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TOYOBO CO.,LTD.

	Companies' approach
① Background and purpose of accounting	<ul style="list-style-type: none"> • Toyobo measures the amount of supply chain emissions and leads effective reduction activities in future. • Emission data are disclosed in response to the needs of stakeholders including investors and NPOs, so that stakeholders can deepen understanding for the steps we are taking.
② Utilization of accounting results	<ul style="list-style-type: none"> • We set the target value and goal to cut emissions in the supply chain and reduce emissions. • We present the accounting data to stakeholders through the CSR report and our website. • We make use of data to answer questionnaires such as CDP.
③ Benefits of accounting	<ul style="list-style-type: none"> • Accounting helps us identify emission hotspots in the supply chain, so we are able to clarify which Scope 3 emission source categories should be targeted and quantify emission reduction.
④ Internal system for accounting	<ul style="list-style-type: none"> • Multiplying emission factor and activity data led to carbon emissions in each category. • Activity data needed for accounting were obtained from the internal system managed by the Finance Department and Human Resources Department. We also used energy consumption data stipulated to report on a regular basis under the Act on the Rational Use of Energy.

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	Companies' approach
⑤ Efforts to reduce supply chain emissions	<ul style="list-style-type: none"> • In the manufacturing process, Toyobo continues to implement various energy-saving activities at offices and factories, and contributes to customer's reduction activities. • We have started promoting a modal shift and improving logistics efficiency. Logistics network and its system are evolving day by day, so we constantly seek to adjust the system to our company. • We promote the development and sales of environmental friendly products. We establish the company-specific standard for environmental friendly products and evaluate products when developing new products and changing specifications of existing products. • We use Information Technology to improve efficiency.
⑥ Issues in supply chain emissions accounting	<ul style="list-style-type: none"> • Expanding the accounting scope to our group companies and increasing efficiency in accounting requires to build the internal network. We communicate the importance of accounting and establish the system in which relevant departments/parties are willing to offer their data. • We need to improve the precision of accounting by expanding the accounting scope and choosing the accounting methods which is well suited to the actual situations.
⑦ Other	<ul style="list-style-type: none"> •

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Category	Accounting methods ※Accounting period : April 2017 - March 2018	
	Activity data	Emission factor
Category 1: Purchased goods and services	<ul style="list-style-type: none"> Purchase amount of raw materials, materials and packaging 	<ul style="list-style-type: none"> Value-based global GHG emission factor
Category 2: Capital goods	<ul style="list-style-type: none"> Investment amount 	<ul style="list-style-type: none"> Emission factor per capital good price ^{a)}
Category 3: Fuel and energy related activities not included in Scope 1 or 2	<ul style="list-style-type: none"> Amount of energy purchased 	<ul style="list-style-type: none"> CFP Communication Program Basic DB ver. 1.01
Category 4: Transportation and delivery (upstream)	<ul style="list-style-type: none"> Fuel consumption for transportation by Toyobo as the consigner 	<ul style="list-style-type: none"> Emission factor in Mandatory GHG Accounting and Reporting System ^{a)}
Category 5: Waste generated in operations	<ul style="list-style-type: none"> Volume of waste by type 	<ul style="list-style-type: none"> Emission factor by waste types/disposal ways ^{a)}
Category 6: Business travel	<ul style="list-style-type: none"> Business trip expense by means of travel 	<ul style="list-style-type: none"> Emission factor per traveling expense ^{a)}
Category 7: Employee commuting	<ul style="list-style-type: none"> Headcount 	<ul style="list-style-type: none"> Emission factor per the number of employees/working days ^{a)}
Category 8: Leased assets (upstream)	<ul style="list-style-type: none"> Included in Scope 1&2 	<ul style="list-style-type: none"> —
Category 9: Transportation and delivery (downstream)	<ul style="list-style-type: none"> Not calculated 	<ul style="list-style-type: none"> Due to intermediate products
Category 10: Processing of sold products	<ul style="list-style-type: none"> Not calculated 	<ul style="list-style-type: none"> Due to intermediate products
Category 11: Use of sold products	<ul style="list-style-type: none"> Emissions from VOC emission treatment equipment 	<ul style="list-style-type: none"> CFP Communication Program Basic DB ver. 1.01
Category 12: End-of-life treatment of sold products	<ul style="list-style-type: none"> Not calculated 	<ul style="list-style-type: none"> Due to intermediate products
Category 13: Leased assets (downstream)	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> —
Category 14: Franchises	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> —
Category 15: Investments	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> —
Other	<ul style="list-style-type: none"> — 	<ul style="list-style-type: none"> —

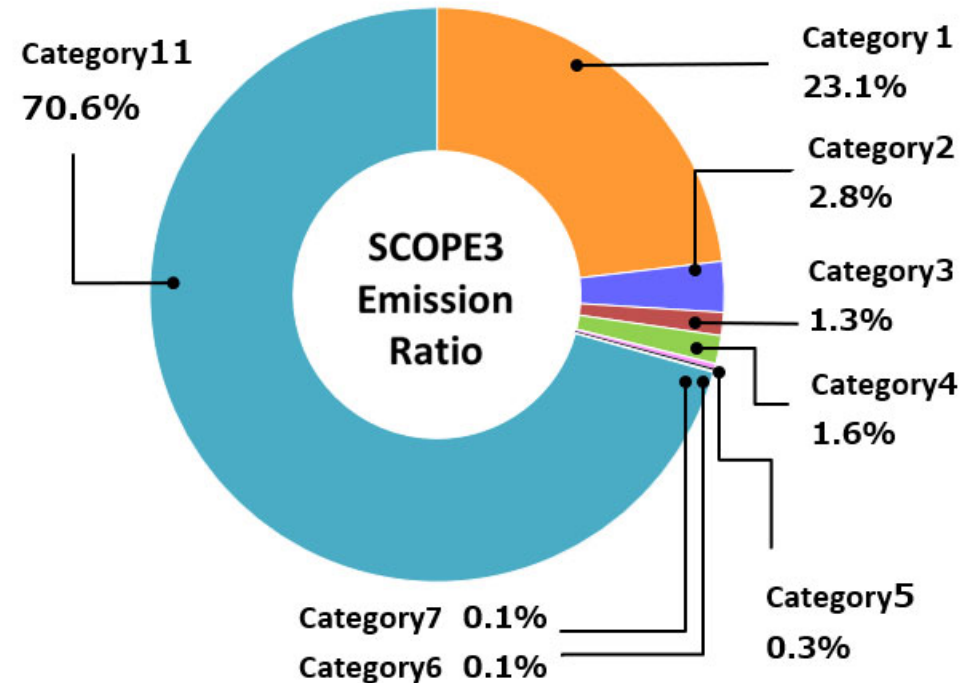
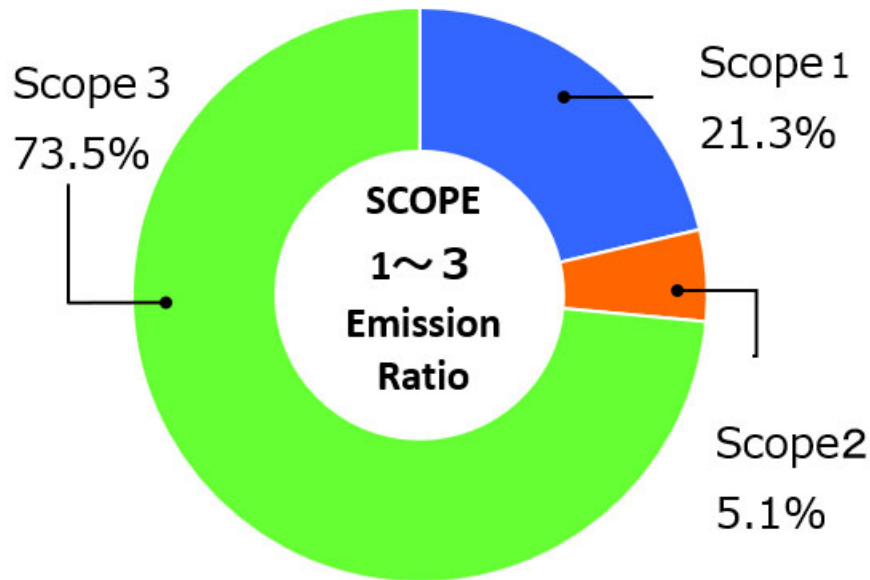
a) Emission Factor Database on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain (ver. 2.5)

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Supply chain emissions : Accounting results

- Supply chain emissions



SCOPE1: Direct GHG emissions by Toyobo
 SCOPE2: Indirect emissions from the use of electricity, heat, or steam supplied by others
 SCOPE3: Indirect emissions other than Scope 1 and Scope 2

*Category 1 includes Category 4: transportation of procurement.