

YORÖZU

Environmental Report 2018



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Period covered: April 1, 2017 ~ March 31, 2018
 (Certain data do not apply to this period)

1. Company Profile

Business	Development, design, and manufacture of auto parts, agricultural machinery parts, and production equipment
Address	7-60 Tarumachi 3-chome, Kohoku-ku, Yokohama, Kanagawa 222-8560 Japan
Established date	April 1, 1948
Employees	7,320 (consolidated) as of March 31, 2018
ISO14001 certified	November 2009 (group-base)

Global Network

Japan

Yorozu Corporation

- Head Office (YC)
- Yorozu Global Technical Center (YGTC)

Domestic subsidiaries

<Manufacture of production equipment>

- Yorozu Engineering Corporation (YE)

<Production sites>

- Yorozu Tochigi Corporation (YT)
- Yorozu Oita Corporation (YO)
- Yorozu Aichi Corporation (YI)
- Shonai Yorozu Corporation (SY)

<Other services>

- Yorozu Service Corporation (YS)

Americas

- Yorozu America Corporation
- Yorozu Automotive Tennessee, Inc. (YAT)
- Yorozu Automotive North America, Inc. (YANA)
- Yorozu Mexicana S.A. de C.V. (YMEX)
- Yorozu Automotive Guanajuato de Mexico, S.A. de C.V. (YAGM)
- Yorozu Automotiva do Brasil Ltda. (YAB)
- Yorozu Automotive Alabama, Inc. (YAA)

Asia

- Yorozu (Thailand) Co., Ltd. (YTC)
- Y-Ogura Automotive (Thailand) Co., Ltd. (Y-OAT)
- Guangzhou Yorozu Bao Mit Automotive Co., Ltd. (G-YBM)
- Wuhan Yorozu Bao Mit Automotive Co., Ltd. (W-YBM)
- Yorozu JBM Automotive Tamil Nadu Pvt. Ltd. (YJAT)
- PT. Yorozu Automotive Indonesia (YAI)
- Yorozu Engineering Systems (Thailand) Co., Ltd. (YEST)

Europe

Yorozu Corporation Europe Office



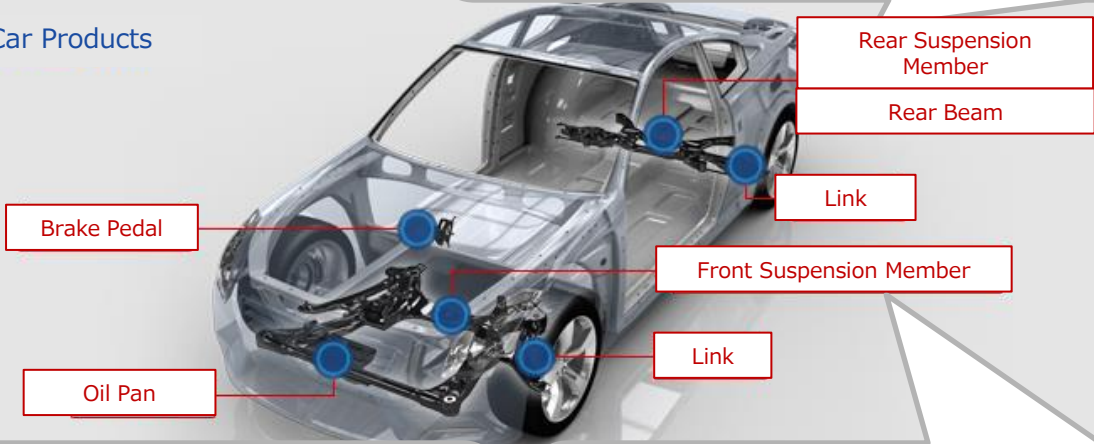
2. Products

The suspension is one of the key elements that determine the performance of cars. Not only does it support the car's function to "run, stop, and turn," it has also played an important role in the evolution of cars. Yorozu meets the needs of the era and makes use of its advanced development technology to supply suspension members and links – the key structural components of a suspension – in various modular forms.

Yorozu Group has gained the reputation as "Yorozu for Suspensions" in and outside Japan. We have reached a point beyond being an auto part maker. Yorozu contributes to the new phase of car production as a good partner to car makers with development capabilities and as a member of the automotive industry moving toward a low-carbon society.



Car Products



Modules



3. Charter of Corporate Behavior

Basic Philosophy

The Group's management philosophy is to engage in fair and transparent corporate activities based on high ethical standards and respect for the law. We recognize the need to increase corporate value by fulfilling our social responsibility as a good corporate citizen and by earning the trust of our stakeholders. (*1) It is to this extent that Yorozu Group Charter of Corporate Behavior and Code of Conduct were established.

*1) Shareholders, employees, customers, partners, and the local community

1) Customer Satisfaction and New Technologies

Gain customer satisfaction and confidence by developing new technologies and offering useful and reliable products and services with full consideration on safety

2) Compliance with Laws and Regulations

Respect company rules, as well as laws and regulations of the business location, and follow social norms

3) Environment

Place high priority on preservation of the earth's natural environment, and through voluntary action, contribute to the well-being of the people around the world

4) Globalization

Assume responsibilities as a corporate citizen in the international society, respect local culture and customs, and contribute to the prosperity of the region through business activities

5) Disclosure

Place value on interaction with shareholders, other stakeholders and the public, and perform our duty for a full, fair, and timely disclosure of corporate information

6) Respect for Human Rights

Respect human rights and abstain from engaging in any type of discrimination. Enhance corporate vitality and respect employees' personalities and individuality through development of human talent.

7) Fair Trade

Engage in fair, transparent and free competition, and appropriate transactions

8) Duty of the Executives

Management takes the initiative to realize the spirit in Yorozu Charter of Corporate Behavior. In the event of a breach of this charter, the management will investigate the problem, look into the cause, and prevent recurrence of such incident. The management will make timely and accurate disclosure of information, will be held accountable, and will not hold back from taking disciplinary actions against the violator (including the management).



4. Message from the President

Yorozu Group Initiatives Moving Towards 100 Years

Natural disasters intensified by climate change are becoming commonplace. Severe rainfall, flooding, and extreme heat are some of the impacts felt in Japan. At Yorozu, we believe that more emphasis should be placed on preserving the earth's environment, and have taken this issue beyond the production process to all areas of our business starting from the development stage and sourcing of materials, to the final stage of shipping and scrapping.

The last fiscal year, a taskforce called Smart Work Committee was set up to address the issues associated with labor population decline and workstyle changes. Discussing with taskforce members and taking part to lead the committee as the chairman, I've found that there are great challenges ahead, but I believe that one day those challenges will turn to great opportunities to keep us grow and make everyone happier. Such evolution will help us meet the sustainable development goals and contribute to continuous improvement in environmental activities.

Yorozu was established in 1948 and celebrated its 70th anniversary in April 2018. This could not have been possible without the strong support of our stakeholders. In order to be an active member of the global automotive community, we set an environmental goal targeting 2030 to take responsibility in the industry that confronts climate change, and strive to make contributions to the society as the company working on sustainable development.

The logo for Yorozu, featuring the word "YOROZU" in a bold, blue, sans-serif font. The letter "O" is replaced by a stylized circular emblem consisting of several parallel diagonal lines.

Ken Shido
President & COO



5. Initiatives

1) Group Environmental Philosophy

Yorozu Group places high priority on preservation of the earth's natural environment, and through voluntary action, contributes to the well-being of the people around the world.

2) Environmental Policy

1. Grasp the impact of our business activities on the environment, and set environmental goals and targets while enhancing and improving our environmental management system
2. Prevent environmental pollution through compliance with environmental laws, regulations, agreements, and requirements
3. Work toward resource and energy conservation, recycling, and reduction of waste in all areas of our corporate activities
4. Engage in manufacturing and technological development with less environmental impact
5. Reduce use of substances of environmental concern
6. Coexist with the local community, engage in active exchange of information on environmental conservation

3) Environmental Principle

We will appreciate the bounty of nature as we pursue growth in harmony with the natural environment based on CSR.

4) Environmental Goals (for the 7 sites in Japan)

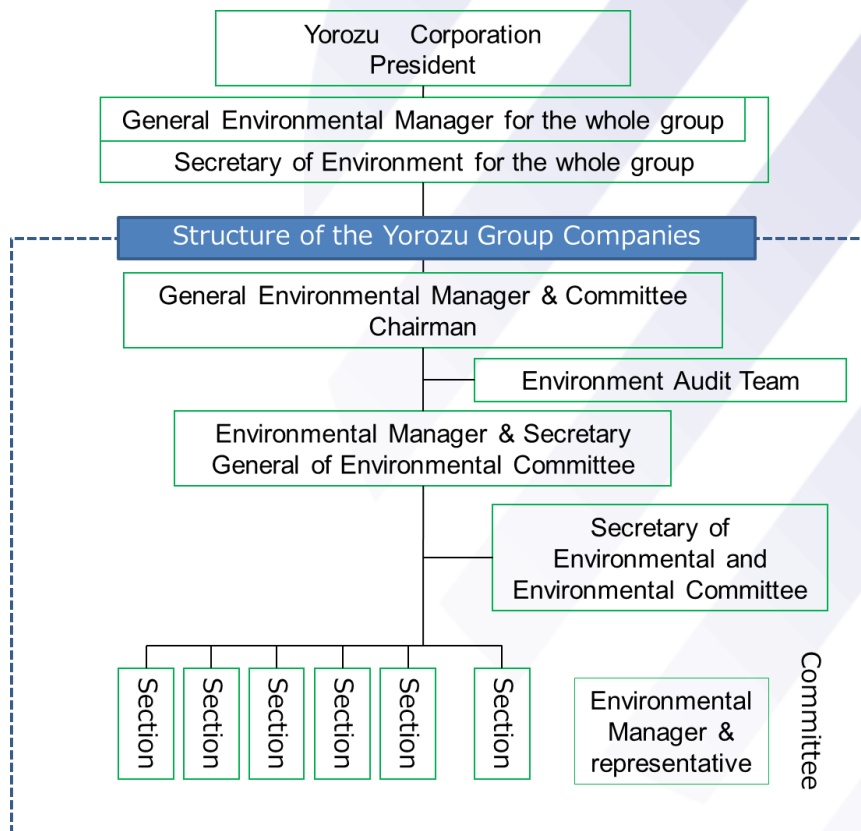
1. Enhance and continuously improve the environmental management system
2. Prevent pollution of the environment (zero environmental incidents)
3. Save energy: 18% reduction of CO2 emission intensity by FY2030 (compared with FY2012)
4. Reduce waste: 18% reduction of waste intensity by FY2030 (compared with FY2012)
5. Reduce water use: 15% reduction of water use intensity by FY2030 (compared with FY2015)
6. Making of products considering efficient use of energy and resources
7. Reduce substances of environmental concern
8. Co-exist in harmony with the local community
9. Actively disclose and share information on environmental conservation

5) FY2017 Group Environmental Targets (for the 7 sites in Japan)

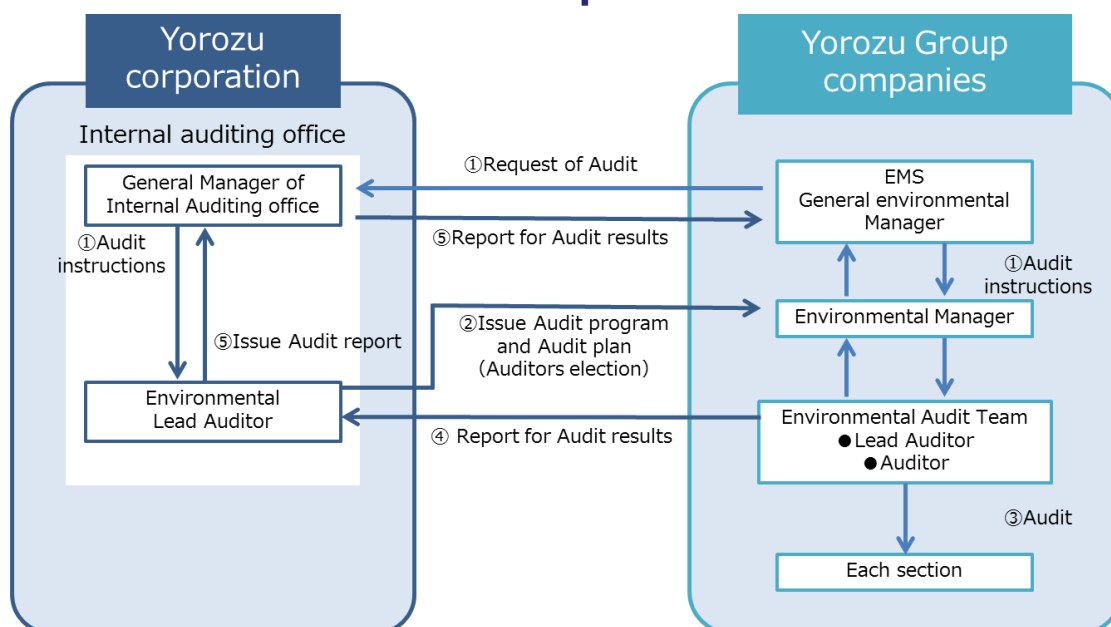
1. Maintain ISO14001 certification
2. Comply with environmental laws, regulations, and individual control values
3. Save energy: 1% reduction of CO2 emissions intensity (compared with FY2016)
4. Reduce waste: 1% reduction of waste intensity (compared with FY2016)
5. Reduce water use: 1% reduction of water use intensity (compared with FY2016)
6. Maintain certification as an excellent company for 3R waste separation (Yokohama HQ)
7. Develop products with less weight
8. Select materials free of restricted substances, and control information under IMDS
9. Participate in environment protection activities; at least 100% of all planned activities
10. Environmental Management Survey Report

6) Management Structure

■ Group Environmental Structure



■ Yorozu Head Office and Group – Internal Audit

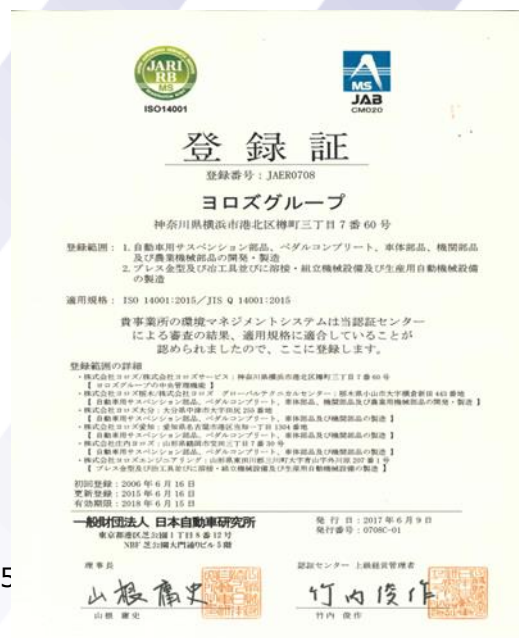


7) Group ISO14001 Certification

Japan

Company	ISO certification acquired
6 companies integrated certification	November 2009
Yorozu Corporation	
Yorozu Tochigi Corporation	
Yorozu Oita Corporation	
Yorozu Aichi Corporation	
Shonai Yorozu Corporation	
Yorozu Engineering Corporation	

In FY2017, the certification was upgraded to ISO14001:2015



Outside Japan

Company	Certification acquired
Yorozu Automotive Tennessee, Inc. (YAT)	October 2001
Yorozu Mexicana S.A. de C. V. (YMEX)	August 2002
Yorozu Thailand Co., Ltd. (YTC)	July 2002
Yorozu Automotive North America, Inc. (YANA)	July 2003
Guangzhou Yorozu Bao Mit Automotive Co., Ltd. (G-YBM)	October 2007
Yorozu JBM Automotive Tamil Nadu Pvt. Ltd. (YJAT)	December 2013
Wuhan Yorozu Bao Mit Automotive Co., Ltd. (W-YBM)	June 2014
Yorozu Automotive Guanajuato de Mexico, S.A. de C.V. (YAGM)	September 2015
PT Yorozu Automotive Indonesia (YAI)	October 2016
Y-Ogura Automotive (Thailand) Co., Ltd. (Y-OAT)	May 2017

Overseas sites not mentioned above are in the process of certification.

8) Environmental Education

Educational programs for environmental awareness

Environmental programs

General

- Education of environmental managers
- Education of environmental impact assessors
- Education on internal environment auditing committee members

Changes associated with environment

- Chemical substances management
- Energy conservation initiatives
- Biodiversity
- Revised Freon Emission Control Law
- E-learning



Environment declaration ceremony was organized after the monthly morning meeting in June.

9) Environmental Slogans

In an effort to increase environmental awareness, employees in Japan are encouraged to submit environmental slogans during the Environment Awareness Month in June every year. Awards are given to the best slogans.

Best Slogans

1	Eco-friendly, in other words, human-friendly manufacturing (YC-Mfg Eng)
2	Stop pollution of air, water and your spirit (YO-Mfg)
3	Workstyle reform is good for the earth (YE-Assy Eng)

Environment Month Initiatives

During Environment Month, panel posters made by the City of Yokohama were displayed in the head office cafeteria. The posters were about water, chemicals, global warming, bio-diversity and preservation of greenery. This year, posters from the Ministry of the Environment were additionally presented to focus on high-profile biotic diversity. They explained about invasive species including some familiar creatures and drew much attention from passersby. In hopes of environmentally conscious development, we strive towards further awareness raising among employees.



10) Compliance with Laws



Environmental Laws and Regulations

There were no environmental incidents related to Yorozu Group in FY2017.



Reduction of Industrial Waste

Along with our relentless efforts on 3R (reduce, reuse, recycle) in maintaining zero landfill waste and 100% waste-recycling rate, we strictly adhere to the laws and regulations to reduce industrial waste.



Prevention of Air Pollution

In order to reduce emission of sulfur oxides (Sox) from the production process, we use LPG and LNG for cleaner exhaust gases.



Prevention of Water Pollution

Water is a precious resource, and we are trying to reduce water use through reuse in the production process. The wastewater is processed in our treatment facilities before being discharged to the rivers and other bodies of water.



Control of Chemical Substances

Materials and supplies such as grease, oil, chemicals and paint used in our processes are evaluated for their environmental impact based on SDS before selection. Depending on the result, we select a new material or switch to another material with lower environmental impact. We also comply with the PRTR law and REACH regulations.

11) Green Procurement

Yorozu is committed to eco-friendly purchasing based on the Green Procurement Act. This is an excerpt from Yorozu Green Procurement Guidelines.

【Request to Suppliers】

We ask that suppliers follow these environmental guidelines:

1. Establish and operate the environmental management system;
2. Control substances of environmental concern; and
3. Make efforts for circulation of resources

1 Establish and operate the environmental management system

- (a) We ask all suppliers to work on environmental conservation, and establish and operate the environmental management system for continuous improvement.
 - Acquisition and continuous renewal of external certifications such as ISO14001, or
 - Implement similar environmental activities
- (b) We ask all suppliers to comply with all environmental laws and regulations in the business operation.
 - Environmental laws and regulations in each country
 - Norms and standards of customer automakers
- (c) We ask all suppliers to appoint an environmental supervisor and an environmental personnel for implementation of environmental initiatives. Yorozu will work together to fulfill the environmental responsibilities.

2 Control substances of environmental concern

We ask that all suppliers make efforts to improve their environmental performance.

<Environmental Initiatives>

- Monitor GHG (CO₂) emission, waste, and water consumption
- Once the situation is grasped, put reduction measures in place (set targets, make reduction plans, take action, and confirm results)

Note: We suggest that the reduction targets be at least 1% over the previous year

3 Make efforts for circulation of resources

We encourage suppliers to use recycled materials as an effective use of the limited resources.

- Consider using mill ends from parts
- Consider using materials recycled from scraps for parts
- Consider re-using packaging materials

12) Energy-Saving

Looking toward a low-carbon society, Yorozu has worked to reduce greenhouse gases (GHG) over the years, and aims to achieve 18% reduction (compared with FY2012 on an intensity basis) by FY2030.

Yorozu sees energy as an important resource (=cost) in our slogan “Maximum efficiency with bare minimum cost.” Energy-saving has become an integral part of all our corporate activities including product development, equipment designing, distribution, administration, as well as at the production floor. Yorozu’s long-term target is to fully comply with government and industry policies under the Paris Climate Agreement 2016, following an independently-running survey on government policies and recent trends in the industry association.



■ Example of Energy-Saving Efforts from Tochigi

The environment management office has kicked off CO2 reduction campaign in cooperation with responsible persons of each site, coming up with the slogan “Save energy in domestic sites.” The campaign started from Yorozu Tochigi that is the top energy consumer is now extending its reach and performance.



(← ↑) Energy savings by compressor unit control

【Energy-Saving Effect at Yorozu Tochigi】

Items submitted and filtered: 52 / Items adopted and implemented: 7
CO2 emissions reduced by implemented items: Approx. 150ton/year

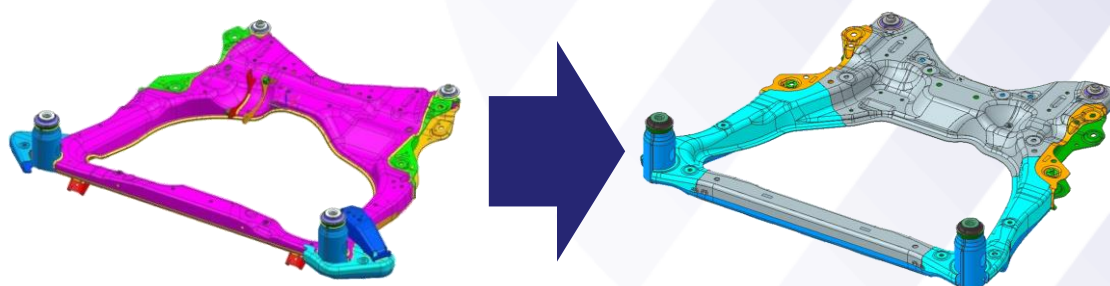
■ Development of Energy-Saving Products

Example of Lightweight Technology for Front Suspension Member

After cooperative development with customers, 20% weight reduction in front suspension member was achieved. The part produced in the US and China was redesigned last year following vehicle model change, reducing the weight from 32.1kg to 25.6kg.

Yorozu's lightweight suspension parts help running cars consume less fuel and also help environmentally friendly cars like EV and FCV overcome the crucial challenge for fuel economy. In our prospective analysis, the light weight technology adopted this time will reduce CO2 emissions of around 182,000 ton* during the years of producing the model.

*The CO2 emission factor is assumed to cut CO2 by 10kg per 1kg-weight reduction.



<Before and After Front Suspension Member>

■ Example of Energy-Saving Efforts in Distribution

What was once made at our U.S. plant (Yorozu Automotive Tennessee - YAT) is now made in Japan for delivery to domestic customers. The proximity of the production location to the delivery destination has helped reduce approx. 70% of CO2 emissions. We are seeking optimum production location for other products as well to save energy by reducing transportation cost.



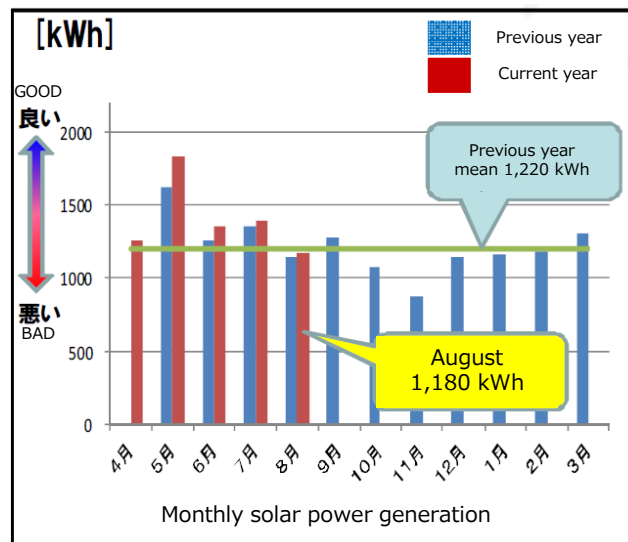
■ Use of Renewable Energy

The building of Yorozu Global Technical Center - the Group's R&D center, is powered by solar energy. Power generation data is viewable in the lobby by all visitors to the facility and the generated power is usable in the building. Since 2016, the Group including its HO has adopted low CO2 emission energy generated from renewable energy sources.

■ Power Generation Monitoring and Solar Panels at YGTC



■ Monthly Power Generation



13) Waste Recycling

Yorozu contributes to building a sustainable society through its ongoing efforts to recycle 100% of industrial waste (zero emission) since 2006, in addition to reducing waste intensity by 1% every year.



Garbage Separation Rules

[illegible]

Inspection at Pickup



Inspection at Supplier



Yorozu Certified as “Excellent 3R Enterprise” by the City of Yokohama

Yorozu (HO) has been named Excellent 3R Enterprise for six straight years by the City of Yokohama. (Eleven consecutive years of being awarded since the original Excellent Enterprise for Garbage Separation)

➤ About the Certification

The City of Yokohama awards companies that have contributed to reducing general waste and recycling of waste as resources. Such companies' efforts are widely introduced to promote separation of business-generated waste and to encourage 3R activities.

Certification Criteria

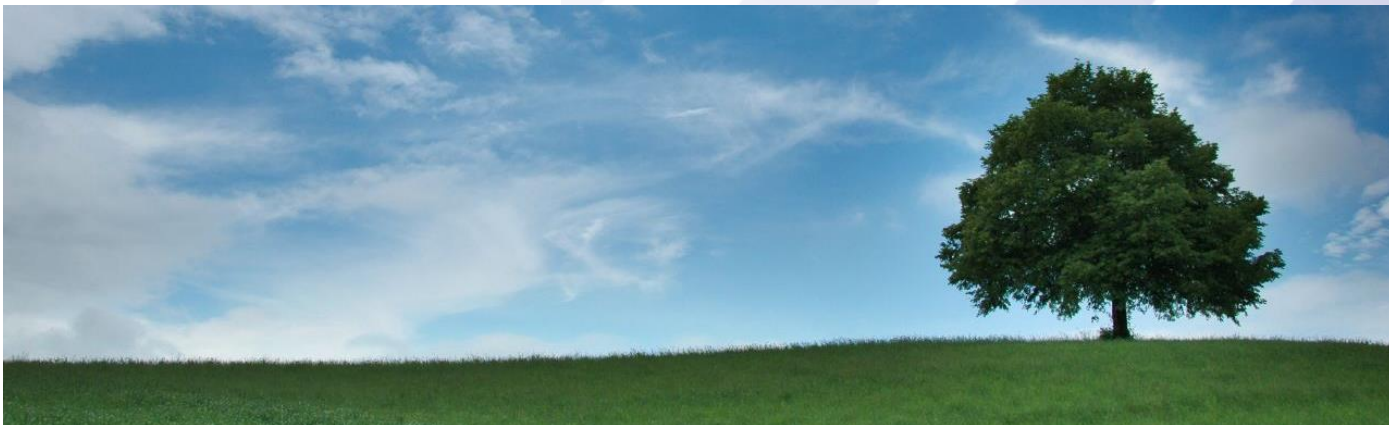
Proper garbage separation, employee environmental programs, promotion of recycling, reduction of paper waste, collection of recyclable waste, total waste reduction, and contribution to the society, among others



14) Biodiversity

Approach to Conservation of Biodiversity

Yorozu recognizes the impact that its business activities have on biodiversity and commits to the sustainable development of the society.



Agenda for Actions

1. Internal education on biodiversity conservation

Give lectures on biodiversity laws and share the Group's initiatives

2. Biodiversity conservation in collaboration with the community

Take part in community activities and events for biodiversity
(Such as ecosystem surveys and community cleanups)

3. Biodiversity conservation activities on the Company premises

Keep the premises clean, maintain greenery, and preserve the ecosystem

4. Contribution to developing a biodiversity society

Participate in activities of outside groups and organizations to preserve the natural environment

Yorozu actively takes part in local events to stay in touch with the community.
(Participation in community cleanups and biological surveys)

Ecological Survey in Oyama Industrial Park, Tochigi Prefecture

In Oyama Dai-ichi Industrial Park, where Yorozu Tochigi is located, the employees take part in an ecological survey organized by Yokokura neighborhood council in July and September. Each plant in this complex treats its wastewater so that it is safe to use for agriculture. The water goes through the filtration system before discharge so that it does not harm the habitats or disrupt biodiversity stability.

This event provides a good opportunity to find rare river snail species that are sensitive to water quality as well as pond loaches, cray fish and ordinal species like fish, dragonflies and butterflies, and it also serves to interact with neighbor companies, NPOs, and the local council.



Forestation Project, Kanagawa Prefecture

Yorozu members take part in forestation projects sponsored by Kanagawa Trust Midori Foundation to plant trees in Hakone-machi every fall.

Forests function as a watershed, a natural water system integral to our lives. Yorozu sees the water as an important resource because a lot of water is used in the painting process.



15) Contribution to Society

■ YT Received Appreciation Award from the City of Oyama, Tochigi Pref.

Yorozu Tochigi actively participated in the ecological events in FY2017 to conserve the environment of Oirase marshland area where invasive willows and Canada goldenrod grow close together. In recognition of such dedication, YT received Appreciation Award from Mayor of the City of Oyama as Oirase Marshland Maintenance and Support Group*.

* The group means an organization unit of 5 or more members that participates all the environment maintenance events organized by the City of Oyama throughout the year. The events aim to get rid of foreign species to help endangered plants and those threatened with extinction grow and bud.



■ Activities at Overseas Sites

Tree Planting on the Premises (Mexico)

At YAGM (second plant in Mexico), we planted a Jacaranda tree, aka Brazilian Rosewood, in 2013, the year following establishment. Just like the cherry trees in Japan, it's a symbol of spring. Although it will take ten years for the tree to fully grow, it's already blossoming in spring. We hope to keep growing like this tree.



Energy-Saving AC (Thailand)

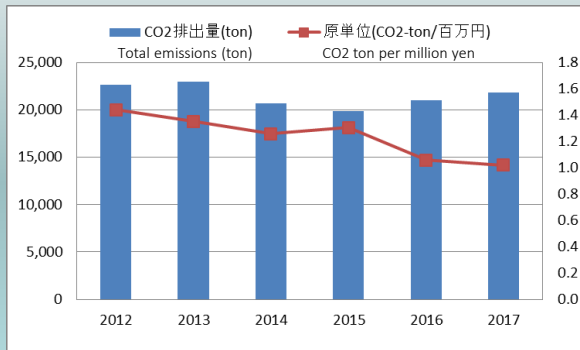
At YTC, the largest site in Thailand, the air conditioner was replaced with more energy-efficient system in FY2017, that contributed yearly CO2 reductions by around 9.6 ton.

With the prospect of further tightening of F-gas regulations, HQ and sites in Japan ensure that employees are informed of relevant laws and regulations and support the use of non-fluorocarbon or low GWP alternatives for facility replacement.

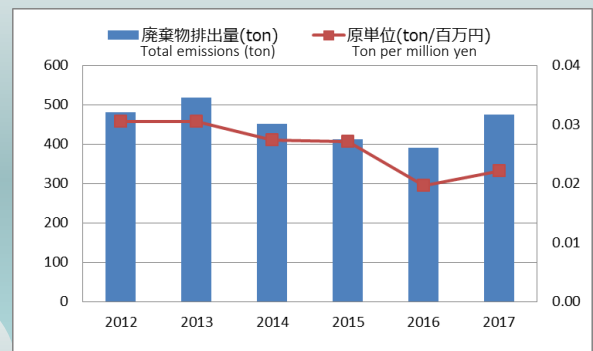


16) Environmental Data (Japan)

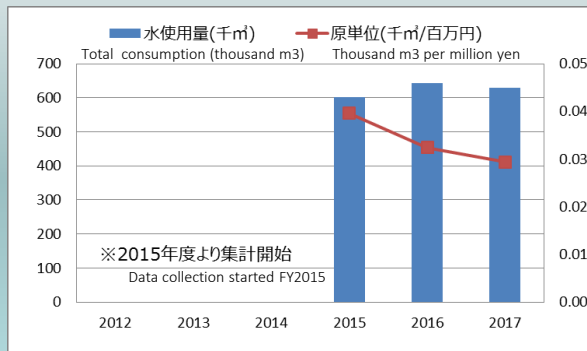
CO₂



Waste



Water



Intensity = Emissions/Value added

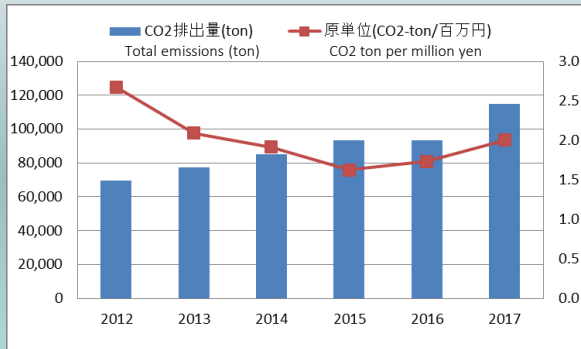
Value added = Sales – Purchasing cost

CO₂ emissions is the amount of GHG emission from plants and offices (Scope 1, Scope 2)

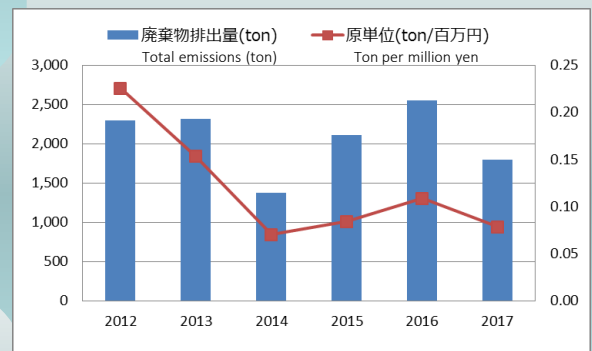
The main cause of target achievement failure this fiscal year was increases in packing materials for import parts. Measures taken so far were so effective that no industrial waste is generated now.

16) Environmental Data (Outside Japan)

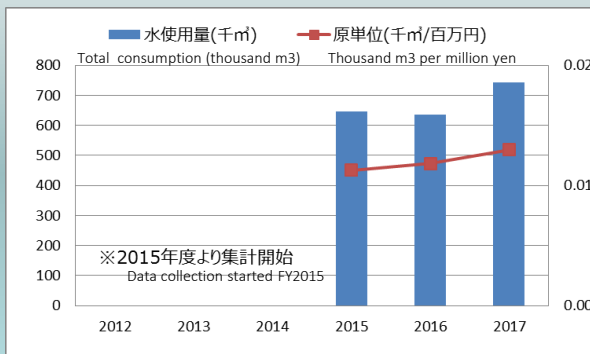
CO₂



Waste



Water



Intensity = Emissions/Value added

Value added = Sales – Purchasing cost

CO2 emissions is the amount of GHG emission from plants and offices (Scope 1, Scope 2)

CO2 increased 15% year over year due to energy situation in China. YAA, the new US site, is another factor that boosted CO2 emissions. It would have dropped by 1%, were it not for those two factors.

The increase in water by 13% year on year is attributable to facility reinforcement in Mexico and new line installment in Brasil. If those effects were not considered, the result would be flat.

16) Environmental Data – Supply Chain Emissions

FY2017 Emissions		Japan	Group
Scope1, Scope2	GHG emissions from plant & office	21,841	136,550
Scope3	Cat. 1: Purchased goods & services (Emissions from resource collection stage to manufacturing stage)	132,468	510,995
	Cat. 2: Capital goods (Emissions from construction and manufacturing of capital goods)	13,805	53,747
	Cat. 3: Fuel- and energy-related activities not included in Scope 1 or 2 (Emissions from the manufacturing process of purchased electricity/heat)	682	6,920
	Cat. 4: Transportation, distribution (upstream) (Emissions associated with distribution of purchased products/services)	Not officially-announced	Not calculated
	Cat. 5: Waste generated in operations (Emissions related to scrapping and disposal of waste generated in business activities)	193	3,188
	Cat. 6: Business travel (Emissions from transportation means used for employee's business travel)	227	Not calculated
	Cat. 7: Employee commuting (Emissions from transportation means used for employee's commuting)	1,583	4,022
	Cat. 8: Leased assets (upstream) (Emissions related to operation of assets on lease from other companies)	0 (N/A)	0 (N/A)
	Cat. 9: Transportation, distribution (downstream) (Emissions associated with distribution of products)	1,919	28,283
	Cat. 10: Processing of sold products (Emissions generated when semi-manufactured products are processed by downstream operators)	Not calculated	
	Cat. 11: Use of sold products (Emissions associated with use of products)	1,053,557	Not officially-announced
	Cat. 12: End-of-life treatment of sold products (Emissions related to disposal and processing of products and their containers/packages)	207	1,290
	Cat. 13: Leased assets (downstream) (Emissions related to operation of assets on lease to other companies)	0 (N/A)	0 (N/A)
	Cat. 14: Franchises (Emissions of Scopes 1 and 2 in operators with whom franchise contracts have been concluded)	0 (N/A)	0 (N/A)
	Cat. 15: Investments (Emissions related to the management of investment [excluding Scope 1 and 2])	0 (N/A)	0 (N/A)
Emissions unit: CO ₂ -ton			

*Scope 3: Calculation is based on Basic Guidelines on Accounting for Greenhouse Gas Emissions throughout the Supply Chain issued by Ministry of Environment.

YORÖZU

