Environment 〈E〉

Taking on the challenge of carbon neutrality and a circular economy with the full strength of the Toyoda Gosei Group

The Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), published in August 2021, states that there is no longer any doubt that global warming is affected by human activities. The damage caused by abnormal weather, such as the torrential rains and forest fires that are occurring frequently in all parts of the world, is enormous. The climate change problem is a real and urgent threat created by humans. Global warming is not simply climate change; it also bears strongly on resource recycling, water risks and biodiversity, and multifaceted efforts to combat it are important.

In 2016, the Toyoda Gosei Group formulated the TG 2050 Environmental Challenge, which targets zero plant CO_2, to do our part in overcoming this crisis. We also established the Targets 50&50, our medium-term targets for 2030, for the early realization of carbon neutrality and a circular economy, and have initiated company-wide, cross-sectional projects and are accelerating efforts integrated into company activities.

The entire Toyoda Gosei Group will continue to do its utmost to contribute to protecting the global environment, under the slogan "A Greener, Richer World for Our Children."

Kazuhiko Nagao
Deputy Chief of Carbon Neutrality and Environment Promotion Division

Contributing to environmental preservation through all our business activities

Basic philosophy

The Toyoda Gosei Group formulated its 1st Environmental Action Plan in 1993 based on its environmental policy, and since that time has been actively confronting environmental issues. In February 2016, we announced our TG 2050 Environmental Challenge, and have set targets to be reached by 2030 as milestones. We have also formulated a 5-year action plan in which activity items and targets are set, and are carrying out activities to protect the environment.

Globally, we have placed integrated environmental functions in the regions of the Americas, China, ASEAN, and India. The Group is also making efforts as a whole with area control in five global regions, the above four plus Europe/South Africa. These efforts are made in conjunction with government agencies, customers and suppliers.

Environmental policy

1. Environmentally-friendly corporate activities
We are keenly aware that all stages of our business relate deeply to the environment, from development, production, and sales activities to end-of-life disposal. The Toyoda Gosei Group, including all internal departments, domestic and international affiliates, and suppliers, conducts all business activities with concern for the environment in cooperation and coordination with customers, government agencies, and others.

2. Good corporate citizenship
As a good corporate citizen, we participate in, support, and cooperate with environmental activities by many groups while also working on environmental activities in the community and broader society. We also provide education for all employees to support them in becoming involved in environmental activities as members of the community and society, and support social contributions and volunteerism.

3. While spreading information on these activities, we listen to the opinions of people at all levels of society and work to improve our activities wherever we can.

TG 2050 Environmental Challenge
— A Greener, Richer World for Our Children

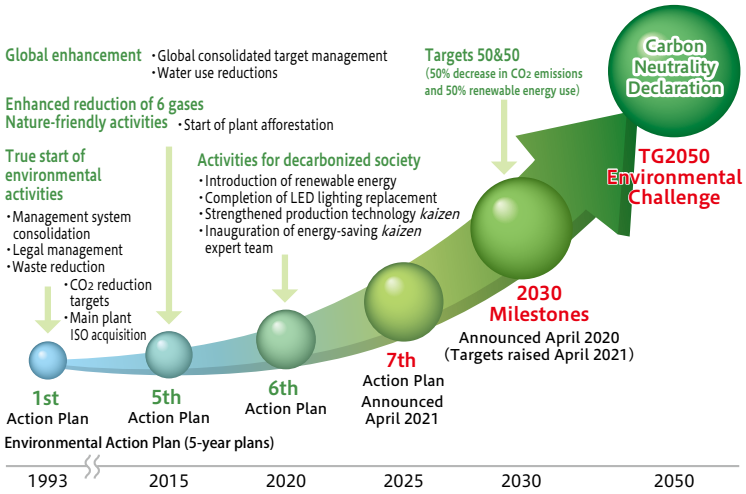
The Toyoda Gosei Group specializes in the field of high polymers — rubber and plastics. Our symbol is the benzene ring, a hexagonal hydrocarbon structure that is the starting point for polymers. Borrowing from the six sides of the benzene ring, the TG 2050 Environmental Challenge sets six challenges to strengthen our environmental efforts with a long-term view to the year 2050. As a roadmap to achieve that, we have set targets for 2030 (Targets 50&50) as milestones and formulated a five-year Environmental Action Plan to guide our efforts.

TG 2050 Environmental Challenge
(Six Challenges)

Support for TCFD recommendations

The Toyoda Gosei Group endorsed the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in May 2019, and has analyzed risk/opportunity scenarios and response scenarios based on guidelines. Together with an acceleration of efforts, including the TG 2050 Environmental Challenge and review of our 2030 milestones, we are actively disclosing relevant information. Please visit our website to see the results of our scenario analysis.
https://www.toyoda-gosei.com/csr/environmental/report11/

Medium- and long-term scenario for achieving carbon neutrality [see p. 21]

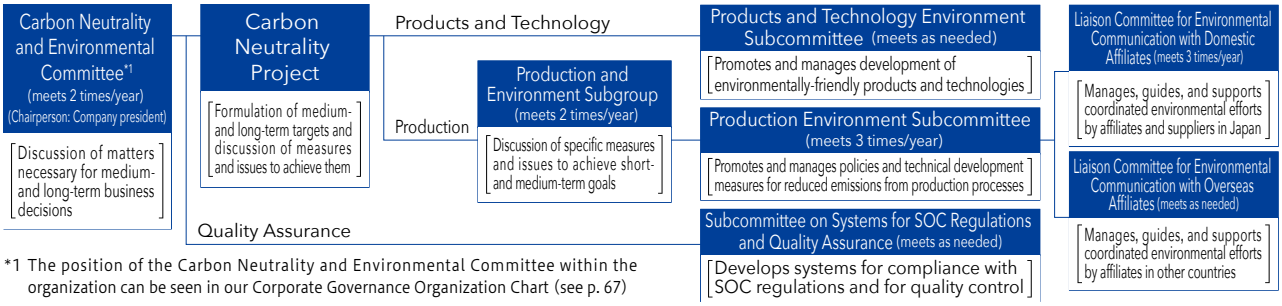


Environmental organization

Our medium- and long-term policy and key action items are discussed and decided in a Carbon Neutrality and Environmental Committee chaired by the company president. The Carbon Neutrality and Environmental Committee consists of three subcommittees in the areas of products, production, and quality. In the area of production, a production and environment subgroup has been established to strengthen environmental activities over the entire manufacturing process. The above subcommittees are further broken down into working groups that promote and manage areas such as reductions in energy use, waste products, and volatile organic compound (VOC) emissions, and preservation of the environment. In this way, environmental preservation and management activities are conducted from an expert perspective.

A carbon neutrality project was started in FY2021 to accelerate efforts over the product lifecycle. The project is headed by the president and with outside directors as advisors and the general managers of related divisions as members.

Environmental organizational structure



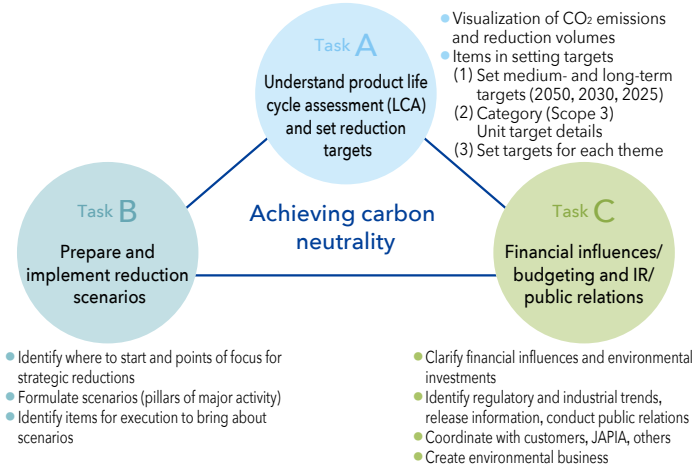
*1 The position of the Carbon Neutrality and Environmental Committee within the organization can be seen in our Corporate Governance Organization Chart (see p. 67)

Deployment from the Carbon Neutrality and Environmental Committee, the Production and Environment Subgroup, and the respective subcommittees to plants and other operations is done with the establishment of expert committees in accordance with the ISO 14001 system at each plant.

Carbon Neutrality Project

Structure The project is headed by the President and has Chiefs of the Corporate Strategy Headquarters, Research and Development Headquarters, and Automotive Business Headquarters serving as project leaders. The core members are division general managers and above. This structure allows for quick decisions and actions in management issues.

Activities Each task is carried out with the relevant division general manager as leader.



Risk and opportunity associated with climate change and resource depletion

The risks and opportunities associated with climate change and resource depletion are recognized as an important management issue. From a global perspective based on laws, regulations and trends, we are strengthening our responses to the overall financial and social risks from the effects on economic and production activities of more drastic abnormal weather, changing precipitation patterns, droughts and floods.

	Risk	Opportunity
Climate change	Please visit our website to see the results of our scenario analysis. https://www.toyoda-gosei.com/csr/environmental/report11/	
Resource recycling	Effects of water shortages and floods on production activities	Cost reductions from re-use and decreased use of water
	Cost increases from difficulty in procuring materials, soaring material prices	Cost reductions from recycling technology, use of fewer materials
Management (regulatory compliance)	Loss of trust in the company due to environmental problems, including legal violations, and insufficient efforts to protect the environment	Increase in brand strength from enhanced environmental activities
Biodiversity	・Rising prices for raw materials due to decline in natural resources ・Decreased product quality due deteriorating water quality	・Business continuity by protecting nature to ensure human resources and raw material ・Securing quality water resources with forest maintenance, river conservation

Resource utilization and environmental emissions in business activities

To lessen the amount of energy, material and other resource inputs, and maximize product output, we are utilizing our skills in product development, process development and workplace *kaizen* in efforts to improve through business activities.

The input resources we use include environmentally friendly materials and clean energy.

INPUT

Total material input	39,248t	Rubber (rubber sheets)	13,335t
Plastic	25,913t	Excluding purchased parts, metal and liquid	
Total energy input	2,261,000GJ*1	Heavy oil	5,000GJ
Purchased electricity	1,470,000GJ	Kerosene	0GJ
Renewable energy	19,000GJ	LNG	110,000GJ
City gas	650,000GJ	Gasoline	1,000GJ
LPG	1,000GJ		
Water resource input	1,140,000㎥	Clean water	189,000㎥
Industrial water	641,000㎥	Underground water	311,000㎥
PRTR*2 substances usage	525t		

Business activities →

OUTPUT

Products			
Emitted into the atmosphere		NOx*4	92t
CO_2	93,000t-CO_2	Dust	0t
6 gases	2,000t-CO_2	Volume of substances subject to PRTR	77t
SOx*3	0t	VOC*5 emissions	230t
Waste discharge		Industrial waste and general waste	5,927t
Landfill waste	0t	For-profit disposal by sale	6,032t
Incinerated waste	1t	Volume of substances subject to PRTR	41t
Wastewater		Nitrogen emissions*6	8.8t
Total wastewater	870,000㎥	Phosphorus emissions*6	0.6t
Volume of substances subject to PRTR	0.1t	COD emissions*6	4.3t

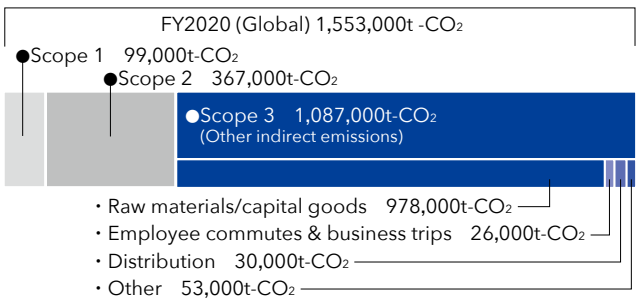
*1 Gigajoule (1,000,000,000 joules)
*2 Pollutant Release and Transfer Register
*3 Sulfur oxide
*4 Nitrogen oxide
*5 Volatile organic compounds
*6 Subject operations: 4 plants of Haruhi, Inazawa, Heiwacho and Seto, Kitajima Technical Center, Miwa Technical Center and Sun-Court Inoguchi

Environmental impact in the value chain

From the perspective of preserving the earth, we have surveyed and disclosed not only GHG emissions (Scope 1,*7 Scope 2*8) in our business activities but also emissions in our entire value chain including excavation of raw materials and product use and disposal (Scope 3*9). Our Carbon Neutrality Project was inaugurated in FY2021 to improve the accuracy of Scope 3. Together with this, we have established milestones and created scenarios for carbon neutrality.

*7 Greenhouse gas emissions emitted directly by the company itself (natural gas and other fossil fuels, etc.)
*8 Indirectly emitted greenhouse gases (electricity, etc.)
*9 Greenhouse gases emitted in the supply chain that are indirectly emitted by the company (manufacturing, transport, business travel, commuting, etc.)

CO_2 emissions by scope level



Environmental action plan

Sixth environmental action plan activities and results (FY2016–FY2020)

Our efforts to achieve a sustainable society have been focused in four areas: "Building a decarbonized society," "Building a recycling society," "Building an environmental preservation and nature-friendly society," and "Environmental management."

As a result of the collective efforts of the entire Toyoda Gosei Group, we have achieved our targets for all key items (CO_2, waste, water).

Results for key items

Building a decarbonized society

● CO_2 emissions/percentage of renewable energy

	Item	2020 target	FY2020 results		Rating
Global, consolidated	CO_2 emissions per sales unit	12% decrease vs. 2012	77[1]	23% decrease vs. 2012	○
Japan, consolidated		15% decrease vs. 2012	65[1]	35% decrease vs. 2012	○
Toyoda Gosei Co., Ltd.		17% decrease vs. 2012	80[1]	20% decrease vs. 2012	○
	CO_2 emissions	17% decrease vs. 2012	93,000t–CO_2	40% decrease vs. 2012	○
Global, consolidated	Renewable energy rate (Percentage of renewable energy among electricity consumed)	More than 2%	15,459KW	4%	○

Building a recycling society

● Discharged waste volume

	Item	2020 target	FY2020 results		Rating
Japan, consolidated	Waste volume per sales unit	10% decrease vs. 2012	61[1]	39% decrease vs. 2012	○
Toyoda Gosei Co., Ltd.		12% decrease vs. 2012	61[1]	39% decrease vs. 2012	○
Overseas affiliates		6% decrease vs. 2013	38[1]	62% decrease vs. 2013	○

● Water usage

	Item	2020 target	FY2020 results		Rating
Japan, consolidated	Water used per sales unit	8% decrease vs. 2012	57[1]	43% decrease vs. 2012	○
Toyoda Gosei Co., Ltd.			82[1]	18% decrease vs. 2012	○
Overseas affiliates			55[1]	45% decrease vs. 2012	○

[1] Figure when the reference value is taken as 100.

Please see our website for details. https://www.toyoda-gosei.com/csr/environmental/report2/

Seventh environmental action plan (FY2021–FY2025)

An environmental action plan was formulated for FY2025.

Targets for key items

Building a decarbonized society

● CO_2 emissions/percentage of renewable energy

	Item	2025 targets	(Reference) 2030 targets	TG 2050 Environmental Challenge
Global, consolidated	CO_2 emissions	25% decrease vs. 2015	50% decrease vs. 2013	Carbon neutrality
	Renewable energy percentage	12%	20%	100%
Toyoda Gosei Co., Ltd.	CO_2 emissions	25% decrease vs. 2015	50% decrease vs. 2013	Carbon neutrality
	Renewable energy percentage	20%	50%	100%

Building a recycling society

● Discharged waste volume

	Item	2025 targets	(Reference) 2030 targets	TG 2050 Environmental Challenge
Toyoda Gosei Co., Ltd.	Waste volume	40% decrease vs. 2012	50% decrease vs. 2012	Minimization
Overseas affiliates	Waste volume per sales unit	50% decrease vs. 2015	55% decrease vs. 2015	

● Water usage

	Item	2025 targets	(Reference) 2030 targets	TG 2050 Environmental Challenge
High risk area	Water quality	Measures completed at two locations	Measures completed at four locations	Minimization of water risks
	Water intake	Measures completed at three locations	Measures completed at seven locations	
Low risk area	Water intake per sales unit	6% decrease vs. FY2019	11% decrease vs. FY2019	

Building environmentally-friendly societies

● Living with the environment

	Item	2025 targets	(Reference) 2030 targets	TG 2050 Environmental Challenge
Global, consolidated	No. of activities	Implementation of nature activities (>1 time/year)		
Toyoda Gosei Co., Ltd.	Area of green restoration	+18% restoration compared with 2019	+35% restoration compared with 2019	100% restoration

Please see our website for details. https://www.toyoda-gosei.com/csr/environmental/report2/

Building a decarbonized society

In addition to lighter weight products that lead to improved vehicle fuel efficiency, we are reducing CO_2 emissions through improved productivity and more efficient distribution.

Basic philosophy

In addition to achieving the goal set under the Paris Agreement of keeping the rise in the global average temperature to below 2°C compared with pre-Industrial Revolution levels, we must reduce greenhouse gas emissions to virtually zero by the end of this century. With the aim of zero CO_2 emissions as presented in the TG 2050 Environmental Challenge, we are utilizing new production techniques and product development skills with an eye toward next-generation vehicles in addition to the manufacturing skills we have cultivated over time. Plans for execution are included in our 7th Environmental Action Plan with activity targets for FY2025. We have also set the goal of cutting CO_2 emissions 50% (vs FY2013 levels) by 2030, the midpoint for the TG 2050 Environmental Challenge, and implementing stepwise, specific CO_2 reductions. We are also conducting activities to reduce CO_2 emissions over the entire life cycle, with consideration of parts and materials procurement, product development, production, and use up to the disposal stage. In June 2021 we started a company-wide, cross-sectional carbon neutrality project to accelerate these activities.

Reducing CO_2 emissions

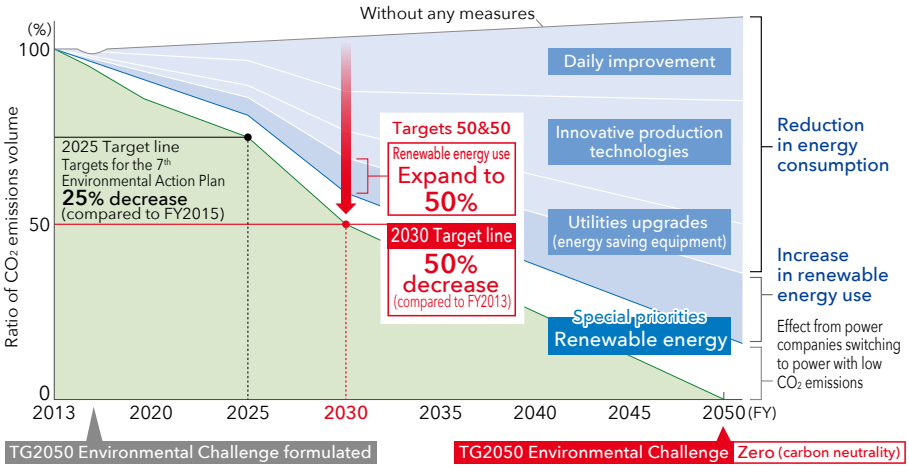
The Toyoda Gosei Group is reducing CO_2 emissions in the product stage, production stage, and over the entire lifecycle to achieve the targets set for FY2025.

• Product development stage: Environmentally-friendly product development

In the product stage, we are making headway in providing parts for environmentally-friendly, next-generation vehicles and developing products with lighter weight for greater fuel efficiency and lower energy consumption across the areas of materials technology, product design, and production technology. Examples include the development of hydrogen tanks for FCEVs and aggressive efforts to switch materials (e.g., from metal or rubber to plastic) in instrument panel peripherals and other interior products and in functional parts such as hoses, reduce the number of components, integrate functions, and use thinner material while ensuring strength.

• Production stage: Reductions with development of new processes, daily *kaizen*

We have set 2030 milestones for achieving zero plant CO_2 in the TG 2050 Environmental Challenge, and are working to achieve this with regular *kaizen*, production technology innovations, more efficient utilities, and expansion of renewable energy in plants.



• Recycling: Reductions in materials and parts procurement, more efficient distribution

Toyoda Gosei has prepared and distributed green procurement guidelines for materials and parts procurement with low environmental impact. Together with regular supplier surveys to ensure compliance, we also provide support when improvements are needed.

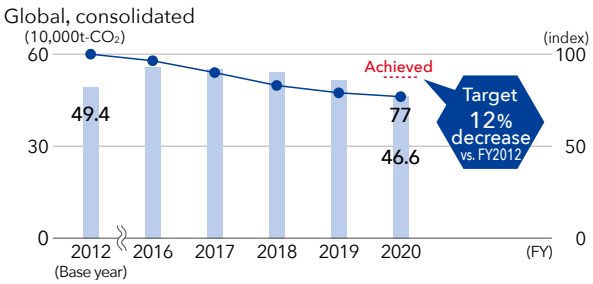
We have reduced CO_2 emissions with more efficient distribution, including truck allocation with improved payloads and shorter distribution distances and reviews of transport modes.

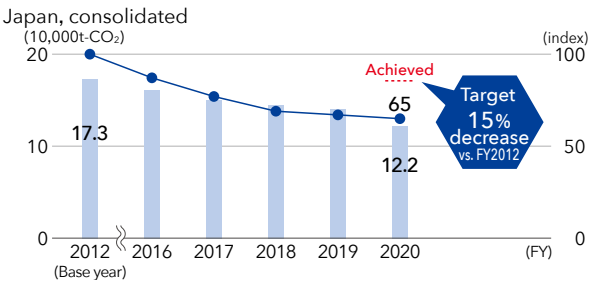
•Renewable energy

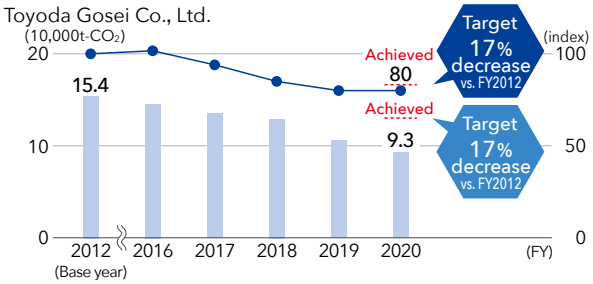
We are expanding renewable energy, including the installation of clean solar and wind energy generation equipment and the purchase of green power. This reached 4% of our total global electricity consumption by the end of FY2020, more than meeting our target of 2%. Our next challenge is to raise clean energy levels to at least 20% globally by FY2030.

CO_2 emissions, CO_2 emissions per sales unit (index) *1

CO_2 emissions — CO_2 emissions per sales unit

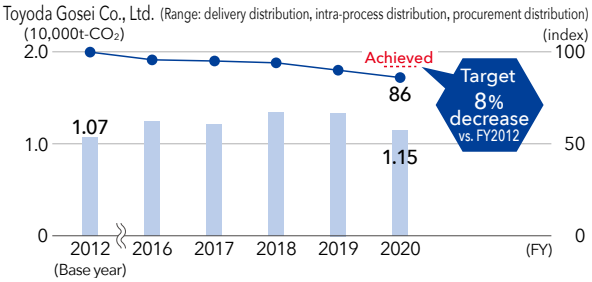






CO_2 emissions in distribution, CO_2 emissions per sales unit (index)*1

CO_2 emissions in distribution — CO_2 emissions per sales unit

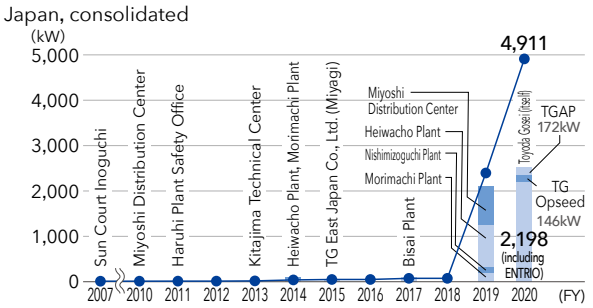


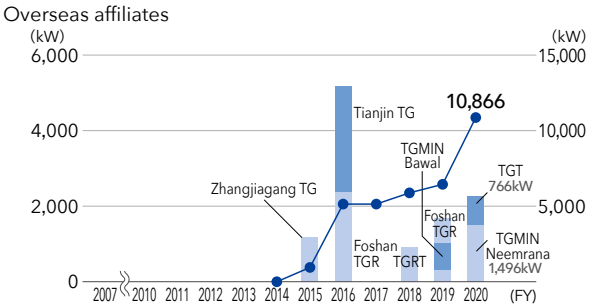
*1 Emissions per sales unit (index) is a figure obtained taking FY2012 as 100
[CO_2 conversion factor]
The CO_2 conversion factors used for Japan*2 are the 1990 Keidanren factors. The CO_2 conversion factors used for other countries are from the GHG Protocol (2001).

*2 Electricity: 0.3707t-CO_2/MWh, class A fuel oil: 2.69577t-CO_2/kL, LPG: 3.00397t-CO_2/t, Town gas: 2.15701t-CO_2/1,000 Nm³, Kerosene: 2.53155 t-CO_2/ kL, LNG: 2.68682t-CO_2/t, Gasoline: 2.36063t-CO_2/kL (excluding external factors of gas companies' town gas heat conversion)

Solar power generation graph (does not include stand-alone systems such as outside lights with solar panels)

Generation capacity (kW) — Total generation capacity (kW)





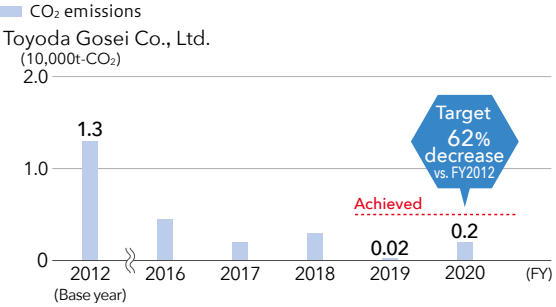
Reductions in 6 greenhouse gases*3

Of the six greenhouse gases, Toyoda Gosei Co., Ltd. uses three (HFC, PFC, SF6) and is conducting activities to reduce all of them. By FY2015 we had completed a switch to alternative gases with a low environmental impact for the shield gas used in the production of steering wheel cores and other gases. This has resulted in a 74% decrease in greenhouse gases since FY2012. We will continue these reduction activities in the future.

*3 Hydrofluorocarbon (HFC), perfluorocarbon (PFC), sulfur hexafluoride (SF_6), methane (CH_4), nitrous oxide (N_2O), nitrogen trifluoride (NF_3)

Trend in greenhouse gas (6 gases) emissions (CO_2 equivalents)

CO_2 emissions



Building a recycling society

Toyoda Gosei uses resources effectively and contributes to a recycling society by reducing waste volumes*1 and water usage and designing products that are easily recyclable.

*1 We are currently attempting to reduce waste volumes for the minimization of industrial waste as set forth in the TG 2050 Environmental Challenge.

Basic philosophy

To move closer to the recycling society, or circular economy, envisioned in the TG 2050 Environmental Challenge, Toyoda Gosei aims to minimize industrial waste and water risks. We have set 2030 targets as milestones, and are making every effort to use resources effectively, reducing materials usage and waste volumes through thorough sorting and the design of easily recyclable products.

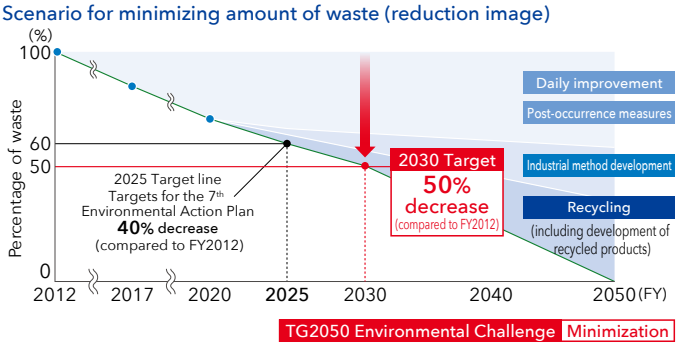
Frequent water shortages and floods have become a major problem in all parts of the world. We are attempting to identify these risks in every country and region where we have operations while also striving to give back to the community by reducing water usage, recycling water, and releasing cleaner wastewater.

Waste reduction

• Establishment of 2030 milestones

We have set and are working toward 2030 milestones to achieve the targets in the TG 2050 Environmental Challenge. For this we are developing products and materials that minimize remnants and waste and are easy to recycle, and thoroughly sorting them in plants.

Scenario for minimizing amount of waste (reduction image)



• Development of product recycling technology

We develop and design easily recyclable products and materials with thought to the entire lifecycle of automobiles. We are also developing recycling technology for waste material.

Development of technology for end-of-life vehicle parts recycling

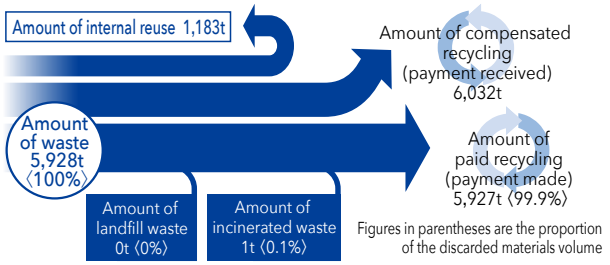
Key items	Measures implemented
New recycling	・Composite material separation technology ・New recycling technology (high quality material recycling)
Use of recycled materials in vehicles	・End-of-life vehicle recycling technology ・Development of applications for recycled materials
Product design for easy recycling	・Product design for easy dismantling ・Materials and composition changes for easy recycling

• Reduction of waste materials in the production stage

To reduce waste in production processes, we are combating waste at its source and recycling. We have also started a waste reduction project with coordination among plants and production technology, materials technology, and product design departments to strengthen efforts to combat waste at its source. At each plant, we are reducing waste through *genchi-genbutsu* (go and see), identifying items for reduction with the help of external experts, and implementing rubber, plastic, and liquid reductions.

Study sessions are also held to promote waste reduction at both domestic and international Group companies.

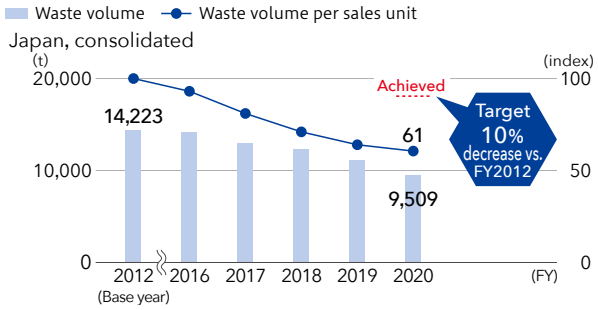
Amounts of waste generated and disposed of (results for FY2020: Toyoda Gosei Co., Ltd.)

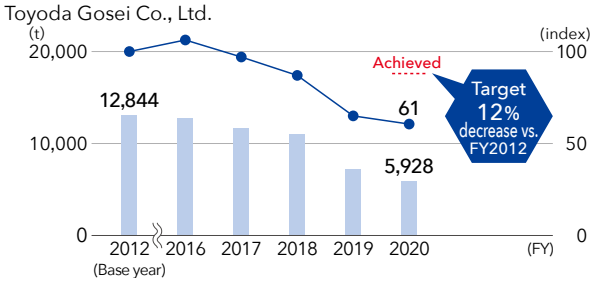


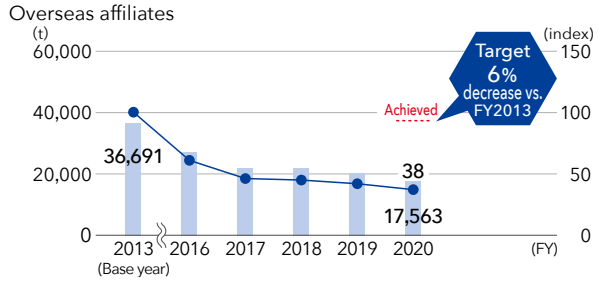
•Reduction of packaging in the distribution stage

The packing material used in product transport is being reduced to prevent products from being soiled by increasing the number of times reusable containers are used in the field and maintaining cleanliness. We are also reducing packing material by putting lids on reusable containers and other changes, considering the balance between maintaining product quality and reducing the use of packing materials.

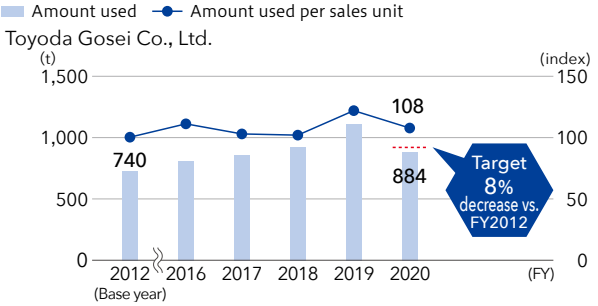
Waste volume, waste volume per sales unit (index)*2







Amount of distribution packing material used, amount used per sales unit (index)*3



*2 The amount of waste per sales unit (index) is a figure obtained taking the base year as 100
*3 The amount of distribution packing material used per sales unit (index) is a figure obtained taking the base year as 100

Reducing water risks

We have set and are working toward 2030 milestones to achieve the targets in the TG 2050 Environmental Challenge. For this we are assessing risks in both water usage and water quality in Japan and international locations, and making improvements at high-risk locations.

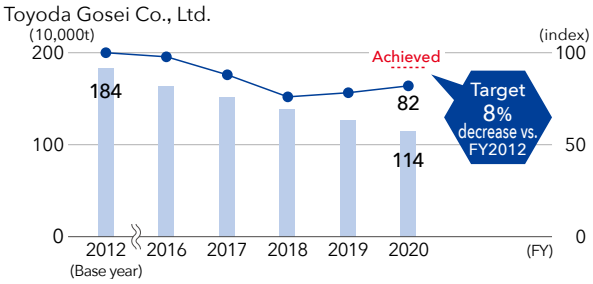
Even in places where risks are low, we are trying to reduce water intake amounts for the effective use of resources.

In FY2020, we cut water use through improvements to reduce leakage and by promoting recycling. We are also planning upgrades to wastewater treatment facilities for cleaner waste water.

2030 water usage milestone

	Item	2030 Target
High risk area	Water quality	Measures completed at four locations
	Water intake	Measures completed at seven locations
Low risk area	Water intake per sales unit	11% decrease vs. FY2019

Water use, water use per sales unit (index)*1



*1 Water use per sales unit (index) is a figure obtained taking the base year as 100

Environmental preservation and building environmentally-friendly societies

We comply with laws and regulations related to chemical substance control and the environment, and are conducting activities to protect biodiversity.

Basic philosophy

In addition to strengthening the selection and management of chemical substances to create products and processes that are kind to people and the earth, we are improving environmental management in things such as compliance with laws, regulations and customer standards in every country where we do business, based on ISO 14001.

We are also maintaining a company woodland, creating biotopes, and working to preserve tidal flats and other areas for biodiversity.

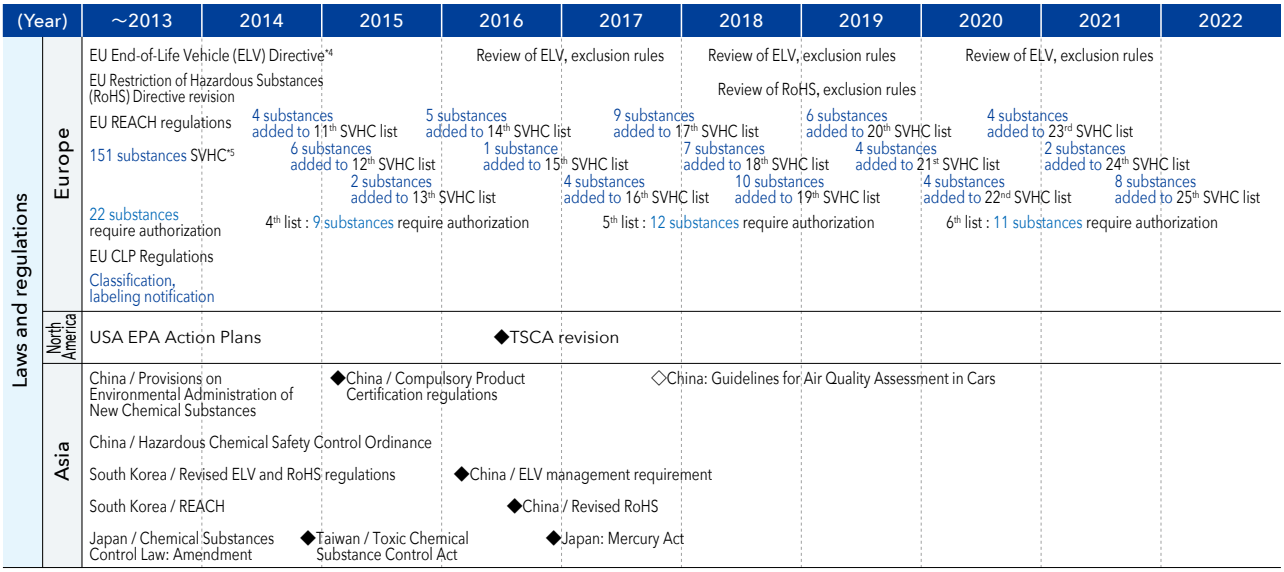
Control and reduction of substances of concern

• Control of chemical substances contained in products

To strengthen the management of chemical substances in our products, we control substances that are legally regulated in each country, substances that are self-regulated by automakers, and substances covered by our own company regulations. We monitor the trends in European REACH[*2] regulations and the EU RoHS Directive[*3] and have a system in place to respond rapidly when these regulations are revised. To respond to requests from automakers in each country for information on chemical substances in products, we have devised mechanisms and conducted systems for global collective management of chemical substances that we are currently using in Japan, China, Thailand and Vietnam. We will be steadily expanding this system to places where it is not yet in use.

*2 Registration, Evaluation, Authorization and Restriction of Chemicals
*3 Restrictions on the use of specific hazardous substances contained in electrical and electronic equipment

Chemical substance regulations in each region



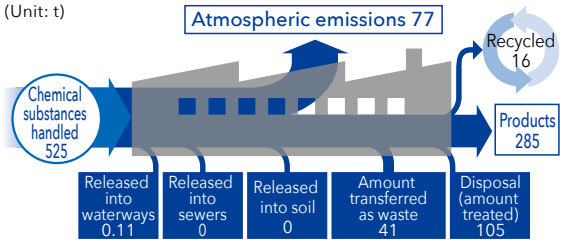
*4 Restrictions on the use of substances of concern contained in automobile parts and materials
*5 Substances of high concern

Reduced use of substances of concern

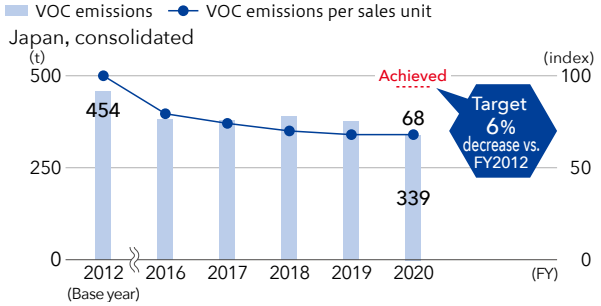
In production processes, we are switching to water-based paint and release agents, making painting lines more compact, improving coating efficiency, and making other efforts to reduce Pollutant Release and Transfer Register (PRTR) substances and volatile organic compounds (VOCs).

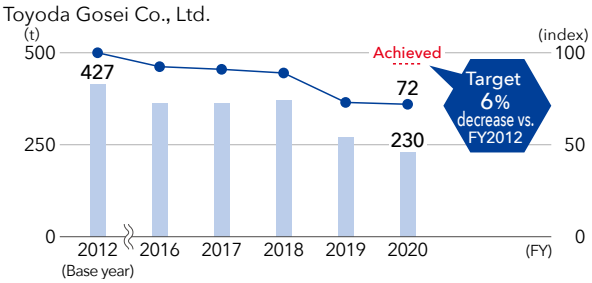
Through on-site visits, we also share information on cases in which VOCs were successfully decreased to promote reduction activities.

Volumes and flow of emitted PRTR substances



VOC emissions, emissions per sales unit (index)[*6]





*6 Emissions per sales unit (index) is a figure obtained taking FY2012 as 100

Activities for living with nature that build ties with the community

The Toyoda Gosei Group has set a target of no net loss of greenery; that is, restoration of greenery equivalent to the area of its plants, by 2050. To achieve that, we are maintaining mountain woodlands, removing invasive species from rivers, installing biotopes, and protecting tidal flats by the ocean.

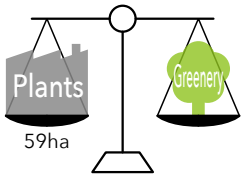
In conjunction with the Toyota Group, government agencies, NPOs and other organizations, we are also enhancing our activities for nature-friendly living.

• Long-term targets for 2050

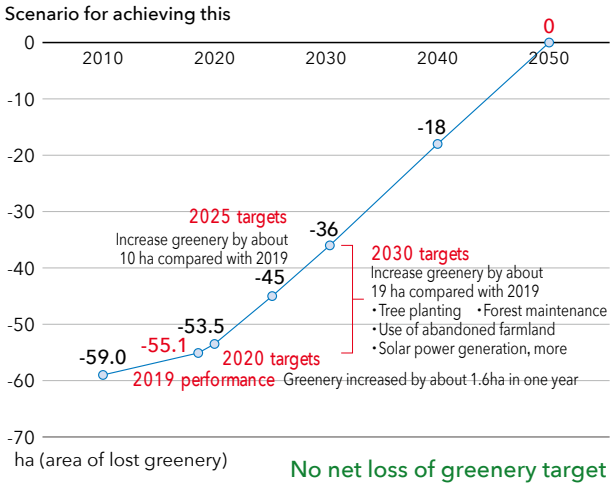
The area of Toyoda Gosei plants is 59 hectares, and despite environmental considerations some nature was destroyed in their construction. We have set a target for, and are now working toward, "No net loss of greenery," in which we aim to restore greenery to an area that is the same size as that of our plants by 2050.

Achieving no net loss of greenery

Restoring the greenery lost in plant construction in an activity to live with nature

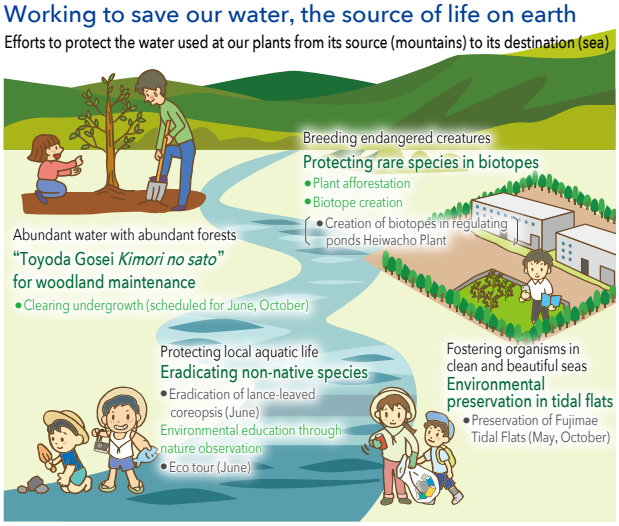


Activities to achieve no net loss of greenery



Working to save our water, the source of life on earth

Efforts to protect the water used at our plants from its source (mountains) to its destination (sea)



Activities to eliminate compliance and environmental violations and complaints

Regular checks are conducted by expert departments and maintenance and management are carried out to ensure legal compliance and no environmental problems or complaints. Preventive activities such as environmental preservation project team activities are also conducted to combat risks. In addition, we analyze problems that occur at other companies, inspect similar facilities including those at domestic and international affiliates, and take preventive measures. There were no occurrences of environmental abnormalities in FY2020.

Proper disposal and storage of PCB-containing equipment

The law stipulates that hazardous and persistent PCB (polychlorinated biphenyl) waste must be disposed of by the end of March 2027. We started outsourcing this disposal in FY2006 for the proper treatment of equipment that contains PCBs. By FY2020, 896 units had been treated.

Treatment of PCB waste

We will continue to process untreated low-concentration PCB waste at an early stage. Until that is completed, appropriate management based on the PCB Special Measures Law is done to prevent runoff and soil contamination.

Category	Type	No. of units treated	Treated weight
High concentration PCB waste material (PCB levels: >5,000 mg/kg)	Ballast, power capacitors, etc.	802 units	6.9t
Low concentration PCB waste material (PCB levels: 0.5-5,000 mg/kg)	Transformers, power capacitors, etc.	94 units	80.3t

Protecting soil and groundwater

We carefully monitor and treat soil and groundwater contamination from toxic substances such as trichloroethylene, which was formerly used in cleaning agents. We have established observation wells at each plant, and regularly confirm that there is no soil or groundwater pollution from toxic substances and oils.

Location	Target	Status of corrective measures
Haruhi Plant	Groundwater	Purification in progress (proactive treatment, as contamination from off-site sources is possible)
Inazawa Plant	Groundwater	Because substances we have no history of using have been detected, regular reports to the government contain results of measurements only * Results below reference values since 2010 (Government reports concluded in FY2012)

Mottainai check

To eliminate waste of resources, we have performed plant inspections and regular *mottainai* inspections for corrective treatment since 2018.

Since 2021, production engineering departments have also been involved in the inspections, and executives in charge of the environment and leaders of each plant perform the inspections with a focus on places where remnants and waste materials generated in production processes are kept. The thoroughness of sorting and *kaizen* for recycling are investigated.

Mottainai check / Inazawa Plant

Environmental management

In coordination with affiliated companies in Japan and other countries, we are continuing employee training and education programs so that every employee can act with awareness of the environment.

Basic philosophy

We are also making aggressive efforts for education to raise the environmental awareness of employees and train personnel for sustainable environmental activities.

Enhancing Group-wide environmental management

The entire Toyoda Gosei Group promotes environmental management. Environmental data has been collected by domestic affiliates since FY2001 and by international affiliates since FY2003. Based on these environmental data (CO_2 emissions, waste, water usage, VOC emissions, and more), we set annual targets and promote reduction activities every year.

Plants subject to environmental management

Toyoda Gosei Co., Ltd.

- Haruhi Plant
- Nishimizoguchi Plant
- Seto Plant
- Inazawa Plant
- Bisai Plant
- Morimachi Plant
- Heiwacho Plant
- Kanagawa Plant*1
- Inabe Plant*2

Affiliates in Japan

- Ichiei Kogyo Co., Ltd.
- Toyoda Gosei Hinode Co., Ltd.
- Hoshin Gosei Co., Ltd.
- Toyoda Gosei Interior Manufacturing Co., Ltd.
- Kaiyo Gomu Co., Ltd.
- TG Opseed Co., Ltd.
- TGAP Co., Ltd.
- TS Opto Co., Ltd.*3
- TG East Japan Co., Ltd.
- Toyoda Gosei Kyushu Co., Ltd.

Overseas Affiliates

■ Americas (Regional headquarters: Toyoda Gosei North America Corporation)

- TG Missouri Corporation
- TG Kentucky, LLC
- TG Automotive Sealing Kentucky, LLC
- TG Fluid Systems USA Corporation
- Toyoda Gosei Texas, LLC
- Waterville TG Inc.
- TG Minto Corporation
- TAPEX Mexicana S.A. de C.V.
- Toyoda Gosei Automotive Sealing Mexico S.A. de C.V.
- GDBR Industria e Comercio de Componentes Quimicos e de Borracha Ltda.
- Toyoda Gosei Rubber Mexico, S.A. de C.V.
- Pecval Industria Ltda. Toyoda Gosei Irapuato Mexico, S.A. de C.V.

■ Asia (Regional headquarters: Toyoda Gosei Asia Co., Ltd.)

- Toyoda Gosei (Thailand) Co., Ltd.
- Toyoda Gosei Rubber (Thailand) Co., Ltd.
- Toyoda Gosei Haiphong Co., Ltd.
- Toyoda Gosei South India Pvt. Ltd.
- P. T. Toyoda Gosei Safety Systems Indonesia
- Toyoda Gosei Minda India Pvt. Ltd.
- Fong Yue Co., Ltd.
- P.T. Toyoda Gosei Indonesia

■ China (Regional headquarters: Toyoda Gosei (China) Investment Co., Ltd.)

- Tianjin Toyoda Gosei Co., Ltd.
- Toyoda Gosei Star Light (Tianjin) Auto Parts Co., Ltd.
- Toyoda Gosei (Zhangjiagang) Co., Ltd.
- Toyoda Gosei (Foshan) Rubber Parts Co., Ltd.
- Toyoda Gosei (Foshan) Auto Parts Co., Ltd.
- Toyoda Gosei (Tianjin) Precise Plastic Co., Ltd.
- Hubei Toyoda Gosei Zheng Ao Rubber & Plastics Sealing Technology Co., Ltd.

■ Europe and Africa

- Toyoda Gosei UK Ltd.
- Toyoda Gosei Czech, s.r.o.
- Toyoda Gosei South Africa (Pty). Ltd.

*1 The Kanagawa Plant was closed in August 2021. *2 The Inabe Plant was added from April 2021. *3 TS Opto will be liquidated from December 2021.
• Acquired ISO 14001 certification. When new plants and new companies are established, we aim to acquire ISO 14001 within three years of starting operation.

Environmental audits

•ISO 14001 environmental audit

Toyoda Gosei and its domestic and international affiliates acquire ISO 14001 environmental management system certification. Internal environmental audits are carried out by audit teams composed of members from business areas outside those being audited in order to raise the independence and objectivity of the audits. Toyoda Gosei Co., Ltd. commissions external reviews by the Japan Quality Assurance Organization (JQA) to assess whether our environmental management systems are run properly in accordance with ISO 14001. We are promoting 100% acquisition with the intention to have new companies acquire ISO 14001 certification within three years of being established.

ISO 14001-certified production sites Acquisition rate 100%

Toyoda Gosei Co., Ltd.	7 plants	Overseas Affiliates	Americas: 12 companies, Asia: 7 companies, China: 7 companies, Europe/Africa: 3 companies
Affiliates in Japan	10 companies		

Internal environmental audits / Toyoda Gosei Hinode Co., Ltd.

•International environmental audits

Voluntary inspections are performed based on TG Global EMS, which are environmental management system standards that we have established ourselves, and *kaizen* activities are carried out.

Corrective measures have been completed for all correction items.

Toyoda Gosei (Thailand) Co., Ltd.

Activities based on green procurement guidelines

We conduct surveys of the status of compliance with green procurement guidelines of the suppliers with whom we do business, and conduct *genchi-gembutsu* (go and see) inspections of high-risk companies. When needed, we carry out joint *kaizen* activities.

In carbon neutrality study groups, we provide examples of CO_2 reductions and other information.

Environmental education

Toyoda Gosei educates employees on environmental problems including the destruction of nature and environmental pollution, the impacts on the environment of production activities, and compliance with environmental regulations. The content each year emphasizes understanding and practices based on legal trends, with examples incorporated to create specific and understandable teaching materials.

Environmental education system

Level-specific training

Toyoda Gosei Co., Ltd.	Affiliate Companies	
	Japan	Overseas
Education for new managers		
Education for those posted overseas		
Education for environmental key persons		
Acquisition of environmental education qualifications		
Education for new employees		

ISO education

Toyoda Gosei Co., Ltd.	Affiliate Companies	
	Japan	Overseas
Education for environmental staff		
Education to improve internal auditors' skills		
Education to register internal auditors		
Education for supervising managers		
Education for key environmental facility workers		
Education for general workers		

Activities to raise environmental awareness

We are attempting to raise the environmental awareness of employees through Environment Month events, regular environmental lectures, and other activities so that all employees have an awareness of the environment in their activities for ongoing environmental protection.

We also conduct a questionnaire survey of employees each year to assess their environmental awareness and plan educational activities based on the results.

Responding to surveys by the media, environmental NGOs, customers and others and sharing information on our environmental activities outside the company

We actively disseminate information on our environmental activities by publishing various reports, including our annual report and securities report, and by responding to CDP, Nikkei SDGs, and other surveys, and surveys by our major customers.

We also hold ESG briefings and other events to engage with stakeholders such as institutional investors, and improve our environmental activities based on the information we obtain.

ESG briefing

Collaboration with external organizations

Participation in the Japan Auto Parts Industries Association and collaboration with member companies

As the leading company in the Japan Auto Parts Industries Association's Global Warming Prevention Subcommittee, we work with member companies to prepare positive case studies and various study sessions. Measures to counter global warming is an issue on a global scale, and requires effort in collaboration with the entire automobile industry. We will continue to actively participate and put out information.

We endorse Japan Business Federation's Challenge Zero and other initiatives, and were selected for the Ministry of Economy, Trade and Industry's Zero Emissions Challenge

Toyoda Gosei has endorsed Japan Business Federation's Challenge Zero initiative to combat climate change and its Biodiversity Declaration. We will continue to carry out activities based on the thinking of Japan Business Federation.

We have also been selected by the Ministry of Economy, Trade and Industry as a company to introduce innovations to achieve carbon neutrality by 2050.

ZERO EMISSIONS CHALLENGE

Third-party assessment

The Toyoda Gosei Group has gained consistent recognition for its Group-wide environmental activities. The Group will increase its activities for further improvement based on these assessments.

Toyoda Gosei acquired the highest ranking in the Development Bank of Japan's DBJ Environmental Rating*1

In the DBJ Environmental Rating (implemented in 2017) of the Development Bank of Japan (DBJ), we received the highest rating, "Particularly advanced efforts for environmental friendliness." We were recognized for our efforts to minimize CO_2 emissions and develop environmentally friendly processes and equipment under a cross-company and global system led by the company president, with the TG 2050 Environmental Challenge as our long-term goal, and for efforts to improve the fuel efficiency of vehicles, which are the final product, both in terms of lighter weight and functionality through the development and design of products and materials that are easy to recycle throughout the entire life cycle.

DBJ 環境格付 2017

*1 A rating system developed by DBJ that evaluates the level of environmental management of a company, identifies superior companies, and applies a three-step loan interest rate according to the score.

"A" rating by CDP for climate change engagement

In a company survey conducted by the CDP,*2 an international not-for-profit environmental organization, we have received an A– rating in two fields, "Climate change" and "Water security," for two consecutive years.

We actively disclose information through the approach of management to environmental activities, ESG briefings for institutional investors and other activities. In addition to medium- and long-term environmental targets, we set numerical targets for each year. This and activities to steadily reduce CO_2 and water usage in a step-by-step fashion led to these ratings.

Our efforts to reduce CO_2 in coordination with suppliers, Scope 3 emissions information disclosure, and efforts to combat climate change were also highly rated, and we have received an "A" rating for two consecutive years in climate change supplier engagement.

CDP SUPPLIER ENGAGEMENT LEADER 2020

*2 A not-for-profit organization (NPO) established in 2000. It is operated with support from institutional investors and others in each country, and conducts surveys of corporate environmental information and publishes the results.