Toyota Industries Corporation

Performance Data FY2023 (Environment)

Issue July, 2023 Update October, 2023

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■Environmental Impact Flow

INPUT					
Energy					
Energy consumption	17,585 TJ				
Electricity	1,328,022 MWh				
City gas	81,122 km3N				
LPG	3,285 t				
Petroleum products	2,158 kL				
Coal products	7,843 t				
LNG	1,843 t				
Wate					
Water withdrawal	★ 4,644 km3				
Raw Materials					
Raw Material consumption	795,211 t				
Chemical Substances					
PRTR law*1 designated	1 007 +				
substances*2	1,087 t				

OUTPUT

Into the Air	
CO ₂ emissions	★ 757,940 t-CO ₂
GHG emissions other than CO_2 *2	3,449 t-CO ₂
CO ₂ emissions from logistics *2	14,980 t-CO ₂
NOx(Nitrogen oxides)	153 t
SOx(Sulfur oxides)	353 kg
VOC(Volatile organic compounds) *2	1,241 t
Into Waterways	
Water pollutants	18 t
Discharge of wastewater	\star 1,522 km ³
Waste	
Waste Volume	10,833 t
Chemical Substances	
Emissions/transfers of PRTR law	472 t
designated substances *2	412 l
	·

^{*1:} Short for Pollutant Release and Transfer Register, the PRTR law is a scheme whereby businesses measure the release and transfer of PRTR designated pollutants and report their performance to the government. The government then compiles this data and releases it to the public.

^{*2:} Only non-Consolidated data

■Establishing a Carbon Neutral Society

1. Energy consumption

GRI 302-1

GRI 302-3

GRI 302-4

1)Energy consumption_fuel [TICO Group]

*FY2014: base year

		Unit	FY2014*	FY2021	FY2022	FY2023	Conversion	factor	Sources
Fossil fuel	City gas	GJ	3,494,328	3,723,300	3,873,879	3,650,512	45.0	GJ/km ³ N	"Law Concerning the
	LPG	GJ	249,825	194,677	199,102	166,901	50.8	GJ/ t	Promotion of the
	Coke	GJ	128,899	113,312	136,844	124,891	29.9	GJ/ t	Measures to Cope with
	Oil coke	GJ	52,597	43,499	61,086	62,118	29.9	GJ/ t	Global Warming
	Anthracite	GJ	27,822	21,617	36,049	47,505	29.9	GJ/ t	(revised in March
	gasoline	GJ	6,593	5,158	4,667	4,577	34.6	GJ/kl	2010)" in Japan
	Diesel	GJ	191,647	100,668	72,144	73,116	37.7	GJ/kl	Equivalent to the
	LNG	GJ	60,225	85,738	88,572	100,638	54.6	GJ/ t	value of the Law
	Heavy oil	GJ	8,339	1,867	2,287	1,805	39.1	GJ/kl	Concerning the Rational Use of Energy
	Kerosene	GJ	13,461	2,327	1,583	1,459	36.7	GJ/kl	
Non-fossil fuel	Biomass, Biogas	GJ	0	36,976	42,118	43,082	50.8	GJ/t	in Japan
Total		GJ	4,233,736	4,329,140	4,518,330	4,276,604			Пізарап

2) Energy consumption_electricity and steam [TICO Group]

		Unit	FY2014	FY2021	FY2022	FY2023	Conversion	factor
Ele	ctricity	GJ	11,834,128	11,992,405	13,301,778	13,240,381	0.07	GJ/MWh
	Of which non-fossil fuel-derived	GJ	0	770,911	1,625,994	2,261,929	9.91	GJ/ IVI VVIII
Ste	am	GJ	39,080	38,498	37,973	68,357	2.675	C1/+
	Of which non-fossil fuel-derived	GJ	39,080	38,498	37,973	68,357	2.075	ω)/ ι

3) Energy intensity [TICO Group]

	Unit	FY2021	FY2022	FY2023	Note
Energy intensity	MWh/1Million yen	7.72	6.60	5.20	Calculated by dividing total energy consumption by net sales

4) Amount of energy saved [TICO Group]

	Unit	FY2021	FY2022	FY2023
Amount of energy saved	MWh	21,777	32,321	29,666

5) Total renewable energy consumption [TICO Group].

	Unit	FY2021	FY2022	FY2023
Total renewable energy consumption	GJ	846,384	1,706,085	2,373,368

2. GHG emissions from the organization

GRI 305-1

GRI 305-2

1) Direct GHG emissions from organization (Scope 1) [TICO Group]

	Unit	FY2014	FY2021	FY2022	FY2023	Emission factor*
						List of emission factors for "Greenhouse Gas
Scope 1	t-CO ₂ 229,019 223,266 234,543 ★ 222,	t-CO ₂ 229,019 223,266 234,543 ★ 2	★ 222,274	Emissions Calculation, Reporting, and		
						Publication System" in Japan

*Using emission factors for some overseas regions.

2) Indirect GHG emissions from the use of electricity, heat and steam supplied by other companies_market-based (Scope 2) [TICO Group]

		Unit	FY2014	FY2021	FY2022	FY2023	Emission factor
Scope 2	Purchased electricity	t-CO ₂	712,300	498,022	522,378	531,629	Actual values of contracted companies
Market-based	Steam	t-CO ₂	0	0	0	4,037	Actual values of contracted companies
Total		t-CO ₂	712,300	498,022	522,378	★ 535,666	

3) Indirect GHG emissions from the use of electricity, heat and steam supplied by other companies_location-based (Scope 2) [TICO Group]

		Unit	FY2014	FY2021	FY2022	FY2023	Emission factor
Scope 2	Purchased electricity	t-CO ₂	704,759	571,793	629,239	676,859	World Energy Outlook Report
Location-based	Steam	t-CO ₂	0	867	1,530	4,037	Published values for each country
Total		t-CO ₂	704,759	572,660	630,770	★ 680,896	

4) Emissions from biogenic carbon [TICO Group]

	Unit	FY2021	FY2022	FY2023	Emission factor	Sources
Biogas	t-CO ₂	1,066	1,213	1,241	54,600 kg-CO ₂ /GJ	IPCC Guidelines*

^{*2006} IPCC Guidelines for National Greenhouse Gas Inventories

5) GHG emissions other than CO2 [Non-consolidated]

	Unit	FY2014	FY2021	FY2022	FY2023	Conversion factor
CH ₄	t-CO ₂	2,100	2,302	2,342	2,205	List of Global Warming Potentials in the "Order
N ₂ O	t-CO ₂	599	462	466	411	for Enforcement of the Law Concerning the
HFCs	t-CO ₂	912	14	33	773	Promotion of the Measures to Cope with
PFCs	t-CO ₂	0	0	0	0	Global Warming" in Japan
SF ₆	t-CO ₂	30	88	375	60	
NF ₃	t-CO ₂	0	0	0	0	

3. GHG emissions from supply chain

GRI 305-3

1) GHG emissions from supply chain

		Unit	FY2022	FY2023	Note
Scope 3	Category 1	t-CO ₂	4,153,954	★ 4,231,008	
	Category 2	t-CO ₂	459,635	★ 384,274	
	Category 3	t-CO ₂	138,977	★ 136,310	
	Category 4	t-CO ₂	261,997	★ 244,410	
	Category 5	t-CO ₂	1,558	★ 1,341	
	Category 6	t-CO ₂	11,012	★ 11,602	
	Category 7	t-CO ₂	39,469	★ 41,575	
	Category 8	t-CO ₂	_	_	Included in Scope 1 and 2
	Category 9	t-CO ₂	_	_	Included in Category 4 as it is difficult to clearly separate
	Category 10	t-CO ₂	_	_	Very small volume due to sales of finished products and auto parts
	Category 11	t-CO ₂	29,875,728	★ 32,090,131	
	Category 12	t-CO ₂	41,502	★ 41,655	
	Category 13	t-CO ₂	_	_	Included in Category-11 as indirect leasing is difficult to grasp
	Category 14	t-CO ₂	非該当	非該当	No relation to business
	Category 15	t-CO ₂	571,989	★ 566,242	No relation to business
Total		t-CO ₂	35,555,821	★ 37,748,548	

2) CO₂ emissions from logistics [non-consolidated]

	Unit	FY2014	FY2021	FY2022	FY2023
CO ₂ emissions from logistics	t-CO ₂	13,102	14,904	15,232	14,980

4. GHG emissions by business divisions.

GRI 305-1

1) Direct emissions by business divisions (Scope 1) [TICO Group]

	Unit	FY2014	FY2021	FY2022	FY2023
Materials Handling Equipment	t-CO ₂	37,332	41,222	42,490	42,296
Textile Machinery	t-CO ₂	5,432	2,760	3,772	3,445
Automobile	t-CO ₂	185,322	178,407	187,547	175,760
Others	t-CO ₂	932	876	734	773
Total	t-CO ₂	229,019	223,266	234,543	★ 222,274

GRI 305-2

2) Indirect emissions by business divisions from the use of electricity, heat and steam supplied by other companies_market-based (Scope 2) [TICO Group]

	Unit	FY2014	FY2021	FY2022	FY2023
Materials Handling Equipment	t-CO ₂	203,186	118,468	108,615	123,489
Textile Machinery	t-CO ₂	6,695	1,924	2,698	3,535
Automobile	t-CO ₂	494,647	374,690	407,996	405,780
Others	t-CO ₂	7,772	2,940	3,069	2,861
Total	t-CO ₂	712,300	498,022	522,378	★ 535,666

3) Indirect emissions by business divisions from the use of electricity, heat and steam supplied by other companies_location-based (Scope 2) [TICO Group]

	Unit	FY2014	FY2021	FY2022	FY2023
Materials Handling Equipment	t-CO ₂	173,630	107,193	116,372	137,894
Textile Machinery	t-CO ₂	7,221	3,453	5,326	7,204
Automobile	t-CO ₂	515,244	458,478	505,626	532,033
Others	t-CO ₂	8,665	3,537	3,445	3,765
Total	t-CO ₂	704,759	572,660	630,770	★ 680,896

■Establishing a Recycling-Based Society

GRI303-1

GRI303-3

GRI303-4 GRI303-5 1. Number of sites located in water-stressed areas

1) Location status in water-stressed areas [TICO Group]

	Unit	5	4	3	2	1	Assessment tool
Number of sites located in each areas	sites	0	7	5	1	51	WWF Water Risk Filter

	Unit	Number Assessment method
High risk sites based on TICO water risk assessment	sites	0 Included in Performance Data Calculation Standard

2) Water resources volumes [TICO Group]

*rating 4 or 5

		Unit	The whole area			Wate	r-stressed a	area*
			FY2021	FY2022	FY2023	FY2021	FY2022	FY2023
Water withdray	val	km3	4,438	4,639	★ 4,644	109	129	146
	i. Surface water	km3	22	26	24	7	9	11
	ii. Groundwater	km3	961	1,014	964	0	0	0
	iii. Seawater	km3	0	0	0	0	0	0
	iv. Produced water	km3	0	0	0	0	0	0
	v. Third-party water	km3	3,455	3,598	3,656	102	121	134
Water discharg	e	km3	3,429	3,547	★ 3,453	66	72	80
	i. Surface water	km3	1,371	1,404	1,309	0	0	0
	ii. Groundwater	km3	0	0	0	0	0	0
	iii. Seawater	km3	261	217	212	0	0	0
	iv. Third-party water	km3	1,797	1,926	1,932	66	72	80
Water consumption		km3	1,009	1,092	1,191	43	57	66
Water withdray	val per unit of sales	km3/10bilion yen	21.0	17.1	★ 13.7	-	-	-

3) Water pollutants [Non-consolidated]

	Unit	FY2021	FY2022	FY2023
COD	t	12	10	10
T-N	t	8	9	8
T-P	t	0.2	0.1	0.2

GRI 301-1

2. Raw material consumption [TICO Group]

		Unit	FY2021	FY2022	FY2023
Raw material	Metals	t	725,437	721,224	790,036
consumption	Non_metals	t	4,833	5,215	5,176

GRI 306-4 GRI 306-5

3. Waste volume [TICO Group]

1) Waste volume by disposal operation

	Unit	FY2021	FY2022	FY2023
Recycled industrial waste	t	87,431	105,018	99,120
Incinerated industrial waste	t	1,457	2,526	2,392
Landfilled industrial waste	t	11,194	11,473	10,833
Total	t	100,081	119,016	112,345
Recycling rate	%	87%	88%	88%

2) Waste volume by its category

	Unit	FY2021	FY2022	FY2023
Non-hazardous waste	t	96,290	113,372	107,182
Hazardous waste	t	3,791	5,644	5,164

■Other Performance Data

GRI 305-7

1. Air pollutants [NOx, SOx : TICO Group, VOC : Non-consolidated]

	Unit	FY2021	FY2022	FY2023
NOx	t	159	163	153
SOx	kg	252	285	353
VOC	t	1,276	1,282	1,241

2. Chemical substances [Non-consolidated]

	Unit	FY2021	FY2022	FY2023
PRTR law designated substances	t	1,012	1,044	1,087
Emissions/transfers of PRTR law	+	357	434	172
designated substances	ι	337	434	412

3. Soil and grandwater

→Topics (Japanese only)

4. Vibration and noise

Nothing to report for FY2023

GRI 307-1

5. Environmental incidents [TICO Group]

	Unit	FY2021	FY2022	FY2023
Number of environmental incidents	item	1	0	1

■Environmental Accounting

1. Environmental conservation cost [Non-consolidated]

			FY2021		FY2022		FY2023	
			Investment	Expenses	Investment	Expenses	Investment	Expenses
Business area	Pollution prevention	Millions JPY	996	188	3,540	161	2,132	343
	Global environmental conservation	Millions JPY	462	2,514	1,283	3,392	4,008	5,762
costs	Resource recycling	Millions JPY	192	21	318	39	514	48
Upstream/downstream		Millions JPY	0	204	0	353	0	357
Management		Millions JPY	0	78	0	92	35	77
Research and development		Millions JPY	4	3,805	5	4,724	5	5,594
Social contribution activity		Millions JPY	0	66	0	91	0	71
Environmental remediation		Millions JPY	9	0	0	0	27	0
Total		Millions JPY	1,662	6,876	5,146	8,853	6,721	12,251
Total		Millions JPY	8,5	38	13,9	999	18,9	971

2. Economic benefits of environmental conservation initiatives [Non-consolidated]

	Unit	FY2021	FY2022	FY2023
Revenue	Millions JPY	4,374	8,717	12,234
Cost reduction	Millions JPY	1,459	0	0
Total	Millions JPY	5,833	8,717	12,234

Toyota Industries obtains third party verification in order to increase the credibility of its environmental data. Indicators listed in Performance Data FY2022 (Environment) marked with ★ are verified data.

- ■Calculation Standards of Envionmental performance data
- <Scope of Organization>

Indicated by reporting item. Definitions are as follows.

TICO Group: Same as the scope of Toyota Industries Report, the integrated report. However, some exclusions apply

Non-consolidated: Toyota Industries Corporation

<Scope of exclusion>

Non-producing company

<Period covered>

April 1, 2022 ~ March 31, 2023

- < Reference guidelines >
 - ◆The Greenhouse Gas Protocol
 - · Corporate Standard
 - · Scope 2 Guidance
 - · Corporate Value Chain (Scope 3) Standard
 - · Scope 3 Calculation Guidance
 - ◆Ministry of the Environment and Ministry of Economy, Trade and Industry of Japan
 - · Guidelines on Accounting for Greenhouse Gas Emissions throughout the Supply Chain ver.2.4
 - Database on Emissions Unit Values for Accounting of Greenhouse Gas Emissions, etc., by Organizations Throughout the Supply Chain Ver.3.3
 - IDEA v3.2
 - · Manual for PRTR Release Estimation Methods
 - Environmental Accounting Guidelines 2005
 - ◆Internal standards
 - · TICO ENGINEERING STANDARD
 - Environmental performance indicator totalizing procedure (the emission factors included)
 - Guidelines for CO₂ emission calculations and activity management to achieve Plant Zero CO₂ Emissions
 - Guidelines for Calculating CO₂ Emissions from Logistics

< Calculation standard >

1. Amount of GHG emissions

GRI305-1

GRI305-2

1) Scope 1, 2

Scope 1: Calculated by multiplying the amount of purchased fuel consumed by the company by an emission factor. Emission factors are based on list of emission factors for "Greenhouse Gas Emissions Calculation, Reporting, and Publication System" in Japan.

Scope 2: [Location-based]

Calculated by multiplying the amount of electricity and steam purchased by the company by an emission factor. Emission factors are based on World Energy Outlook Report. In principle, the year in which energy is used and the year of the emission factor should be the same, but if the data is not yet published, the data for the latest year available at the time of reporting should be used.

[Market-based]

Calculated by multiplying the amount of electricity and steam purchased by the company by an emission factor. Emission factors are based on the actual results of those suppliers contracted by each site. In principle, the year in which energy is used and the year of the emission factor are the same, but the reporting year is two years prior to the reporting year used to manage CO2 reduction activities.

2) Scope 3

Category	Calculation standard
1. Purchased goods and services	Weight of each material purchased x basic unit of manufacturing of each material*1
2. Capital goods	Fixed assets acquired x emission intensity*2
3. Fuel- and energy-related activities	Purchase volume by fuel x emission intensity*1
4. Upstream transportation and distribution	Weight x mileage x fuel consumption*1
5. Waste generated in operations	Amount of waste x emission intensity*2
6. Business travel	Number of employees x emission intensity*2
7. Employee commuting	Number of employees (by city) x number of working days x emission intensity*2
11. Use of sold products	Lifetime energy consumption from use of each product × emissions intensity*1
12. End-of-life treatment of sold products	Waste by product type x intensity*1
15. Investments	Scope 1 and scope 2 emissions of equity investment × share of equity

^{*1:} Generally available emission intensity database (IDEA database, etc.)

3) CO₂ emissions from logistics

Calculated using the fuel based method, fuel efficiency method, and ton-kilometer method for transportation ordered by the Company.

Emission factors are based on the Ministry of the Environment's "Greenhouse Gas Emissions Calculation, Reporting, and Publication System".

GRI305-3

^{*2:} Database on Emissions Unit Values for Accounting of Greenhouse Gas Emissions, etc., by Organizations Throughout the Supply Chain

GRI303-1 GRI303-3 GRI303-4 GRI303-5

2. Water resources

1) Water risk assessment methodology

We assess risks related to water resources at our production sites through the following process.

- (1) Assess geographic risk using the international water risk assessment tool (WWF Water RiskFilter)
- (2) Assess potential risks in each country and region based on information such as regulations and production processes at each site
- (3) Communicate with sites assessed as high risk to assess overall risk*.

2) Data of water resources

	Calculation standard	
Water withdrawal	Total withdrawal volume from surface water, groundwater, seawater and third parties	
Wastewater	Total discharge volume into surface water, groundwater, seawater and third parties	
Water consumption	Difference between water withdrawal and wastewater discharge	

3) Water withdrawal source and discharge destination

	Calculation standard	alculation standard		
	Sources of water withdrawal	Destination of water discharge		
Surface	Total volume of rainwater collected	Total volume of water discharged into rivers, lakes, etc.		
Groundwat	Total volume of groundwater pumped	Total volume of water discharged into underground		
Sea water	Total volume of seawater pumped	Total volume of water discharged into the sea		
Produced water	Total volume of produced water	-		
Third party water	Total volume of water purchased from third parties	Total volume of water discharged to third parties		

4) Amount of water pollutants

	Calculation standard
COD	By multiplying the concentration of COD contained in wastewater by the volume of wastewater.
T-N	By multiplying the concentration of total nitrogen contained in wastewater by the volume of wastewater.
T-P	By multiplying the concentration of total phosphorus in wastewater by the volume of wastewater discharged.

^{*}Overall risk assessment based on the status of water use, efficient water use, and water/facility management at each site.

3. Raw material consumption

		Calculation standard
Raw material	Metals	Total weight of metallic raw materials used in the manufacturing process of the product
consumption	Non_metals	Total weight of non-metallic raw materials used in the manufacturing process of the product

4. Waste volume

	Calculation standard
Recycled Industrial Waste	Total weight of waste that is recycled and reused outside the company
Incinerated Industrial Waste	Total weight of waste that is incinerated and the residual is landfilled
Landfilled Industrial Waste	Total weight of waste directly disposed of in landfills
Recycling rate	Percentage of waste that is recycled
Non-Hazardous waste	Total weight of waste deemed non-hazardous by the lows of each country
Hazardous waste	Total weight of waste deemed hazardous by the lows of each country

4. Other perfromance data

1) Air pollutants

	Calculation standard
NOx	By multiplying the concentration of nitrogen oxides in exhaust gas by the amount of exhaust gas
SOx	By multiplying the concentration of sulfur oxides in exhaust gas by the amount of exhaust gas
VOC	By multiplying the amount of materials and sub-materials containing VOCs purchased by the basic unit.

2) Chemical substances

	Calculation standard
PRTR law designated substance	Sum of the amount of materials containing the subject substance purchased multiplied by the content rate
	and the amount generated internally
Emissions/transfer of PRTR law	Calculated by multiplying the amount of target substances handled by the emission transfer factor.
designated substance	

3) Environmental incidents

	Definition	
Number of environmental incidents	Number of cases of serious violations of production and environmental laws and regulations that affected	Ì
	local residents and ecosystems.	

■Third Party Verification Opinon

