

*The organization name is the name at the time of recording.

Boundary, Period, and Assumptions Underlying of Data (Environment)

Energy consumption within the organization

Boundary	<p>*Including the affiliates transferred at the end of 2017</p> <p>Domestic: 13 sites; TOYO TIRE & RUBBER CO., LTD. (Headquarters, Sendai Plant, Kuwana Plant, Hyogo Manufacturing Complex, Tire Technical Center, Automotive Parts Technical Center, Corporate Technology Center), Fukushima Rubber Co., Ltd., Soflan Wiz Co., Ltd., Toyo Soflan Co., Ltd., Ayabe Toyo Rubber Co., Ltd., F.C.C Co., Ltd., Orient Machinery Co., Ltd.</p> <p>Overseas: 10 sites; TOYO AUTOMOTIVE PARTS (USA), INC., TOYO TIRE NORTH AMERICA MANUFACTURING INC., TOYO TYRE AND RUBBER AUSTRALIA LTD., TOYO AUTOMOTIVE PARTS (GUANGZHOU) CO., LTD., TOYO TIRE ZHANGJIAGANG CO., LTD., TOYO TIRE (ZHUCHENG) CO., LTD., SILVERSTONE BERHAD, TOYO TYRE MALAYSIA SDN BHD, TOYO RUBBER CHEMICAL PRODUCTS (THAILAND) LIMITED, TOYO SOFLAN WIZ (THAILAND) CO., LTD.</p>
Period	From January to December of that year
Assumptions Underlying of Data	Calculated from actual fuel use values. Converted using the standard calorific value for fiscal 2013 (Agency for Natural Resources and Energy of the Ministry of Economy, Trade and Industry).

Energy consumption outside of the organization (in Logistics)

Boundary	Domestic logistics (trucks, ship, rail)
Period	From April in this year to March of that year
Assumptions Underlying of Data	Conforms to the Shippers' Energy Conservation Handbook (3rd Ed.) (Agency for Natural Resources and Energy of the Ministry of Economy, Trade and Industry/Energy Conservation Center, Japan).

Energy intensity

Boundary	<p>Energy per unit of production (calorific value/sales): Same as "Energy consumption within the organization"</p> <p>The main production facilities in Japan: 4 sites account for 95% of total energy consumption in Japan;</p>
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	TOYO TIRE & RUBBER CO., LTD. (Headquarters, Sendai Plant, Kuwana Plant, Hyogo Manufacturing Complex), Fukushima Rubber Co., Ltd.
Period	From January to December of that year
Assumptions Underlying of Data	Calculated from actual fuel use values. Energy consumption conversion is the same as "internal energy consumption." Sales are consolidated financial results Converted assuming calorific value of 10 million KJ as 0.258 kl of crude oil (Article 4 of Enforcement Regulations for the Act on the Rational Use of Energy (Conversion Methods)).

Production ratio of Fuel Efficient Tires

Assumptions Underlying of Data	Conforms to the Tyre LCCO2 Calculation Guidelines Ver. 2.0 (Japan Automobile Tyre Manufacturers Association).
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GHG emissions

Boundary	Direct and indirect GHG emissions: Same as "Energy consumption within the organization" Scope 1, 2, and 3: 12 sites related to tire production in Japan and overseas; TOYO TIRE & RUBBER CO., LTD. (Headquarters, Sendai Plant, Kuwana Plant, Hyogo Manufacturing Complex, Tire Technical Center, Corporate Technology Center), Fukushima Rubber Co., Ltd., TOYO TIRE NORTH AMERICA MANUFACTURING INC., TOYO TIRE ZHANGJIAGANG CO., LTD., TOYO TIRE (ZHUCHENG) CO., LTD., SILVERSTONE BERHAD, TOYO TYRE MALAYSIA SDN BHD CO2 per unit of production: 4 main production facilities in Japan; TOYO TIRE & RUBBER CO., LTD. (Headquarters, Sendai Plant, Kuwana Plant, Hyogo Manufacturing Complex), Fukushima Rubber Co., Ltd.
Period	From January to December of that year
Assumptions Underlying of Data	Calculated from actual fuel use values. Fiscal 2013 Carbon Emission Factor (Agency for Natural Resources and Energy) and CO2 Emissions Factors (2017 Edition) (IEA) is used for total volume. Scope 1, 2, and 3 are in accordance with the Tyre LCCO2

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	Calculation Guidelines Ver. 2.0 (Japan Automobile Tyre Manufacturers Association, 2012) and Guidelines on Disclosure of CO2 Emissions from Transportation & Distribution Ver 2.1 (Ministry of the Environment, Ministry of Economy, Trade and Industry, 2014). The FY2005 Carbon Emission Factor (Agency for Natural Resources and Energy) and FY2005 coefficient for receiving-end terminals (Federation of Electric Power Companies) are used in order to compare CO2 per unit of production at main production sites in Japan with actual figures for fiscal 2005.
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Reduction in GHG emissions due to direct impact of efforts to reduce emissions in fiscal 2017

Boundary	Same as "Energy consumption within the organization"
Period	From January to December of that year
Assumptions Underlying of Data	Calculated based on actual reductions compared to projected amount used for each type of fuel.

Emissions of ozone-depleting substances (ODS)

Boundary	7 sites of TOYO TIRE & RUBBER CO., LTD.; Headquarters, Sendai Plant, Kuwana Plant, Hyogo Manufacturing Complex, Tire Technical Center, Automotive Parts Technical Center, Corporate Technology Center
Period	From April in this year to March of that year
Assumptions Underlying of Data	In accordance with the Freon Calculated Leak Volume Reporting Manual (Ministry of the Environment, Ministry of Economy, Trade and Industry; 2015)

Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions

*Domestic manufacturing base

Boundary	*Including the affiliates transferred at the end of 2017 NOx, Sox: Domestic 5 manufacturing sites; TOYO TIRE & RUBBER CO., LTD. (Sendai Plant, Kuwana Plant, Hyogo Manufacturing Complex), Fukushima Rubber Co., Ltd., Toyo Soflan Co., Ltd., Ayabe Toyo Rubber Co., Ltd. VOC: Domestic 8 manufacturing sites;
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Period	NOx, SOx: From January to December of that year VOC: From April of that year to March of the following year
Assumptions Underlying of Data	Measured values. VOC is the total for substances for which at least 1 ton is used annually at each business site.

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Total water withdrawal

Boundary	<p>*Including the affiliates transferred at the end of 2017</p> <p>Domestic: 13 sites; TOYO TIRE & RUBBER CO., LTD. (Headquarters, Sendai Plant, Kuwana Plant, Hyogo Manufacturing Complex, Tire Technical Center, Automotive Parts Technical Center, Corporate Technology Center), Fukushima Rubber Co., Ltd., Soflan Wiz Co., Ltd., Toyo Soflan Co., Ltd., Ayabe Toyo Rubber Co., Ltd., F.C.C Co., Ltd., Orient Machinery Co., Ltd.</p> <p>Overseas: 10 sites; TOYO AUTOMOTIVE PARTS (USA), INC., TOYO TIRE NORTH AMERICA MANUFACTURING INC., TOYO TYRE AND RUBBER AUSTRALIA LTD., TOYO AUTOMOTIVE PARTS (GUANGZHOU) CO., LTD., TOYO TIRE ZHANGJIAGANG CO., LTD., TOYO TIRE (ZHUCHENG) CO., LTD., SILVERSTONE BERHAD, TOYO TYRE MALAYSIA SDN BHD, TOYO RUBBER CHEMICAL PRODUCTS (THAILAND) LIMITED, TOYO SOFLAN WIZ (THAILAND) CO., LTD.</p>
Period	From January to December of that year
Assumptions Underlying of Data	Measured values

Total water discharge and quality by main manufacturing base

Boundary	TOYO TIRE & RUBBER CO., LTD. (Sendai Plant, Kuwana Plant, Hyogo Manufacturing Complex)
Period	From January to December of that year
Assumptions Underlying of Data	Measured values

Main Materials used

Boundary	TOYO TIRE & RUBBER CO., LTD.
Period	From January to December of that year
Assumptions Underlying of Data	Actual purchased volume. Raw material utilization efficiency is the tire production volume divided by the total volume of main raw materials related to tire production.

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Waste

Boundary	<p>*Including the affiliates transferred at the end of 2017</p> <p><u>Waste</u></p> <p>Domestic: 13 sites; TOYO TIRE & RUBBER CO., LTD. (Headquarters, Sendai Plant, Kuwana Plant, Hyogo Manufacturing Complex, Tire Technical Center, Automotive Parts Technical Center, Corporate Technology Center), Fukushima Rubber Co., Ltd., Soflan Wiz Co., Ltd., Toyo Soflan Co., Ltd., Ayabe Toyo Rubber Co., Ltd., F.C.C Co., Ltd., Orient Machinery Co., Ltd.</p> <p>Overseas: 10 sites; TOYO AUTOMOTIVE PARTS (USA), INC. \ TOYO TIRE NORTH AMERICA MANUFACTURING INC., TOYO TYRE AND RUBBER AUSTRALIA LTD., TOYO AUTOMOTIVE PARTS (GUANGZHOU) CO., LTD., TOYO TIRE ZHANGJIAGANG CO., LTD., TOYO TIRE (ZHUCHENG) CO., LTD., SILVERSTONE BERHAD, TOYO TYRE MALAYSIA SDN BHD, TOYO RUBBER CHEMICAL PRODUCTS (THAILAND) LIMITED, TOYO SOFLAN WIZ (THAILAND) CO., LTD.</p> <p><u>PRTR substances</u></p> <p>Domestic: 8 sites; TOYO TIRE & RUBBER CO., LTD. (Sendai Plant, Kuwana Plant, Hyogo Manufacturing Complex), Fukushima Rubber Co., Ltd., Soflan Wiz Co., Ltd., Toyo Soflan Co., Ltd., Ayabe Toyo Rubber Co., Ltd., F.C.C Co., Ltd.</p>
Period	From January to December of that year
Assumptions Underlying of Data	<p>Total weight and recycled volume in Japan is based on the total disposal volume information provided by waste disposal service providers. The volume recycled in Japan is the total volume of waste generated less the volume sent to landfills. The recycling rate for Japan is the percentage of waste that is not final output (volume sent to landfills and volume of waste incinerated). For PRTR substances, "class 1 chemical substances" are those of which at least 1 ton is used annually at each production facility, and "designated class 1 chemical substances" are those of which at least 0.5 ton is used annually at each production facility.</p>