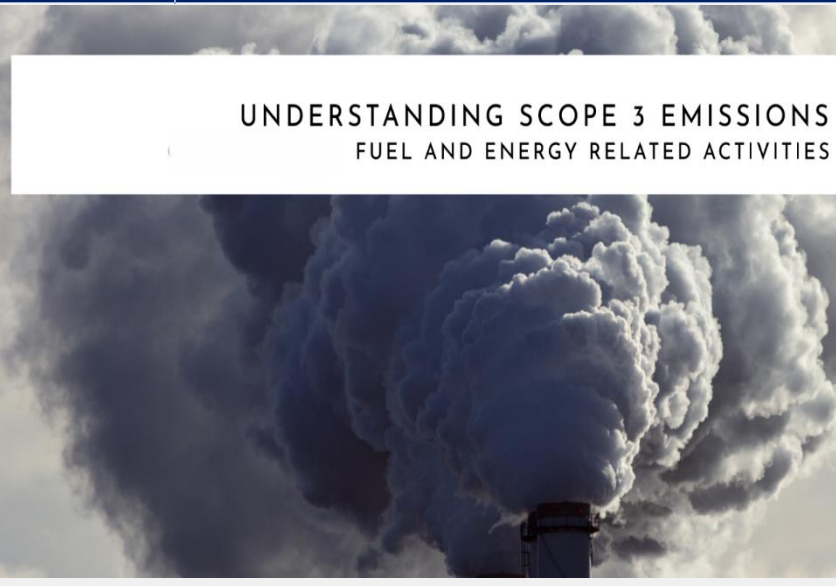
2.10 Employee Commuting

Description	Details
	
Target	Reduce by 30% by 2030
Approach	▪ Sustainable Mobility Programs: Offer incentives for carpooling, public transportation, and cycling. ▪ EV Subsidies: Provide subsidies or zero-interest loans for employees purchasing electric or hybrid vehicles. ▪ Flexible Work Policies: Encourage remote working arrangements or staggered shifts to reduce peak-hour commuting emissions. ▪ Commute Awareness Campaigns: Launch internal awareness programs to educate employees on the benefits of sustainable commuting.
GHG Emissions (2023)	71 tCO ₂ e
Estimated GHG Emissions Reduction by 2030	21 tCO ₂ e

2.11 Waste Generation

Description	Details
	
Target	Reduce by 30% by 2030
Approach	▪ Zero-Waste Manufacturing: Implement lean manufacturing techniques to reduce production waste and enhance material efficiency. ▪ Waste Recycling Programs: Partner with certified waste recycling companies to manage industrial waste streams effectively. ▪ Composting Organic Waste: Set up on-site composting units for biodegradable waste to reduce emissions from waste decomposition. ▪ Circular Economy Practices: Explore opportunities to reuse textile waste as raw materials for future production cycles.
2023 GHG Emissions	61 tCO ₂ e
Estimated GHG Emissions Reduction by 2030	18 tCO ₂ e

2.12 Fuel- and Energy-Related Activities

Description	Details
	
Target	Reduce by 30% by 2030
Approach	▪ Renewable Energy Transition: Install solar panels and explore long-term power purchase agreements for renewable electricity. ▪ Energy Efficiency Measures: Upgrade to energy-efficient equipment, such as high-efficiency motors and smart lighting systems. ▪ Behavioral Programs: Train employees to adopt energy-saving behaviors, such as shutting down equipment during non-operational hours.
2023 GHG Emissions	30 tCO ₂ e
Estimated GHG Emissions Reduction by 2030	9 tCO ₂ e

2.13 Total expected reduction by 2030

The total emissions reduction across all categories is anticipated to be roughly **4,950 tCO₂e**, representing a **30%** reduction in total Scope 3 emissions. This ambitious reduction plan addresses main categories extensively and is consistent with best practices for reducing Scope 3 emissions.

2.14 Scope 3 Emission Calculation Methodologies

Scope 3 Category	Preferred Calculation Method	Calculation Formula
Purchased Goods & Services	Average Data Method	Emissions = Quantity of Goods Purchased × Emission Factor
Upstream Transportation	Average Data Method	Emissions = Average Distance × Weight × Emission Factor
Downstream Transportation	Average Data Method	Emissions = Average Distance × Weight × Emission Factor
Business Travel	Supplier Specific Method	Emissions = Average Distance × Emission Factor
Employee Commuting	Supplier Specific Method	Emissions = Number of Employees × Average Distance × Average Commuting Emission Factor
Waste Generation	Average Data Method	Emissions = Amount of Waste × Average Emission Factor
Fuel- and Energy-Related Activities	Average Data Method	Emissions = Fuel Used × Average Upstream Emission Factor

2.15 Scope 3 Emissions Categories (Not Applicable for SKL)

- Capital Goods (Category 2)** – SKL. did not purchase or invest in new capital goods (such as machinery, buildings, or equipment) within the reporting period, according to the data they provided. Since capital goods emissions are only accounted for when new assets are acquired or significantly upgraded, this category does not apply to the company in the given timeframe. Additionally, if the organization follows an operational control approach and primarily maintains existing infrastructure, the emissions associated with capital goods would not be relevant for Scope 3 reporting.
- Upstream Leased Assets (Category 8)** – SKL. does not lease any upstream assets (e.g., buildings, machinery, or vehicles) from a third party, making Category 8 emissions inapplicable. In cases where a company leases assets, emissions from their operation are included in Scope 3 unless already accounted for in Scope 1 or 2. However, since SKL. owns and operates its facilities and equipment without reliance on leased infrastructure, there are no emissions to be reported under this category.
- Processing of Sold Products (Category 10)** – Category 10 applies to companies that sell intermediate products requiring further processing by customers before becoming final products. However, SKL. manufactures finished garments that do not undergo any additional manufacturing or transformation before reaching consumers. As there is no significant energy

or material consumption involved in further processing, emissions from this category are not applicable to SKL.'s Scope 3 inventory.

- 4. Downstream Leased Assets (Category 13)** – According to the GHG Protocol, this category applies when a company owns assets that it leases out to other entities. SKL. does not lease out factories, warehouses, or retail spaces to downstream partners or customers. Since the company's operations stop at garment production, there are no leased assets in the downstream supply chain, making this category irrelevant.
- 5. Franchises (Category 14)** – This category is relevant for companies that operate under a franchise model, where third-party entities use the company's brand name and business model. SKL. is not a franchisor and does not operate franchise outlets. Instead, it directly supplies products to brands and retailers. Since there are no franchises generating emissions under SKL.'s control, this category is not included in the Scope 3 assessment.
- 6. Investments (Category 15)** – The GHG Protocol defines this category for companies with financial investments, such as equity holdings, debt investments, or managed assets. SKL. is a manufacturing company, not an investment firm. It does not own or manage financial portfolios that contribute to GHG emissions. As a result, there are no Scope 3 emissions from investments, making this category inapplicable.
- 7. End-of-Life Treatment of Sold Products (Category 12)** – This category accounts for emissions from the disposal of solid products, including landfilling, incineration, or recycling. According to the GHG Protocol Scope 3 Standard, companies that sell directly to consumers are responsible for estimating these emissions. However, SKL. sells finished garments to fashion brands, which then distribute them to consumers. Since SKL. does not have control over the final sale or disposal of its products, the responsibility for end-of-life emissions logically transfers to the fashion brands that sell to consumers. While garments do contribute to waste streams, these emissions are highly variable and depend on regional waste management practices and consumer behavior—factors outside SKL.'s influence. Given that the fashion brands take ownership of the products before they reach consumers, they are the appropriate entities to account for Category 12 emissions in their Scope 3 reporting. Therefore, SKL. excludes this category from its Scope 3 inventory.
- 8. Use of Sold Products (Category 11)** – SKL. manufactures and sells garments to fashion brands, which then resell them to consumers. According to the GHG Protocol Scope 3 Standard, Category 11 primarily applies to products that generate emissions during their use phase, such as appliances, vehicles, and electronics. Clothing, however, does not require fuel, electricity, or chemical transformation to function. While activities like washing and drying garments do produce emissions, these are considered part of the Brand's Scope 3 emissions, not the manufacturers. SKL. sells garments to fashion brands, which then resell them to consumers. Since these brands take ownership of the products before consumer use and generate profit from their sale, they are the appropriate entities to account for any relevant Scope 3 emissions associated with the use phase. Therefore, SKL. excludes this category from its Scope 3 inventory.

3. Monitoring and Reporting Framework

1. Digital Tracking Systems:

- Implement an integrated data management system to track emissions in real-time across all Scope 3 categories.
- Leverage IoT-enabled devices for data collection from transportation, supplier operations, and energy systems.

2. Annual Audits:

- Conduct detailed audits annually to validate reported reductions and ensure compliance with established goals.

3. Stakeholder Reporting:

- Publish annual sustainability reports detailing progress towards Scope 3 reduction targets.
- Collaborate with third-party auditors to enhance credibility and transparency.

4. Continuous Improvement:

- Revise reduction strategies based on audit findings and emerging technologies.
- Encourage feedback from employees, suppliers, and logistics partners to identify new opportunities for reduction.

4. Conclusion:

By adopting this comprehensive Scope 3 emission reduction plan, **SKL** will significantly contribute to mitigating climate change while reinforcing its leadership in sustainable textile manufacturing. This initiative will position the company as a responsible corporate citizen, aligned with global climate action efforts. In addition to the Scope 3 efforts outlined, this report has demonstrated that there are significant opportunities to reduce Scope 1 and Scope 2 emissions within the facility's operations. While we have provided a greenhouse gas (GHG) inventory that details these emissions, specific reduction strategies for Scope 1 and Scope 2 were not covered in this document. By addressing Scope 3, SKL demonstrates its commitment to a comprehensive environmental strategy, laying the groundwork for future enhancements across all scopes of emissions.

5. Annexure (Emissions Factor)

5.1 Purchased Goods & Services

Activity	Material Type	Factors (kg per tonnes CO2)	Factors (tonnes per tonnes CO2)	reference
Fabrics	S/J		6.5	UNFCCC_GHG emission Calculator, Defra, IPCC, Carbon Fact
	S/J Lycra		6	
	Terry		6.5	
	Fleece		6	
	2X2 Rib		6	
	2X2 Lycra Rib		5.5	
	1X1 Rib		6	
	1X1 Lycra Rib		5.5	
	Waffel		6	
	Interlock		6.5	
	Lycra S/Lacoste		5.5	
	S/Lacoste		6	
Other Components	Price Tag	881.19	0.88119	
	Heatseal label	919.4	0.9194	
	Barcode Label	919.4	0.9194	
	Barcode Sticker	881.19	0.88119	
	Bilister Sticker	881.19	0.88119	
	Harringbone tape	881.19	0.88119	
	Button	3116.29	3.11629	
	Care Label	2227.3	2.2273	
	Carton	821.23	0.82123	
	Special Poly	3116.29	3.11629	
	Sorting Label	2227.3	2.2273	
	Security label	821.23	0.82123	
	Hang Tag	881.19	0.88119	
	Picto Sticker	881.19	0.88119	
	Size Sticker	881.19	0.88119	
	Elastic	3116.29	3.11629	
	Hanger	3116.29	3.11629	
	Other Label	821.23	0.82123	
	Hang Tag	881.19	0.88119	
	Tape	2227.3	2.2273	
	Sticker	881.19	0.88119	

Activity	Material Type	Factors (kg per tonnes CO2)	Factors (tonnes per tonnes CO2)	reference
	Elastic	3116.29	3.11629	
	Hanger	3116.29	3.11629	
	Snap button	3975.82	3.97582	
	Hanger Hook	3975.82	3.97582	
	Swing Thread	2227.3	2.2273	
	Main Label	2227.3	2.2273	
	Size Label	2227.3	2.2273	
	Poly	3116.29	3.11629	
	Zipper	3682.68	3.68268	
Cleaning	Non-process/Cleaning		2	
Electrical Items	Electrical Items	5647.95	5.64795	
General Store	Metal	3100.64	3.10064	
	Others	3100.64	3.10064	
	Plastic	3116.29	3.11629	
	Paper	919.4	0.9194	

5.2 Upstream Transportation

Transportation	Materials	Factors (tCO ₂ e/km)	reference
Truck	Accessories Chemical General Store	0.00021	UNFCC_GHG emission Calculator, IPCC

5.3 Downstream Transportation & Distribution

Transportation	Factors (tCO ₂ e/km)	Reference
Truck	0.00018	UNFCC_GHG emission Calculator

5.4 Business Travel

Business travel history of top management	Total Emission (kg CO ₂ e)	Round Trip	Number of nights per stay Emission Factor (kg CO ₂ e/km)	Reference
Business	1,194	Dhaka - Turkey	41.77	https://applications.icao.int/icec/Home/Index , UNFCCC_GHG emission Calculator

5.5 Employee Commuting

Commuting Method	Emission Factor (kgCO ₂ e/km)	Reference
Public Transport	0.1	Carbon Fact UNFCCC_GHG emission Calculator
Private Vehicle	0.16	

5.6 Waste Generation

Item	GHG Factor(tCO ₂ e/tonnes)	Reference
Waste Plastics	0.022	US EPA, Defra, IPCC, Carbon Fact
Waste Paper	0.82620	
Waste Cardboard (include carbon cones)	0.02200	

Item	GHG Factor(tCO ₂ e/tonnes)	Reference
Waste Garments (e.g. rejected garments)	0.75000	
Waste Joot/Textiles (e.g. Cutting waste)	0.75000	
Glass	0.022	
Metal	0.02200	
Electronics	0.02200	
Food	0.6397	
Scrap Waste	0.02200	

5.7 Fuel and Energy Related Activities

Fuel and energy related activity Upstream		
Fuel	Emission factor (kgCO ₂ e/unit)	reference
Diesel	0.60986	UNFCC_GHG emission Calculator, Carbon Fact
NG	0.34593	
T&D losses		
	T&D Factors (kgCO ₂ <i>e</i> /unit)	reference
Electricity	0.0188	UNFCC_GHG emission Calculator



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