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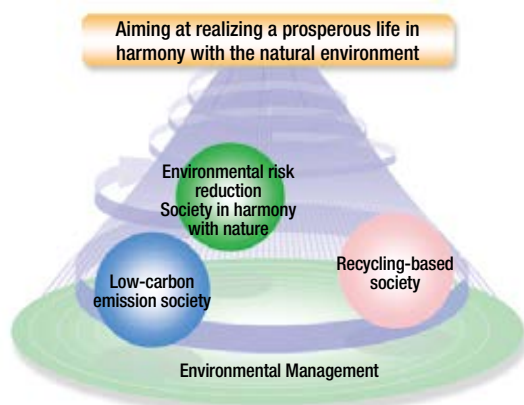
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Vision for Environmental Activities

We have defined our aspirations in 2050 and launched the Sixth Environmental Action Plan in fiscal 2017.

Global Environmental Commitment

As one tenet under our Basic Philosophy, Toyota Industries works to contribute to regional living conditions and social prosperity and also strives to offer products and services that are clean, safe and of high quality. Accordingly, in February 2011, we established the Global Environmental Commitment, a specific environmental action guideline, to be shared and implemented throughout the Toyota Industries Group. The entire Toyota Industries Group will dedicate concerted efforts to realizing a prosperous life in harmony with the natural environment.



Notional Diagram of Global Environmental Commitment

Aspirations in 2050

- (1) **Establishing a low-carbon emission society**
⇒ Globally take on challenge of establishing a zero CO₂ emissions society
- (2) **Establishing a recycling-based society**
⇒ Take on challenge of minimizing the use of resources
- (3) **Reducing environmental risk and establishing a society in harmony with nature**
⇒ Generate positive influence on biodiversity
- (4) **Promoting environmental management**
⇒ Enhance consolidated environmental management and promote enlightenment activities

Aspirations in 2050 and the Sixth Environmental Action Plan

Following the 2015 adoption of the Paris Agreement, an international framework for action against climate change, the establishment of a low-carbon emission society has become a global common goal. For Toyota Industries as well, the need to take further proactive measures is growing as global environmental issues continue to become of greater concern, with more people becoming increasingly conscious about the environment.

Under the circumstances, we have defined our aspirations in 2050. The Global Environmental Commitment, which represents our basic approach to environmental activities, specifies four action themes, namely, 1) establishing a low-carbon emission society; 2) establishing a recycling-based society; 3) reducing environmental risk and establishing a society in harmony with nature; and 4) promoting environmental management. As a milestone toward achieving our aspirations in 2050, we have formulated the Sixth Environmental Action Plan, a five-year plan for the period from fiscal 2017 to fiscal 2021, and will resolutely undertake activities in accordance with the plan. We have created environmental panels that summarize our aspirations and an action plan in order to raise employees' awareness concerning the environment and communicate our approach to outside parties.



Raising employees' awareness by using an environmental panel

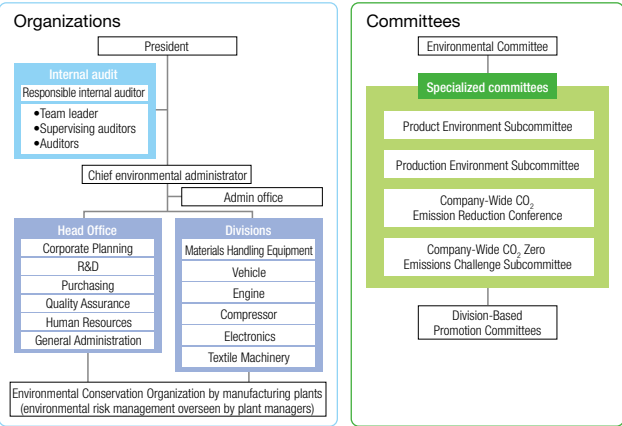
Structure to Implement Environmental Management

Positioning environmental response as one of its most crucial management issues, Toyota Industries is enhancing its environmentally oriented corporate management on a global basis through the promotion of consolidated environmental management.

Promotion of Environmental Management System

Toyota Industries has positioned environmental response as one of its most crucial management issues. To quickly reflect top management’s decisions on business operations, Toyota Industries has established and been operating a Company-wide integrated environmental management system (EMS), with the president at the top.

Environmental Management Structure



As in the previous fiscal year, in fiscal 2019 we conducted introductory educational courses to foster the knowledge needed for environmental management and an introductory educational course for environmental audits to cultivate knowledge and techniques of internal audits. As department heads and other personnel in managerial

positions proactively attended these courses, we were able to promote the enhancement of environmental management and the development of internal auditors.

For internal auditors, we provided auditor training by an external lecturer for upgrading the quality of our internal audits. The curriculum covered a method to audit on-site environmental management, which is one of the priority audit items for fiscal 2019, and participants accordingly learned required skills.



Auditor training by an external lecturer

Environmental Audits

Toyota Industries implements annual internal environmental audits as well as external audits carried out by an independent third-party institute.

In fiscal 2019, the external review identified one minor non-conformance issue. We have taken corrective action and disseminated the details throughout the Company for the prevention of recurrence.

We continued to conduct internal audits under the mutual, interdivisional audit system. We strived to upgrade our auditing capabilities by organizing audit teams with the dual goals of fostering the development of auditors and increasing audit efficiencies. In the area of audits, our focus was placed on environmental policy management and on-site environmental management, and we clarified how much each business division contributes to overall environmental management and checked if there are any environmental risks in each division.

Companies Subject to Consolidated Environmental Management (As of March 31, 2019) * Only the names of production bases are listed.

Europe: 11 production companies;
67 non-production companies
Toyota Material Handling Manufacturing France SAS (France)
TD Deutsche Klimakompressor GmbH (Germany)
Toyota Material Handling Manufacturing Italy SpA (Italy)
L.T.E. Lift Truck Equipment S.p.A (Italy)
Cascade Italia S.r.l. (Italy)
Toyota Material Handling Manufacturing Sweden AB (Sweden)
Uster Technologies AG (Switzerland)
Cascade (U.K.) Limited (U.K.)
Vanderlande Industries B.V. (Netherlands)
SIMAI S.p.A. (Italy)
Vanderlande Industries Espana S.A. Sociedad Unipersonal (Spain)

Asia: 14 production companies;
20 non-production companies
Toyota Industry (Kunshan) Co., Ltd. (China)
TD Automotive Compressor Kunshan Co., Ltd. (China)
Yantai Shougang TD Automotive Compressor Co., Ltd. (China)
Zhejiang Aichi Industrial Machinery Co., Ltd. (China)
Uster Technologies (Suzhou) Co. Ltd China (China)
Cascade Xiamen Forklift Truck Attachment Co. Ltd. (China)
Cascade Hebei Forks Co. Ltd. (China)
Tailift Machinery & Equipment (Qingdao) Co., Ltd. (China)
Toyota Industries Engine India Private Limited (India)
Kirkoskar Toyota Textile Machinery Private Limited (India)
P.T. TD Automotive Compressor Indonesia (Indonesia)
Cascade Korea Limited (Korea)
Tailift Material Handling Taiwan Co., Ltd. (Taiwan)
Toyota Industrial Equipment Vietnam Co., Ltd. (Vietnam)

Japan
■ Non-consolidated: 10 production bases;
14 non-production bases
■ Consolidated subsidiaries in Japan: 15 production companies; 21 non-production companies
Tokyu Co., Ltd. (Aichi)
Tokaisaki Co., Ltd. (Shizuoka)
Miduho Industry Co., Ltd. (Aichi)
IZUMI MACHINE MFG. CO., LTD. (Aichi)
Haratechs Corporation (Gifu)
Mino Tokyu Co., Ltd. (Gifu)
Altex Co., Ltd. (Shizuoka)
Aichi Corporation (Saitama)
Nagao Kogyo Co., Ltd. (Aichi)
Unica Co., Ltd. (Aichi)
Nishina Industrial Co., Ltd. (Nagano)
Iwama Loom Works, Ltd. (Aichi)
HANDA Casting Company (Aichi)
Takeuchi Industrial Equipment Manufacturing Co., Ltd. (Aichi)
Sugiyama Industries Co., Ltd. (Aichi)

Oceania: 1 production company;
16 non-production companies
Cascade (Australia) Pty. Ltd. (Australia)

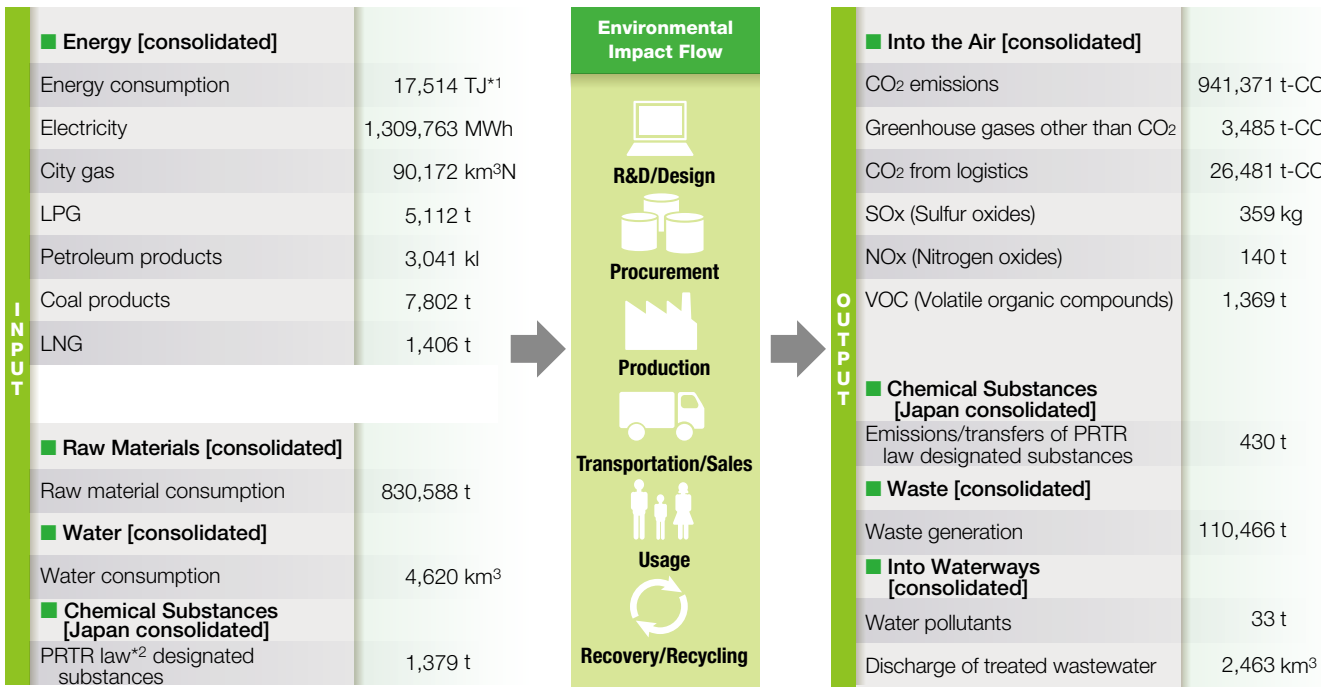
North America: 18 production companies;
45 non-production companies
Cascade (Canada) Ltd. (Canada)
Toyota Industrial Equipment Manufacturing, Inc. (U.S.A.)
The Raymond Corporation (U.S.A.)
Raymond-Muscatine, Inc. (U.S.A.)
TD Automotive Compressor Georgia, LLC (U.S.A.)
Michigan Automotive Compressor, Inc. (U.S.A.)
Indiana Hydraulic Equipment Corp. (U.S.A.)
North Vernon Industry Corp. (U.S.A.)
Cullman Casting Corporation (U.S.A.)
Toyota Industries Compressor Parts America, Co. (U.S.A.)
Uster Technologies, Inc. USA (U.S.A.)
Cascade Corporation (U.S.A.)
PSM LLC (U.S.A.)
American Compaction Equipment, Inc. (U.S.A.)
Tailift Material Handling USA Inc. (U.S.A.)
Bastian Solutions, LLC (U.S.A.)
Bastian Automation Engineering, LLC (U.S.A.)
Vanderlande Industries Manufacturing USA Inc. (U.S.A.)

Latin America: 1 production company;
9 non-production companies
Toyota Material Handling Mercosur Indústria e Comércio de Equipamentos Ltda (Brazil)

Environmental Impact Flow and Environmental Accounting

In this section, we provide an overall picture of environmental impact resulting from our global business activities and report the results of environmental accounting (environmental conservation cost, environmental conservation benefits and economic benefits of environmental conservation initiatives).

Environmental Impact Flow



*1: Terajoule is a unit used to measure heat. 1 TJ = 10¹² joules
*2: 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.

Environmental Accounting

Fiscal 2019 Environmental Accounting*3

Scope of data collection: Toyota Industries Corporation
Period of data collection: April 1, 2018 – March 31, 2019

*3: Environmental accounting data is collected in compliance with the Ministry of the Environment’s Environmental Accounting Guidelines 2005 Version.

Category		FY2019		FY2018	
		Investment	Expenses	Investment	Expenses
Business area costs	Pollution prevention costs	37	150	596	195
	Global environmental conservation costs	526	3,232	675	2,825
	Resource recycling costs	158	110	261	124
Upstream/downstream costs		0	388	0	449
Management costs		0	214	0	187
Research and development costs		78	4,284	78	3,882
Social contribution activity costs		0	103	0	103
Environmental remediation costs		2	0	0	0
Total		801	8,481	1,610	7,765
		9,282		9,375	

Environmental Conservation Benefits		
Environmental Impact	Comparison with Previous Fiscal Year	
CO2	1,922 t decrease	
Generation of waste products	472 t decrease	
Water	19,833 m³ decrease	

Economic Benefits of Environmental Conservation Initiatives		
(Millions of yen)		
Item	Details	Amount
Revenue	Returns from sale of recycled waste products	5,530
Cost reduction	Energy cost reductions	15
	Cost reduction by resource savings (including reductions in amount of water use, wastewater treatment costs, etc.)	34
Total		5,579

Sixth Environmental Action Plan

The results of our activities in fiscal 2019 showed steady progress across the board toward achieving respective targets for fiscal 2021.

Progress of Sixth Environmental Action Plan

With an eye to realizing a prosperous life in harmony with the natural environment through the establishment of a

sustainable society, we formulated the Sixth Environmental Action Plan for the period from fiscal 2017 to fiscal 2021 and are promoting activities according to the plan. Through activities undertaken during fiscal 2019, we made steady progress toward achieving respective targets for fiscal 2021.

Production Related

Segments	Action Policies/Specific Actions	FY2019 Achievements					FY2021 Targets
		Subject	Scope	Control Items	Base Year (FY)	Achievements	Targets
Establishing a Low-Carbon Emission Society	Reduce CO ₂ emissions from production activities <ul style="list-style-type: none">Develop and introduce production engineering technologies with lower CO₂ emissionsReduce CO₂ emissions by fully implementing improvement activities on a daily basisDevelop innovative CO₂ reduction technologies that utilize clean energyManage greenhouse gases other than CO₂	CO ₂ emissions	Non-consolidated	Total emissions	2006	-14%	-10%
			Global	Emission volume per unit of production*1	2006	-26%	-26%
			Non-consolidated			-30%	-30%
	Reduce CO ₂ emissions from production-related logistics <ul style="list-style-type: none">Improve transportation efficiency through such measures as modal shift and better cargo loading efficiency	CO ₂ emissions from logistics	Non-consolidated	Emission volume per unit of production	2007	-32%	-28%
Establishing a Recycling-Based Society	Promote measures against resource depletion by recycling waste <ul style="list-style-type: none">Reduce the volume of discarded materials by taking action at the source, such as improving yields and other measuresPromote internal reuse Promote effective resource utilization in production activities <ul style="list-style-type: none">Reduce use of packaging materialsMonitor water input and output in each country/region and develop and promote appropriate measures	Waste generation volume	Japan consolidated	Emission volume per unit of production	2006	-33%	-27%
			Non-consolidated			-33%	-29%
Reducing Environmental Risk and Establishing a Society in Harmony with Nature	Further reduce emissions of substances of concern <ul style="list-style-type: none">Minimize the use of substances of concern by promoting efficient production activities	VOC*2 emissions	Non-consolidated (automobile body)	Emission volume per unit of production	2006	-36% (24g/m ²)	-36% (24g/m ²)

Product Related

Sixth Environmental Action Plan Targets			FY2019 Achievements
Segments	Action Policies	Specific Actions	
Establishing a Low-Carbon Emission Society	Reduce CO ₂ emissions through product and technology development	<ul style="list-style-type: none">Develop technologies that contribute to an even greater level of energy efficiencyDevelop products and technologies that respond to electrificationDevelop technologies to enable weight reductionReduce energy lossDevelop technologies for the realization of a hydrogen-based society	<ul style="list-style-type: none">Developed fuel cell lift truckDeveloped next-generation electric compressorDeveloped air-jet loomDeveloped new vehicle
Establishing a Recycling-Based Society	Implement initiatives to promote 3R (reduce, reuse and recycle) design for effective resource utilization	<ul style="list-style-type: none">Reduce use of resources through longer product lifeReduce use of resources through standardization, modularization and reduction of componentsReduce use of resources through development of technologies to enable weight reduction and downsizingPromote reuse of components and resources	<ul style="list-style-type: none">Developed next-generation engineDeveloped reach-type electric lift truckDeveloped new DC-AC inverter
Reducing Environmental Risk and Establishing a Society in Harmony with Nature	Reduce emissions to improve air quality in urban areas in all countries and regions	<ul style="list-style-type: none">Develop engines that meet future regulations	<ul style="list-style-type: none">Developed next-generation engine
	Manage chemical substances contained in products	<ul style="list-style-type: none">Investigate chemical substances contained in products and manage switching over of SVHC*3 and other substances of concern to other substances	<ul style="list-style-type: none">Supported chemical substance management at affiliated companies outside JapanConducted survey on chemical substances contained in products

Others

Sixth Environmental Action Plan Targets			FY2019 Achievements
Segments	Action Policies	Specific Actions	
Reducing Environmental Risk and Establishing a Society in Harmony with Nature	Augment activities related to protection of biodiversity	<ul style="list-style-type: none">Share the biodiversity guidelines across all Toyota Group companies and contribute to the expansion of a habitat for living organismsFormulate and promote plans to link activities and connect green zones by undertaking activities for conservation of biodiversity throughout the Toyota Industries Group, including at consolidated subsidiaries in and outside Japan	<ul style="list-style-type: none">Participated in All Toyota Green Wave ProjectDevised biodiversity conservation action plan within Toyota Industries premises
Promoting Environmental Management	Augment and promote consolidated environmental management	<ul style="list-style-type: none">Build a global environmental management system and promote related activities to:<ul style="list-style-type: none">Comply with environment-related laws in each country and regionFormulate a medium-term plan based on visualization of environmental risks and conduct activities to prevent risks from occurringEnhance risk communication with relevant organizations and local residentsAchieve the highest-level environmental performance in each country and regionEnforce strategic environmental management that integrates environmental activities and business activities	<ul style="list-style-type: none">Promoted mitigation activitiesInspected environmental risks at production bases in Japan
	Enhance education and enlightenment activities	<ul style="list-style-type: none">Extend the scope of Toyota Industries' enlightenment activities to consolidated subsidiaries in and outside JapanGive back to society the outcomes of enlightenment activities	<ul style="list-style-type: none">Held environmental seminar
	Promote environmental activities in collaboration with business partners	<ul style="list-style-type: none">Ensure compliance with laws and regulations and improve environmental performance based on the Environmentally Preferable Purchasing Guidelines	<ul style="list-style-type: none">Held briefing sessions for business partners in Japan
	Improve eco-conscious brand image	<ul style="list-style-type: none">Pursue higher brand image through proactive information disclosure	<ul style="list-style-type: none">CDP*4 climate change: ranked A (on a performance band of A to F)CDP water security: ranked A (on a performance band of A to F)Nikkei's Environmental Management Survey: ranked 13th (out of 1,731 target companies)Received prize for Biodiversity Action Award Japan 2018 (animal path within the Higashiura Plant)

*1: We manage emissions in each business by using either unit of production or unit of sales as a basic unit of emissions. The weighted average of reduction rates of all businesses is used as our management index.
*2: Volatile Organic Compounds
*3: Substances of Very High Concern
*4: An international not-for-profit organization established in the United Kingdom in 2000 to encourage companies and governments to reduce greenhouse gas emissions, conserve water resources and protect forests

† Details of the Sixth Environmental Action Plan are available at:
https://www.toyota-industries.com/csr/environment/management/plan_6/



Establishing a Low-Carbon Emission Society

We position the curbing of global warming as our most crucial environmental task. We have been working to reduce CO₂ emissions in our global business activities and at the same time accelerate our efforts to develop more environment-friendly products.

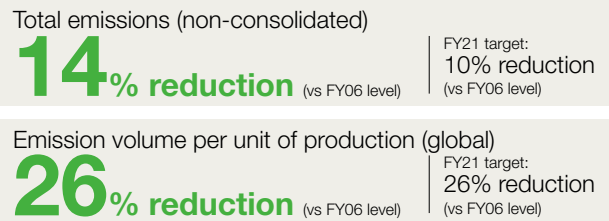
Our Approach

For Toyota Industries, dealing with global warming is not just a “risk.” It also presents “opportunities” in doing business to both differentiate ourselves by leveraging our technology-based product appeal and conduct eco-conscious production activities.

In our aspirations in 2050, we set a goal of establishing a zero CO₂ emissions society on a global basis and have been making efforts in various fields. In the area of product development, our focus includes electrification and increasing the fuel efficiency of engines. In production activities, promoting thorough energy savings and utilizing renewable energy and hydrogen are the two pillars of our activities. As specific efforts, we will adopt solar and other renewable energy sources and effectively utilize hydrogen while thoroughly eliminating wasteful use of energy in production processes and increasing the efficient use of energy.

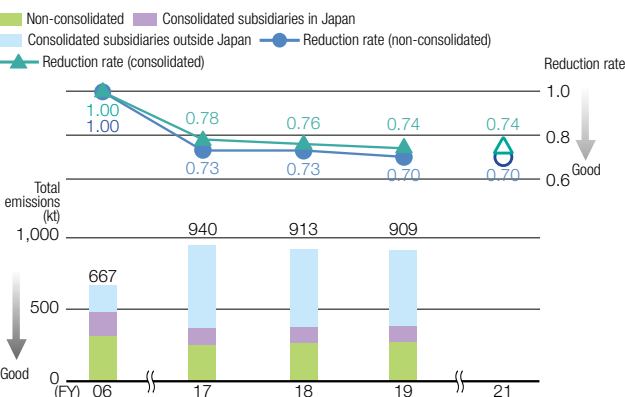
Summary | CO₂ Emissions (Production Activities)

FY2019 Results



Under the Sixth Plan, we are working toward achieving fiscal 2021 targets of reducing total non-consolidated CO₂ emissions by 10% and global emission volume per unit of production by 26%, both from the fiscal 2006 level.

CO₂ Emissions (Non-consolidated/Consolidated subsidiaries in and outside Japan)



Promoting Thorough Energy Savings Reducing Energy Used in a Vehicle Coating Dry-Off Oven

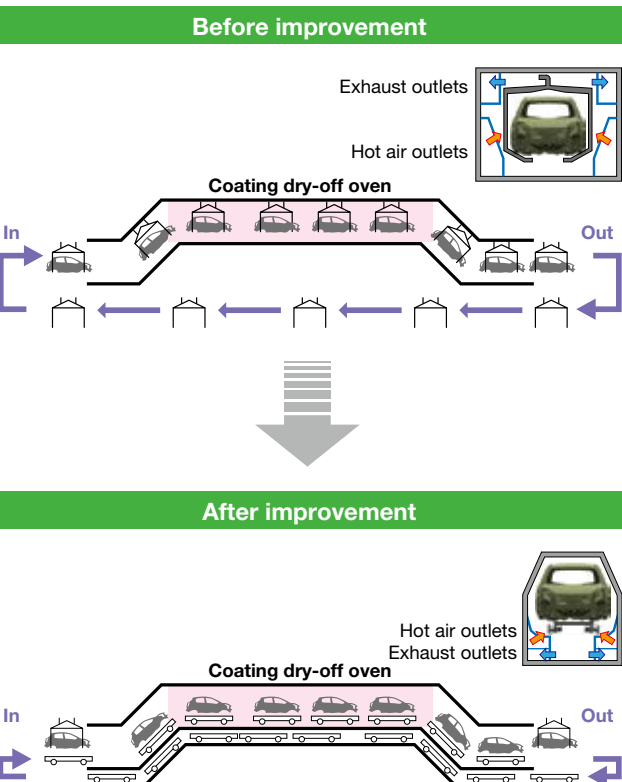
The Nagakusa Plant, a vehicle assembly base in Aichi Prefecture, has been promoting comprehensive energy-saving activities.

In fiscal 2019, the plant achieved a significant result in its efforts to save energy used in a coating dry-off oven.

In a conventional oven, vehicles had been carried from the previous process into the oven on a hanger, and this had required the heating of these hangers and extra space within the large oven, causing the wasteful use of energy.

To reduce such wasteful consumption, the plant replaced hangers with carts and started circulating carts within the oven to maintain its internal temperature. Changes also included designing the optimum shape for the oven to eliminate the extra space inside and moving the hot air outlets above the exhaust outlets after reviewing their placement to ensure efficient air circulation. Through these changes, the plant achieved uniform heat distribution within the oven with a smaller amount of energy.

The improvement allowed the plant to reduce its annual CO₂ emissions by approximately 354 tons.



Utilizing Renewable Energy and Hydrogen Establishing H₂ PLAZA Hydrogen Station at the Takahama Plant

The Takahama Plant, a materials handling equipment production base in Aichi Prefecture, has been promoting CO₂ emissions reduction activities along with systematic energy-saving efforts by proactively using solar and other renewable energy and hydrogen.

The plant constructed H₂ PLAZA, a hydrogen station that uses renewable energy*, on the plant premises and started operations in March 2019. The H₂ PLAZA produces, compresses and charges hydrogen to fuel cell (FC) lift trucks used within the plant according to their operational status. Through the efficient use of energy, this helps to reduce CO₂ emissions. Moreover, FC lift trucks do not emit CO₂ while in operation. They are able to be fully CO₂ free from hydrogen production to operation since they are charged with hydrogen generated by using solar or other renewable energy. This hydrogen station is subsidized by the Ministry of the Environment for CO₂ emissions reduction projects.

The Aichi prefectural government runs a program to certify hydrogen generated by using renewable energy as low-carbon hydrogen. Our hydrogen station is the third low-carbon hydrogen production project certified under the program in Aichi Prefecture, following the one at Chubu Centrair International Airport and another project.

Since commencing sales in November 2016, Toyota Industries' FC lift trucks have been adopted by factories and airports around Japan for their excellent environmental performance and enhanced convenience of completing charging in about three minutes. In fiscal 2019, we increased the number of FC lift trucks used at the Takahama Plant.

FC lift trucks are expected to reduce the environmental impact at logistics sites of various industries and contribute to realizing a hydrogen-based society. Accordingly, Toyota Industries will continue to promote global environmental conservation through the effective use of hydrogen.

* Facility that produces hydrogen by using electricity generated by renewable solar power and can compress, accumulate and feed resulting hydrogen to vehicles



Bird's-eye view of H₂ PLAZA



H₂ PLAZA opening ceremony

Message from a Stakeholder



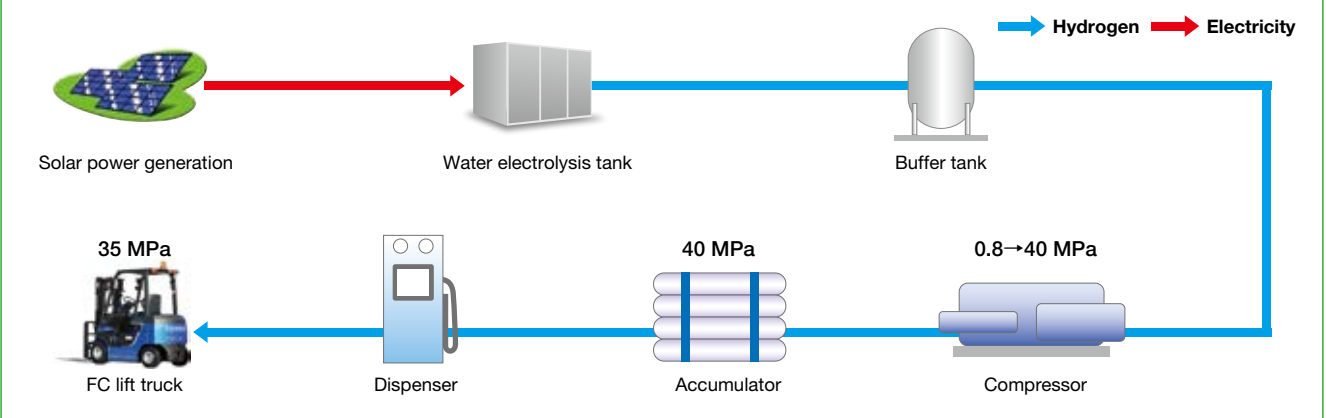
Toshihiro Morita
Director, Environmental
Bureau, Aichi Prefecture

The Aichi prefectural government is encouraging the use of low-carbon hydrogen that does not emit CO₂ both while in use and production in order to accelerate its efforts against global warming.

Toyota Industries' H₂ PLAZA is a model project in the field of low-carbon hydrogen production and use within a plant. Aichi Prefecture hopes to disseminate information on such examples to increase and broaden the use of low-carbon hydrogen.

Moreover, the development and manufacture of FC lift trucks and other materials handling equipment will lead to the expanded base for hydrogen use, and we hope to see further developments in this area toward the building of a hydrogen-based society.

Mechanism of H₂ PLAZA (Hydrogen Station for FC Lift Trucks)



Establishing a Recycling-Based Society

With a view to establishing a recycling-based society, we have been striving to reduce waste and the consumption of water and other resources.

Our Approach (Waste)

Mass consumption, if continued on the back of the expanding world population and economic growth, will eventually deplete natural resources. Toyota Industries believes it is essential to promote 3R (reduce, reuse and recycle) design for effective resource utilization and the recycling of waste as resources.

We set a goal of minimizing the use of resources in our aspirations in 2050. Accordingly, we have been making various efforts, including extending the life of components as well as reducing their size and weight in the area of product development. In production activities, implementing measures to reduce resource consumption at the source, ensuring the maximum resource recycling within a plant and reducing waste by using leading-edge technologies are the three pillars of our activities.

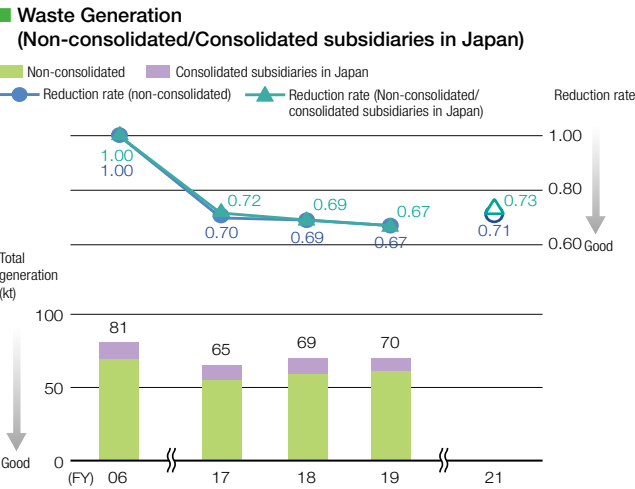
Summary Waste Generation Volume (Production Activities)

FY2019 Results

Waste generation volume per unit of production (non-consolidated)
33% reduction (vs FY06 level) | FY21 target: 29% reduction (vs FY06 level)

Waste generation volume per unit of production (non-consolidated/consolidated subsidiaries in Japan)
33% reduction (vs FY06 level) | FY21 target: 27% reduction (vs FY06 level)

Under the Sixth Plan, we are working toward achieving the fiscal 2021 targets of reducing waste generation volume per unit of production compared with the fiscal 2006 level by 29% on a non-consolidated basis and by 27% for Toyota Industries and its consolidated subsidiaries in Japan.



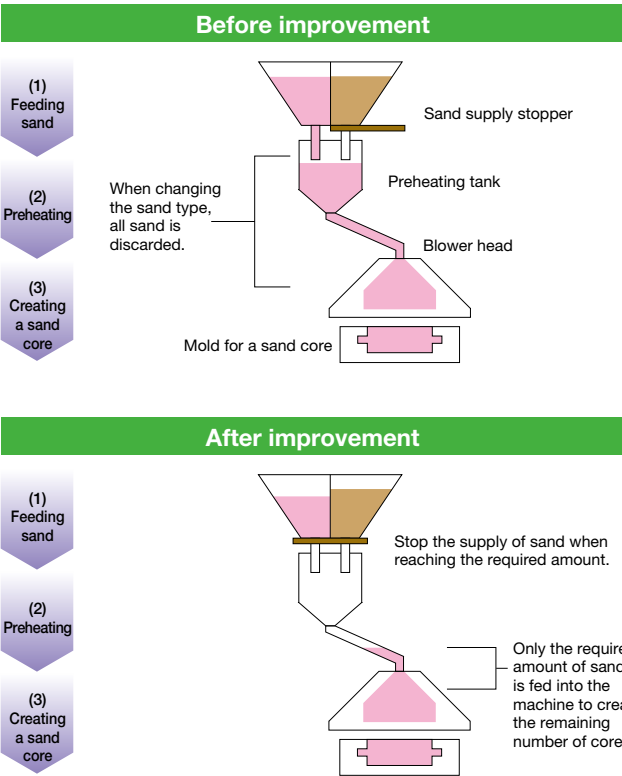
Implementing Measures to Reduce Resource Consumption at the Source Reducing Sand Waste from Foundry Process

The Higashichita Plant, an engine production base in Aichi Prefecture, has been promoting the implementation of measures to reduce resource consumption at the source. For manufacturing engine components, the plant uses a large amount of sand to create die casts and resin-bonded casting sand cores. Sand waste accounts for the largest portion of the plant's total waste.

In fiscal 2019, the Engine Division and the Head Office formed a collaboration team to reduce sand waste generated in the process to create sand cores.

Conventionally, a sand core is created in three steps: 1) feeding sand from the top of a molding machine, 2) preheating (intermediate step) and 3) creating a sand core at the bottom of the machine. When changing the type of sand, the entire amount of sand already fed to the intermediate step had been discarded. Focusing on reducing this wasted sand, the collaboration team incorporated a circuit to anticipate the number of sand cores to be created at the timing of sand change and apply a sand supply stopper so that only the required amount will be fed to the intermediate step.

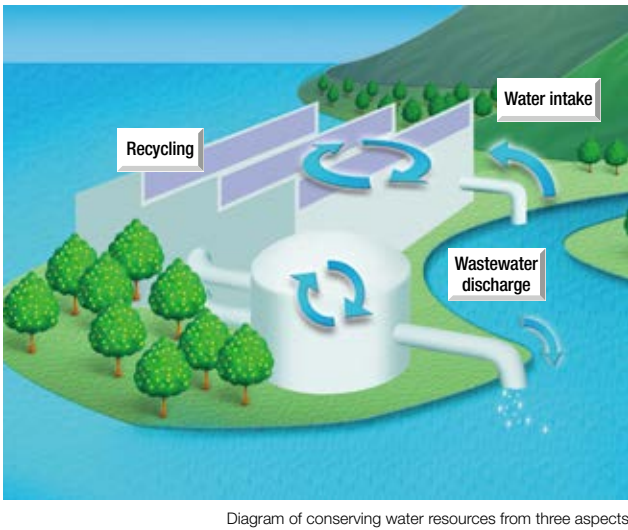
This improvement has resulted in a reduction of approximately 54 tons of annual sand waste.



Our Approach (Water Resources)

Water is the basis of all life on the Earth and is an irreplaceable and valuable resource. Every year, however, we have been witnessing the increasingly severe impacts of droughts, floods and other natural disasters resulting from climate change as well as shortages in drinking water and agricultural water caused by the growth in the world's population. Many of the processes of Toyota Industries use water for washing products and in the coating process, and we regard the water supply crunch caused by climate change and population growth as a significant risk to our business activities.

In our aspirations in 2050, we set a goal of minimizing the environmental impact on water resources. We have identified the status of water risks at each base and consolidated subsidiary and have been undertaking activities matched to their respective conditions with a focus on reducing water intake, promoting recycling and purifying wastewater.



Summary Promoting the Effective Use of Water Resources

FY2019 Results

In fiscal 2019, we identified water risks at each base and consolidated subsidiary and promoted activities to conserve water resources. To increase the credibility of our externally disclosed information, we obtained third party verification of the water consumption and wastewater discharge data of these bases and consolidated subsidiaries.

Our activities earned high scores in CDP surveys in 2018. We will continue our water resource conservation activities encompassing our supply chain.

Promoting Reduction of Water Intake and Recycling Introducing Water Recycling Systems

In order to reduce water consumption, each of our production bases has been promoting the recycling of water through various means.

For example, U.S.-based production subsidiary TD Automotive Compressor Georgia, LLC (TACG) has introduced a system to recycle water used in various processes and successfully reduced its annual water consumption in fiscal 2019 by approximately 57,000 m³, or 36%, from the previous fiscal year.

Additionally, Toyota Material Handling Europe AB (TMHE), a consolidated subsidiary overseeing the materials handling equipment business in Europe, has set a target for its production and non-production companies to reduce annual water consumption for the next three years, starting from fiscal 2019, by 10%.

Toward achieving this goal, Toyota Material Handling Italia Srl. (TMHIT), a subsidiary engaging in sales and servicing of materials handling equipment in Italy, installed water recycling equipment at one of its locations consuming the largest amount of water and consequently reduced its total annual water consumption by 80%.

We duly recognize the importance of water and will continue to promote water conservation activities corresponding to the conditions of each Toyota Industries base.



Reducing Environmental Risk and Establishing a Society in Harmony with Nature

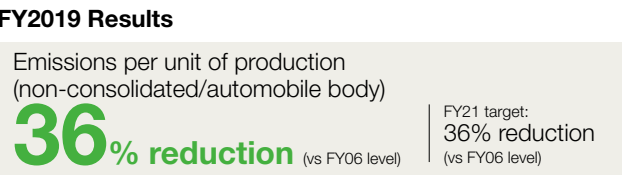
We have been making efforts to reduce the use of substances of concern while carefully monitoring the latest trends in environmental laws and regulations on a global basis. At the same time, we have been promoting activities for conservation of biodiversity toward realizing a society in harmony with nature.

Our Approach (Substances of Concern)

Currently, air pollution by chemical substances has become a global issue having equal importance as global warming. As such, countries around the world are adopting more stringent environmental regulations each year. How Toyota Industries responds to these regulations will have a significant impact on the business activities we undertake in each country.

Based on this perception, we have been taking a forward-looking approach, anticipating fuel efficiency and emissions regulations to be enforced by each country and region, and promoting product development accordingly. In production activities, we have been working to reduce emissions of volatile organic compounds (VOC), which are causal substances of photochemical oxidants that generate smog.

Summary | VOC Emissions (Production Activities)



Under the Sixth Plan, we set a target of reducing emission volume per unit of production for VOC from the automobile body painting process by 36% from the fiscal 2006 level and have been striving to reduce VOC emissions.

In fiscal 2019, we continued our efforts to increase the recovery rate and enhance the maintenance and management of thinner. Consequently, we were able to cut down emission volume per unit of production in fiscal 2019 by 36%.

Strengthening Management of Chemical Substances at Consolidated Subsidiaries Outside Japan

Many of the chemical substances needed for our production activities may cause adverse effects on the environment. Thus, appropriate management of chemical substances is crucial in ensuring safe handling and minimizing potential harmful effects.

To appropriately manage chemical substances contained



Study group session at a consolidated subsidiary in China

in raw materials and products, we have been assisting our consolidated subsidiaries and business partners outside Japan in establishing a system to manage chemical substances. In fiscal 2019, we provided such support to two consolidated subsidiaries and several business partners.

We will continue to provide support and undertake activities to prevent violations of chemical substances regulations at production bases outside Japan.

Our Approach (Conservation of Biodiversity)

Deforestation is now proceeding in various parts of the world, causing the fragmentation of the habitats of living organisms. In order for humankind to live in harmony with nature, it is essential to protect nature in each region.

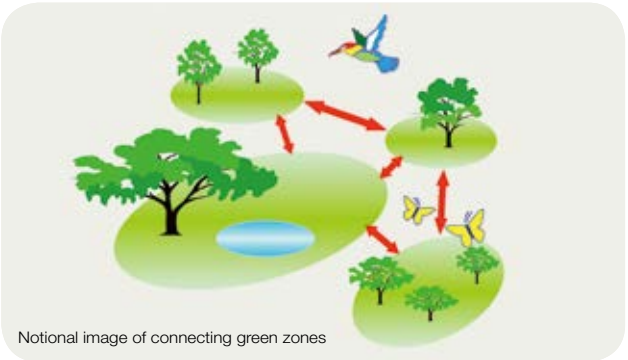
In our aspirations in 2050, we set a goal of generating a positive influence on biodiversity and have been conducting various business activities while continuously paying attention to their impact on the natural environment. We have also formulated the biodiversity policy and been promoting initiatives accordingly. The policy clearly stipulates that we seek to reduce the impact of our business activities on biodiversity and work with local communities for the conservation of biodiversity.

Summary | Initiatives for Conserving Biodiversity

FY2019 Results

Under the Sixth Plan, we formulated a plan to connect green zones by undertaking activities for the conservation of biodiversity throughout the Toyota Industries Group. Accordingly, we have been collaborating with various organizations to carry out initiatives matched to the local characteristics of regions where our plants are located.

In fiscal 2012, we joined the Chita Peninsula Ecological Network Council, an initiative of the Aichi prefectural government to promote the development of ecological networks within the prefecture. Since then, we have



Notional image of connecting green zones

been carrying out activities linked to the conservation of biodiversity in the local natural environment in collaboration with various stakeholders, including local governments, companies, NPOs, expert bodies and students. Working with the council, we established a biotope on company-owned idle land in Aichi Prefecture to create a network of green zones in the surrounding areas in fiscal 2013 and an animal path in the Higashiura Plant in Aichi Prefecture to expand the habitat of foxes in fiscal 2019.

Conducting Surveys of Living Organisms in Our Biotope Jointly with Students

On the site of the biotope we developed in Aichi Prefecture in fiscal 2013, we have been conducting surveys of living organisms since fiscal 2018 jointly with students under the Life Relay Project*1. In fiscal 2019, we conducted a total of four surveys, one in each season. Based on the results of past surveys, we discussed and implemented measures with the students to encourage more diverse living organisms to populate the biotope.



Students who participated in a survey

*1: A project jointly carried out by Aichi Prefecture, NPOs, companies and students with the aim of forming ecological networks by leveraging corporate green zones of the Chita Peninsula as well as developing young environmental leaders

Creating an Animal Path to Improve Natural Habitats of Living Organisms

Recently, we have found that foxes are living in the wooded area surrounding the Higashiura Plant in Aichi Prefecture. But because there is not a large enough habitat, many were



Fox using the animal path

fatally involved in traffic accidents on the neighboring roads. To provide a safe passage between these wooded areas, Toyota Industries created an animal path within the plant premises and has been checking the inhabiting status. In October 2018, six months after the creation of the path, we observed foxes using the animal path for the first time. We will continue to monitor the status while implementing additional measures as necessary to create a better environment.

TOPIC

Toyota Industries' Animal Path Winning a Prize in the Biodiversity Action Award Japan 2018

Every year, the Japan Committee for United Nations Decade on Biodiversity (UNDB-J)*2, in which the Ministry of the Environment serves as the secretariat, hosts an award program to commend projects that survey, conserve or revitalize nature or living organisms or those designed to conserve regional culture, with the aim of passing down enriched ecosystems to future generations. The animal path created within the Higashiura Plant garnered a prize in the Protection category of the committee's Biodiversity Action Award Japan 2018.



*2: Committee to encourage collaboration among all sectors in Japan and promote initiatives related to biodiversity for helping to achieve the Aichi Biodiversity Targets, which represent the global targets for conservation of biodiversity

Planting Mangroves

Employees of P.T. TD Automotive Compressor Indonesia (TACI), a production subsidiary in Indonesia, have been planting mangrove trees since 2013. As of fiscal 2019, a total of 2,800 mangroves have been planted.

TACI will continue this activity and work to raise environmental awareness for living in harmony with nature and preventing global warming.



Planting mangroves

Environmental Management

Toyota Industries proactively discloses its initiatives for the reduction of environmental risk and other environmental information.

Status of Compliance with Environmental Laws

In July 2018, there was one incident in which wastewater discharged from the Higashichita Plant in Aichi Prefecture exceeded the water quality standard values for phenol and chemical oxygen demand (COD).
In a survey, we found that cooling water used in the foundry process leaked from the tank and was discharged through a rainwater gutter. The leakage was caused by the erroneous operation of the valve, which resulted in an oversupply of industrial water into the cooling water tank through an unused pipe. As countermeasures, we removed the unused pipe and started showing a warning sign on an on-site irregularity display when the tank becomes full so that employees can quickly notice it. We have already reported the incident and our countermeasures to the relevant authorities.
Following the incident, we held a Company-wide response meeting to report the countermeasures taken at the Higashichita Plant and discuss what measures should be implemented by other plants. By sharing necessary information, we worked to prevent a recurrence throughout Toyota Industries.
Preparing ourselves should an irregularity occur, we will continue to undertake and reinforce activities throughout the Toyota Industries Group, such as emergency drills, to minimize the impact on the external environment.

Soil and Groundwater Pollution Countermeasures

As part of efforts to formulate its reorganization plan, the Higashichita Plant voluntarily conducted soil and groundwater surveys. The results showed that some substances contained in soil and groundwater were exceeding their standard values.
Based on the survey results, we will implement required measures under the guidance of Aichi Prefecture, while placing our utmost priority on not causing any impact on the surrounding environment.

For details, please visit our Website at:
<https://www.toyota-shokki.co.jp/news/release/2019/05/15/002408/index.html>
(in Japanese)



Conducting Environmental Risk Inspections at Production Subsidiaries in Japan

In addition to our own production bases, we are promoting activities to reduce environmental risks at our manufacturing subsidiaries in Japan.
In fiscal 2019, we conducted *genchi genbutsu* (go and see for yourself) environmental risk inspections at such subsidiaries to check facilities on their premises, the boundaries of their premises and the discharge outlets, as well as examined how they were managed.
We will continue to monitor the status of their responses to the identified issues and conduct risk inspections at our subsidiaries on an ongoing basis.



Environmental risk inspection



Norio Suzuki
Administration Department
IZUMI MACHINE MFG. CO., LTD.
(As of March 31, 2019)

During the inspection, we worked with Toyota Industries' staff to identify environmental risks at the plant boundaries. We routinely conduct checks on our own, but seeing things through different eyes helped us to both reduce environmental risks and encourage the nurturing of internal staff. We will continue our activities for the reduction of environmental risks.

Environment Strengthening Period in the Toyota Industries Group

“More Greenery” Activity (Japan)

Every year, Toyota Industries carries out a three-month Environment Strengthening Period from June to August with the aim of increasing environmental awareness of Group employees and their families through various events.
In fiscal 2019, as part of this initiative, we conducted a “More Greenery” activity to increase flora and greenery, including green curtains, at home and in the workplace. The aim is to encourage employees and their families of Toyota Industries and its Group companies to take an interest in trees, flowers and other plants and cultivate their awareness to protect nature in their immediate environment.
We solicited photographs of flowers and greenery planted under this activity and received about 30 applications. Photographs of excellent works were posted on our intranet.



Green curtains of Haratechs Corporation



Shinjiro Nishikawa (left) and Emiko Naruse (right)
General Administration Department, Haratechs Corporation
(As of March 31, 2019)


In fiscal 2019, we grew small melons and a sweet variety of mini tomatoes in our company vegetable garden as we had received requests from employees for some sweet fruits or vegetables. Melons and tomatoes survived heavy rains and the particularly hot summer, and we were able to serve them to everyone. Their smiles were very rewarding.

Environmental Poster Contests (Outside Japan)


Our production subsidiaries outside Japan also carry out a range of activities during the Environment Strengthening Period.
In fiscal 2019, L.T.E. Lift Truck Equipment S.p.A. (LTE), Toyota Industries Engine India Private Limited (TIEI) and Kirloskar Toyota Textile Machinery Pvt. Ltd. (KTTM), and P.T. TD Automotive Compressor Indonesia (TACI), production subsidiaries in Italy, India and Indonesia, respectively, held an environmental poster contest, soliciting entries from employees and their families.
This is an activity already taken hold in Japan as an event to raise environmental awareness. We have introduced the activity at our subsidiaries outside Japan, where it has been adapted corresponding to each company.
We aim to raise environmental awareness within the Toyota Industries Group by constantly extending the scope of our awareness-raising activities.

■ Comments from KTTM and TIEI Award Winners

During the Environment Strengthening Period in June, KTTM and TIEI carried out various activities to raise employees' awareness, including giving saplings to employees, planting trees, handing out eco-bags and holding an environmental essay contest. We participated in an environmental poster contest, another such event, and were pleased to win awards. We hope these activities will continue in the future.
Let's save the environment for future generations!



Jayaprasad G A Sheet Metal (KTTM)



Ashwin Engine QC (TIEI)



Award-winning posters from KTTM, TIEI and LTE

Case Presentation at the Aichi Forum for a Low-Carbon Society

At the Aichi Forum for a Low-Carbon Society hosted by the Aichi prefectural government, we gave a presentation on our environmental initiatives. We explained our efforts for achieving zero CO₂ emissions during production at plants and during product use by customers, along with for building a society in harmony with nature. These are two of the goals of our aspirations in 2050, our medium- to long-term environmental vision.

We also participated in a talk session held on stage by the presenters, exchanged views on corporate initiatives for the creation of a low-carbon society and proactively appealed our environmental initiatives to outside parties.



Aichi Forum for a Low-Carbon Society

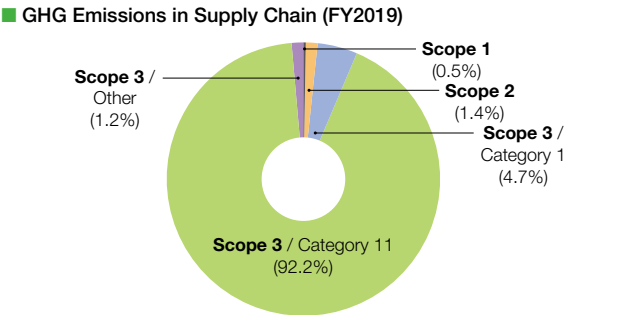
Greenhouse Gas (GHG) Emissions in the Supply Chain

We recognize that measuring the three scopes defined by the GHG Protocol and turning the results into specific efforts to reduce CO₂ emissions are important in creating a low-carbon society. Scopes 1 and 2 are GHG emissions from our business activities, the former being direct emissions from our use of fossil fuels and the latter being indirect emissions from the use of purchased energy resulting from generation of electricity by power plants and other facilities.

Scope 3 emissions are indirect emissions associated with each product from the purchase of raw materials to end use by customers and disposal.

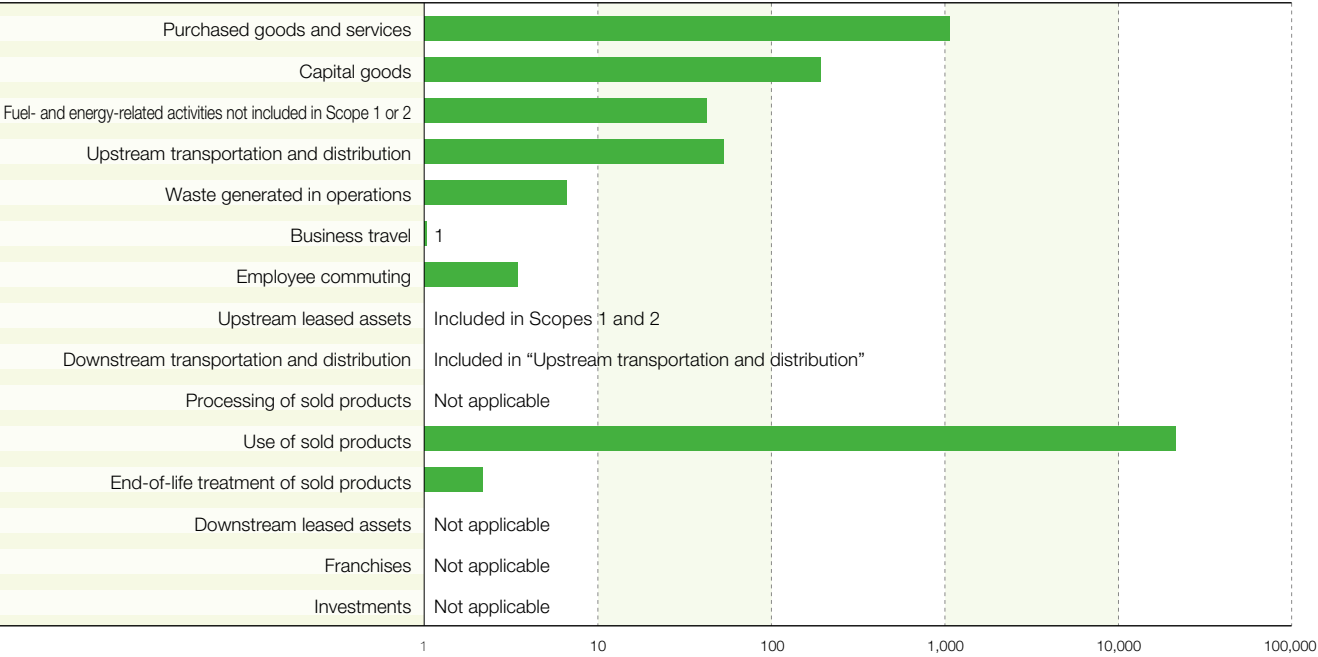
In the fiscal 2019 results, combined Scope 1 and 2 emissions accounted for 1.9% of the total emissions, with Scope 3 emissions reaching 98.1%.

The largest source of emissions, which accounted for 92.2%, was Category 11 (Use of sold products) under Scope 3, followed by Category 1 (Purchased goods and services) also under Scope 3, which accounted for 4.7%. Going forward, we will continue to monitor GHG emissions within the entire supply chain and accordingly promote CO₂ emissions reduction activities.



Emissions from Toyota Industries' business activities	Scope 1	Direct emissions from Toyota Industries through the use of fossil fuels, etc.
	Scope 2	Indirect emissions from the use of purchased energy resulting from generation of electricity by power plants, etc.
Emissions other than from Toyota Industries' business activities	Scope 3	Emissions associated with purchase of raw materials, end use of Toyota Industries' products by customers and disposal of products

■ Scope 3 Emissions by Category (FY2019)



External Evaluations of Toyota Industries' Environmental Activities

External Environmental Evaluations

Toyota Industries fosters environmental communication with our stakeholders through proactive disclosure of environmental information.

Since fiscal 2015, we have been participating in the Ministry of the Environment's project for the establishment of a framework for disclosure of environmental information and examining the ideal way to disclose our environmental information. We will continue to upgrade our method of disclosure and contents to be disclosed.

■ List of External Environmental Evaluations

Evaluation organizations	Fiscal 2019
CDP climate change	A
CDP water security	A
Nikkei's Environmental Management Survey	13th place

TOPIC

Selected as an A-List Company of the CDP Surveys

Toyota Industries was selected for the first time for the A List, the highest rating, in surveys conducted by CDP on climate change and water security to recognize companies making outstanding efforts for mitigation of climate change and conservation of water resources. The Toyota Industries Group defined its aspirations in 2050 in March 2016, and based on these aspirations, formulated the Sixth Environmental Action Plan, a five-year plan for the period from fiscal 2017 to fiscal 2021. Our proactive activities under the plan have resulted in the high rating. We will continue to tackle climate change and water resource conservation as important tasks and contribute to the realization of a sustainable society through our global environmental conservation activities.



External Environmental Awards

Toyota Industries' environmental activities to date have been highly acclaimed by external organizations. In fiscal 2019, we received one external award.

■ List of External Environmental Awards

Award program (host organization)	Result	Recipient
Biodiversity Action Award Japan 2018 (Japan Committee for United Nations Decade on Biodiversity (UNDB-J))	Award winner	Animal path at the Higashiura Plant

Note: See page 71 on the animal path.

TOPIC

Won the "Best Group Engagement" Award by EcoVadis*

Toyota Material Handling Europe AB (TMHE), a consolidated subsidiary overseeing the materials handling equipment business in Europe, received the "Best Group Engagement" award from EcoVadis. The award evaluates CSR activities of companies in the environment and other fields and recognizes their excellent performance and transparency.

* An international organization that evaluates the sustainability of supply chain companies



From left to right:
Ralph Cox, Senior Vice President of Marketing and Sales;
Tom Schalenbourg, Sustainable Development Director;
Carina Strömberg, Sustainability Controller;
and Ernesto Dominguez, Managing Director of TMH France

Third Party Assurance of Environmental Performance Data

In order to ensure the transparency and accuracy of the information we disclose, the Toyota Industries Group obtained third party assurance for its energy-derived CO₂ emissions (Scopes 1, 2 and 3), waste generation as well as water consumption and wastewater discharge volume data for fiscal 2019.

Verification by a Third Party



Toyota Industries obtained third party verification of its energy-derived CO₂ emissions, waste generation volume, water consumption and wastewater discharge data for fiscal 2019.

On-site verification was performed by the verification organization at two of our production bases in Aichi Prefecture, namely, the Obu Plant and Anjo Plant, and the transparency and accuracy of our environmental data have been confirmed through the verification.

Using the procedures specified by the verification organization, Toyota Industries conducted verification at the remaining eight production bases of Toyota Industries as well as 13 consolidated subsidiaries in Japan and 21 consolidated subsidiaries outside Japan.

We will continue to utilize this third party verification in making continuous improvements in our environmental activities and disclose data to our stakeholders in a more transparent manner.



Third party verification at the Obu Plant



Third party verification at the Anjo Plant

The verification statement of the third party organization is available at:

https://www.toyota-shokki.co.jp/csr/environment/process/items/Verification2018_ENG.pdf



■ Bases Subject to Verification

Category	Names of Bases and Subsidiaries
Non-consolidated	Kariya Plant, Takahama Plant, Nagakusa Plant, Kyowa Plant, Obu Plant, Hekinan Plant, Higashichita Plant, Higashiura Plant, Anjo Plant, Morioka Works (Total of 10 bases)
Japan consolidated	Tokaiseiki, Tokyu, Altex, Iwama Loom Works, IZUMI MACHINE MFG., Miduho Industry, Nagao Kogyo, Nishina Industrial, HANDA Casting, Unica, Haratechs, Aichi, Takeuchi Industrial Equipment Manufacturing (Total of 13 bases)
Consolidated subsidiaries outside Japan	NVIC, Raymond-Greene, Raymond-Muscatine, TIEM, MACI, TACG, TICA, IHC, Cascade, TMHM, TIK, TACK, YST, TIEI, KTTM, TACI, TIEV, TDDK, TMHMF, TMHMS, TMHMI (Total of 21 bases)

Total of 44 bases