

KUBOTA REPORT 2019

<Full Version>

For Earth, For Life

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Editorial Note

The objective of this report is to provide our stakeholders with an overview of the business and CSR activities of the Kubota Group from a global viewpoint in an easy-to-understand manner.

The Kubota Group is taking on the challenge of solving global issues through business activities, in view of the concepts of SDGs, the goals for world sustainable development.

For details of SDGs (Sustainable Development Goals), please see the United Nations Information Centre website. www.un.org/sustainabledevelopment/



Relationship between the Digest Version and the Full Version

Digest Version (PDF download)

We have compiled a concise and clear summary, focusing on visual presentation to make the entire picture of the Kubota Group easier to understand.

Full Version (PDF download)

In addition to the content of the Digest Version, we are issuing a detailed breakdown of our CSR activities in a PDF format.

Period covered by the KUBOTA REPORT 2019

From January 2018 to December 2018. * Matters outside the above period are partially included.

Scope of the KUBOTA REPORT 2019

In principle, the entire Kubota Group is covered. * Some statements may refer to the non-consolidated Kubota.

Guidelines consulted

- GRI Sustainability Reporting Standards, 2016, Global Reporting Initiative
- ISO 26000, guidance on social responsibility
- Environmental Reporting Guidelines 2018, Ministry of the Environment

Financial Report

Kubota Corporation and its subsidiaries (hereinafter, the "Company") have adopted International Financial Reporting Standards (hereinafter, "IFRS") instead of accounting principles generally accepted in the United States of America (hereinafter, "U.S. GAAP") from the beginning of the fiscal year ended December 31, 2018. The figures for the fiscal year ended December 31, 2017 were reclassified into figures in accordance with IFRS. Kubota Corporation and 185 affiliates (172 subsidiaries and 13 equity method affiliates)

Environmental Report

The Environmental Report contains the results of environmental activities carried out by Kubota Corporation as well as 172 consolidated subsidiaries and 8 affiliated companies accounted for under the equity method (partial).

Social Report / Others

The Social Report covers social activities carried out by Kubota Corporation and some of its affiliates.

The Kubota Group contributes to the world in the areas of food, water and the environment.

Food, water and the environment are indispensable for human beings. The Kubota Group continues to support the future of the earth and humanity by contributing to the abundant and stable production of food, the supply and restoration of water, and the creation of a comfortable living environment through its superior products, technologies and services.



Kubota Global Loop

Basic Policy for CSR Management

All Kubota Group employees share their corporate principles —the Kubota Global Identity— and will contribute to their stakeholders and society by conducting corporate activities in which each individual fulfills his or her role and responsibilities. By doing so, they are aiming for the ongoing synergistic development of the Kubota Group and society.



The Kubota Group Mission

○ Food

O Water

○ Environment

The founding spirit of the company has been passed down for close to 130 years. Kubota, Always Tackling Social Problems

Founded in 1890

Established as a casting manufacturer Started production of castings for weighing equipment and daily commodities



Founder, Gonshiro Kubota (1870-1959)

"Our products should be not only technically excellent, but also useful for the good of society."

Business foundation



1947 -

Developed the cultivator, a pioneer in the mechanization of agriculture



1960

Developed the first Japanese tractor, to support farming villages suffering from labor shortages





Entered the water treatment business and tackled the emerging water pollution problem

Together with the development of society



Night soil treatment plant in Miyoshi, Hiroshima, the first project after the Division was formed

1968 -

1962

Developed the first fully automatic walkbehind rice transplanter in the industry



Fully automatic walk-behind rice transplanter, the original model for subsequent transplanters

1974

Started manufacturing mini excavators, supporting small-scale urban construction



Corporate Principles

Kubota Global Identity

Spirits

- Work for the development of society by drawing on all of our capabilities and know-how to offer superior products and technologies.
- Build today and open the way to tomorrow, with the aim of bringing prosperity to the company and happiness to employees.
- Challenge the unknown with creativity and courage.

Brand Statement



The Kubota Group is committed to achieving SDGs in the areas of food, water, and the environment.



Mission

Food, water and the environment are indispensable for human beings. The Kubota Group continues to support the future of the earth and humanity by contributing products that help the abundant and stable production of food, help supply and restore reliable water, and help create a comfortable living environment through its superior products, technologies and services.



Kubota Global Loop

President's Message

Setting SDGs as a compass, we are driving forward at full speed toward the realization of the "Global Major Brand Kubota."

The Kubota Group's Aspirations

Since its foundation in 1890, Kubota has delivered a variety of products that contribute to people's lives and society, including iron water pipes for the development of modern waterworks, and agricultural machinery to increase food production and save labor. Today, the world faces many challenges in the areas of food, water and the environment, which are indispensable for human beings. The Kubota Group believes that its mission is to comprehensively solve the problems of food, water and the environment through its superior products, technologies and services, thereby continuing to support the future of the earth and humanity.

Now, the Kubota Group aims at realizing the "Global Major Brand (hereinafter, 'GMB') Kubota." It means not simply becoming a top company in terms of sales or profits, but becoming a "company (brand) that can make the greatest social contribution as a result of being trusted by the largest number of customers."

In 2015, the United Nations adopted 17 sustainable development goals, or SDGs, including "ZERO HUNGER" and "CLEAN WATER AND SANITATION," as a set of common goals for the international community.

We see that the direction aimed at by the SDGs is the same direction that the Kubota Group should aim at, as a company contributing to the world in the areas of food, water and the environment under the brand statement "For Earth, For Life."

Kubota's Challenges for 2030

(* See P. 08 – 13 for details)

When we turn our attention to 2030, which is also the target year for the SDGs, we see that the world's population is expected to grow from the current 7.5 billion to 8.5 billion, but this growth will coincide with a host of issues related to food, water and the environment, our business areas.

In addition to the greater demand for food throughout the world that will result from this explosive population growth, diets will also be enriched with the higher personal incomes that follow economic development. Likewise, these changes are expected to not only increase the demand for food for human consumption, but also the demand for grains used for feed in the livestock industry. In response to this issue, the Kubota Group is accelerating the market deployment of large upland farming tractors as a way of supporting the response to this global increase in food demand.

Meanwhile, in Asia, accelerating urbanization is making the construction of water and sewage infrastructure essential. The Kubota Group contributes to providing such infrastructure through its pipe system and water treatment facility-related products and services. Another area in which we can contribute in terms of urban development is the engines that serve as the power source for mini excavator and other industrial machinery. On the other hand, improving the productivity of agriculture has become an urgent issue in rural areas of Asia and Africa, where we contribute to agricultural mechanization.

Turning our attention to Japan, we see that the agricultural industry is faced with various issues arising from labor shortages and the aging society. In response, the Kubota Group is promoting the greater use of smart agriculture, which utilizes the information and communication technologies (ICT) and robotics technologies that have taken on a major role in solving this issue.

As discussed thus far, we are tackling the challenge of solving social problems around the world, thereby driving forward toward the realization of a true GMB Kubota through our business activities.

Pursuing CSR Management

In aiming to realize GMB Kubota, one aspect that will become increasingly important as a basis for this, is the further pursuit of CSR (corporate social responsibility) from a global perspective. As the cornerstone of the Kubota Global Identity—our corporate principles—we are faithfully undertaking CSR activities while we drive forward the establishment of stronger relationships of trust with our customers and communities around the world.

For this reason, we recognize that ensuring compliance is an extremely critical issue. Under the resolve that no sales or profits are worth pursuing at the expense of the Kubota Group's corporate dignity, we strive to carry out our work in compliance with the law.

In particular, we have defined quality as the issue that we must most faithfully address as a manufacturer and are therefore striving to improve our reliability.

In terms of the environment, we aim to reduce environmental loads, expand Eco-Products, and fulfill the other goals outlined in Medium-Term Environmental Conservation Targets 2020. Along with these efforts, we are also working to investigate a production system with an awareness of achieving zero-emissions. The Kubota Group's business activities reach every corner of the world. And against this backdrop of global competition, we are also tackling diversity and pursuing stress-free work as a means of realizing GMB Kubota. We are also aggressively working to create working environments that facilitate the participation of a diverse range of personnel, reviewing the human resource system, and enhancing the employee education and training system. Along with improving the efficiency of work and advancing workstyle reforms, we are also striving to fully implement safety management and to comprehensively energize our business activities as sources of competitiveness.



To Our Stakeholders

Besides promoting our current businesses, we will acquire new business opportunities through initiatives to achieving the SDGs, thereby improving our CSR management. This will surely contribute to the realization of the GMB Kubota.

The Kubota Group will continue to make united efforts across countries, regions, and departments to become a company trusted by customers and society.

We sincerely request your continued support.

March 2019

末股昌 hã

Masatoshi Kimata President and Representative Director, Kubota Corporation

Challenges Through 2030

Tackling the Challenges Associated with the Megatrend of Global Demographic Shifts



Source: Kubota Corporation, based on data from the Ministry of Internal Affairs and Communications * Middle-income group: Demographic with per capital daily consumption of around US\$10 to US\$100 (as defined by the OECD)

Helping to Satisfy the Ongoing Global Increase in Food Demand





Source: Kubota Corporation, based on Cabinet Office and OECD materials

Global challenges expected through 2030

- The rise in the global population is expected to contribute to increased demand for grain used in food.
- Economic development is contributing to an increase in the middle-income group population.

Improved diets are leading to an increased demand for meat.

Demand for grain is expected to increase not only in food, but also for livestock feed.

(Demand for livestock feed grain is expected to exceed demand for grain used in food in 2030.)

Kubota's Challenge

Kubota's large upland agricultural machinery

contributes to the enhanced productivity required by global food demand.



Large upland farming tractors



Processing the hay used to feed livestock



Developing upland agricultural machinery that meets the needs of countries and regions around the world



<Related SDGs>

Addressing Rapid Urbanization and a Labor Shortage in Rural



Population Trends for the World's 10 Largest Metropolitan Areas (2015-2030)



* Metropolitan area: a city with a population of at least 10 million people Source: Kubota Corporation, based on UN data

Global challenges expected through 2030: Asia edition

Asian countries are seeing explosive population growth and accelerated economic development.

Metropolitan populations are expanding as people move from rural to urban areas in search of prosperity.

There is an urgent need to develop urban infrastructure, with sewers being one such example.



Kubota's Challenge

Many Kubota products

contribute to the development of the infrastructure required as Asia becomes more urbanized.



Urbanization creates a growing need for sewer and water treatment facilities (This photograph shows a wastewater treatment plant (Johkasou) used in areas without developed sewers)



Mini excavator that can be used to develop urban infrastructure



Industrial engines vital to economic development (This photo shows local production facilities in Asia)



Areas in Asia



Population trends in Asian cities and regions



As urbanization in Asia progresses, populations in outlying and farming areas are declining. Source: Kubota Corporation, based on Asia Development Bank data



People are moving from rural areas to urban areas in search of prosperity.

This is contributing to a decline in populations in rural and farming areas and a shortage in agricultural workers.

However, demand for food in Asia is increasing, requiring enhanced efficiency in its production.





Kubota agricultural machinery

contributes to enhanced productivity in Asian agriculture.



The use of rice transplanters boosts productivity substantially compared to traditional agriculture using human labor.



Multi-purpose tractors can perform a number of tasks, including heavy towing.



R&D Centers conduct research and development aligned with the needs of local Asian communities.



Moving Toward Mechanized Agriculture in Africa





a Green Revolution in Africa (AGRA) for the promotion of rice cultivation in 23 Sub-Saharan countries in Africa. *2 56 million tons is the target being promoted by CARD

Agriculture, Forestry and Fisheries

Kubota's

Challenge

Source: Kubota corporation, based on data from CARD and the Ministry of

Global challenges expected through 2030: Africa edition

The population of Africa is increasing.

Food production is not keeping up with increased demand for food due to there being little progress in the mechanization of agriculture.

Given plans to double rice production in Sub-Saharan Africa, there is a pressing need to shift to more productive agricultural methods.



The gradual introduction of Kubota agricultural machinery

is contributing to improved food production in Africa.



Related SDGs>

Feature 4

Addressing the Diverse Challenges Facing Japanese Agriculture



Trends in Commercial Farming Households and the Average Age of Core Agricultural Workers



The number of commercial farming households is expected to decline further over the next 10 years Source: Kubota Corporation, based on data from the Ministry of

Agriculture, Forestry and Fisheries.

Kubota's Challenge Global challenges expected through 2030: Japan edition

Declines as farming families age and give up on the agricultural life.

Farmland accumulation is accelerating, with an expansion in professional farms (run by agricultural business operators and leading farmers) of 5 ha or larger.

Improving profitability and productivity are key issues for agricultural business operators and leading farmers

- As the scale of operations increases, key issues include lower product quality and yields
 Lowering production costs
- Offering high added-value products
 Human resource development (transferring know-how)
 Meritet development and evenencies

6 Market development and expansion

Kubota supports Japanese agriculture and rice demand through the promotion of smart agriculture and expanding consumption in a diverse range of products.



Smart agriculture that uses robotic technologies, IoT, and ICT to massively reduce labor and produce high-quality products







Genkido, which offers bread and pasta produced from brown rice. (only

ly in Japanese)

Kubota Group's Global Network

Aiming to realize the "Global Major Brand Kubota," the Kubota Group is expanding its global business in accordance with local needs to solve food, water, and the environmental issues around the world.



Worldwide Sales Volume of Tractors



Over 4 million units (cumulative)

Kubota tractors are used in agricultural settings throughout the world, where they contribute to food production.

Share of Thailand Tractor Market / Share of Asian Combine Harvester Market



No. 1

Refined on the front lines of Japanese rice cultivation, Kubota agricultural machinery has an excellent reputation in Asia's leading rice growing countries.

Worldwide Sales Volume of Engines



Engine Line-up

Approximately **2,000** models

Kubota produces an abundant lineup of engines to meet every kind of customer need.

30 million units (cumulative)

Kubota engines support global industry with characteristic highefficiency, energy- and laborsaving performance.

European Emissions Regulations

Stage V compliant

Kubota engines meet Europe's rigorous emissions regulations. We support local industry while considering the environment.



Sales Volume of Mini Excavators



Global No. 1 for 16 consecutive years

Kubota pioneered the mini excavator, and has been quick to expand into overseas markets. These machines have earned high praise on building sites around the world. * Since 2002, from "Off-highway research 2017."

Global Supply Record of Ductile Iron Pipes



Over **70** countries

Kubota water pipes are world renowned for durability and performance. They are currently used in the water infrastructure of over 70 countries.

Adoption Rate of Kubota Facilities for High-purity Water Treatment Facilities in Japan





Products supported by Kubota's advanced water treatment technologies are used in many water purification facilities in Japan.

Financial and Non-financial Highlights

Summary of the results of operations for the year ended December 31, 2018

Kubota Corporation and its subsidiaries (hereinafter, the "Company") have adopted International Financial Reporting Standards (hereinafter, "IFRS") instead of accounting principles generally accepted in the United States of America (hereinafter, "U.S. GAAP") from the beginning of the fiscal year ended December 31, 2018. The figures for the fiscal year ended December 31, 2017 used in the following analysis were reclassified into figures in accordance with IFRS. For the year ended December 31, 2018, revenue of the Company increased by ¥99.3 billion [5.7%] from the prior year to ¥1,850.3 billion. Domestic revenue increased from the prior year because of increased revenue in Farm & Industrial Machinery, which was mainly due to strong sales of agricultural-related products and engines. Overseas revenue increased from the prior year mainly due to a significant increase in sales of construction machinery, tractors, and engines along with gradual economic expansion. In addition, sales of industrial castings and ductile iron pipes increased as well.

Operating profit decreased by ¥10.6 billion [5.3%] from the prior year to ¥189.3 billion. This decrease was mainly due to some negative effects from a rise in material prices and increased costs, such as fixed costs, while there was the positive effect from increased sales in the domestic and overseas markets. Profit before income taxes decreased by ¥16.8 billion [7.8%] from the prior year to ¥197.2 billion. Income tax expenses decreased by ¥24.1 billion from the prior year to ¥49.1 billion mainly due to the federal corporate tax rate cut in the United States. Profit for the year increased by ¥6.8 billion [4.8%] from the prior year to ¥150.1 billion. Profit attributable to owners of the parent increased by ¥4.4 billion [3.3%] from the prior year to ¥138.6 billion.

Five-year Summary of Key Financial Data

* Terminologies, which differ between U.S. GAAP and IFRS, are presented together in the format, "U.S. GAAP / IFRS."

* Due to the change in fiscal year-end, the fiscal year ended December 31, 2015 was the nine-month period that commenced on April 1, 2015 and ended on December 31, 2015. For this reason, some indicators for a 12-month period (January 1 to December 31, 2015) are provided in the graph for reference.

	U.S. GAAP		IFRS		U.S. GAAP		
	2015.3	2015.12 (9 months)	2016.12	2017.12	2017.12	2018.12	2015.12 ^{*5}
Operating results for fiscal year (billions of yen)							
Revenues / Revenue	¥ 1,584.3	¥ 1,244.8	¥ 1,596.1	¥ 1,751.5	¥ 1,751.0	¥ 1,850.3	¥ 1,688.6
Operating income / Operating profit	203.1	166.9	188.8	198.8	200.0	189.3	222.9
Income before income taxes and equity in net income of affiliated companies / Profit before income taxes	210.7	169.5	197.0	212.9	214.0	197.2	224.0
Net income attributable to Kubota Corporation / Profit attributable to owners of the parent	139.5	110.1	132.5	136.4	134.2	138.6	149.4
Capital expenditures	50.4	35.3	65.4	52.2	52.2	64.1	53.9
Depreciation and amortization	38.2	31.2	43.4	45.3	45.1	49.6	41.4
R&D expenses	39.5	29.6	43.0	48.1	43.4	53.8	39.4
Net cash provided by operating activities	85.9	197.0	185.0	222.3	137.2	89.1	205.9
As of fiscal year-end (billions of yen)							
Total assets	¥ 2,472.2	¥ 2,532.9	¥ 2,670.6	¥ 2,853.9	¥ 2,832.4	¥ 2,895.7	¥ 2,532.9
Shareholders' equity / Equity attributable to owners of the parent	1,100.1	1,140.3	1,198.8	1,301.3	1,291.1	1,339.9	1,140.3
Interest-bearing debt / Interest-bearing liabilities	765.1	768.7	818.0	836.6	834.1	839.3	768.7
Per share data (yen)							
Earnings per share (EPS)	¥ 111.68	¥ 88.47	¥ 106.58	¥ 110.30	¥ 108.45	¥ 112.44	¥ 119.93
Book-value per share (BPS)	883.10	916.28	966.19	1,054.86	1,046.55	1,087.44	916.28
Annual cash dividend	28	28	30	32	32	34	
Financial indicators							
Operating margin (%)	12.8	13.4	11.8	11.4	11.4	10.2	13.2
R0A*1 (%)	9.2		7.6	7.7	7.8	6.9	9.0
R0E*2 (%)	13.7		11.3	10.9	10.8	10.5	13.5
Shareholders' equity to total assets / Ratio of equity attributable to owners of the parent to total assets (%)	44.5	45.0	44.9	45.6	45.6	46.3	45.0
Payout ratio (%)	25.1	31.6	28.1	29.0	29.5	30.2	
Shareholder return ratio* ³ (%)	30.6	33.9	32.7	38.6	39.3	32.3	
Net debt equity ratio*4 (times)	0.59	0.55	0.54	0.47	0.47	0.46	0.55

*1 ROA:

[U.S. GAAP] Income before income taxes and equity in net income of affiliated companies ÷ Total assets (average of beginning and end of fiscal year)

[IFRS] Profit before income taxes ÷ Total assets (average of beginning and end of fiscal year) *2 ROE:

[U.S. GAAP] Net income attributable to Kubota Corporation ÷ Shareholders' equity (average of beginning and end of fiscal year)

[IFRS] Profit attributable to owners of the parent ÷ Equity attributable to owners of the parent (average of beginning and end of fiscal year)

*3 Shareholder return ratio:

[U.S. GAAP] (Annual cash dividend + Retirement of own shares) \div Net income attributable to Kubota Corporation

[IFRS] (Annual cash dividend + Retirement of own shares) \div Profit attributable to owners of the parent

*4 Net debt equity ratio:

[U.S. GAAP] (Interest-bearing debt – Cash and cash equivalents) ÷ Shareholders' equity [IFRS] (Interest-bearing liabilities – Cash and cash equivalents) ÷ Equity attributable to owners of the parent

*5 12 months, reference data

Please refer to the Annual Securities Report for detailed financial information.

Revenue by Reportable Segment











Operating profit 🔶 Operating margin





Capital expenditures Depreciation and amortization

Revenue by Region





Overseas revenue 🔶 Overseas revenue ratio

ROA^{*1} and ROE^{*2}

(%)

IFRS



🔶 ROA 🔶 ROE





R&D expenses - Ratio of R&D expenses to revenue

Overseas Revenue and Overseas Revenue Ratio

Net Cash Provided by Operating Activities





Water Consumption*6 (million m³) 6.0 5.05 4.88 4.87 4.86 4.51 4.5 3.0 1.5 0 2014 2015 2016 2017 2018



Annual Cash Dividend Per Share, Payout Ratio, and Shareholder Return Ratio*³



Annual cash dividend

 Payout ratio (scale on the right)
 Shareholder return ratio (scale on the right)









*7 The totals for the period from January 1 to December 31 of each year.



Inclusion in ESG Indices

< General Indices with ESG Constituents >



MSCI Japan ESG Select Leaders Index

MSCI World ESG Leaders Index/MSCI World SRI Index ESG indices developed by MSCI, part of the Morgan Stanley Group (United States). Their distinguishing feature is evaluation based on industry characteristics of evaluated companies, with a focus on high-priority ESG issues.



Dow Jones Sustainability Indices

ESG indices jointly developed by the publishing company S&P Dow Jones Indices (United States) and the research and rating firm Robeco SAM (Switzerland). Kubota is classified in the Capital Goods sector, and included in DJSI Asia Pacific-comprising companies in the Japan, Asia and Oceania region.

< Social Theme Type >



2018 Constituent MSCI Japan Empowering Women Index (WIN)



FTSE4Good Index Series

ESG investment indices created by FTSE Russell, part of the London Stock Exchange Group. This ESG index series was developed in 2001, and is unique in maintaining independence through oversight by a committee of multiple stakeholders, including investors, labor groups and NGOs.



ISS-oekom Corporate Rating

ISS-oekom gathers ESG-related information on 5,900 companies throughout the world, and focuses assessment on about 1,600 companies in developed countries (primarily in Europe) and 800 companies in emerging countries. In ESG evaluation, companies are analyzed in terms of 100 items based on corporate disclosure of information, interviews with companies, interviews with outside experts, and research reports from media, NGOs, industry groups, research organizations and others. Kubota has received Prime status.





Japan

FTSE Blossom Japan Index

An ESG index focused on Japanese companies. This index is used as an investment vehicle by GPIF (Government Pension Investment Fund), the world's largest pension fund.



Ethibel EXCELLENCE Investment Register

Evaluation for this Register is done by Belgium-based Forum ETHIBEL, a group promoting SRI (Socially Responsible Investing). The investment universe of this group, known as the Ethibel EXCELLENCE Investment Register, is made up of companies with outstanding performance from a CSR perspective.

The MSCI Japan Empowering Women Index (WIN) is constructed by focusing on companies with outstanding gender diversity from among the GICS® sector groups in the parent index. Among companies promoting gender diversity at a high level in the workplace, stocks are selected from the perspective of the ability to adapt well to the risk of labor shortages due to future decline in the working population. Kubota has been selected from the top 500 stocks in terms of market capitalization.

Social Problems to be Addressed by the Kubota Group and

	Social problems to be addressed by the Kubota Group
 World production of major g * Major grains: Rice, wheat, World grain harvest area in 2 World population in 2027 is The net increase in world population 	grains* in FY2027 is expected to increase by 12.2% compared to FY2017.* ¹ soy beans, maize, sugar cane 2027 (700 million ha) will be largely the same as the average for 2014-2016.* ² expected to increase by 10.4% compared to 2017.* ³ opulation in 2027 will be in urban populations, and there will be no increase in rural populations.* ³
Against a backdrop of a farm be further improved. Higher p	ing population and a grain harvest area that will not be increasing, yield per unit area will have to productivity through promotion of agriculture mechanization and smart agriculture is expected.
 n developing countries, as 2.1 billion have no access to 840 million have still not rec 4.5 billion have no access to 	of 2015: o "safely managed" water.* ⁴ eived basic water supply.* ⁴ o "safely managed" sanitary facilities.* ⁴
Development of safe wate	r, sewage and sanitary facilities is expected. s such as deterioration of water/sewage pipelines and facilities, and securing manpower and o the aging of workers:
Development of safe wate In Japan, there are problem bassing on techniques, due t Efficient operation of wate	r, sewage and sanitary facilities is expected. s such as deterioration of water/sewage pipelines and facilities, and securing manpower and o the aging of workers: r and sewage projects are expected.
Development of safe wate In Japan, there are problem passing on techniques, due t Efficient operation of wate • The world's urban populat • The number of cities with a	r, sewage and sanitary facilities is expected. s such as deterioration of water/sewage pipelines and facilities, and securing manpower and o the aging of workers: r and sewage projects are expected. tion ratio is expected to rise from 55% in 2017 to 60% in 2030.* ³ population of 10 million or more (megacities) will increase from 33 in 2018 to 43 in 2030.* ⁵
Development of safe wate In Japan, there are problem passing on techniques, due t Efficient operation of wate • The world's urban populat • The number of cities with a	r, sewage and sanitary facilities is expected. s such as deterioration of water/sewage pipelines and facilities, and securing manpower and o the aging of workers: r and sewage projects are expected. tion ratio is expected to rise from 55% in 2017 to 60% in 2030.* ³ population of 10 million or more (megacities) will increase from 33 in 2018 to 43 in 2030.* ⁵ to the social infrastructure accompanying urbanization is also expected.
Development of safe wate In Japan, there are problem passing on techniques, due t Efficient operation of wate • The world's urban populat • The number of cities with a Further development due t • There are more frequent climits a rising risk of natural disa	r, sewage and sanitary facilities is expected. s such as deterioration of water/sewage pipelines and facilities, and securing manpower and o the aging of workers: r and sewage projects are expected. tion ratio is expected to rise from 55% in 2017 to 60% in 2030.* ³ population of 10 million or more (megacities) will increase from 33 in 2018 to 43 in 2030.* ⁵ to the social infrastructure accompanying urbanization is also expected. ate-related disasters (rainstorms, flooding, water shortages, etc.) due to global warming and there asters such as typhoons, earthquakes, and tsunamis.

The corporate staff departments will take the helm, and promote this as a company-wide activity.



Sources:

*3 World Population Prospects 2017, United Nations

For more information on the 17 SDGs, see: https://www.un.org/sustainabledevelopment/sustainable-development-goals/

^{*1} FAOSTAT, Food and Agriculture Organization of the United Nations

^{*2} World food supply and demand projections to 2027, Policy Research Institute, Ministry of Agriculture, Forestry and Fisheries (March 2018)

^{*4} Progress on Drinking Water, Sanitation and Hygiene 2017, WHO/UNICEF

^{*5 2018} Revision of World Urbanization Prospects, United Nations

Contributions to SDGs

	A (Ap	Approach to creating value oproach to promoting SDGs)	Main related SDGs	The Kubota Group's SDGs KPI
Food	oducts, technologies and services	Contribute to the abundant and stable production of food by the streamlining of agriculture.	2 ZERO HUNGER SSS 1 POLETY MSTR MAT	 Contribution to food production through further spread of agri- cultural machinery Promotion of smart agriculture using IoT and robot technologies (Kubota Smart Agri System (KSAS))
iter	now-how to offer superior pr	Contribute to the supply and res- toration of reliable water by enhancing water infrastructures.	6 CLEAN WATER AND SANTATION	 Contribution to the development of sustainable water infrastructure by offering more products, technologies, and services relating to water, sewage and water treatment facilities.
Wa	all of our capabilities and kr			 Contribution to efficient operations in the water environment field by exploiting all-around abilities and IoT in water-related products, water treatment technology, mapping/design technology, construction and other areas (pipeline orders under the DB*⁶ system, water treatment orders under the DBO*⁷ system, the Kubota Smart Infrastructure System (KSIS), etc.)
Environment	Work for the development of society by drawing on al	Contribute to creating and pre- serving a comfortable living envi- ronment by enhancing social infrastructures.	11 SUSTAINABLECTIES AND COMMANTIES 7 EFFORMER AND COMMANDER AND	 Contribution to the development of environment-friendly, sustainable urban infrastructure (Construction machinery) Further spread of eco-friendly construction machinery (Engines) Development of large engines with low fuel consumption (improved output per displacement) (Engines) Development of micro-hybrid engines Contribution to development of sustainable, resilient urban infrastructure that is resistant to disasters
	Common points for food, water and the environment: Expansion of eco-products (sales ratio of eco-products)			

Cultivate human resources capable of meeting the challenge of the unknown with ingenuity and courage based on respect for others, integrity, customer-first values and a bottom-up approach.

1	2	3	
4	5	6	
7	8	9	
10	11	12	
13	14	15	
16	17		

- (Quality Assurance) Number of recalls
- (Environment) CO₂ emissions from domestic sites
- (Procurement) Promotion of CSR procurement
- (Safety) Class-A incidents
- (Personnel) Percentage of employees with disabilities, percentage of employees taking childcare leave, attainment of Health KUBOTA 21 targets

*6 Design-Build system, in which a private business contracts out both design and construction to a single private business

17 Design-Build-Operate system, in which everything from design and construction to operation and maintenance are all contracted out to a single private business

Major Products of the Kubota Group

Farm & Industrial Machinery

Agricultural Machinery and Agricultural-related Products

Supporting Food Globally to Provide a Future of Abundance for People and Food

Kubota is a world-leading manufacturer of agricultural machinery for both dry- and wet-field farming. With our unique "Priority Onsite" perspective, we listen carefully to feedback from farmers and develop agricultural machinery aligned with their practical requirements. In this way, we support agriculture not only in Japan, but throughout the world.



Tractors:

used mainly in agricultural operations, including tillage, leveling and transportation.



Combine harvesters:

used for simultaneous harvesting and threshing of crops such as rice, wheat and pulses.



Utility vehicles:

useful in a variety of operations, including agricultural work, civil engineering and leisure activities.

Implements: connected to tractors and used for a variety of tasks.



Rice transplanters: used to transplant rice seedlings to rice paddies, contributing significantly to labor saving.



Turf equipment: used for cutting lawns in parks, office areas and private residences.



The Kubota Group's ICT × IoT (Agricultural Machinery)

Kubota Aims for Smart Agriculture

As the farming population is aging and the scale of farms is expanding, it is globally crucial to grow agricultural produce efficiently with higher yield and quality.

By promptly introducing ICT (information and communication technology) and robotic technology in agriculture, Kubota will realize smart agriculture that reduces labor and increases precision, contributing to the abundant and stable production of food.

Kubota Smart Agri System (KSAS)

A system to support farm operations by integrating advanced technologies with ICT. KSAS visualizes agricultural data, enabling efficient farm operations with no need to rely on experience and intuition.



Kubota Agricultural Machinery with GPS

Using GPS (global positioning system), Kubota has developed an autonomous tractor capable of performing unmanned automatic operations under manned monitoring, as well a combine harvester that carries a human operator while performing autonomous operations, and a rice transplanter able to self-steer to keep a straight line of travel.



AGRIROBO Tractor capable of performing unmanned automatic operations



AGRIROBO Combine harvester with automated driving assist function



Rice transplanter with keeping straight function

For more detailed product information, please see our website.



Major Products of the Kubota Group

Farm & Industrial Machinery

Construction Machinery

Bringing Rich Everyday Living Spaces and Impressive Quality to the World

Over about 50 years as a dedicated manufacturer of mini excavators, Kubota has contributed its advanced technology and expertise to urban development. As a pioneer of the mini excavator, we have been quick to expand into overseas markets such as Europe and North America. Recently, we have been earning a strong reputation around the world for developing products in line with regional needs, for example by supporting rapid urbanization in Asian, South American, and African countries, and by introducing the compact track loader (CTL) and the skid steer loader (SSL) to meet needs in North America. Kubota will continue providing mini excavators essential for building urban infrastructure and working to establish rich living environments in Japan and overseas.



Mini excavators:

used in civil engineering and other operations; especially useful in narrow work areas, such as city streets.







Wheel loaders: Skid steer loaders: used mainly for transporting and stacking tasks (at construction sites, farms, etc.).

Compact track loaders:

For more detailed product information, please see our website.





Engines

Engines that Support Global Industry Development with Care for the Environment

Kubota was founded in the late 1800s and started developing engines by making use of its steel pipe casting technologies. In the early 1900s we unveiled a small-sized agricultural engine. During the mid-1900s, we started work on a diesel engine as we led the industry in creating various products to meet the needs of the times. Today, market needs are diversifying globally in line with growing awareness of environmental and energy issues. Based on accumulated advanced technologies, Kubota is aiming to achieve the ideal engines for the future as a global leader in compact industrial engines.



Business Overview Farm & Industrial Machinery

Results of FY2018

Revenue in this segment increased by 6.3% from the prior year to ¥1,527.6 billion, and accounted for 82.6% of consolidated revenue. Domestic revenue increased by 4.9% from the prior year to ¥308.9 billion, and overseas revenue increased by 6.7% from the prior year to ¥1,218.7 billion.

Operating profit in this segment was ¥200.9 billion, which was almost at the same level as the prior year because the positive effect from increased sales in domestic and overseas markets compensated for some negative effects from a rise in steel prices and increased costs, such as fixed costs.



Operating Profit and Operating Margin



Revenue by Reportable Segment (billions of yen) Other 30.4 (1.6%)



Major Products of the Kubota Group

Water & Environment

Pipe Systems and Water Treatment Facilities Delivering Safe Water Supplies to Everyone in the World

Kubota's water-related business started from the manufacture of cast iron pipes for water supply and the business domain expanded from there. We are now active in all aspects of the water environment, and have long supported Japan's water supply infrastructure. From this position, we expanded from Japan onto the global stage.

Using technologies and products developed in the water-abundant country of Japan, we will strive to protect this limited global resource and deliver safe water to everyone in the world.



Ductile iron pipes: used in infrastructure, including water, sewage and agricultural water pipelines.



Pumps:

used to pump water in water and sewage lines, agriculture and forestry, and in the rainwater market.







Valves:

used to control the flow of fluids or gases in water and sewage lines, agriculture and forestry, and the rainwater market.



Submerged membranes: used to purify wastewater, including industrial and domestic sewage.



Wastewater treatment plants (Johkasou): used to treat wastewater in areas where there are no sewage lines.

A Core Business Promoting Development of Industries that Support the Foundation of Society

Materials and Steel Pipes

Materials refers to parts and supplies formed by applying heat and pressure to raw materials. Kubota had its start in casting, and has developed a diverse range of materials to meet customers' needs. Kubota's materials products are used in various applications for social and industrial infrastructure, where they contribute to comfortable living environments for people.



Cracking coil used at petrochemical plants for ethylene purification and other operations.

For more detailed product information, please see our website.



Steel pipe piles: used in foundation construction, such as for buildings and bridges in addition to harbor and river projects.





The Kubota Group's ICT × IoT (Water & Environment)

Kubota aims for IoT-monitored water and environment infrastructure

Kubota has developed the Kubota Smart Infrastructure System (KSIS), a new service utilizing IoT in the water and environment field. At present, R&D projects in partnership with the NTT Group, including facility diagnosis using AI, are under way, and planned to be released as a practical service.

KSIS offers comprehensive solutions covering everything from individual products and plant devices to systems and after-sales services, thereby helping customers inside and outside Japan solve their problems.



Business Overview

Water & Environment

Results of FY2018

Revenue in this segment increased by 2.3% from the prior year to ¥292.3 billion, and accounted for 15.8% of consolidated revenue. Domestic revenue decreased by 1.0% from the prior year to ¥238.4 billion, and overseas revenue increased by 19.9% from the prior year to ¥53.9 billion.

Operating profit decreased by 18.6% from the prior year to ¥19.9 billion mainly due to a rise in material prices and deterioration of product mix sold resulting from a significant decrease in domestic sales of ductile iron pipes.



Revenue by Reportable Segment (billions of yen)





Environmental Report

Environmental Management Basic Policy

<SDGs related to this section>



Today we face various environmental problems. Many environmental problems, from those unique to each region to those on a global scale, exist around the world. As they are complexly intertwined and continuing to deteriorate, achieving a sustainable society is a global common challenge. Companies are expected to play an increasingly larger role in tackling this challenge.

Since the time of its foundation, the Kubota Group has pursued a mission of solving social problems in developing its businesses. Toward the realization of "For Earth, For Life," the Kubota Group will contribute to the development of a sustainable society through its environmental management initiatives.

Environmental Charter / Action Guidelines

The Kubota Group Environmental Charter

- The Kubota Group aspires to create a society where sustainable development is possible on a global scale.
- The Kubota Group contributes to the conservation of global and local environments through its environmentally friendly operations, products, technologies, services, and corporate activities.

The Kubota Group Environmental Action Guidelines

1. Environmental Conservation Efforts in All Business Activities

- (1) We promote environmental conservation measures in all stages of our corporate activities, including product development, production, sales, physical distribution, and service.
- (2) We also request that our suppliers understand the importance of environmental conservation efforts and cooperate in this regard.

2. Global Environmental Conservation

- (1) We promote global environmental conservation measures intended for dealing with climate change, creating a recycling-based society, conserving water resources, and controlling chemical substances.
- (2) We promote global environmental conservation by providing products, technologies, and services that contribute to solving environmental problems.
- (3) We strive to ensure our corporate activities are friendly to the natural environment and biodiversity.

3. Environmental Protection to Create a Symbiotic Relationship with Local Societies

- (1) We make efforts in the reduction of environmental risks and promote our business activities with proper consideration for the protection of local environments, including pollution prevention.
- (2) We actively participate in environmental beautification/education activities in local communities.

4. Our Voluntary and Organized Efforts in Environmental Conservation

- (1) By introducing the environmental management system and establishing voluntary targets and action plans, we work on our daily business operations.
- (2) We endeavor to enhance environmental awareness through active environmental education/enlightenment activities.
- (3) We actively provide stakeholders with environment-related information.
- (4) We collect stakeholders' opinions broadly through environmental communication, and reflect the findings in our environmental activities.

Message from the Environmental Conservation Control Officer

In response to the UN's consensus on common global goals and international frameworks, like the Sustainable Development Goals (SDGs) and the Paris Agreement, many companies have been accelerating their efforts towards realizing a sustainable society.

The Kubota Group sees its mission as solving the problems faced by society in the fields of food, water, and the environment, and contributes to achieving the SDGs through its business activities.

Toward achieving our Medium and Long-Term Environmental Conservation Targets, we will further enhance our environmental management efforts, including reducing the environmental loads of our business processes and enhancing our lineup of environment-friendly products and services.

The Kubota Group has deployed throughout the company the Kubota Production System (KPS), which is based on "JUST-IN-TIME" and "automation," and continuously pursues the thorough elimination of loss, with the aim of establishing a "Made by Kubota" production system throughout the world as part of our business process. Based on this concept of KPS, we are directing our environmental conservation activities at further reducing waste and loss in the use of energy and resources, enhancing and strengthening environmental risk management, and strengthening our manufacturing capability.

For environment-friendly products and services, while working to expand the sales ratio of Eco-Products, we will also enhance our products and services that utilize advanced technologies, such as IoT, AI and robots, thereby contributing to the conservation of the environment and the solution of customers' problems.

The Kubota Group will continue its efforts to provide environment-friendly products, technologies, services, and corporate activities as a single whole and promote environmental management appropriate to the Global Major Brand Kubota.



Koichi Yamamoto Executive Officer General Manager of Manufacturing Headquarters (Environmental Conservation Control Officer)

Environmental Management Approach

Concepts of Environmental Management

Having established the "For Earth, For Life" Brand Statement as its concept for environmental management, the Kubota Group balances its business growth and contribution to environmental conservation through its environment-friendly products, technologies, services and corporate activities and aims for ongoing synergistic development with society in order to continue supporting the prosperous life of humans while protecting the environment of this beautiful earth.

The Group has set five basic items for its environmental conservation, namely, "Tackling Climate Change," "Working towards a Recyclingbased Society," "Conserving Water Resources," "Controlling Chemical Substances," and "Conserving Biodiversity." Based on these items, the Group is committed to the development of society and the conservation of the global environment through the delivery of products, technologies and services that help solve the social problems in the fields of food, water, and the living environment and through the reduction of the environmental loads and environmental risks of its corporate activities.



Materiality

The Kubota Group has identified material issues (priority issues) in its environmental conservation activities, taking into consideration their importance in business, requests and expectations from stakeholders, and social trends.

Process for Identifying Materiality

Step 1	Gathering and analyzing information We gathered and analyzed information on international frameworks and policy trends, key external evaluation indicators, global trends in the Kubota Group's business fields, etc.
Step 2	Listing material issues Through discussions at the Environmental Management Strategy Committee and interviews with relevant internal departments, and dialogues with ESG (environment, society, governance) investment institutions and external experts, we listed issues relating to environmental conservation.
Step 3	Identifying materiality We examined the identified issues from the perspectives of both the importance to stakeholders and the importance to the Kubota Group, and plotted the identified priority issues on a matrix.
Step 4	Formulating and implementing key measures After identifying the impacts (risks and opportunities) related to issues with a high degree of importance for both stakeholders and the Kubota Group, we formulate key measures and promote the steady implementation thereof.

Materiality Matrix



Materiality Awareness

Tackling Climate Change	Against a backdrop of more frequently occurring natural disasters caused by abnormal weather and other factors believed to be linked to climate change, tackling this challenge has become an issue of global proportions. As a corporate group that conducts business activities throughout the globe, the Kubota Group believes in the importance of working to reduce the emissions of greenhouse gases in the corporate value chain and of undertaking adaptive measures designed to reduce the impact of climate change.
Conserving Water Resources	Access to safe drinking water is a critical part of life-supporting infrastructure. Despite this, there are many people throughout the world that cannot access safe drinking water. The Kubota Group has defined "Water" as one of its business areas, and believes in the importance of becoming more deeply committed to the supply of safe, secure water through the construction of water infrastructure. We also believe in the importance of conserving local water resources, which includes saving water, recycling wastewater, and applying water quality-related risk management at its business sites.
Working towards a Recycling- based Society	Mineral resources are used widely throughout modern society, but there is a limit to the amount existing on the planet. More recently, increasing amounts of waste and marine plastic pollution have become global issues. Likewise, the Kubota Group believes in the importance of providing waste processing services and related equipment, for example, as solutions for issues related to the garbage generated from human lifestyles and economic activities. Moreover, we also believe in the importance of effectively utilizing resources and reducing waste in the business value chain.
Conserving Biodiversity	As part of agriculture, living things are the resource that is subject to harvest, where ecosystems denote the interrelation between the environments that produce living resources and other living things. Meanwhile, biodiversity is an essential factor for abundant, stable food production. The Kubota Group defines "Food" as one of its business areas, and in addition to addressing greater efficiency in agriculture and a diverse range of needs, we believe in the importance of delivering products and services that contribute to the conservation of biodiversity. Moreover, we believe in the importance of undertaking business activities that consider biodiversity and of protecting the natural environment around its business sites.
Controlling Chemical Substances	Chemical substances have become an essential part of our lifestyles. On the other hand, chemical substances hold the potential to significantly impact humans and ecosystems, a fact that has led to stringent laws and regulations related to their appropriate use and control. The Kubota Group believes in the importance of appropriately controlling the chemical substances contained in its products and handled at its business sites in order to minimize the impact on customers, those who live and work near its business sites, employees, and ecosystems.

Risks and Opportunities

The Task Force on Climate-related Financial Disclosures (TCFD) set up by the Financial Stability Board (FSB) released its final report in June 2017 to provide companies with recommendations for assessing and disclosing the financial implications of climate change.

In light of the climate change-related risks (transitional risk, physical risk) and opportunities recommended for disclosure by the TCFD and other organizations, the Kubota Group endeavors to continuously assess the implications related to materiality considered to have a high degree of importance for stakeholders and the Kubota Group from the perspective of risks and opportunities. Moreover, we make efforts towards reducing risks and creating value from opportunities.

	Risks	Opportunities		
Tackling Climate Change	 Higher costs coinciding with compliance to stricter energy saving-related regulations, etc. Higher manufacturing costs due to soaring energy prices Negative impacts on Kubota and supplier operations due to climate change-triggered natural disasters Changes in agricultural style due to more pests, lower crop yields, and relocation of suitable farming land, etc. Removal of low energy-saving performing products from the market as a result of greater interest in climate change among the market and customers 	 Contribution to greenhouse gas emissions control through the launch of products and services, etc., that enable energy savings and energy creation Improve energy efficiency through energy-saving measures, such as upgrading to high-efficiency equipment at business sites Expand climate change adaptation business based on the delivery of agricultural solutions that correspond to changes in agricultural styles 		
Working towards a Recycling-based Society	 Higher costs coinciding with compliance to import and export regulations on discarded plastic and stricter waste-related regulations, etc. Higher manufacturing costs due to resource depletion and soaring resource prices Higher costs coinciding with the development and production of resource recycling-based products made from recycled materials, etc. 	 Contribution to the effective use of resources through the launch of products that consider resource recycling, including the use of recycled materials, and through the deployment of environmental and waste-disposal services Improve resource efficiency through resource conser- vation measures at business sites Improve product sustainability through easier mainte- nance and the promotion of used product recycling 		
Conserving Water Resources	 Fines and shutdowns due to non-compliance with wastewater standards, etc. and lower social credibility, higher costs coinciding with stricter water-related regulations, etc. Negative impacts on production activities due to higher manufacturing costs resulting from soaring water prices and water-use restrictions, etc. Negative impacts on Kubota and supplier operations due to flooding, droughts, and other disasters Changes in agricultural styles due to lower crop yields stemming from water resource shortages and relocation of suitable farming land Higher costs coinciding with the design and development of products and services suited to the needs of regions with high water risk 	 Contribution to social infrastructure through the delivery of water environment-related products that ensure access to safe and secure water, wastewater treatment and recycling treatment facilities that comply with stricter regulations, and solutions that help solve water-environment issues, etc. Improve water use efficiency through water conservation and wastewater reuse at business sites, etc. Expand climate change adaptation business based on the supply of water infrastructure that is highly resistant to flooding, droughts, and other disasters 		
Controlling Chemical Substances	 Fines and shutdowns, etc., due to non-compliance with chemical substance-related environmental standards, etc. and lower social credibility, and higher costs coinciding with stricter chemical substance- related regulations, etc. 	 Contribution to reduced environmental loads through the launch of products compliant with emissions gas regulation and toxic substance use regulation Reduce exposure risk through the decreased use of potentially toxic substances at business sites Improve painting efficiency through the reduced use of paints and improved yields, etc., at business sites 		
Conserving Biodiversity	 Fines and litigation due to violation of biodiversity-related regulations Shortages and higher procurement costs of raw materials due to declining natural capital Litigation raised by local communities and lower social credibility due to inappropriate land use, pollutant emissions, and excessive resource consumption, etc. 	 Contribution to the conservation of biodiversity through the launch of products that assist soil and water area conservation and products that control gas emissions, noise, and vibration, etc. Improve brand image through activities that consider biodiversity and environmental communication with local communities, etc. 		

Key Measures

In order to address the issues identified as materiality, the Kubota Group promotes the following key measures from the perspective of the value chain.

	Value chain of business Image: Comparison of the second services of		
	Design and development, procurement	Manufacturing and distribution	Use and disposal
Tackling Climate Change (P39-43) 13 ### 7 ######## • • • • • • • • • • • • • • • • • • •	 Conduct global procurement (Optimal regional procurement) 	 Reduce waste and loss in the use of energy based on the Kubota Production System concept Recover and reuse waste energy Expand use of renewable energy Improve distribution efficiency Promote modal shift 	 Lower fuel consumption Improve efficiency and save labor for work and management Conserve energy during construction
Working towards a Recycling-based Society (P44-48) 12 EXCEPTION OF CONTRACTOR A CON	 Use recycled materials Reduce the number of parts 	 Conserve resources Promote the 3Rs for waste and convert waste into functional materials Reduce plastic Reduce packing material Ensure proper waste management 	 Extend product life Improve ease of maintenance Promote product recycling Ensure proper disposal
Conserving Water Resources (P49-51) 6 Extension Conservation (P49-51) 12 Expedience Conservation (P49-51) 12 Expedience Conservation (P49-51)	Assess water risks	 Promote the 3Rs for water resources Ensure proper wastewater management Promote BCP measures 	 Save water consumption Promote purification or recycling of wastewater
Controlling Chemical Substances (P52-70) 12 EXEMPTION COORDINATION 11 EXEMPTION COORDINATION 11 EXEMPTION COORDINATION 11 EXEMPTION COORDINATION 11 EXEMPTION COORDINATION CONTROLLING CON	Reduce the use of substances of concern	 Reduce VOC emissions Substitute for organic solvents Ensure proper chemical substance management 	 Make exhaust gas cleaner Reduce environmental loads on soil and water areas
Conserving Biodiversity (P71-73)	Assess the impact on natural capital	 Manage and reduce the environ- mental loads Beautification and greening of busi- ness sites and neighborhoods 	 Conserve soil and water areas Reduce noise and vibration
Environmental Management System (P74-79)	 Promote global environmental management led by the members at the management class level Systematically reduce environmental loads toward achieving the Medium and Long-Term Environmental Conservation Targets Reduce environmental risks through environmental risk assessment Ensure environment-friendly design through product environmental assessment Promote green procurement Develop products that contribute to the global environment protection and solving social problems Enforce compliance in accordance with globally systemized environmental conservation rules Promote environmental training and environmental awareness-raising activities 		
Environmental Communication (P80-84)	 Strengthen information disseminat Promote environmental communic Enhance two-way communication Participate in regional environment 	ion through the environmental report a ation tailored to each target with stakeholders al conservation activities	and website

Relationships Between Environmental Conservation Activities and the SDGs

The Kubota Group environmental conservation activities are deeply related to the SDGs. In order to illustrate the relationship between our environmental conservation activities and the SDGs, we have organized their connections with the SDG targets.

View the list of related SDGs and targets www.kubota.com/company/environment/sdgs/img/SDGs_target_list.pdf

Environmental Management Promotion System

Organization Structure

In 2014, the Environmental Management Strategy Committee was newly established to take a more strategic and innovative approach to environmental management by management-led promotion. In addition, Environmental Manager Conferences are held for each region—Japan, China, Asia, North America and Europe—to globally advance environmental management across the Kubota Group.



* Sites engaged in the business of operation or maintenance of environmental plants

Environmental Management Strategy Committee

The Environmental Management Strategy Committee is comprised of the executive vice president and is comprised of all inside Directors, the General Manager of Planning and Control Headquarters, the General Manager of Manufacturing Headquarters, the General Manager of Research and Development Headquarters, the General Manager of Procurement Headquarters, and the General Manager of CSR Planning and Coordination Headquarters. The Committee discusses the medium- and long-term direction of the Kubota Group's environmental management, such as medium- and long-term targets and key measures in light of global environmental issues such as climate change and the business environment. It determines priority items and plans that should be carried out in order to reduce environmental impacts and risks, and to enhance the lineup of environment-friendly products. In 2018, the Environmental Management Strategy Committee was held in May and November.

The results of the committee meetings are reported to the Board of Directors and the Executive Officers' Meeting, and are distributed throughout the Group. It also promotes management based on the plan-do-check-action (PDCA) cycle by assessing and analyzing the progress of the entire Group's environmental conservation activities and reflecting the results when formulating new plans and policies. We will continue to promote swift environmental management led by members at the management level.



Environmental Management Strategy Comittee

Environmental Manager Conferences

The Kubota Group holds Environmental Manager Conferences for each region aimed at strengthening the environment management system and reducing environmental loads and environmental risks on a global basis.

In 2018, the conferences for North America, China and Japan were held. Environmental managers and staff members of six companies that have business sites in the U.S. gathered for the North America Conference, and those of seven companies with business sites in China gathered for the China Conference. Environmental managers from relevant mother plants in Japan also participated in the respective conferences. For the Japan Conference, environmental managers and staff members of 24 sites in Japan, including Group companies, gathered.

At these conferences, the Kubota Group's policies and matters to be promoted were communicated, and the progress toward achieving the Medium-Term Environmental Conservation Targets was shared. Participants presented case studies on energy-saving measures and observed the improvement initiatives at plants. Focusing on the issues confronted by each region while identifying problems together with their causes, steps were taken to put forward countermeasures.

Operated under the initiative of local sites, the Kubota Group has launched a series of conferences in order to efficiently promote governance, strengthen collaboration, and raise the level of activities in those overseas regions in which the Group operates. A new conference of six companies in Thailand was launched from December 2017, and another by three companies in Jiangsu Province in China from December 2018. Under the direction of local sites, these conferences are helping the Group uncover areas for improvement through mutual inspections and visits, strengthen measures aimed at addressing statutory and regulatory requirements in each region, and sharing good practices with respect to the reduction of environmental loads and environmental risk management.

In Japan, two subcommittees have been established under the Environmental Manager Conference. During 2018, the Antipollution Subcommittee undertook discussions with the aim of further increasing the effectiveness of Kubota's unique environmental risk assessment. In addition, the Waste Subcommittee deliberated on a variety of issues including the reduction of waste discharge, further efforts to convert waste into valuable resources, and steps to codify regulations for field surveys of purchasers of valuable resources and processing contractors. Each subcommittee put forward a range of measures.

Working through the Environmental Manager Conference, we will work diligently to further raise the level of environmental conservation activities across the Group as a whole.

* Overseas, the conference is held as the Safety and Health / Environmental Manager Conference, and is also aimed at strengthening the safety and health aspects.



North America Conference Kubota Industrial Equipment (United States)



China Conference Kubota Engine (Wuxi) Co., Ltd. (China)



Japan Conference Kubota Head Office



Waste Subcommittee Kubota Utsunomiya Plant

Medium- and Long-Term Environmental Conservation Targets and Results

<SDGs related to this section>



The influence of climate change, such as extreme weather events, has been gradually worsening, and the global movement toward the reduction of greenhouse gas has become increasingly active. Global environmental issues pose a significant threat to "ensuring food security," as well as "ensuring a safe and secure water supply."

In order to promote environmental management in light of various recent social developments, such as SDGs and the Paris Agreement, as a sustainable company, the Kubota Group has been promoting environmental activities by formulating its medium- and long-term targets for environmental conservation. In 2016, the Kubota Group formulated its Long-Term Environmental Conservation Targets 2030 and Medium-Term Environmental Conservation Targets 2020. Toward achieving these targets, the Kubota Group is advancing systematic initiatives in both the production and product development stages. Moreover, the Kubota Group checks its target items against the SDG goals and targets, thereby identifying the areas in which the Group can contribute to solving issues.

Long-Term Environmental Conservation Targets 2030

In order to achieve its Long-Term Environmental Conservation Targets 2030, the Kubota Group formulates its Medium-Term Environmental Conservation Targets every five years as an approach for deploying highly effective activities. The next medium-term targets are scheduled to be formulated for the activity period from 2021 to 2025.





Efforts to Develop Environment-friendly Products

Goal	Increase the sales ratio of Eco-Products-certified products* to 80% by 2030. Aim to put all new products which are certified as Eco-Products in the market in 2030 and later.
Result	The sales ratio of Eco-Products-certified products* was 58.6% in RY2018.

Trends in Sales Ratio of Eco-Products-certified Products



* The sales ratio of products that have fulfilled the internal requirements in our own Eco-Products Certification System Sales ratio of Eco-Products (%) = Sales of Eco-Products / Sales of products

Sales ratio of Eco-Products (%) = Sales of Eco-Products / Sales of products (excluding construction work, services, software, parts and accessories) × 100
Medium-Term Environmental Conservation Targets 2020

Since 2016, the Kubota Group has been advancing initiatives toward achieving the Medium-Term Environmental Conservation Targets 2020. Each business site and division determined the measures to take, formulated an implementation plan, taking into consideration fluctuations in the volume and contents of business, and has been implementing the plan. The results for RY2018 are as shown in the table below. As in the previous year, global production sites achieved their RY2020 targets for all items earlier than planned, and have continued to promote initiatives towards improving the results per unit of production. For the product segment, 20 products were newly certified as Eco-Products, including 3 Super Eco-Products, increasing their ratio to sales by 3.0 points from the previous year to 58.6%.

Targets for Global Production Sites

SDGs	Issue	Action item	Management indicator* ³	Base RY	Target for RY2020*⁵	Result of RY2018* ⁵ 🝳	Achievement Status
13 CLIMATE ACTION	Tackling	Reduce CO ₂ *1	CO ₂ emissions per unit of production	2014	▲ 14%	▲ 14.3%	We are promoting the energy- saving for production equipment, lighting, air conditioning; fuel con-
7 AFFORMALE AND DEAMEMENTY	Change	Save energy	Energy consumption per unit of production	2014	▲ 10%	▲ 11.8%	version; the introduction of renew- able energies; and the measures for heat insulation of buildings.
	Working towards a Recycling- based Society	ng Is rcling- Reduce waste y	Waste discharge per unit of production	2014	▲ 10%	▲13.4%	We are promoting thorough sorting of wastes and converting waste into valuable materials.
12 ESSENSILE CRESSIVET IN JURISTICULTURE			Recycling ratio (Japan)*4	_	Maintain 99.5% or more	99.7%	We are maintaining the existing level through continuous efforts.
			Recycling ratio (Overseas)*4	_	Maintain 90.0% or more	91.9%	We are promoting the reduction of the amount of waste sent to landfills by changing contractors.
6 Additions Water Resources	Conserve water resources	Water consumption per unit of production	2014	▲ 10%	▲13.4%	We are promoting recycling of wastewater and saving of water use.	
12 ECONSTIL	Controlling Chemical Substances	Reduce VOCs*2	VOC emissions per unit of production	2014	▲ 10%	▲33.5%	We are promoting the elimination or reduction of VOC-contained paint and thinner.

Targets for Products

SDGs	Issue	Action item	Management indicator	Target for RY2020	Result of RY2018 Q	Achievement Status
		Expand Eco- Products	Sales ratio of Eco-Products ^{*6}	60% or more	58.6%	In RY2018, 20 items were newly certified as Eco-Products.
			Promote recycling	Usage ratio of recycled materials*7	Maintain 70% or more	More than 70%
12 EDWART UNIVERSITY	Improving Product's Environmental Performance	Develop vehicles compliant with exhaust gas regulations	Development of industrial that comply with the lat regulations, and launch or of products with such engin	diesel engines est emissions nto the market nes* ⁸	The following engines that of tions were law Tractor WORL Conforming Emissions Vehicles (75 Regulation 2 Combine harv Conforming Emissions Vehicles (75 Regulation 2	g products* ⁹ equipped with the comply with the emissions regula- inched onto the market. D Special Edition M1010W-SE to the Japan Regulations on from Non-Road Special Motor kW and above, lower than 130 kW, 2014) vester WORLD WRH1200 to the Japan Regulations on from Non-Road Special Motor kW and above, lower than 130 kW, 2014)

*1 CO₂ emissions include greenhouse gases from non-energy sources. We use the emissions coefficient for electric power of the base year in our calculation of CO₂ emissions from energy sources. *2 VOCs (volatile organic compounds) comprise the six substances that are most prevalent in emissions from the Kubota Group: xylene, toluene, ethylbenzene, styrene, 1, 2, 4-trimethylbenzene, and 1, 3, 5-trimethylbenzene.

and r, o, or time injustication. "3 The figures per unit of production represent the intensity of the environmental load per unit of money amount of production. The exchange rate of the base year is used when translating the money amount of production of overseas sites into Japanese yen.

*4 Recycling ratio (%) = (Sales amount of valuable resources + External recycling amount) / (Sales amount of valuable resources + External recycling amount + Landfill disposal) × 100. Heat recovery is included in the external recycling amount.

*5 ▲ indicates a negative figure.

*6 The sales ratio of products that have fulfilled the internal requirements in our own Eco-Products Certification System

Sales ratio of Eco-Products (%) = Sales of Eco-Products / Sales of products (excluding construction work, services, software, parts and accessories) × 100

*7 Usage ratio of recycled materials (%) in the cast metal products and parts (ductile iron pipes, fittings, machine cast products (engine crankcase, etc.))

*8 Targeting tractors and combine harvesters (output range: 56 kW ≤ P < 560 kW) equipped with engines compliant with the European emissions regulations (Europe Stages IV and V) level, shipped to Europe, North America, Japan, and Korea

*9 Major products launched onto markets in 2018

The environmental information provided in the KUBOTA REPORT 2019 <Full Version> has received the third-party assurance by KPMG AZSA Sustainability Co., Ltd. The indexes subject to assurance are marked with the "Q" symbol.

The results for Medium-Term Environmental Conservation Targets 2020







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-5





Trends in Reduction Ratio of VOC Emissions per Unit of Production



Trends in Reduction Ratio of Water Consumption per Unit of Production

(%) 0 -5 -10 -10.0% -11.1% -15

-20 -25 -25.1% -30 -33.5% -35 \mathbb{S} 2014 2016 2017 2018 2020 (RY) Target

Products With Engines Compliant With the Latest Exhaust Gas Regulations (Major Products Launched Onto Markets In 2018)

Target



Tractor WORLD Special Edition M1010W-SE



Combine harvester WORLD WRH1200

Trends in Reduction Ratio of Energy Use per Unit of Production (%)

As an "Eco-First Company"

In May 2010, the Kubota Group was certified by the Japanese Minister of the Environment as an "Eco-First Company" due to its commitment to environmental conservation. According to the Medium- and Long-Term Environmental Conservation Targets, the Group has renewed its Eco-First Commitment regarding the five items below and was recertified as an Eco-First Company in October 2017.

- Stop climate change
- Work towards a recycling-based society
- Reduce emission into the atmosphere
- Develop environment-friendly products
- Conserve biodiversity





The Kubota Group Eco-First Commitment

See here for details on Eco-First Company certification www.kubota.com/company/environment/ecofirst/

<SDGs related to this section>

Tackling Climate Change

13 charts 7 characteristic 9 Successions and the second se

The Fifth Assessment Report by the Intergovernmental Panel on Climate Change (IPCC), states that the "warming of the climate system is unequivocal," and that it is extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century. With the Paris Agreement, an international framework to tackle climate change, taking effect in November 2016, the world's movement toward the reduction of greenhouse gases has been accelerating.

The Kubota Group sees tackling climate change as one of its materiality, and has been advancing initiatives toward the "mitigation" of climate change to reduce greenhouse gas emissions associated with its business activities and "adaptation" to be prepared for the impact of climate change.

Mitigation of Climate Change

CO₂ Emissions (Scope 1 and Scope 2)

In RY2018, CO₂ emissions were 647 kilotons CO₂e, about the same level as the previous reporting year. Meanwhile, CO₂ emissions per unit of sales improved by 5.1% compared to the previous reporting year. The improvement in CO₂ emissions per unit of sales is mainly due to improvements in the CO₂ emission coefficients for each electricity utility, as well as the promotion of CO₂ reduction measures, such as eliminating loss in energy consumption and expanding the use of LED lighting.





 $^{\star 1}$ CO_2 emissions for RY1990 are the emissions from energy sources at Kubota production sites in Japan.

*2 CO2 emissions (647 kilotons CO2e) include portions of CO2 that were not released into the atmosphere but absorbed as carbon into products such as iron pipe (20 kilotons CO2e).

*3 CO2 emissions include greenhouse gases from non-energy sources.

*4 CO₂ emissions per unit of consolidated net sales. The Kubota Group adopted International Financial Reporting Standards (IFRS) instead of accounting principles generally accepted in the United States of America from RY2018.





For the calculation method of each item of environmental data, see the Calculation Standards of Environmental Performance Indicators (p.93).

Measures to Reduce CO₂ Emissions

The Kubota Group has established its Medium- and Long-Term Environmental Conservation Targets (p.35-36) and is devoting efforts to reducing CO_2 emissions and energy use associated with its business activities.

We have also established medium-term reduction measure implementation plans, which are reviewed every year by each production site. When the plans are reviewed, Internal Carbon Pricing* is introduced to calculate their effect on reducing CO₂ emissions and energy consumption, as well as the investment cost for the amount of CO₂ reduced, in the capital expenditure plans. The effectiveness and economical rationality of each project are identified from an environmental standpoint and used as resources for making investment decisions.

Some of the specific reduction measures that have been implemented include eliminating loss in energy consumption through a switch to equipment with higher energy efficiency and proper operation management, and promoting the visualization of power



Installation of solar power generation system Kubota Baumaschinen GmbH (Germany)

consumption in each process. At the same time, all global sites have been expanding their use of LED lighting. The initiatives implemented during RY2018 include improving the method of temperature control in the melting process, which emits a large amount of CO₂, and raising the efficiency of production equipment for processing lines.

The introduction of renewable energies has also been accelerating. SIAM Kubota Corporation Co., Ltd. (Thailand), Kubota Baumaschinen GmbH (Germany), and others also introduced new solar power generation systems, which went into full-scale operation in RY2018. The amount of electricity generated during this period from these systems was 630 MWh, which is an equivalent reduction in CO₂ emissions of 299 tons. This brings the renewable energy consumption of the entire Group to 2,486 MWh, an increase of 29% compared to RY2017.

As a result of the efforts toward achieving the Medium-Term Environmental Conservation Targets 2020 for CO₂ reduction, global production sites achieved a reduction of 36.5 kilotons CO₂e in RY2018 compared with the case where countermeasures were not implemented from the base year (RY2014). The economic effects of these measures reached 0.90 billion yen compared to RY2014. CO₂ emissions per unit of production in RY2018 improved by 14.3% compared to RY2014.

We will continue to implement measures to save energy on production equipment and air-conditioning/lighting, as well as promote measures to reduce waste and loss in the use of energy based on the concept of the Kubota Production System (KPS) and expand the use of renewable energy.

* Refers to the placing of an internal monetary value on carbon by an organization



Reducing CO₂ emissions through the introduction of a gas cogeneration system and solar power generation

The Kubota Sakai Plant introduced a gas cogeneration system and solar power generators to help curb CO_2 emissions.

The plant manufactures engines, construction machinery such as tractors and loaders, and others. Energy used at the plant is largely city gas and electricity, accounting for approximately 86% of total energy used in terms of CO₂ emissions.

While we have been enacting a variety of CO₂ reduction measures, including improving facility operations and upgrading to high-efficiency equipment, we have also introduced a new gas cogeneration system to further reduce CO₂ emissions. Gas cogeneration is a system that uses city gas to generate electricity and makes effective use of the waste heat generated through the process. The system introduced to the plant generates electricity using a 1,000 kW gas engine, with waste heat used to produce hot water and steam for use in pre-coating treatment equipment. This has resulted in a reduced need for boiler fuel and a reduction in CO₂ emissions. It also contributes to energy cost reductions and reduced energy use during peak times.

We have also installed solar panels producing a total of 124 kW of power to date, with power generation from these trending at approximately 146 MWh per year.

From these efforts, we have been able to reduce CO₂ emissions by approximately 450 tons in RY2018.

We will continue to conduct our production activities with the utmost consideration for the environment and we will work further to reduce our CO_2 emissions in line with our goal of becoming a well-loved facility.



The Kubota Sakai Plant Back row from left: Shinpei Yasuoka, Kan Kato, Toshihiro Inaba Front row from left: Kenji Nishio, Shiori Tomihisa, Shinya Onishi (supervisor)



Newly introduced gas cogeneration system

CO₂ Emissions during Distribution

In RY2018, CO₂ emissions during distribution were 44 kilotons CO₂e, the same level as in the previous reporting year. Meanwhile, CO₂ emissions during distribution per unit of sales improved by 2.7% compared to the previous reporting year.

The Kubota Group continuously promotes various initiatives, including such as improving loading efficiency and realizing a modal shift through the use of ships.



Trends in CO₂ Emissions during Distribution and Emissions per Unit of Sales (Japan)

Trends in Freight Traffic (Japan)



* CO2 emissions during distribution per unit of consolidated net sales. The Kubota Group adopted International Financial Reporting Standards (IFRS) instead of accounting principles generally accepted in the United States of America from RY2018.

For the calculation method of each item of environmental data, see the Calculation Standards of Environmental Performance Indicators (p.93).

CO2 Emissions throughout the Value Chain

The Kubota Group makes concerted efforts to figure out CO₂ emissions throughout the value chain in addition to its business sites. Following guidelines^{*}, we calculate CO₂ emissions based on Scope 3, and continue to expand the categories in the Scope of its calculation of CO₂ emissions.

* Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain issued by the Japanese Ministry of the Environment and Ministry of Economy, Trade and Industry

CO2 Emissions in Each Stage of Value Chain (RY2018 results)

Classification			Scone of colouistion	CO2 emissions (kilotons CO2e)																			
	Jassincation				2016	2017	2018																
Emissions of	Direct emissions			Use of fossil fuels 🔍	306	292	309																
the Kubota Group's	(Scope 1)	(Scope 1)		Non-energy-derived greenhouse gas emissions 🍳	7	7	7																
business sites	Indirect emission	ns (Sc	ope 2)	Purchased electricity use	334	346	331																
			1	Resource extraction, manufacturing and transportation related to purchased goods/services	2,061	2,412	2,391																
		er indirect ssions ope 3)	2	Manufacturing and transportation of capital goods such as purchased equipment	219	175	215																
				3	Resource extraction, manufacturing and transportation related to purchased fuels/energy	25	26	27															
			4	Transportation of purchased products, etc.	Not calculated	Not calculated	Not calculated																
			5	Disposal of wastes discharged from business sites 🍳	16	18	20																
			6	Employee business travels	9	9	10																
Upstream and	d Other indirect emissions (Scope 3)		rect of		Cat	Cat	Cat	Cat	Cat	Cat	Cat	7	Employee commuting	3	3	3							
Downstream emissions			8	Operation of assets leased to the Kubota Group	Not applicable	Not applicable	Not applicable																
			X	9	Transportation of sold products*	42	44	180															
																				10	Processing of intermediate products	65	59
																11	Use of sold products	18,440	21,486	21,060			
			12	End-of-life treatment of sold products	38	44	42																
			13	Operation of assets leased to other entities	Not applicable	Not applicable	Not applicable																
			14	Operation of franchises	Not applicable	Not applicable	Not applicable																
			15	Investments	Not applicable	Not applicable	Not applicable																

* In addition to the data for Japan, CO₂ emissions associated with the overseas shipping of certain products from Japan has been included from RY2018.



For the calculation method of each item of environmental data, see the Calculation Standards of Environmental Performance Indicators (p.93).

Adaptation to Climate Change

Measures to Adapt to Climate Change

Ongoing climate change raises a number of concerns, including in regard to an increase in the number of heat stroke cases, changes to the areas in which crops are planted, and the frequency of climate-related disasters. The response to climate change needs to include measures to reduce greenhouse gas emissions, as well as to avoid or reduce damage brought on by climate change.

As part of its strategy to adapt to climate change, the Kubota Group is implementing a number of initiatives at its business sites and in its products and services.

Initiatives on Products and Services

Category		Major initiatives
Food		 Provision of tractors that are capable of deep plowing necessary for growing rice in abnormally high temperatures without lowering the quality/yield, and the provision of information useful for soil cultivation, such as the proper distribution of fertilizers appropriate for high-temperature conditions Provision of the Kubota Smart Agri System (KSAS) which uses ICT and robot technology, and high-performance machinery that lightens the workload in fields such as agriculture, where workers often labor in scorching heat Provision of information for farmers on changes in temperature, precipitation, and the amount of solar radiation, as well as the impact thereof on crops
	Flooding	 As a measure for floods or other disasters caused by abnormal climate, provision of disaster-relief pumper vehicles, ultra-light, emergency sump pump units, rainwater storage and filtration products, and piping systems for manhole toilets, and so on Provision of ductile iron pipes with tough tube body and excellent joint performance, which is highly effective during disasters such as typhoons and torrential rainfall
Water	Drought	 To address water shortage, the provision of management systems using IoT, which contribute to the efficient operation of water supply and sewage treatment systems and treatment plants Provision of tank-submerged-type ceramic membrane filtering equipment and submerged membranes that purify wastewater for reuse
	Management systems	 Provision of the Kubota Smart Infrastructure System (KSIS) that leverages IoT technology to manage a variety of facilities, from dams to drainage locations, using weather information in collaboration with the NTT Group Provision of the WATARAS farm water management system that allows accurate water management for remote rice paddies
Living environment		• Provision of highly efficient air-conditioning equipment that creates a clean and comfortable indoor environment, even amid abnormal weather conditions



With all the equipment necessary for effective drainage, including a drainage hose, a control panel, and a generator, as well as a lightweight specialized submersible pump that a person can easily carry, the equipment can be dispatched immediately to sites where flooding is in progress due to torrential rains and rapidly drain water from the location.

Drainage Pump with Vehicle for Disaster Recovery

Initiatives taken at Business Sites

Efforts at our business sites include the formulation of BCPs and disaster response manuals. To be prepared for high tides and torrential rain, the sites have also installed sump pumps, hold emergency drills, and are equipped with water tanks for use during water shortages.



Before and after the removal of plants Kubota Manufacturing of America Corporation (US)



To reduce the risk of damage from falling trees during violent storms, plants around the propane gas tanks were removed.



Working towards a Recycling-based Society

Trends in Waste, Etc. (including valuable resources) and Waste Discharge per Unit of Sales

As a result of being a mass-production, mass-consumption and mass-disposal society, we now face many problems such as the depletion of resources and increasing waste.

The Kubota Group sees working towards a recycling-based society as one of its materiality, and has been advancing initiatives to promote "reduce" (reducing the amount generated), "reuse" (internal recycling and reuse), and "recycle" (improving the recycling ratio) of waste, in addition to initiatives to promote the effective use of resources and resource saving.

Waste, etc. from Business Sites

In RY2018, the waste discharge amount was 113 kilotons, an increase of 5% compared to the previous reporting year. Meanwhile, the waste discharge per unit of sales was about the same level as in the previous reporting year. While we have continued to promote measures inside and outside the company aimed at recycling, as well as reducing and dehydrating waste liquid, waste discharge increased, mainly due to the increase of production volume at overseas cast iron production sites.

Of the waste, etc. discharge amount in RY2018, the amount of hazardous waste discharge was 5.3 kilotons (2.6 kilotons in Japan and 2.7 kilotons overseas).



*1 Landfill disposal = Direct landfill disposal + Final landfill disposal following external intermediate treatment

*2 Waste discharge per unit of consolidated net sales. The Kubota Group adopted International Financial Reporting Standards (IFRS) instead of accounting principles generally accepted in the United States of America from RY2018.

Waste discharge = Resource recycling and Volume reduction + Landfill disposal

The resource recycling ratio in RY2018 was 98.6% in Japan, maintaining about the conventional level. The recycling ratio overseas was 90.0%, a 0.4-point improvement compared to the previous reporting year, due to ongoing promotion of the recycling of casting dust. We will make continuous efforts to further improve the resource recycling ratio.



* Recycling ratio (%) = (Sales amount of valuable resources + External recycling amount) / (Sales amount of valuable resources + External recycling amount + Landfill disposal) × 100.





Waste Discharge by Region

Waste Discharge by Business



Waste Discharge by Type



Waste, Etc. Discharge by Treatment Category Q



* Industrial waste subject to special control as defined in the Waste Disposal and Cleaning Act in Japan, and industrial waste as defined in each country overseas.

Measures to Reduce Waste

The Kubota Group has established its Medium-Term Environmental Conservation Targets 2020 (p.36) and is working on the reduction of waste discharge from its business sites and the improvement of the recycling ratio. The Group has been promoting various measures, such as the thorough separation of waste according to the type and disposal method of waste, the introduction of returnable packing materials, and shared waste recycling between sites. The Group is also committed to the reduction of hazardous waste through ensuring thorough monitoring and management thereof.

In RY2018, at cast iron production sites, which generate a large amount of waste, the Kubota Group continuously promoted the internal and external reuse of casting sand, and the conversion of waste into valuable resources out of the sand. With regard to the dust from the melting process that was treated as waste previously, the Group has also reduced 240 tons of waste annually by converting those with high iron content into valuable materials. Machinery production sites have been continuously promoting the reduction of the amount of sludge generated in the painting booth and waste oil or oil-containing wastewater.



Reducing the amount of waste discharge through the internal recycling of wasted casting sand Kubota Keivo Plant

As a result of the efforts toward achieving the Medium-Term Environmental Conservation Targets 2020 for waste reduction, global production sites achieved a reduction of 3,800 tons of waste in RY2018 compared with the case where countermeasures were not implemented from the base year (RY2014). The economic effects of these measures reached 59 million yen compared to RY2014. Waste discharge per unit of production in RY2018 improved by 13.4% compared to RY2014. The recycling ratio was 99.7% at production sites in Japan and 91.9% at production sites overseas, both achieving the targets of the Medium-Term Environmental Conservation Targets 2020.

Moreover, production sites in Japan have raised the implementation rate of electronic manifests to 93.8%, enabling real-time assessment of the reduction effects. We will continue to promote the reduction of waste through promoting sharing of good reduction practices and visualization of waste by utilizing electronic manifests.

Reducing Waste Emissions by Extending the Lifespan of Cutting Oil

VOICE SIAM KUBOTA C reduced waste by in-

SIAM KUBOTA Corporation Co., Ltd. (Headquarters) (Thailand) reduced waste by increasing the lifespan of cutting oil used in the engine manufacturing process.

The plant manufactures diesel engines and cultivators. As in the engine manufacturing process, cutting oil is used during component processing. It is necessary to be replaced periodically to maintain processing quality and prevent odor. In the past, the appearance of bacteria in the cutting oil and degradation affected cutting oil usage being limited to six months. Cutting oil waste accounted for approximately 40% of total waste discharged at the plant.

With the goal of reducing the substantial amount of waste generated at the plant, we conducted joint research with a Thai research institute into extending the cutting oil lifespan. As a result of the research, we were able to successfully suppress bacteria using an enzyme-based biological approach. This has allowed us to use our cutting oil for up to 10 months, resulting in a 44% reduction in cutting oil waste compared to the previous fiscal year. It has also contributed to a 14% reduction in purchasing costs.

We will continue to contribute to the preservation of our environment through efforts aimed at reducing discharged waste.



SIAM KUBOTA Corporation Co., Ltd. (Headquarters) From left: Thitima Kruesri, Junnapa Srimuen, Laddawan Sriprangtong, Kanokpit Aunnapun, Supunnisa Jitaree, Supanee Nopparat, Pongsakorn Nualchavee, Phakamas Tamthirat

Recycling Water Granulated Slag

The Kubota Keiyo Plant manufactures ductile iron pipes, at which time the steel scrap melting process generates a by-product (water granulated slag). Kubota uses soil conditioners made with this water granulated slag as a raw material to help grow natural grass on the rugby field used by the Kubota Spears rugby team.

Water granulated slag contains useful components like silicic acid that are desired by plants in the grass family, so has previously been recycled as a soil conditioner ingredient used on golf course lawns. Since September 2018, we have used this material to grow natural grass on the rugby field located on the grounds of the Kubota Keiyo Plant.

We will continue to use this material for the rugby field and will endeavor to further expand its reuse.



Soil conditioner made from water granulated slag as a raw material



Rugby field on which water granulated slag is used

Reducing Plastic

Practice

Report

Marine plastic pollution, used plastic that flows down rivers and waterways to be discharged along coasts and oceans, has become a global issue. The Kubota Group's business sites promote the 3Rs and efforts to convert the plastic waste generated through their business activities into valuable resources.

As a Group company involved in the manufacture and sale of plastic pipes and couplings, Kubota ChemiX Co., Ltd. manufactures and sells recycled triple layer pipes and recycled foamed triple layer pipes made using recycled materials (rigid PVC pipe waste, PVC made of recycled couplings) to promote the effective use of resources. Meanwhile, Kubota Environmental Service Co., Ltd., a Group company involved in business activities related to construction, maintenance, and operations management of water and environmental facilities, provides engineering services for plastic to fuel facilities that pulverize and sort plastic waste for use as fuel.

The Kubota Group works to reduce the release of plastic through initiatives including the effective use of resources and reducing waste throughout the business value chain.



Plastic to fuel facility Kubota Environmental Service Co., Ltd.

Waste, etc. Generated from Construction Work

The type and the amount of waste generated from construction work vary depending on the type of work being done, resulting in fluctuation in the amount of discharge, and the recycling and reduction ratio. However, the Kubota Group maintains a high recycling and reduction ratio for specific construction materials.



Trends in Discharge, and Recycling and Reduction Ratio of Construction Waste, Etc. (Japan)

* Recycling and reduction ratio = [Sales of valuable resources + Resource recycling (including heat recovery) + Volume of reduction] /Amount of construction waste, etc. discharged (including sales amount of valuable resources) x 100 (%)

Handling and Storage of Equipment Containing PCB (in Japan)

Transformers, capacitors and other equipment containing polychlorinated biphenyls (PCB) are properly reported, stored and handled based on the Japanese Act on Special Measures concerning Promotion of Proper Treatment of PCB Wastes, and the Japanese Waste Management and Public Cleansing Act. Waste with a high concentration of PCB is being disposed of steadily, beginning with sites where PCB-treatment facilities are available. Waste with a low concentration of PCB will be properly disposed of by the disposal deadline of March 2027.

PCB-containing equipment in storage is thoroughly managed by multiple means, such as the locking of storage cabinets, periodic inspection, and environmental audits.

<SDGs related to this section>

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Conserving Water Resources

The Environmental Outlook to 2050 (2012) produced by the Organization for Economic Co-operation and Development (OECD) reports that during the period between 2000 and 2050, global demand for water will increase by approximately 55%, and over 40% of the global population will be living in river basins under severe water stress.

The Kubota Group sees conserving water resources as one of its materiality, and has been advancing initiatives to promote the effective utilization of water resources and to address water risks, such as the reduction of water consumption by promoting water saving and wastewater recycling, and the proper management of wastewater treatment and wastewater quality. Production sites promote measures not to cause adverse effects on local ecosystems and the lives of local residents, taking into consideration the status of water stress in the respective regions.

Water Consumption in the Business Sites

In RY2018, water consumption was 4.88 million m³, an increase of 8.2% compared to the previous reporting year. Additionally, water consumption per unit of sales worsened by 2.3% compared to the previous reporting year. These changes were mainly due to the increased water usage as a result of the increased production volume at cast iron production sites in Japan.

Trends in Total Water Consumption and Consumption per Unit of Sales



* Water consumption per unit of consolidated net sales. The Kubota Group adopted International Financial Reporting Standards (IFRS) instead of accounting principles generally accepted in the United States of America from RY2018.



Water Consumption by Business

Measures to Reduce Water Consumption

The Kubota Group has established its Medium-Term Environmental Conservation Targets (p.36), and is working on the reduction of water consumption at its business sites. Its production sites, such as those in China, Thailand, Indonesia and the United States, have introduced wastewater treatment facilities or wastewater recycling systems utilizing technologies of the Kubota Group.

In 2018, we continued to implement daily activities such as raising employees' awareness of saving water and conducting patrols to check water leakage. In addition, we installed water-saving valves and worked to improve methods of watering green areas. As a result of the efforts toward achieving the Medium-Term Environmental Conservation Targets 2020 for water consumption reduction, global production sites achieved a reduction of 172,000 m³ in RY2018 compared with the case where countermeasures were not implemented from the base year (RY2014). The economic effects of these measures reached 62 million yen compared to RY2014. Water consumption per unit of production in RY2018 improved by 13.4% compared to RY2014.

We will continue to promote the reduction of water consumption through initiatives to promote the 3Rs of water, such as conducting water-saving activities and promoting water recycling by using the Kubota Group's technologies.

Fully Recycling Wastewater from Production Processes and Achieving "Zero" Process Wastewater

In conjunction with the construction of a new factory that went into operation in November 2017, Kubota Agricultural Machinery (Suzhou) Co., Ltd. (KAMS) (China) reviewed its water treatment systems in order to promote the reuse of wastewater emitted from its production processes.

KAMS manufactures tractors, combine harvesters, and rice transplanters. During the coating process for tractors and other vehicles, KAMS uses large amounts of water to remove contaminants from the surface and to clean the vehicles, a required step for rustproofing. Before the improvement, the wastewater emitted from these production processes was discharged outside the factory after being treated for industrial waste and undergoing wastewater treatment.



Kubota Agricultural Machinery (Suzhou) Co., Ltd. Environmental Management Department Ye Kexiao (left), Zhu Zhiqiang (right)

In light of the need to comply with increasingly tight wastewater regulations, KAMS made a full review of its water treatment systems in conjunction with the construction of the No. 2 Factory, and has since introduced regenerative treatment systems that enable the reuse of process wastewater from the entire factory. In addition, KAMS introduced a system that can recover the water contained in the treated wastewater sludge through evaporation and reduced pressure dehydration, thereby enabling the recovery of a greater volume of reusable water. After regenerative treatment, the water is reused as cleaning water for the degreasing and chemical conversion treatments applied during the painting process. As a result, KAMS achieved "zero" process wastewater and in RY2018 succeeded in reducing approximately 14,300 m³ of industrial water used during its production processes.

KAMS practices pioneering activities as a way of reducing environmental loads, and was selected as one of the best 10 energy-saving and exhaust-reducing companies of 2017 from the Suzhou Industrial Park, with which KAMS is affiliated. By continuing to manufacture in ways that consider the environment, KAMS is contributing more deeply to conserving the global environment.

Controlling Wastewater

VOICE

The Kubota Group has set its own control values that are stricter than the emission standards of relevant laws and regulations. In order not to allow the exceeding of standard values, the Kubota Group implements thorough daily management activities, such as monitoring the trends in water quality data and inspecting the wastewater treatment facilities.

Moreover, we control the amount of water discharge by reducing the amount of water consumption. In RY2018, the amount of wastewater discharge was 5.12 million m³ (3.62 million m³ into public water areas, 1.50 million m³ into sewage lines), an increase of 9.5% compared to the previous reporting year.

We will continue to reduce load on the local water environment through activities to manage water discharge and reduce water consumption.

* The amount of wastewater discharge includes rain and spring water at some business sites.

Survey on Regional Water Stress

In order to identify the risks related to the use of water resources and find effective responses to such water risks, the Kubota Group conducts surveys concerning water stress* for all of its production sites.

The results of a survey on water stress of a total of 50 sites in 14 countries using Aqueduct (water risk assessment tool developed by the World Resource Institute (WRI)) are as follows:

Results of the Survey on Water Stress of Production Sites (RY2018)

Region, country		Water stress level / Water consumption (thousand m ³) <number of="" sites=""></number>					
		High	High-Middle	Middle	Middle-Low	Low	
	Japan	91<3>	1,431<8>	1,613<8>	343<2>	0	
	China	0	115<3>	0.3<1>	0	0	
Asia	Indonesia	0	13<1>	0	0	0	
	Thailand	0	0	273<5>	0	0	
	Saudi Arabia	14<1>	0	0	0	0	
	Russia	0	0.5<1>	0	0	0	
	Norway	0	0	0	0	25<1>	
	Denmark	0	0	0	0	40<1>	
Europe	Netherlands	0	0	0	11<1>	0	
	Germany	0	0	9<1>	4<1>	0	
	France	0	3<1>	0	0	1<1>	
	Italy	0	12<1>	0	0	0	
	Canada	0	0	0	0	287<1>	
North America	United States	29<6>	0	124<2>	0	0	
Total		134<10>	1,576<15>	2,019<17>	358<4>	354<4>	

The survey results showed that there are 10 production sites with "High" level of water stress which are located in the Osaka Bay area, Tokyo Bay area, Okinawa, Saudi Arabia, and the Midwest area of the United States. The amount of water consumption by these sites accounts for approximately 3% of the total. Subsequently, there are 15 production sites located in Japan, China, and Indonesia, with a few in Europe, that fall into the "High-Middle" level category. The amount of water consumption by these sites accounts for approximately 36% of the total. The survey revealed that half of all production sites fall under the "High" or "High-Middle" water stress level categories and that these sites account for approximately 38% of water consumption.

In light of the fact that much of the water used for its production activities is taken in areas with relatively high levels of water stress, the Kubota Group implements measures to reduce water risk, including reducing water consumption and properly managing wastewater. The Group will also conduct water stress surveys in each case for the water areas around new sites that are scheduled for construction as part of the Group's more globally oriented business growth.

Water Consumption by Water Stress Level



* Water stress refers to the state where the annual water availability per capita is less than 1,700 tons and people feel inconvenience in their daily life. Water stress in this survey is the water stress for each river basin, which is calculated based on the ratio of water intake to the amount of available water resources. (World Resources Institute (WRI))

Controlling Chemical Substances

<SDGs related to this section>



The World Summit on Sustainable Development (WSSD) held in 2002 adopted a resolution that chemical substances would be managed in such a manner as to minimize the impact of the chemical substances on human health and the environment, and relevant regulations therefore have been formulated by each member country.

The Kubota Group sees controlling chemical substances as one of its materiality, and has been advancing initiatives toward reducing the burden on the environment from chemical substances, including the reduction of VOCs (volatile organic compounds) generated in coating processes at production sites, as well as the replacement of fluorocarbons and the prevention of leakage.

VOC Emissions

In RY2018, VOC emissions were 597 tons, a decrease of 6.9% compared to the previous reporting year. Additionally, the VOC emissions per unit of sales improved by 11.7% compared to the previous reporting year. These achievements were mainly due to the use of improved VOC emissions-reduction equipment and low-solvent paints as well as the closure of an overseas production site.



*1 VOCs comprise the six substances that are most prevalent in emissions from the Kubota Group: xylene, toluene, ethylbenzene, styrene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene. *2 VOC emissions per unit of consolidated net sales. The Kubota Group adopted International Financial Reporting Standards (IFRS) instead of accounting principles generally accepted in the United States of America from RY2018.

VOC Emissions by Region

VOC Emissions by Business



For the calculation method of each item of environmental data, see the Calculation Standards of Environmental Performance Indicators (p.93).



VOC Emissions by Substance

For the calculation method of each item of environmental data, see the Calculation Standards of Environmental Performance Indicators (p.93).

Measures to Reduce VOCs

The Kubota Group has established its Medium-Term Environmental Conservation Targets (p.36) and is working on the reduction of VOC emissions from its business sites. The Group has been promoting the risk management of chemical substances handled at production sites and the reduction of VOC-containing materials, such as paint and thinner.

In RY2018, the Kubota Group improved the painting efficiency by setting the pressure of paint guns and adjusting nozzle diameter. Also the Group initiated the reduction of VOC usage by substituting to VOC-free materials and recycling used thinner. Kubota Agricultural Machinery (Suzhou) Co., Ltd. (China) has started using VOC-free water-soluble paints to reduce VOC usage.

As a result of the efforts toward achieving the Medium-Term Environmental Conservation Targets 2020 for VOC reduction, global production sites achieved a reduction of 86 tons in RY2018 compared with the case where countermeasures were not implemented from the base year (RY2014). The economic effects of these measures reached 81 million yen compared to RY2014. VOC emissions per unit of production in RY2018 improved by 33.5% compared to RY2014.

We will continue to promote the reduction of VOC emissions by introducing exhaust treatment equipment that is conscious of compliance with laws and the reduction of impacts on neighborhoods, in addition to the efforts to stop the use of VOC-containing paint and thinner or replace them with substitutes.



Reduction in VOC Usage by Improving Painting Processes

SIAM KUBOTA Corporation Co., Ltd. (Amata Nakorn) (Thailand) has reduced VOC consumption by improving painting processes.

The Amata Nakorn Plant manufactures tractors and combine harvesters. Of the four painting lines for products, the combine harvester paint line accounts for roughly 70% of the total paint consumed by the plant. Higher output of combine harvesters was leading to more paint being used during coating.

Amid efforts to cut painting time in response to higher production, the usual painting processes were causing excess paint application and painting defects. To solve these problems, we switched to a new paint to improve coating efficiency, and also adjusted the size of spray nozzles along with the air and spraying pressures. As a result of these improvements we were able to reduce excess paint application along with the reduction of paint defects, and also reduce the amount of VOC usage by approximately 32% as compared to the previous fiscal year.

The Amata Nakorn Plant will continue to reduce VOC usage, thereby further contributing to the conservation of the global environment.



SIAM KUBOTA Corporation Co., Ltd. (Amata Nakorn) From left: Teetuch Leelapornpisit, Udom Samranjai, Pullop Chotipaporn, Boonyanuch Suviwattananphandee, Sungkom Bualerng, Boonmee Duangkam, Panya Chomthong

Release and Transfer of PRTR-designated Substances

In RY2018, a total of 598 tons of substances stipulated in the PRTR Law* were released and transferred, a decrease of 5.5% compared to the previous reporting year. Additionally, the release and transfer per unit of sales improved by 10.5% compared to the previous reporting year. Similar to reduction of VOC emissions, the Group is promoting the ongoing measures to reduce the PRTR-designated substances.

* Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

Trends in Release and Transfer of PRTR-designated Substances, and Release and Transfer per Unit of Sales (Japan)



*1 Total amount of reported substances that are handled at each site (annual volume of 1 ton or more (or 0.5 tons for Specific Class I designations))

*2 Release and transfer of PRTR-designated substances per unit of consolidated net sales. The Kubota Group adopted International Financial Reporting Standards (IFRS) instead of accounting principles generally accepted in the United States of America from RY2018.

For the calculation method of each item of environmental data, see the Calculation Standards of Environmental Performance Indicators (p.93).

Control of Ozone-depleting Substances

The Kubota Group prohibits specified CFCs, which are ozone-depleting substances, from being contained in products or added*¹ in manufacturing processes of products. In Japan, replacement of materials containing dichloropentafluoropropane with substitute materials was completed during RY2016, and no ozone-depleting substances subject to notification under the PRTR Law*² are handled and released at present.

In Japan, CFCs that are used in air-conditioners and refrigerating or freezing equipment as refrigerant, are thoroughly managed to control leakage, in accordance with the standards specified by the Fluorocarbons Emission Control Law.*³

*1 For HCFC, intentional adding in products as refrigerant or heat insulator is prohibited.

*2 Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements in the Management Thereof

*3 Act on the Rational Use and Proper Management of Fluorocarbons

Emissions of Air Pollutants 🝳

The Kubota Group has set its own control values that are stricter than the emission standards of relevant laws and regulations. In order not to allow the exceeding of standard values, the Group implements thorough daily management activities, such as monitoring operation of the smoke and soot-generating facilities and inspecting the dust-collecting equipment.

The amounts of emissions of air pollutants in RY2018 were 9.4* tons for SOx (down by 46.2% from the previous year), 54.2 tons for NOx (down by 21.2%), and 9.8 tons for soot and dust (down by 55.2%). We will continue to reduce emissions of air pollutants through initiatives such as controlling sources by fuel conversion and maintaining dust-collecting equipment.

* If sulfur contained in the slag managed onsite at end of year (December 31, 2018) by some sites in Japan is included, SOx emissions for RY2018 amounted to 7.3 tons.

Monitoring Groundwater

Results of groundwater measurements conducted on the premises of the business sites that used organic chlorine-based compounds in the past are as shown below.

Groundwater monitoring (RY2018)

Business site	Substance	Measured groundwater value	Environmental standard
Tsukuba Plant	Trichloroethylene	Non-detected (less than 0.0001 mg/L)	Less than 0.01 mg/L
Utsunomiya Plant	Trichloroethylene	Non-detected (less than 0.001mg/L)	Less than 0.01 mg/L

Reduction of Chemical Substances Contained in Products

The Kubota Group has set rules for identifying and properly managing chemical substances in products in order to comply with REACH Regulations* in Europe and other chemical substance regulations.

Since 2010, chemical substances in products have been classified as one of the three following categories and managed appropriately. With cooperation from our suppliers, we investigate chemical substances in products on a global basis.

* The European Union (EU) Regulations for Registration, Evaluation, Authorization and Restriction of Chemicals

Three Control Levels

- 1. Substances to be Prohibited: Should not be contained in products
- 2. Substances to be Restricted: Should not be contained in products under certain conditions and applications

3. Substances to be Controlled: Presence in products should be recognized

Expanding Environment-friendly Products and Services

<SDGs related to this section>



The Kubota Group is contributing to protecting the global environment and solving social issues in the food, water and living environment fields through the provision of environment-friendly products and services. The Group conducts environmental assessment of products in the design and development stages, and promotes environment-friendliness over the entire product life cycle, from the procurement of raw materials to the disposal of products. The Group internally certifies exceptionally environment-friendly products as Eco-Products, and is working to expand its lineup of certified products.

Environmental Considerations in the Product Life Cycle

Major Initiatives to Ensure Environment-friendliness

· Product environmental assessment to ensure environment-friendly design



Analysis of Environmental Loads in the Product Life Cycle

The Kubota Group handles a diverse range of products, from agricultural and construction machinery to pipe systems and water treatment equipment. As part of its product environmental assessment, the Group conducts life cycle assessment (LCA) for its major products to determine the amount of greenhouse gas emissions over each product life cycle.

Results of LCA: Proportions of Greenhouse Gases



*1 LCA results for tractors were calculated based on the assumption of towing and transporting work for 5,000 hours by the M9540DTHQ-EC agricultural tractor in France.

*2 LCA results for ductile iron pipes were calculated based on the data reported in the "Study on Piping Technologies for Sustainable Water Supply Service" (Japan Water Research Center). The proportions of raw material procurement, manufacturing, and product transportation were determined according to Kubota's CO2 emissions data

Greenhouse gases emitted in the use stage account for around 90% in the life cycle of agricultural tractors, while gases emitted in the manufacturing and construction stage account for around 90% in ductile iron pipes. Thus the frequency and scale of environmental loads in the life cycle vary depending on the product type. The Kubota Group enhances its environment-friendly products and services by reflecting the results of the analysis of environmental loads in the product life cycle in its environment-friendly design development.

Examples of Initiatives to Ensure Environment-friendliness

Initiatives to Ensure Environment-friendliness in Combine Harvesters

Combine harvesters are farming machinery to harvest crops such as rice or wheat. Catering to customer requirements, the Kubota Group develops various combine harvesters suited to different crop and regional characteristics.

Conserve Resources over Product Life Cycle with

DC-70G Combine Harvester

With the DC-70G combine harvester aimed at Southeast Asia and other developing countries, the durability of major parts has been enhanced to cut replacement frequency in the usage phase. Other improvements help to increase the potential acreage harvested per hour by increasing harvesting efficiency.

Over the combine harvester product lifecycle from machine production to customer usage and end-of-life disposal, these improvements contribute to conservation of resources by reducing the amount of materials required per hectare of harvested land by approximately 15% compared with the previous model (DC-68G).



Combine harvester DC-70G

Resources Input per Hectare of Harvested Land Over Product Life Cycle and Comparison with Previous Model



* Lifecycle product weight is defined as the total weight of the combine harvester and all the major replacement parts needed during usage

[1] Improvement of Durability on Major Replacement Parts

More durable major replacement parts such as crawlers and track rollers cut the replacement frequency, reducing lifecycle product weight by 5%. This approach also reduced the parts purchase cost and replacement work time.

Major Replacement Parts with Improved Durability

Major replacement parts	Extend product life (compared to the previous model)	Development points		
Crawler	Approx. 1.5 times	Less contact pressure with track rollers, thicker design, etc.		
Track roller	Approx. 1.3 times	Less contact pressure with crawler, thicker design, introducing heat-processing, etc.		



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Track roller



Diagram of Lower Replacement Frequency

Diagram of Lower Lifecycle Product Weight



[2] Improvement of Harvesting Efficiency

Harvesting operations are more efficient, with a broadened cutting width and enlarged grain tank enabling harvesting of more hectares per hour. The fuel consumption is reduced to the conventional level.

Main Improvements to Increase Harvesting Efficiency

Improved point	Compared to the previous model	Effect on harvesting efficiency
Cutting width	3.8% wider	The 2,075-mm cutting width can harvest 3.8% more at the same machine speed
Grain tank (storage tank for harvested grain)	70% bigger	The frequency of emptying* harvested grain is reduced, and long continuous work is possible

* Emptying a full grain tank generally means stopping harvesting operations and moving the combine harvester to a footpath to empty the tank.





Cutting width

Large-capacity grain tank

Initiatives to Ensure Environment-friendliness in Plastic Pipes

Plastic pipes play a key role in society in a variety of critical applications, for example water supply, sewage, agriculture water, and building utilities.

Initiative to Ensure Environment-friendliness in Sewage-related Products at Each Stage of the Life Cycle

Efforts to save energy and resources at each lifecycle stage involve the development of products and engineering methods with superior workability.

[1] Ribbed Pipe

VU pipe which is made from unplasticized polyvinyl chloride (PVC-U) and has thin wall is very popular in Japanese sewage system, since they are low costs, durable and easy to install.

Ribbed pipes supplied by the Kubota Group differ from standard PVC-U pipes because they are thinner but are protected by circular outer ribs. They make the pipes lighter and easier to handle, while ensuring high flatlening strength,* and they contributes to conserving resources.



Outer ribbed structure

* Ability to resist deformation under pressure

Environmental Contribution of Ribbed Pipes at Each Lifecycle Stage

Lifecycle	Product feature	Environmental contribution
Production	Thin-walled	• Amount of plastic raw material: resin, reduced to about two-thirds (compared to the Kubota Group's PVC-U pipes).
Installation	Lightweight	• Reducing need for heavy machinery to transport, leading to low consumption.
	Superior flatlening strength (approx. 1.5–2.0x the Kubota Group's PVC-U pipes)	 Shallower installation, reducing need for heavy machinery and fuel consumption.
	Ribbed structure	 Besides sand or gravel, resource recycling material such as recycled sand and gravel, and sludge molten slag can be used as base materials. Base materials Base
Usage	Ribbed structure (with gravel base material)	 Using a porous material such as gravel as the base material can reduce the surge of groundwater pressure due to ground liquefaction during an earthquake, preventing pipe upheaval, breakage or disconnection. Water passes through provus layer, preventing pressure increase and suppressing pipeline floating Rising water pressure pushes pipeline up Ground liquefaction countermeasures by ribbed pipe
Disposal	Recyclability	 A recycling system to improve the recycling rate of ribbed plastic pipes has been constructed by the Plastic Bib Pipe Association.

[2] Pipeline Renovation Methods

Around 3% of Japan's sewage pipe network (about 470,000 km at end-March 2017*) is older than its standard 50-year operating life. This figure is forecasted to increase rapidly, to about 12% in 10 years and about 30% in 20 years.

The Kubota Group uses the proprietary non-open-wt method "EX" or "Danby" pipeline renovation methods to insert unplasticized polyvinyl chloride pipe materials into the existing pipe via manholes to renovate the pipe network. This approach helps save energy and materials.

* Source: Ministry of Land, Infrastructure, Transport and Tourism website

Environmental Contribution of Pipeline Renovation Methods at Each Lifecycle Stage

Lifecycle	Product feature	Environmental contribution
Lifecycle	Product feature No open-wt required	Environmental contribution • Less need for heavy excavation machine, reducing fuel consumption • No excavated wastes generated • Less local traffic disruption EX pipe is inserted into existing pipe, using steam to expand a pipe and create a seamless contact. (Diagram) Provide Compressor Provide Compressor Provide Compressor Provide Compressor Existing Provide Compressor Provide Compressor Existing Provide Compressor Compressor Provide Compressor Provide Compressor Provide Compressor Compressor Provide Compressor Provide Compressor Provide Compressor Provide Compressor Provide Compressor Provide Compre
		Note: For large-scale pipes with nominal diameters of 800–3,000 mm
Usage	High seismic resistance	• Proprietary joint material (SF joiners) with the midsection and flexible section help absorb and can flexibly cope with any bending or deformation caused by an earthquake.
Extend product life • Renovates con		 Renovates corroded pipe sections, extending product life by further 50 years.

Initiatives to Ensure Environment-friendliness in Agricultural Water Product

We contribute to reduction of water consumption and abnormal weather impact by using pipelines for agricultural water and water management systems.

[1] Using Pipelines for Agricultural Water Supply

Conventional open water channels require considerable maintenance, such as keeping grass under control and water channels clear. Over time, aging water channels can also leak and lead to ineffective water outflow.* Natural pressure pipelines made with our PVC-U pipes and related products minimize maintenance work and reduce water consumption.

The Kubota Group's range of PVC pipes and joints, valves, air valves and other products are used widely in Japan's network of roughly 7,500 km of agricultural pipelines.

 * Occurs when water flows into fields even when water is not required.



Pipes being buried in an open water channels

Environmental Contribution of Pipelines

Item	Reduce water consumption	Respond to abnormal weather conditions
Details	Leaks and ineffective outflow are less likely to occur, ensuring reliable supply of water at the required volume and the required time. Loss (evaporation) Loss (leaks) Loss (leaks) Open water channels Pipeline	During droughts, water supply controlling is used to supply only the shortfall in water; during heavy rain, the valves and overflow outlets controlling is used to manage water as appropriates.

[2] WATARAS* - Farm Water Management System

WATARAS is Japan's first farm water management system that allows users to remotely and automatically control water inflow and outflow for rice fields and monitor water levels with a smartphone or PC.

At Japan's National Agriculture and Food Research Organization (NARO), where the system underwent testing, WATARAS helped to cut water consumption and reduced time spent on water management by roughly 80%. Water management typically accounts for around 30% of all working hours in rice cultivation.

* System developed by Kubota ChemiX Co., Ltd. using technology proposed and developed by national research and development agency NARO as part of a Strategic Innovation Promotion Program (SIP) to create next-generation agricultural technology.

Environmental Contribution of WATARAS

Item	Reduce water consumption	Respond to abnormal weather conditions
Details	Reduces water consumption by around 50% during the period from sprouting season to harvesting season.	During torrential downpours and other short periods of heavy rain that raise the risk of river flooding, farmers can remotely increase paddy field water level to temporarily hold water in fields.



Major Initiatives to Ensure Environment-friendliness by Product Group

C Tackling Climate Change Working towards a Recycling-t Conserving Water Resources

Working towards a Recycling-based Society

Ch Controlling Chemical Sul B Conserving Biodiversity Controlling Chemical Substances

Farm & Industrial Machinery

		Life cvcle				
Product group	Major initiatives to ensure environment-friendliness		Distribution	Construction	Use	Disposal
	Reducing the number of parts	R				
	Reducing environmentally hazardous substances contained in paint	Ch				
	Reducing fuel consumption by improving loading efficiency in product transportation		С			
Tractor	Reducing fuel consumption by introducing an energy-saving mode				C	
	Conforming to exhaust gas regulations				Ch	
	Indicating noise, vibration				D	P
	Reducing environmentally bazardous substances contained in paint	Ch				
	Reducing fuel consumption by improving loading efficiency in product transportation	0	С			
Rice transplanter	Reducing fuel consumption by introducing an energy-saving mode or a multiple-function				C	
	capacity to simultaneously perform five farming operations				0	
	Reducing seedling cultivation-related materials by sparse planting or dense-sown seedling transplantation, and a straight-line maintenance function				R	
	Conforming to exhaust gas regulations				Ch	
	Indicating parts materials, providing information on points to be noted for disposal					R
	Reducing the number of parts and weight	R				
	Reducing environmentally hazardous substances contained in paint	Ch				
	Reducing fuel consumption by improving loading efficiency in product transportation		С		-	
Combine harvesters	Reducing fuel consumption by introducing an energy-saving mode				C	
	the vehicle body				С	
	Conforming to exhaust gas regulations				Ch	
	Reducing noise, vibration				В	
	Indicating parts materials, providing information on points to be noted for disposal					R
	Reducing fuel consumption per unit yield of agricultural machinery by improving farm				С	
KSAS	Proper fertilizer application to prevent excessive fertilizers from flowing downstream				W	
(Kubota Smart Agri System)	Facilitating self-maintenance and reducing mechanical troubles by monitoring the					
	operation status of agricultural machinery				к	
	Reducing environmentally hazardous substances contained in paint	Ch				
	Reducing fuel consumption by improving loading efficiency in product transportation		С			
Quitti actore	Reducing CO ₂ emissions by electrification				C	
Cultivators	Achieving zero CO ₂ emissions by electrification				Ch	
	Beducing noise vibration				B	
	Indicating parts materials, providing information on points to be noted for disposal				D	B
	Reducing environmentally hazardous substances contained in paint	Ch				
	Reducing fuel consumption by improving loading efficiency in product transportation		С			
Riding mowers	Reducing fuel consumption by introducing a unique mowing method to alleviate				С	
	power load				0	
	Conforming to exhaust gas regulations				Ch	D
	Reducing fuel consumption by improving loading efficiency in product transportation		С			N
	Conforming to exhaust gas regulations		0		Ch	
Utility vehicles	Indicating parts materials, providing information on points to be noted for disposal				•	R
	Reducing RoHS-designated substances					Ch
	Reducing the number of parts and weight		С			
	Reducing air consumption necessary for sorting of defective rice by improving the air				С	
	Reducing power consumption of electronic circuits				C	
(color sorter, rice-milling machine,	Reducing power consumption of improved thermal insulation efficiency of					
etc.)	low-temperature brown rice storage container				C	
	Reducing the noise of rice-milling machines				В	
	Indicating parts materials, providing information on points to be noted for disposal					R
	Reducing RoHS-designated substances				C	Cn
	Accenting the consumption by improving compusition enciency and reducing losses				 C	
Engines	Conforming to exhaust gas regulations				Ch	
5	Reducing noise, vibration				В	
	Reducing RoHS-designated substances					Ch
	Reducing environmentally hazardous substances contained in paint	Ch				
	Reducing fuel consumption by improving loading efficiency in product transportation		С			
	Reducing fuel consumption by introducing an energy-saving mode				C	
Construction machinery	Conforming to exhaust gas regulations				Ch	
	Inducting noise, vibration				В	P
	Reducing RoHS-designated substances					Ch
	Reducing the number of parts and weight	В				
	Reducing fuel consumption by improving loading efficiency in product transportation		С			
Precision machinery	Reducing power consumption of electronic circuits				С	
(Measuring instruments)	Reducing the amount of waste batteries by introducing energy-saving measuring					B
	Instruments					
	Heaucing Koho-designated substances	P				Ch
	Reducing power consumption by installing a heat nump and a highly efficient motor	n			C	
Air conditioning and the	Easier maintenance by reducing the number of parts and adopting designs that are				5	<u> </u>
Air-conditioning equipment	easy to disassemble				К	
	Providing information on points to be noted for disposal					R
	Reducing RoHS-designated substances					Ch

C Tackling Climate Change R Working towards a Recycling-based Society W Conserving Water Resources Ch Controlling Chemical Substances B Conserving Biodiversity

Water & Environment

		Life cycle				
Product group	Major initiatives to ensure environment-friendliness		Distribution	Construction	Use	Disposal
	Reducing weight by thinning pipes or changing the structure of couplings	R				
Ductile iron pipes	Reducing VOC by changing the paint for the inner surface	Ch				
	Reducing fuel consumption by improving loading efficiency in product transportation		С			
	Reducing the width of the excavation groove by reducing the insertion force at the time of jointing couplings to decrease the number of items necessary for jointing			С		
Ductile non pipes	Reducing polyethylene sleeves by improving anti-corrosion performance			R		
	Improving maintenance performance by introducing a coupling structure with reduced insertion force or reducing the number of parts				R	
	Extending product life by improving anti-corrosion performance and introducing earthquake-resistant couplings				R	
	Reducing chemical substances specified under the technical standards based on the Water Supply Act					
Plastic pipes	Reducing power consumption when joining pipes by a fusing process			С		
	Indicating parts materials, providing information on points to be noted for disposal					R
	Reducing fuel consumption by improving loading efficiency in product transportation		С			
Valves	Reducing the width of excavation grooves by reducing the insertion force at the time of jointing couplings to decrease the number of items necessary for jointing			С		
	Reducing polyethylene sleeves by improving anti-corrosion performance			R		
	Extending product life by improving anti-corrosion performance				R	
	Reducing the cut amount during processing by introducing compact casings	С				
	Reducing the weight and volume by introducing compact and thinner casings	R				
Pumps	Reducing fuel consumption by improving loading efficiency in product transportation		С			
	Reducing power consumption by improving pump efficiency				С	
	Reducing RoHS-designated substances					Ch
Rusinesses related to water	Reducing weight and the number of parts by eliminating frames or introducing multi-function parts	R				
purification, sewage and wastewater	Reducing the power consumption of dehydrators by downsizing hydraulic units, etc.				С	
treatment	Reducing the power consumption by introducing agitating blades capable of efficient				0	
(Condensation, dehydration, agitator,	agitation with low power				U	
etc.)	Reducing the power consumption of fans by introducing a low-pressure membrane-type air diffuser				С	
KSIS	Saving energy by the efficient operation of equipment through remote monitoring/ diagnosis using IoT				С	
	Extending equipment life by failure prediction using AI (under development)				R	
	Reducing weight and volume by reducing the weight per unit membrane area or the membrane filling rate	R				
	Reducing fuel consumption by improving loading efficiency in product transportation		С			
Submerged membranes	Reducing power consumption per unit processing quantity by improving the membrane filtration performance and expanding the membrane-carrying area				С	
	Collecting/recycling of used membrane cartridges					R
	Reducing RoHS-designated substances					Ch
Membrane-type methane	Generating biogases by the methane fermentation of food waste and palm oil mill effluent				С	
fermentation units	Reducing the volume of food waste				R	
	Using recycled resin	R				
Wastewater treatment unit	Reducing the weight and volume of purification tanks by improving the processing capacity per unit volume	R				
(Johkasou)	Reducing fuel consumption by improving loading efficiency in product transportation		С			
	Reducing the amount of excavated soil at the time of burying by reducing volume			С		
	Reducing RoHS-designated substances					Ch
	Reducing fuel consumption by improving loading efficiency in product transportation		С			
Steel pipes	Reducing energy during construction by mechanical couplings			С		
	Reducing RoHS-designated substances					Ch
	Reducing the use of rare metals, using recycled rare metals	R				
	Reducing fuel consumption by improving loading efficiency in product transportation		С			
Ethylene thermal cracking pipes	Reducing fuel consumption necessary for decoking (maintenance) by changing the internal structure of pipes				С	
	Reducing RoHS-designated substances	1				Ch
	Using recycled rare metals	B				
	Reducing fuel consumption by improving loading efficiency in product transportation		С			
Rolls	Extending product life by improving the roll surface strength				В	
	Reducing RoHS-designated substances					Ch

Internal Certification System for Eco-Products

Regarding the Internal Certification System for Eco-Products

The Kubota Group's internal certification system for Eco-Products was introduced to internally certify products with exceptional environmental friendliness. We evaluate products in accordance with matters related to the five basic items for environmental conservation in the Kubota Group's environmental management, namely, "Tackling Climate Change," "Working towards a Recycling-based Society," "Conserving Water Resources," "Controlling Chemical Substances," and "Conserving Biodiversity," and certify those products that satisfy our internal standards as Eco-Products.

We have also received third-party assurance for our "Sales Ratio of Eco-Products," which is the ratio of sales generated by Eco-Products certified under our internal system.



Eco-Products Certification Committee

The Eco-Products Certification Committee, chaired by the General Manager of the Manufacturing Headquarters, consists of the committee members elected from each Division, as well as the Research and Development Management Department and the Environmental Protection Department. Upon receiving an application from each Division for the certification of a product, the Committee examines the product's adequacy as an Eco-Product and gives certification.



The Pathway to Expanding Certified Eco-Products

Based on our internal certification system established for Eco-Products, the Kubota Group certified an additional 20 products in RY2018, including three (3) Super Eco-Products, bringing the total number of certified Eco-Products to 218. The sales ratio of Eco-Products was 58.6%. We will continue to carry out initiatives focusing on the development of environment-friendly products and expand our Eco-Products lineup.

Trends in No. of Eco-Product Certifications (Total)



Trends in Sales Ratio of Eco-Products



Sales ratio of Eco-Products (%) = Sales of Eco-Products / Sales of products (excluding construction work, services, software, parts and accessories) × 100

Products Certified as Super Eco-Products in RY2018



Awards received:

Japan Society of Industrial Machinery Manufacturers Award 47th Machinery Industrial Design Awards (Nikkan Kogyo Shimbun, Ltd.) Kubota Electronic Equipped Machinery Marketing and Sales Dept. PW Technology Group Takashi Sagi

Our goal is to continue providing safe

and comfortable air-conditioned environ-

ments to a wide range of customers.

Products Certified as Eco-Products in RY2018 (excerpt)



Click here for details on products certified as Eco-Products. www.kubota.com/company/environment/ecopro/

The Evolution and History of Environment-friendly Products and Services

Evolution and History of Kubota Tractors

Since creating the walk-behind cultivator in 1947, the Kubota Group has launched various compact, lightweight, high-powered tractors designed for upland or rice farming in Japan. Over time, we played a key role in the shift to mechanized, efficient farming methods by developing a wide range of new capabilities that reduced the burden of agricultural work. Looking ahead, we aim to help reduce the impact of farming on the environment through smart agriculture, which brings together high-precision farming methods based on ICT and IoT, and ultra-labor-saving farming using automated tractors.

Kubota Tractors: Evolution and Environmental Contribution

Decade	Social trends	Kubota's progress in tractor development	Enviror	nmental contribution
1940s	• End of World War II	Started sales of diesel engine walk-behind cultivator (1947)		
1950s	 Depleted food resources and famine Economic growth in Japan spurs shift in labor from rural areas to cities 	Starts work on developing domestic tractors designed for Japanese agriculture	-	Develop compact,
1960s	 Increase in farmers with a side job, elderly people and women working in agriculture 	 Develops Japan's first pure domestic upland farming tractor, the T15 (1960) Launches first tractor for rice cultivation, the L15 (1962) 	hase 1	lightweight, high- powered products
1970s	 Shift from "walk-behind" to "riding" farming Boom in mechanized agriculture Economic growth gathers pace 	• Launches ultra-compact four-wheel-drive tractor Bulltra, the B6000 (1971)		
1980s	Growing need for reduction of the burden from agricultural work	 Develops automatic leveling control technology, Monroe Matic (1981) Develops Bi-Speed Turn mechanism (1986) Develops microcomputer-based automated control system for tractor attachments (1986) Switches to cleaner TVCS engines with lower exhaust gas emissions (1987) 	Pha	Improve operating
1990s	• EU introduces rules for exhaust gas emissions	 Develops transmission system with no need for clutch (1992) Launches Power Krawler tractors (1997) Complies with EPA Tier 1 regulations (1999)*1 	lse 2	efficiency with additional functions
2000s		 Complies with EPA Tier 2 regulations (2004) Develops new energy-efficient and energy-saving functions, e-Assist Turn and e-Cruise (2007) Launches products compatible with biodiesel fuel (2008)*² Complies with EPA Tier 3 regulations (2008) 		
2010s	 High fuel prices Emergence of high-precision farming using ICT Shift to robot technologies that enable driverless farming 	 Complies with EPA Interim Tier 4 regulations (2012) Starts trial providing the Kubota Smart Agri System (KSAS) (2014) Launches first tractor compatible with KSAS (2014) Complies with EPA Final Tier 4 regulations (2015) Starts trial sales of tractors with autonomous driving technology (2017) 	Phase 3 Phase 4	Eliminate inefficiencies with precision farming Shift to ultra labor-saving methods with automation

*1 Exhaust gas emission regulations based on US Environmental Protection Agency (EPA) standards for non-road diesel engines with power rating of 56–75kW

Click on the link below for more details about our shift to cleaner engines with low emissions www.kubota.com/company/environment/ecopro/img/The_Evolution_of_Engines.pdf

*2 Please ask to your Kubota Group distributor about using biodiesel

(Phase 1) Developed Compact, Lightweight, High-Powered Models, Contributing to Conservation of Resources

Tractors imported from the US and Europe in the 1950s were large and expensive, making them unsuitable for agriculture in Japan from an operational and economic perspective. In contrast, Kubota developed compact, lightweight, high-powered tractors designed for Japanese farming methods. We also helped to reduce resource usage by lowering vehicle weight for each unit of horsepower.

	Example of European tractor models at the time	Kubota tractors			
Year	Around 1960	1960	1962	1971	
Product	Fiat tractor 411C*	T15 tractor for upland farming	L15 tractor for rice cultivation	Bulltra B6000 utility tractor	
Weight (kg)	2,300	900	800	455	
Power (PS)	40	15	17	11	
Weight-to- power ratio (Compared with T15)	57.5	60.0	47.1 (-22%)	39.1 (-35%)	

* Example of Fiat tractor that Kubota imported and sold in Japan

(Phase 2) Added Functions to Improve Operating Efficiency and Help Reduce Environmental Loads

Starting with the development of the Monroe Matic in 1981, the industry's first automatic leveling system, Kubota developed a range of additional new functions that made farm work easier and improved accuracy and efficiency, helping to reduce environmental loads.

Examples of Additional Functions That Reduce Environmental Loads

Monroe Matic

Monroe Matic is an automatic leveling control mechanism for tractor attachments that combines electronic control and hydraulic technologies. The mechanism allows farmers to level off fields and rice paddies in a single operation by preventing any slant in the tractor attachment, eliminating the consolidation of soil.





Bi-Speed Turn

When the steering wheel is turned sharply, Kubota's Bi-Speed Turn mechanism rotates the front wheels at around twice the speed of the rear wheels, resulting in a smoother, tighter turn that does not disturb the soil.

 Reduced work
 Energy saving
 Soil cultivation



Microcomputer control

Kubota's microcomputer control systems enable automated control, allowing predetermined tillage depths and pulling power for tractor attachments and non-clutch operation of transmission systems.

Reduced work Energy saving

e-Assist Turn

During turning, engine revs are automatically reduced by 50% when tractor attachments are lifted and automatically returned to normal levels when attachments are lowered. The system ensures safe and stable turning by giving operators more time, and also helps to save energy by controlling engine revs at appropriate levels.

Reduced work Energy saving



e-Cruise

During light operation, engine revs are reduced while ensuring tractor speed is maintained at a predetermined level. e-Cruise can reduce fuel consumption by up to approximately 38%^{*}. The reduction in engine revs also helps to lower noise in the surrounding area.

* Based on reduction of 800 engine revs versus rated level

Energy saving Low noise

	Area	
Labor saving	Work can be completed with less effort	Easy to work for
Reduced work	Tractors can be operated by anybody	customers
Energy saving	Fuel consumption can be limited when work load declines or greater precision is needed	
Soil cultivation	Encourages crop root growth and ensures water permeability and affinity to protect crops against drought, reducing the need for excessive use of chemical fertilizers and other agrochemicals.	Environmental conservation
Low noise	Lower noise levels during operation	

(Phase 3) Introduced Precision Farming to Eliminate Inefficiencies in Operations and Reduce Environmental Loads

In 2014, Kubota started selling the Kubota Smart Agri System (KSAS), a farm management and service support system that uses ICT to link and integrate the operation of agricultural machinery. The system eliminates inefficiencies in operations and helps to reduce environmental loads through precision farming based on farm land, crop and other data.

Kubota Smart Agri System (KSAS)

KSAS visualizes farm management by integrating all types of information about farm land, crops and operations. The system can be accessed via smartphones and PCs. KSAS information can also be shared with compatible agricultural machinery.

Functions and environmental contribution of KSAS-compatible tractors

- Operational history automatically sent to KSAS. Farm work management based on operational history helps to prevent mistakes.
- Work according to the amount of fertilizer applied to each field set by KSAS. Prevents soil and water pollution caused by excessive application of fertilizer.
- Operating hours automatically sent to KSAS. Data is used to send appropriate maintenance information to customers, helping to prolong the life of tractors.



^{*} Japanese only

(Phase 4) Introduced Automation for Ultra-Labor Saving and Lower Environmental Loads

In 2017, Kubota started trial sales of the AGRIROBO tractor, which can operate autonomously under manned surveillance and is planning to launch on the market in 2020. To realize our vision for smart agriculture, we are improving integration between KSAS, autonomous tractors and other farm machinery to minimize the cost and environmental loads of farming.

Kubota Tractors – Auto-Steering and Autonomous Operation Functions

Auto-steering function

This function can automatically steer the tractor in straight lines or curves. Accuracy is high, with a margin of less than 10 cm in a straight line of 100 m. **High-precision operation can** help to prevent wasteful fuel consumption.

- Straight-line assist (GS: Go Straight) function: Automatic steering control for straight-line operation
- Auto-steering function: Automatic steering control for straight-line operation and curves



Straight-line test runs by GS-enabled Kubota GRANOVA Tractor (NB21GS)

Left picture shows results achieved with manual steering, right picture shows results with automatic steering, both by inexperienced operators. System also substantially reduces workload for experienced operators by maintaining straight-line accuracy



Test operation of one manned and one unmanned AGRIROBO tractor working in collaboration

Autonomous operation function

This system allows machinery to be operated remotely under manual surveillance, with the operator starting or halting operations at any time. Precision GPS and autonomous operation technology enable highly accurate tilling and puddling work.

High-precision operation also has the potential to limit wasteful fuel consumption.

Improving Integration with Tractor Attachments and KSAS

Tractor attachment integration

We have been developing control technologies based on information shared between the tractor and its attachment, helping to optimize operating speeds, engine revolutions and other performance criteria during operation. Selecting the best operating speed for each attachment can help to limit wasteful fuel consumption.

KSAS integration

We are using KSAS to build an operational support system for autonomous farm machinery. Our system will enable unmanned operation based on optimal routes, simply by transmitting predetermined plans for fertilizing and other farm operations to the autonomous tractor. Appropriate application of fertilizer based on those plans will prevent soil and water pollution, while optimal routing has the potential to limit wasteful fuel consumption.

Our aim is to further enhance data sharing between farm machinery and related equipment using KSAS in order to increase automation and establish autonomous control, helping to minimize the cost and environmental loads of farming.



<SDGs related to this section>

7

Conserving Biodiversity

Our corporate activities rely on various ecosystem services, which are provided by natural capital comprising soil, air, water, animals and plants, and other elements. Meanwhile, biodiversity is facing various crises in areas around the world, and the Aichi Biodiversity Targets adopted in the SDGs (goals 14 and 15) and the CDB-COP10 (Tenth meeting of the Conference of the Parties to the Convention on Biological Diversity), require business operators to protect biodiversity and make sustainable use of ecosystem services.

The Kubota Group sees conserving biodiversity as one of its materiality. In its corporate activities, provision of products and services, and social contribution initiatives, in view of its impact on natural capital, the Group is endeavoring to ensure that care is taken to conserve biodiversity and protect the natural environment.

Approach to Conserving Biodiversity

The Kubota Group has set Conserving Biodiversity as one of its five basic items for environmental conservation. In December 2009, we incorporated corporate activities that consider biodiversity into the Kubota Group Environmental Action Guidelines. Then, in our ECO FIRST Commitment submitted to the Japanese Minister of the Environment in 2010, we also included a commitment to promoting activities for conserving biodiversity.

Approach to Conserving Biodiversity

The Kubota Group has included Conserving Biodiversity as one of its five basic items for environmental conservation. In its corporate activities, provision of products and services, and social contribution initiatives, in view of its impact on natural capital, the Group will endeavor to ensure that care is taken to conserve biodiversity and protect the natural environment.

[Major Initiatives]

1. Corporate activities

- 1) At the design and development stage, we conduct product environmental assessments to evaluate the impact on natural capital.
- 2) At the procurement stage, we present our Green Procurement Guidelines to our suppliers and require them to give consideration for biodiversity.
- 3) At the production and logistics stages, we strive to reduce the environmental loads and environmental risks associated with operations at our sites and transport of materials.
- 4) As part of our environmental management, we conduct environmental education and awareness-raising for employees to foster their recognition of the value of biodiversity and the importance of conservation activities.
- 5) Our environmental communication initiatives include efforts to disseminate information about our biodiversity conservation activities.

2. Provision of products and services

- 1) By providing products and services with less environmental loads through fuel efficiency and exhaust gas purification, for example, we are striving to lessen our impact on biodiversity.
- 2) By providing water environment solutions such as wastewater treatment and waste treatment, we contribute to improving the ecosystems and nurturing environment for plants and animals.
- 3) By providing products and services that contribute to urban infrastructure development that considers smart agriculture and the environment, we contribute to sustainable use of ecosystem services.

3. Social contribution activities

- 1) Through our social contribution activity the Kubota e-Project supporting reclamation of abandoned farmland and conservation activities in rural and forest areas, we are promoting protection of the natural environment.
- 2) We are promoting the beautification and greening of business sites and neighborhoods as well as protection of plants and animals.
Relationship with Biodiversity



Biodiversity Protection Activity Case Study

Supporting Verification Projects Using a Farming Tractor to Develop Rural Natural Areas and Forests

Wild bamboo groves are spreading, mainly in rural areas in western Japan due to an increase in abandoned farmland and reduction of use and utilization of the undeveloped woodlands near human habitats. Wild bamboo groves not only prevent effective use of land, they become homes to wild birds and animals such as wild boars, raising the risk of damage such as fields being trampled, and seeds or crops being eaten.

The Kubota Group donated a farming tractor to the Gifu Prefectural Consortium for Forest Technology Development and Promotion in 2018 to support the consortium's "Using a Farming Tractor in the Forestry Sector Verification Project." The consortium lent the donated tractor to Minokamo City, Gifu Prefecture, which is using it to verify the effectiveness of carrying bamboo and woods from a project site to develop rural natural areas and forests.

Three reviews were held during 2018 and the tractor was found to have a certain level of effectiveness in carrying bamboo out of areas where the land formation made use of conventional heavy machinery for forestry difficult. Meanwhile, challenges were made clear, such as drivability within the forest work sites and the efficiency of carrying the woods.

Expectations are that this project will promote community participation development of rural natural areas and forests using farming tractors.

[Case study verifying tractor use]



Clearing bamboo on a slope



Carrying trees in a confined grove

Initiatives Taken at Business Sites

Kverneland Group Soest Sets Up Insect Hotel on Plant Site

Kverneland Group Soest GmbH (Germany) has planted flowers and installed an insect hotel on the grounds of its plant.

The Soest plant conducts numerous awareness-raising events during Environment Month in June every year, including planting vegetation and urging employees to ride a bicycle to work. After learning of a report that the number of insects and bees had declined in recent years due to climate change, the plant turned its focus onto activities for preserving ecosystems in 2018. Employees planted wildflowers growing in the surrounding area on the grounds of the plant and set up an insect hotel where bugs or bees could live, using waste materials such as wood, pine cones and bamboo. With the onset of spring, insects will become more active, so employees are eager to see the bugs use the insect hotel.

The Soest plant will continue endeavoring to raise employee awareness of environmental preservation through activities undertaken during Environment Month.



The insect hotel set up on the grounds of the plant

Kverneland Group Manufacturing Lipetsk Conducts Cleaning and Tree-Planting in Green Tract Park

Kverneland Group Manufacturing Lipetsk (Russia) cleaned up trash and planted trees in a green tract park located adjacent to its plant as one aspect of its Environment Month activities in June 2018. The green tract park was not being used appropriately, becoming a dumping ground for lifestyle waste such as plastic bottles, and there were fears that this may lead to an adverse impact on a pond and creatures in the area's ecosystems.

A team of nine, comprising employees and their family members, cleaned up the entire green tract park, concentrating on its pond and surrounding areas. Later, they planted about 20 trees in the park. Employees will continue their cleaning and watch over the growth of the saplings that were planted.

The Lipetsk plant is also conducting other cleaning activities in the surrounding region, engaging in environmental preservation activities in close cooperation with the local community.



Conducting the cleanup

<SDGs related to this section>

Environmental Management

The Kubota Group has systematically established its environmental management systems in order to facilitate business operation throughout the entire value chain including business sites and operational divisions based on the Kubota Global Identity and the Environmental Charter. The Group also promotes environmental management that is appropriate for the type of business activities of the site/operational division. Production sites, in particular, are associated with large environmental loads related to energy and waste, as well as the risks of air pollution and water contamination. In order to properly address such risks, the Group has established environmental management systems based on ISO 14001 and EMAS, and is endeavoring to promote business management in accordance with the required rules and the continuous improvement of environmental conservation activities.

Compliance with Environmental Laws and Regulations

To ensure compliance with environmental laws and regulations and prevent environmental accidents, the Kubota Group conducts its business in accordance with the rules and regulations it has formulated in relation to environmental conservation.

For exhaust gas, wastewater, noise, vibration and other variables, the Group has set and thoroughly manages its own control values at each production site, which are stricter than the corresponding laws and regulations, and has also established a system to promptly report any instances of non-compliance or complaints relating to environmental laws and regulations to relevant government bodies and the head office.

Each year, the Kubota Group also conducts environmental audits to confirm that the environmental conservation systems and activities are properly implemented at each site, as well as environmental risk assessments to clarify the status of environmental risks and establish improvements, with the aim of preventing the violation of environmental laws/regulations and environmental accidents.

Despite these efforts, however, in RY2018 in Japan we had two cases in which wastewater control value was exceeded; one case in which the Air Pollution Control Act report was not properly submitted; three cases of inadequate procedures on industrial waste disposal consignment; and one case of the loss of PCB waste liquid. Outside Japan, there was one case of inadequate industrial waste labeling. We implemented measures to prevent any impact on the ambient environment and are working to prevent recurrence. A fine was assessed for the case outside Japan involving inadequate labeling of industrial waste.

The Kubota Group's Environmental Management System



The diagram below shows the structure of the environmental management system of the Kubota Group.

Environment-related Rules and Regulations

The Kubota Group has formulated environment-related rules and regulations based on its internal control system, targeting Kubota Corporation, all of its consolidated subsidiaries and a part of its affiliated companies accounted for under the equity method that are highly significant in its environmental management.

The rules and regulations are classified as follows:

- "Environmental Conservation Regulations," specifying the basic matters for business management related to environmental conservation
 - Operation procedures specifying practical operations for business management related to environmental conservation
- "Environmental Conservation Rules," specifying the matters that should be handled by the Kubota Environmental Protection Department (department in charge)
 - Risk management procedures specifying practical operations for risk management related to environmental conservation

These rules and regulations are reviewed every year, according to the business environment and revisions of laws and regulations. The latest version of these rules and regulations are available on the Group portal site, allowing employees around the world to refer to them.

Environmental Auditing

Each year, the Kubota Environmental Protection Department conducts an environmental audit that incorporates a document audit targeting all production sites, service sites, offices, and construction and maintenance management departments in Japan, as well as overseas group production sites.

Moreover, in addition to the environmental audit by the Environmental Protection Department, annual internal environmental audits are conducted at production sites. Through these means, and by taking the initiative to self-check the status of environmental management, every effort is being made to further improve management levels.

RY2018 Environmental Audit Implementation Status

- Number of departments: 268
- Number of audit items: 20 (for maintenance and management departments) up to 50 (for service sites)
 * Details are as shown in the table below.
- Audit details: Water and air quality management, noise and vibration management, waste discharge and chemical substance management, climate change prevention, response to abnormalities and emergencies, and environmental management system



Environmental audit at KUBOTA Engine (Thailand) Co., Ltd. (Thailand)

Environmental Audit Implementation Status

		sites		Servic	e sites	ion nts	Maintenance management departments* ²	
		Production	Offices	Agricultural machinery distributors	Other	Construct departme		
Group companies	Number of sites audited	23	70	13 companies*1	90	45	9	
in Japan	Number of audit items	45	38	49	50	35	20	
Overseas group companies	Number of sites audited	18						
	Number of audit items	35	_	_	_	_	_	

*1 For agricultural machinery distributors, the audit was conducted on a company basis instead of on a site basis.

*2 Departments engaged in the business of operation or maintenance of environmental plants

Environmental Risk Assessment

Each year, detailed environmental risk assessments are conducted to evaluate the use of hazardous substances and the functions of environmentrelated equipment with the aim of clarifying the status of environmental risk at each production site and establishing systematic improvements.

The Kubota Group is proactively working to reveal possible environmental risks and further reduce risks by conducting environmental audits and environmental risk assessments—two activities with differing perspectives—in parallel.

RY2018 Environmental Risk Assessment Implementation Status

- Number of subject sites and departments: 37 (25 production sites in Japan, 12 overseas production sites)
- Number of audit items: 252 items (146 water quality, 106 air quality)
- Assessment targets: Water quality-related equipment, air quality-related equipment

Environmental Patrols

At each site, environmental patrols are carried out to meticulously assess the entire site and confirm the absence or presence of conditions that may lead to environmental accidents or violations of environmental laws and regulations. The Kubota Group aims to reduce environmental risks by conducting environmental patrols and finding situations that may cause any abnormalities at an early stage.



Environmental patrol Kubota Construction Machinery (Wuxi) Co., Ltd. (China)

Drills for Responding to Abnormal and Emergency Situations

The Kubota Group is working to identify and minimize environmental risks associated with its business activities through risk-specific response procedures.

We are also conducting drills each year based on response procedures that assume the outbreak of environmental accidents or situations that could arise in environmental accidents, in order to mitigate the impact on the ambient environment.



Emergency response drill simulating the leakage of chemical substances Kubota Baumaschinen GmbH (Germany)



Emergency response drill simulating the leakage of chemical substances Kubota Manufacturing of America Corporation (U.S.)

On-site Investigations of Waste Treatment Contractors and Purchasers of Valuable Resources

In order to promote the proper treatment of waste and other materials including valuable resources at its operating sites in Japan, the Kubota Group is increasingly employing the services of top-rated certified operators. At the same time, the Group is conducting on-site investigations of industrial and other recyclable waste treatment contractors as well as purchasers of valuable resources.

As far as industrial waste where there are large numbers of treatment contractors, the Kubota Group has introduced its own on-site investigation appointing system that is run by its production sites, offices, sales companies, and other companies. In those cases where multiple sites including production sites use the same contractor for the treatment of waste, the officer responsible for the treatment of waste at the production site takes responsibility for the investigation. In this manner, successful steps are being taken to increase the effectiveness of investigations.

Green Procurement

Green Procurement Guidelines

For the purpose of providing products that are friendly to global and local environments, the Kubota Group is seeking to procure products with reduced environmental impact from ecofriendly suppliers.

In order to proactively promote these activities, the Kubota Group presents its policies on green procurement to suppliers through the Group's Green Procurement Guidelines, asking for their understanding and cooperation.

For details on the Kubota Group's Green Procurement Guidelines, click here www.kubota.com/company/environment/procure/

Award System for Green Procurement

The Green Supplier Award System was launched in 2015 to award suppliers recognized as having made notable contributions in the area of environmental conservation, such as the supplies (materials, components, equipment, etc.) procured by the Kubota Group. The awards are presented every year.

In accordance with the Kubota Group's Green Procurement Guidelines, this award system quantitatively evaluates goods supplied to Kubota and environmental conservation activities engaged in by suppliers from the perspective of resources and energy-saving and awards notably excellent examples.

In 2018, of the 123 environmental conservation activities, 11 activities with particularly high achievements were awarded, one of which received the Excellent Prize.

This system had been in place for suppliers in Japan, but in 2018 we started expanding it globally. We will continue to utilize the system and carry out activities in the name of green procurement and promote environmental conservation initiatives hand-in-hand with our suppliers.



The Kubota Group's Green Procurement Guidelines and Appendix [Substances of Concern List] (Published in Japanese, English and Chinese)



Awarding ceremony (January 2019)

Supplier Management

The Kubota Group promotes measures to protect the environment, working closely with suppliers who support our environmental management.



In China, a push for stronger environmental regulations has triggered increased fines due to regulatory violations. At Kubota Agricultural Machinery (Suzhou) Co., Ltd. (KAMS) (China), in addition to its own thorough compliance with environmental laws, KAMS conducts "environmental patrols" to verify supplier compliance with environmental laws, with the goal of minimizing supply stoppages for procured components. For suppliers involved in casting, coating, welding and those with heat treatment processes, all of which carry significant risk of environmental law violations, KAMS completed patrols of its suppliers in these areas by 2018.

For environmental patrols, KAMS' procurement and environmental divisions join forces to visit suppliers to conduct inspections based on their own unique checklist. Patrol results are then sent later to suppliers, along with a request to take recommended steps for addressing any points for improvement found. For new suppliers, patrols are carried out prior to their approval, with only those verified as legally compliant selected as new suppliers.

KAMS will continue its cooperation with suppliers to ensure thorough compliance with environmental laws, as it tightens its focus going forward on environmentally sound production activities.



Environmental patrol at a supplier



Kubota Agricultural Machinery (SUZHOU) Co., Ltd. Purchasing Department, Planning Section **Dai Shaohong** (left) Production Engineering Department, Environmental Management Section **Bi Ya** (right)

Environmental Education and Enlightenment

Results of Environmental Education in RY2018

The Kubota Group offers environmental education programs to raise awareness among its employees. The education program for employees consists of rank-based training, professional training, and general training. The Group also assists external group's environmental education programs.

Classification	Course title	Frequency	No. of participants	Course descriptions
	Training for new employees	2	146	Global and local environmental issues and Kubota's environmental conservation activities
	Kubota introductory course	1	9	Global and local environmental issues and Kubota's environmental conservation activities
Education by	Training for newly appointed supervisors	2	37	Kubota's environmental management and efforts as supervisors
employee-level	Training for newly appointed foremen	1	15	Kubota's environmental management and efforts as foremen
	The Safety, Environment and Quality Forum for executive management	1	380	A lecture on "safety, the environment and quality as the foundation of corporate activities and the very essence of management" by Noboru Furusawa, representative of the Supporting organization of safety and human resource development.
	Basics of environmental management	1	11	Basic knowledge of legal systems, environmental risk, and environmental conservation
Professional	Waste management	2	44	Waste Management and Public Cleansing Law, practical training in consignment contracts and manifests, etc.
education	Environment-related facility management	1	6	Pollution control technologies and pollution control laws
	Education to train ISO 14001 environmental auditors	1	encyparticipantsCourse descriptions2146Global and local environmental issues and Kubota's environmental conservation activities19Global and local environmental issues and Kubota's environmental conservation activities237Kubota's environmental management and efforts as supervisors115Kubota's environmental management and efforts as fore of corporate activities and the very essence of management" to Noboru Furusawa, representative of the Supporting organization safety and human resource development.111Basic knowledge of legal systems, environmental risk, and environmental conservation244Waste Management and Public Cleansing Law, practical training in consignment contracts and manifests, etc.16Pollution control technologies and pollution control laws132The ISO 14001 standard, environment-related laws, aud techniques280Kubota's environmental management initiatives155Environmental education and tour of the Utsunomiya Pla facilities	
General training	Environmental education for sites in Japan	2	80	Kubota's environmental management initiatives
Total		14	760	
Supporting education in outside organizations	"Environment-friendly Plant Tour (for elementary school and kindergarten children)" hosted by Utsunomiya City	1	55	Environmental education and tour of the Utsunomiya Plant facilities



Basics of environmental management training (Participants: personnel in charge of environmental management at business sites)

Environment Month Report

Raising the Environmental Awareness of Employees and Family Members through the Kubota Eco Challenge

The Kubota Group designates June of each year as "Environment Month" and promotes various programs to raise awareness among its employees. As part of this program, the Group hosts the "Kubota Eco Challenge," an environmental photo contest that encourages Group employees and their families worldwide to submit photos of their eco-friendly activities at work or at home.

The eco-friendly activities captured varied widely, with themes including energy and resource conservation, recycling, regreening, and environmental volunteerism. For the contest in 2018, a total of 547 photos were submitted from locations around the world and posted to the Kubota Group intranet. Sharing photos globally is a valuable opportunity for participants to learn about eco-friendly activities in countries and at business sites with which they normally have little contact. Exposure to activities at other sites can also inspire one's own actions, leading to more dynamic environmental efforts all around.

The Kubota Group will continue hosting this contest both to enhance environmental awareness at work and at home among Group employees, and to facilitate their efforts to implement eco-friendly activities.



Carrying a personal water bottle (Thailand)

Planting trees on production site grounds (India)



"Green curtain" installation (Japan)

Environmental Achievement Awards

During the Environment Month in June every year, the Kubota Group presents the Environmental Achievement Awards to commend individuals and groups that have made notable contributions to environmental conservation, as well as to boost the Group's employees' environmental conservation awareness and activate their environmental activities.

In 2018, environmental conservation activities were evaluated targeting the three segments of production sites, non-production sites, and product development. As a result, 22 cases were awarded for their achievements in energy saving, waste reduction, VOC reduction, reducing environmental risks, development of environment-friendly products, and so on. One case was awarded as the Excellent Prize.

We will continue to award excellent initiatives that contribute to regional or global environmental conservation, and encourage sharing of the details of such initiatives within the Group, with the aim of further activating environmental conservation activities.

Environmental Achievement Award Excellent Prize in 2018

Scope	Company, department	Theme
Production sites	SIAM KUBOTA Corporation Co., Ltd. Amata Nakorn Plant (Thailand)	Reduction in use of volatile organic compounds (VOCs) through improvement in the coating process

Environmental Achievement Awards in 2018

Scope	Classification, No. of winners	Scope	Classification, No. of winners
Production sites	Excellent Prize: 1, Encouragement Award: 10, Good Effort Award: 3	Product development	Encouragement Award: 5
Non-production sites	Encouragement Award: 3		

<SDGs related to this section>

Environmental Communication

D Since it published its first Environmental Report in RY1999, the Kubota Group has continued to disclose its environmental information.

C

Along with the globalization of its businesses, the Group has enhanced the contents of the environmental information it discloses, to allow the Group's global initiatives to be understood. To expand and improve disclosures further, the Group will continue disclosing information in line with international standards such as the environmental reporting guidelines by the Japanese Ministry of the Environment, the GRI standards and the recommendations of TCFD.

Each business site also works to enhance understanding of the environmental conservation activities by the local residents and family members of employees by participating in local environmental conservation activities and other environmental communication activities, such as environmental education and protection of the natural environment, for the purpose of achieving symbiosis with local communities.

Environmental Communication Activities

To practice environmental management globally, the Kubota Group is committed to deepening mutual understanding via dialogue with various stakeholders. The opinions and feedback gained from dialogue are used to improve Group environmental management practices with the aim of meeting social expectations and addressing societal issues.



Cooperation with Environment-related Industry Groups and Governments

The Kubota Group believes that in promoting environmental conservation, it is important to promote environmental conservation initiatives not only within its Group but also in cooperation with various sectors, such as the national or local government and relevant industry groups. Through participating in programs and campaigns hosted by government organs and establishing partnerships with various organizations, the Group aims to create synergy and conduct more effective environmental conservation activities.

Participating in Systems, Verification Programs, Campaigns by the National Government

In May 2010, the Kubota Group was certified by the Japanese Minister of the Environment as an "Eco-First Company," and has been a member of the Eco-First Promotion Council since then. Through the Council, the Group submits proposals to or exchanges opinions with the Ministry of the Environment, supports Eco-First companies promoting environmental conservation activities and enhancing cooperation between companies, and engages in activities to raise the environmental awareness of the public. The Group also participates in the "Fun to Share" campaign by the Ministry of the Environment to tackle climate change toward the realization of a low-carbon society, the "Cool Choice" national movement to encourage smart choices contributing to measures against global warming, and the Water Project to raise awareness concerning water circulation and conservation of the water environment. Moreover, the Group also participates in the Environmental Reporting Platform Development Pilot Project to promote ESG dialogues between investors and companies.

Participating in Industry Groups

The Kubota Group is a member of various environment-related committees in the Kansai Economic Federation and other industry groups it is participating in. The committee activities help deepen understanding of the roles that companies should play in addressing environmental issues such as climate change, while providing opportunities to share information and exchange opinions on energy and environmental policies. In addition, the Group actively participates in initiatives to promote global environmental conservation.

Major participating groups

Industry groups: Japan Business Federation, Kansai Economic Federation, Japan Society of Industrial Machinery Manufacturers, etc. Environmental initiatives: Japan Climate Initiative

Dialogue and Collaboration with Local Governments

The Kubota Group proactively participates in various committees of Osaka City and other local governments and their related groups, and works to establish partnerships with them. The Group promotes industry-government-academia collaboration through participating in discussions and opinion exchange on environmental issues, and various activities.

Major collaborating groups/partners

Gifu Prefecture "Consortium for Forest Technology Development and Promotion," Osaka City "Environmental Management Promotion Council," sponsored flowerbeds in front of the Kyuhoji Green Space in Osaka Prefecture, the "Carrying Water Project" by Ono City, Fukui Prefecture, and so on.

Environment-related External Evaluation

Kubota Given "A-" Grade in CDP Climate Change 2018 and CDP Water Security 2018 Surveys

Kubota was awarded an "A-" grade for leadership in the CDP Climate Change 2018 survey on corporate responses to climate change and in the CDP Water Security 2018 survey on water resource management. The UK-based non-profit organization CDP* evaluates what companies are doing to address environmental issues based on the four levels of Leadership, Management, Awareness, and Disclosure. "A-" is the second highest of eight possible grades.

The Kubota Group will further contribute to society through its global business activities, seeing the response to climate change and conservation of water resources as one of its materiality.

* Established in the UK in 2000, the CDP is a non-profit organization that works with institutional investors to encourage companies and cities to disclose their strategies and data related to climate change, water, and forests by providing institutional investors with research-based analytical results and environmental performance ratings.



Receiving Environmental Awards

Kubota Report 2018 (Full Version) Given Excellence Award in Environmental Reporting Category at 22nd Environmental Communication Awards

The Kubota Group's Business and CSR Report 2018 (Full Version) received the Excellence Award in the Environmental Reporting category at the 22nd Environmental Communication Awards co-sponsored by the Japanese Ministry of the Environment and the Global Environmental Forum.

By honoring excellence in environmental reporting, the Environmental Communication Awards aim to promote good environmental communications by people related to business operators and stimulate environment-related actions. Awards are given out in the two categories of Environmental Reporting and Environmental Management Reporting.

The receipt of the Excellence Award reflected various points such as the setting of long-term environmental conservation targets to 2030; the development of initiatives related to production and product development; the establishment of Kubota's internal Eco-Products rating system for eco-friendly products; and the promotion of environmental management on a global scale. The award motivates Kubota to maintain its commitment to active and proper disclosure.



Presentation at the awards ceremony



Logo for Excellence Award received at Environmental Communication Awards

Kubota Environmental Engineering Department Received the Environmental Technology and Project Award

In December 2018, the 55th Environmental Engineering Forum sponsored by the Environmental Engineering Committee, Japan Society of Civil Engineering was held. General Manager Nakagawa, Mr. Shinya Nagae and Ms. Yuko Tsuzuki from Kubota's Environmental Engineering Department received the Environmental Technology and Project Award for their presentation on the practical application of an energy-efficient aeration control method for use with membrane bioreactor (MBR) technology. The award recognizes the best environmental technology from the Environmental Engineering Forum project sessions. Kubota has now received this award two years in a row.

The issue with aeration in the MBR process is the large amount of electricity required. Using MBR process data and expertise acquired over many years, Kubota has developed improved aeration feedback control technology and tested it in a commercial treatment setting. The tests showed an electricity saving of roughly 20% using the aeration control technology. The award encourages efforts by Kubota to expand the MBR business through further development of the technology.



55th Environmental Engineering Forum award ceremony



Environmental Technology and Project Award certificate

Excellence Award Received by Kubota Sakai Plant at 6th CASBEE Sakai Environmental Building Awards

The Kubota Sakai Plant received an Excellence Award at the 6th CASBEE Sakai Environmental Building Awards held in February 2018 by the city of Sakai in Osaka Prefecture, Japan.

The CASBEE Sakai* Environmental Building Awards are aimed at promoting environmentally friendly buildings and raising awareness to help make Sakai a low-carbon city as part of the "Cool City Sakai" concept. The awards recognize the efforts of eco-friendly building owners.

The Sakai Plant received the Excellence Award for two buildings housing research and welfare facilities. The research building features heat-reflective outer cladding; a comfortable internal environment that is bathed in natural light; and greenery plus solar panels installed on the rooftop. The welfare building features insulating panels and low-E multilayer glass on the outside to reduce heat stress, along with solar panels, while internally the building is fitted with an energy management system that can display energy consumption via the intranet. The award recognizes the broad range of eco-friendly technologies used in these buildings.

Kubota aims to gain the trust of local communities for its factories through such eco-friendly development initiatives.

* Comprehensive Assessment System for Built Environment Efficiency program applied to buildings in Sakai City

P.T. Kubota Indonesia Received the BLUE PROPER Award for the Eighth Time

P.T. Kubota Indonesia received the BLUE PROPER award for the eighth time from the environment minister of the Indonesian government for its corporate activities over a year from 2017 to 2018. PROPER (the Environmental Performance Rating Program) is a rating program of the Indonesian ministry of the environment, which assesses the companies' status of compliance with the environmental regulations and the status of implementation of environmental measures, and discloses them to the public. The aim of this program is to raise companies' awareness of environmental management, and encourage the implementation of activities for energy saving, conservation of biodiversity, and community development.

The BLUE PROPER award is given to companies that comply with 100% of the environmental regulations and properly operate the environmental management system. P.T. Kubota Indonesia will make continuous efforts to enhance environmental management.



Certificate of Commendation for the BLUE PROPER Award

Kubota Environmental Engineering (Shanghai) Co., Ltd. Received the Green Award

Kubota Environmental Engineering (Shanghai) Co., Ltd. (KEES) (China) is helping to improve water environments in Chinese farming villages through the sale of septic tanks. KEES also markets submerged membranes for wastewater treatment plants.

At the 11th Chinese Environmental Industry Conference held in Beijing in April 2018, KEES received the Green Award for the third time in recognition of its achievements as a model manufacturer of membranes for use in wastewater treatment. KEES has previously been recognized as a leading firm in China in the wastewater treatment facility sector, as well as a model company for water treatment facilities and comprehensive services. Aiming to honor corporate innovation and excellence in the environment field, the award is judged by an evaluation committee composed of academic organizations, researchers, and specialized media.

KEES will help improve the water environment in China through business operations.





Excellence Award certificate

KBS Kubota Co., Ltd. Received Environmental Contribution Award

KBS Kubota Co., Ltd. was presented with the Environmental Contribution Award at the 2018 Logistics Awards that were held in October 2018 and sponsored by the Japan Institute of Logistics Systems.

Aimed at highlighting the social importance of logistics and boosting the motivation of people working in the sector, the Logistics Awards recognize corporate excellence in advanced logistics and related initiatives.

The award recognizes the work done by KBS Kubota in reducing the environmental loads of container logistics by developing ways to reliably reduce the CO₂ emissions associated with ICD^{*1}-linked Container Round Use and the related transport of containers by shuttle. Rather than transporting empty shipping containers by truck on the outbound or return trips, the Round Use^{*2} concept promotes use of containers by firms operating in different sectors, with shuttles transporting containers between cargo owners, ICDs and seaports. The approach reduces total trucking distances and helps to ease congestion at ports. Using this approach, KBS Kubota demonstrated a reduction of about 1,500 t-CO₂ in 2017. Encouraged by this award, KBS Kubota plans to continue developing more efficient logistics.

- *1 An Inland Container Depot (ICD) is a facility for handling and temporary storage of shipping containers
- *2 'Round Use' involves re-using shipping containers used for imports for export cargos without returning them to a shipping firm's container vard



2018 Logistics Awards ceremony



Environmental Contribution Award certificate

Environmental Communication Report



Participation in World Cleanup Day in Indonesia

Volunteers from P.T. Kubota Indonesia (PTKI) (Indonesia) took part in World Cleanup Day activities held in Tambak Lorok near Semarang, the capital of Central Java Province, on September 15, 2018.

Started in the Baltic state of Estonia in 2008, World Cleanup Day is held annually on the same day across the world. At present, a total of about 17 million people in over 150 countries volunteer to participate in related events. In Indonesia, the country with the largest number of participants, about 7.7 million volunteers took part in 2018, including about 3 million people from Semarang and 34 other cities across Central Java Province.



Clean-up activities

Part of the rationale for PTKI to participate in World

Cleanup Day activities in Tambak Lorok is to help educate employees about the importance of waste disposal. Tambak Lorok is an area where improper garbage disposal and illegal dumping of waste are key issues. The garbage collected on the day by cleaning up areas around schools and rivers was enough to fill six trucks.

PTKI plans to continue promoting activities to support environmental conservation as part of raising environmental awareness among its employees.

Environmental Data

Overview of the Environmental Load on the Value Chain 🔍

This is an overall summary of the Kubota Group's environmental loads associated with its diverse business activities in Japan and overseas in RY2018. The results of the measurement of the overall environmental loads on the entire value chain, from the procurement of raw materials, to manufacturing, distribution, sales, consumption, and the recycling of waste are used for the reduction of greenhouse gas emissions and the effective utilization of resources.

Overview of the Environmental Loads on the Value Chain (Results in RY2018)

INPUT		Value chain of business activities		OUTPUT
Major raw materials Cement 4.9 kilotons New pig iron 9.7 kilotons		Raw materials and material procurement	-	Greenhouse gases Scope 3 Category 1°3.6 2,391 kilotons CO2e
Band steel 121 kilotons Major recycled materials Old pig iron 71.8 kilotons				Atmosphere Greenhouse gases Scope 1, 2 647 kilotons CO ₂ e
Steel scrap 193 kilotons Containers and packaging Container and packaging materials*1.2.3	Development,		Energy sources (included in the above) 640 kilotons CO ₂ e Other than the above 7 kilotons CO ₂ e PRTR-designated substances ^{+2,3} 428 tons	
 922 tons Energy Fossil fuels 4,687 TJ Durbend shakicity 767 055 MM/h		production, sale, etc.		VOCs*2* (included in the above) 425 tons VOCs (overseas)*4 172 tons SOx*7 9.4 tons NOx 54.2 tons Soot and dust 9.8 tons
Purchased electricity 767,255 MWh Solar power generation 2,486 MWh TJ: 10 ¹² J, MWh: 10 ³ kWh	-			Water discharge to public water areas Amount of discharge 3.62 million m ³ COD*2 8.6 tons Nitrogen*2 6.9 tons
Amount of PRTR-designated5,309 tonssubstances handled*2.3327 tonsAmount of chemical substances327 tons		Internal recycling & reuse	_	Nitrogen * 0.9 tons Phosphorous*2 0.38 tons PRTR-designated substances*2.3 0.9 kg Sewage lines
(VOCs) handled (overseas)*4 Water resources City water 3.89 million m ³		Amount of recycled resources*23 25 kilotons Amount of recycled water (Rate of recycled water: 2.0%)		Amount of discharge 150 million m ³ PRTR-designated substances* ^{2,3} 0 kg Waste
Groundwater 0.99 million m ³		Distribution and transportation		Amount of waste discharge113 kilotonsResource recycled by outside contractor(included in the above)92 kilotonsLandfill waste (outside) (included in the above)10 kilotons
Energy Energy use during transportation*3.5 2,741 TJ	-		-	Greenhouse gases Scope 3 Category 9*3.5.6 180 kilotons CO2e
		Product operation		
Energy Energy use during product operation ^{*3} 307,122 TJ	-		-	Greenhouse gases Scope 3 Category 11* ^{3,6} 21,060 kilotons CO ₂ e
		Recovery of used and sold products Cast iron pipes 8,678 tons Vinyl pipes 204 tons		Other Amount of construction waste, etc. discharged*2.3 41 kilotons
		Crawlers 426 tons		

*1 Packaging materials subject to the Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging

*2 Data for Japan

*3 Not subject to the third-party assurance

*4 VOCs (volatile organic compounds) comprise the six substances that are most prevalent in emissions from the Kubota Group: xylene, toluene, ethylbenzene, styrene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene.

*5 Data for Japan and data associated with the overseas shipping of certain products from Japan

*6 For Greenhouse gases Scope 3, only part of the categories are presented. For more details, see the CO₂ Emissions throughout the Value Chain (p.42). *7 If sulfur contained in the slag managed onsite at end of year (December 31, 2018) by some sites in Japan is included, SOx emissions for RY2018 amounted to 7.3 tons.

For the calculation method of each item of environmental data, see the Calculation Standards of Environmental Performance Indicators (p.93).

Trends in Major Environmental Indicators 🍳

Energy

Environmental indicators			Unit	RY2014	RY2015	RY2016	RY2017	RY2018		
Σ		Energy consumption*1		ТJ	12,006	11,450	11,295	11,602	12,234	
	sites		Fossil fuels		TJ	4,996	4,575	4,434	4,399	4,687
	siness			Natural gas included in the above*2	TJ	2,104	1,980	2,056	2,267	2,501
Enerc	snd r		Purchas	ed electricity	MWh	713,837	700,015	698,370	732,508	767,255
	Vithin	Power generation	Cogene	ration*2	MWh	2,524	1,715	1,977	416	1,805
	_		Solar po	ower generation	MWh	210	1,285	1,801	1,928	2,486
	Energy use during transportation*2,3		TJ	591	634	606	643	2,741		

CO₂ Emissions

	Environmental indicators		Unit	RY2014	RY2015	RY2016	RY2017	RY2018	
S	Scope 1, 2			kilotons CO2e	714	674	647	645	647
e gase			Overseas included in the above	kilotons CO2e	180	168	173	198	204
ouse	Energy sources		sources	kilotons CO2e	706	666	639	638	640
eenhc		Other th	an the above	kilotons CO2e	8	8	7	7	7
ģ	Scope 3 Category 9 (Transportation of sold products)* ^{2,4,5}		kilotons CO2e	41	44	42	44	180	

Resources and Materials

E	Unit	RY2014	RY2015	RY2016	RY2017	RY2018	
	Cement	kilotons	8.3	8.7	6.8	4.4	4.9
Major raw materials	New pig iron	kilotons	7.8	7.5	6.7	7.2	9.7
	Band steel	kilotons	108	99.6	106	132	121
Major recycled	Old pig iron	kilotons	62.5	62.9	58.6	64.0	71.8
materials	Steel scrap	kilotons	304	271	224	182	193
Containers and packaging	Container and packaging materials (Japan)* ^{2,6}	tons	_	_	_	988	922

Waste

Environmental indicators		Unit	RY2014	RY2015	RY2016	RY2017	RY2018		
Waste, others	Amou	nt of waste discharg	ge	kilotons	113	116	106	108	113
	Overseas in the abo		Overseas included in the above	kilotons	39	40	39	43	52
		Hazardous/non- hazardous waste	Hazardous waste*7	kilotons	_	_	_	6.0	5.3
			Non-hazardous waste*8	kilotons	_	_	_	102	108
		By treatment category	Resource recycled by outside contractor	kilotons	91	93	85	88	92
			External landfill waste	kilotons	10	12	11	9	10
	Amount of construction waste, etc. discharged (Japan)* ²		kilotons	36	44	54	46	41	

*1 Conventionally, energy use during transportation (Japan) was included in total energy consumption. But starting from RY2017, it is not retrospectively included.

*2 Not subject to the third-party assurance

*3 In addition to the data for Japan, energy use associated with the overseas shipping of certain products from Japan has been included from RY2018.

*4 For Greenhouse gases Scope 3, only part of the categories are presented. For more details, see the CO2 Emissions throughout the Value Chain (p.42).

*5 In addition to the data for Japan, CO₂ emissions associated with the overseas shipping of certain products from Japan has been included from RY2018.

*6 Packaging materials subject to the Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging.
*7 Industrial waste subject to special control as defined in the Waste Disposal and Cleaning Act in Japan, and industrial waste as defined in each country overseas

*8 Non-hazardous waste = Amount of waste discharge - Amount of hazardous waste

For the calculation method of each item of environmental data, see the Calculation Standards of Environmental Performance Indicators (p.93).

Water resources

Environmental indicators			Unit	RY2014	RY2015	RY2016	RY2017	RY2018	
ses	Water consumption			million m ³	4.87	5.05	4.86	4.51	4.88
esourc			Overseas included in the above	million m ³	1.05	1.23	1.20	1.07	1.10
Water re		City water	r*1	million m ³	3.87	4.08	3.99	3.60	3.89
		Groundwa	ater	million m ³	1.00	0.97	0.87	0.91	0.99

Water system discharge

	Environmental indicators	Unit	RY2014	RY2015	RY2016	RY2017	RY2018
0.0	Wastewater discharge	million m ³	3.74	3.82	3.71	3.26	3.62
arge 1 area	COD (Japan)*2	tons	9.8	9.9	10.1	7.7	8.6
ischa vater	Nitrogen discharge (Japan)*2	tons	9.0	9.6	9.2	9.1	6.9
Water di public w	Phosphorous discharge (Japan)*2	tons	0.37	0.35	0.36	0.27	0.38
	Amount of PRTR-designated substances released (Japan)*3	kg	0	0	0	0.8	0.9
Sewage lines	Wastewater discharge	million m ³	1.52	1.58	1.54	1.42	1.50
	Amount of PRTR-designated substances transferred (Japan)*3	kg	34	23	22	17	0

Chemical Substances

	Environmental indicators	Unit	RY2014	RY2015	RY2016	RY2017	RY2018
mA Substances Wan Wan Chemical Man Man	Amount of PRTR-designated substances handled (Japan)*3	tons	6,433	5,143	4,875	4,457	5,309
	Amount of chemical substances (VOCs) handled (overseas)*4	tons	386	359	350	324	327

Atmospheric Discharge

	Enviro	onmental indicators	Unit	RY2014	RY2015	RY2016	RY2017	RY2018
	Amount of PRTF (Japan)*3	R-designated substances released	tons	537	543	463	423	428
e	VOC emissions*	4	tons	786	798	703	641	597
sphei		Overseas included in the above*4	tons	253	260	243	221	172
Atmos	SOx emissions ^{∗5}		tons	55.1	24.7	31.5	17.5	9.4
	NOx emissions		tons	82.1	76.2	94.2	68.8	54.2
	Soot and dust e	missions	tons	11.1	15.1	26.5	21.9	9.8

*1 City water includes service water and water for industrial use.

*2 Data for total discharge from business sites subject to total emission control.

*3 Not subject to the third-party assurance

*4 VOCs (volatile organic compounds) comprise the six substances that are most prevalent in emissions from the Kubota Group: xylene, toluene, ethylbenzene, styrene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene. *5 If sulfur contained in the slag managed onsite at end of year (December 31, 2018) by some sites in Japan is included, SOx emissions for RY2018 amounted to 7.3 tons.

Eco-efficiency

Eco-efficiency was improved in CO2, waste and VOC. These improvements in figures mean that the sales per unit of environmental loads have increased, which indicates higher eco-efficiency.

CO₂ Eco-efficiency*1





Waste Eco-efficiency*2

VOC Eco-efficiency*4



Water Eco-efficiency*3



3.88

*1 CO₂ Eco-efficiency = Consolidated net sales (million yen) / CO₂ emissions (tons CO₂e)

*2 Waste Eco-efficiency = Consolidated net sales (million yen) / Waste discharge (tons) /10 *3 Water Eco-efficiency = Consolidated net sales (million yen) / Water consumption (m^3) × 10 *4 VOC Eco-efficiency = Consolidated net sales (million yen) / VOC emissions (kg)

* The Kubota Group adopted International Financial Reporting Standards (IFRS) instead of accounting principles generally accepted in the United States of America from RY2018.

Calculation Results of PRTR-designated Substances

RY2018 Results of PRTR Reporting (Japan)

Number		Releases				Transfers	
specified in PRTR	Chemical substance	Atmosphere	Public water areas	Soil	On-site Iandfills	Sewerage	Transfers to off-site
1	Zinc compounds (water-soluble)	0.0	0.0	0.0	0.0	0.0	849
53	Ethylbenzene	104,660	0.0	0.0	0.0	0.0	25,628
71	Ferric chloride	0.0	0.0	0.0	0.0	0.0	0.0
80	Xylene	177,386	0.0	0.0	0.0	0.0	36,293
87	Chromium and chromium (III) compounds	0.0	0.0	0.0	0.0	0.0	3,988
132	Cobalt and its compounds	0.0	0.0	0.0	0.0	0.0	2.2
239	Organic tin compounds	0.0	0.0	0.0	0.0	0.0	10
240	Styrene	29,071	0.0	0.0	0.0	0.0	0.0
277	Triethylamine	0.0	0.0	0.0	0.0	0.0	0.0
296	1,2,4-trimethylbenzene	14,463	0.0	0.0	0.0	0.0	4,340
297	1,3,5-trimethylbenzene	2,786	0.0	0.0	0.0	0.0	478
300	Toluene	96,447	0.0	0.0	0.0	0.0	15,911
302	Naphthalene	2,536	0.0	0.0	0.0	0.0	0.0
305	Lead compounds	8.6	0.90	0.0	0.0	0.06	6,668
308	Nickel	0.8	0.0	0.0	0.0	0.0	315
349	Phenol	0.0	0.0	0.0	0.0	0.0	0.0
352	Diallyl phthalate	102	0.0	0.0	0.0	0.0	0.0
354	Di-n-butyl phthalate	1.6	0.0	0.0	0.0	0.0	139
392	N-hexane	32	0.0	0.0	0.0	0.0	0.0
400	Benzene	2.2	0.0	0.0	0.0	0.0	0.0
405	Boron compounds	0.0	0.0	0.0	0.0	0.0	1,595
412	Manganese and its compounds	0.0	0.0	0.0	0.0	0.0	73,751
419	N-butyl methacrylate	55	0.0	0.0	0.0	0.0	24
448	Methylenebis (4,1-phenylene) diisocyanate	0.0	0.0	0.0	0.0	0.0	0.0
453	Molybdenum and its compounds	0.0	0.0	0.0	0.0	0.0	0.0
	Total	427,552	0.90	0.0	0.0	0.06	169,993

Scope: Total of substances with annual handling volume of one ton or more (0.5 ton or more for Specific Class 1 Designations) at each business site Unit: kg/year

Unit: kg/year

Six VOCs substances targeted for reduction in Medium-Term Environmental Conservation Targets 2020

For the calculation method of each item of environmental data, see the Calculation Standards of Environmental Performance Indicators (p.93).

Environmental Accounting

The Kubota Group performs environmental accounting and publicizes data about the cost of investments in environmental conservation and the economic and environmental benefits of these investments.

(Yen in millions)

(Yen in millions)

Environmental Conservation Costs

Classifientions	Majar activities	RY2017		RY2018	
Classifications	Major activities	Investment	Expenses	Investment	Expenses
Within the business area cost		1,444	2,395	1,319	2,508
Local environmental conservation cost	Prevention of air and water pollution, soil contamination, noise, vibration, etc.	130	373	200	425
Global environmental conservation cost	Prevention of climate change, etc.	1,276	798	1,107	938
Resource recycling cost	Minimizing waste production, reducing quantity of waste, and recycling	38	1,224	12	1,145
Upstream and downstream costs	Collection of used products and commercialization of recycled products	0	24	0	31
Management activities cost	Environmental management personnel, ISO maintenance and implementation, environmental information dissemination	6.6	1,455	2	1,599
R&D cost	R&D for reducing of product environmental load and developing environment conservation equipment	509	6,993	1,254	7,810
Social activities cost	Local cleanup activities, and membership fees and contributions to environmental groups, etc.	0	0.7	0	1.0
Environmental remediation cost	Contributions and impositions, etc.	0	87	0	212
Total		1,960	10,955	2,575	12,161

Total capital investment (including land) for the corresponding period (consolidated data)	64,100
Total R&D costs for the corresponding period	53,800

Environmental Conservation Effects

Effects	Items	RY2017	RY2018
Environmental effects	Energy consumption (TJ)	7,452	7,670
into business activities	Water consumption (million m ³)	3.44	3.78
	CO_2 emissions (energy related CO_2) (kilotons CO_2e)	441	437
	SOx emissions (tons)	17.2	9.3
Environmental effect	NOx emissions (tons)	50.4	49.9
environmental impact	Soot and dust emissions (tons)	2.9	2.8
originating from business activities	Releases and transfers of PRTR-designated substances (tons)	632	598
	Waste discharge (kilotons)	65.3	61.8
	Waste to landfills (kilotons)	1.5	1.6

Economic effects

Classifications	Details	Annual effects of the year ended December 31, 2018
Energy conservation measures	Improve the operations of production facilities and switch to more efficient lighting and air-conditioning systems	724
Zara amiasiana massuras	Reduce the amount of industrial waste; promote resource recycling	629
Zero-emissions measures	Sales of valuable resources	1,264
Total		2,617

<Environmental accounting principles>

1) The period is from January 1, 2018 to December 31, 2018.

2) The data of business sites in Japan is considered in the calculation.3) Data was calculated referring to the Environmental Accounting Guidelines 2005, published by Japan's Ministry of the Environment.

4) "Expenses" includes depreciation costs.

Depreciation cost was calculated based on the standards applied to Kubota's financial accounting, and assets acquired in and after 1998 were considered in the calculation. "Management activities" and "R&D costs" include personnel expenses.

"Resource recycling costs" does not include costs incurred during disposal of construction waste at construction sites.

"R&D costs" represents that which was spent on environmental purposes, calculated on a pro-rata basis.

5) "Economic effects" is obtained only by adding up tangible results and does not include estimated effects.

Status of Environmental Management System Certification Acquisition

The Kubota Group requires all of its production sites to acquire ISO 14001 certification or other equivalent environmental certification (EMAS, etc.). As of the end of RY2018, 41 of the Group's 55 production sites worldwide (acquisition rate of 75%) have acquired environmental management system certification. In Japan, 22 of its 23 production sites (acquisition rate of 96%) have acquired ISO 14001 certification. Of its 32 overseas production sites, 19 sites (acquisition rate of 59%) have acquired ISO 14001 certification for environmental management systems. The Kubota Group will make continuous efforts to raise the acquisition rate of the certification.

ISO 14001 Certification

Kubota Corporation in Japan

No.	Name	Other organizations and subsidiaries included	Main business	Inspecting/ Certifying organization	Date of certification
1	Tsukuba Plant	 Eastern Main Parts Center Tractor and Agricultural Implement Service Dept. Tsukuba Training Center Kanto Kubota Precision Machinery Co., Ltd. 	Engines, agricultural machinery, etc.	LRQA	November 28, 1997
2	Keiyo Plant	Ichikawa PlantDistribution Center	Ductile iron pipes, fittings, spiral welded steel pipe	LRQA	July 16, 1998
3	Hanshin Plant	Marushima Factory	Ductile iron pipes, fittings, rolling-mill rolls, TXAX	LRQA	March 5, 1999
4	Kyuhoji Business Center	 Kubota Environmental Service Co., Ltd. KUBOTA Membrane Corp. KUBOTA Keiso Corp. 	Measuring instruments, measuring systems, rice-milling products, waste shredder systems, submerged membranes, and mold temperature controllers, etc.	DNV	March 19, 1999
5	Hirakata Plant		Cast steel, new ceramic materials, and construction machinery	LRQA	September 17, 1999
6	Okajima Business Center		Industrial cast iron products	JICQA	December 22, 1999
7	Sakai Plant, Sakai Rinkai Plant		Engines, agricultural machinery, small-size construction machinery, etc.	LRQA	March 10, 2000
8	Shiga Plant		FRP products	JUSE	May 18, 2000
9	Environmental Plant Business Unit	Shin-yodogawa Environmental Plant Center	Sewage and sludge treatment, water purification, wastewater treatment facilities, submerged membrane	ICJ	July 14, 2000
10	Pumps and Valves Business Unit	• KUBOTA Kiko Ltd.	Sewage and water purification plants, valves, pumps and pump stations	LRQA	July 14, 2000
11	Utsunomiya Plant	Tractor and Agricultural Implement Service Dept. Utsunomiya Training Center	Rice transplanters and combine harvesters	LRQA	December 8, 2000

Kubota Group: Companies in Japan

No.	Name	Other organizations and subsidiaries included	Main business	Inspecting/ Certifying organization	Date of certification
1	Nippon Plastic Industry Co., Ltd.	Head office and plant, Mino Plant	Plastic pipes, plastic sheets, etc.	JSA	October 27, 2000
2	Kubota Construction Co., Ltd.		Design and construction of civil engineering structures and buildings	JQA	December 22, 2000
3	Kubota Environmental Service Co., Ltd.		Installation, maintenance and management of environmental systems for service water, sewage, landfill disposal, raw waste and waste plants, etc.	MSA	November 20, 2002
4	Kubota ChemiX Co., Ltd.	 Tochigi Plant Sakai Plant Odawara Plant Kyushu KUBOTA Chemical Co., Ltd. 	Plastic pipes and couplings	JUSE	March 27, 2003 (integrated authentication in 2011)
5	Kubota Air Conditioner Co., Ltd.	• Tochigi Plant	Central air-conditioning systems, heat-pump air-conditioning systems	JQA	August 27, 2004
6	KUBOTA Precision Machinery Co., Ltd.		Hydraulic valves, hydraulic cylinders, transmissions, hydraulic pumps, hydraulic motors, etc.	LRQA	March 17, 2007
7	KUBOTA KASUI Corporation		Design, construction and maintenance management of environmental conservation facilities	BCJ	February 1, 2010
8	Kansouken Inc.		Package software supporting water business	JCQA	April 14, 2014

Kubota Group: Overseas Companies

No.	Name	Main business	Inspecting/ Certifying organization	Date of certification
1	SIAM KUBOTA Corporation Co., Ltd. [Headquarters] (Thailand)	Small diesel engines and agricultural machinery	MASCI	February 28, 2003
2	P.T. Kubota Indonesia (Indonesia)	Diesel engines and agricultural machinery	LRQA	February 10, 2006
3	Kubota Materials Canada Corporation (Canada)	Cast steel products, TXAX	SGS (U.S.)	June 15, 2006
4	KUBOTA Precision Machinery (Thailand) Co., Ltd. (Thailand)	Equipment for tractors	LRQA	August 5, 2015
5	Kubota Manufacturing of America Corporation (U.S.) (including Kubota Industrial Equipment Corporation (U.S.))	Small-sized tractors, utility vehicles and tractor accessories	BSI	September 20, 2012 (integrated in 2015)
6	SIAM KUBOTA Corporation Co., Ltd. [Amata Nakorn] (Thailand)	Tractors and combine harvesters	BV	September 27, 2012
7	KUBOTA KASUI VIETNAM CO., LTD. [Bac Ninh] (Vietnam)	Chemical agents for water treatment	BSI	January 18, 2013
8	KUBOTA SANLIAN PUMP (ANHUI) Co., Ltd. (China)	Pumps	CCSCC	May 29, 2013
9	Kubota Agricultural Machinery (SUZHOU) Co., Ltd. (China)	Combine harvesters, rice transplanters and tractors	SGS	November 13, 2013
10	Kubota Construction Machinery (WUXI) Co., Ltd. (China)	Construction machinery	CQC	December 11, 2014
11	SIAM KUBOTA Metal Technology Co., Ltd. (Thailand)	Cast iron products for engines and tractors	BV	December 19, 2014
12	Kubota Engine (WUXI) Co., Ltd. (China)	Diesel engines	SGS	March 22, 2015
13	KUBOTA Engine (Thailand) Co., Ltd. (Thailand)	Diesel engines	LRQA	July 3, 2015
14	Kubota Saudi Arabia Company, LLC (Saudi Arabia)	Cast steel products	ΤÜV	September 30, 2016
15	Kubota Farm Machinery Europe S.A.S (France)	Tractors	BV (France)	February 20, 2017
16	KUBOTA KASUI VIETNAM CO., LTD. [Binh Duong] (Vietnam)	Chemical agents for water treatment	BSI	May 22, 2018
17	Kverneland Group Manufacturing Lipetsk (Russia)	Tractor accessories	Russian Register	June 6, 2018

LRQA: Lloyd's Register Quality Assurance Limited (U.K.) DNV Certification B.V. (Netherlands) DNV: JUSE: Union of Japanese Scientists and Engineers ISO Center ICJ: Intertek Certification Japan Limited JICQA: JIC Quality Assurance Ltd. (Japan) JSA: Japanese Standards Association JQA: Japan Quality Assurance Organization MSA: Management System Assessment Center (Japan) BCJ: The Building Center of Japan JCQA: Japan Chemical Quality Assurance Ltd MASCI: Management System Certification Institute (Thailand) SGS (U.S.): Systems & Services Certification, a Division of SGS North America Inc. (U.S.) TÜV: TÜV Rheinland Cert GmbH (Germany) SGS: SGS United Kingdom Limited (U.K.) BSI: BSI Assurance UK Limited (U.K.) BV: Bureau Veritas Certification Holding SAS - UK Branch (U.K.) China Classification Society Certification Company (China) CCSCC: China Quality Certification Centre (China) CQC:

BV (France): Bureau Veritas Certification France (France)

EMAS Certification

Kubota Group: Overseas Companies

No.	Name	Main business	Inspecting/ Certifying organization	Date of certification
1	Kubota Baumaschinen GmbH (Germany)	Construction machinery	ІНК	January 3, 2013

IHK: Industrie- und Handelskammer fur die Pfalz (Germany)

Calculation Standards of Environmental Performance Indicators

Period and Organizations Covered by Environmental Data

	Pe	riod	Organizations covered (No. of companies)		mpanies)	
RY			Consc	lidated subsid	iaries* ³	Affiliated
	Data in Japan	Overseas data	Japan	Overseas	Total	companies accounted for under the equity method*4
2014	April 2014 to March 2015	January 2014 to December 2014	53	103	156	12
2015	April 2015 to March 2016*1	January 2015 to December 2015*1	51	102	153	13
2016	January 2016 to December 2016	January 2016 to December 2016*2	47	125	172	12
2017	January 2017 to December 2017	January 2017 to December 2017*2	48	125	173	9
2018	January 2018 to December 2018	January 2018 to December 2018*2	48	124	172	8

*1 Although the accounting period of RY2015 is nine months (April 2015 to December 2015) due to the change of the account closing time, the period for the environmental data is set to be a year. Consolidated net sales used to calculate the environmental load per unit of consolidated net sales (CO₂ emissions, energy use, CO₂ emissions during distribution, amount of waste discharged, water consumption, VOC emissions, amount of PRTR-designated substances released and transferred) for RY2015 are the total consolidated sales from April 2015 to March 2016.

*2 For RY2016, of the overseas consolidated subsidiaries, for Great Plains Manufacturing, Inc. (GP), which became a consolidated subsidiary in July 2016, the period of its environmental data is six months (July 2016 to December 2016), and the data except for its four major production sites (accounting for over 80% of sales of the GP Group in RY2016) and four major non-production sites (accounting for over 90% of the employees of non-production sites of the GP Group in RY2015) is estimated. Data of the amount of chemical substances (VOC) handled and VOC emissions is excluded from the calculation.

From RY2017, the data for all of the GP Group sites is calculated based on results.

*3 The coverage of consolidated subsidiaries is 100% for each year.

*4 Part of the affiliated companies accounted for under the equity method are covered by the data.

Energy and CO₂-related

Indicator (unit)	Calculation method
Energy use (J)	 Energy use = Amount of purchased electricity consumed at business sites × per-unit heat value + Σ [amount of each fuel consumed × per-unit heat value of each fuel] Per-unit heat value is determined in accordance with the Enforcement Regulation for the Act on Rationalizing Energy Use, Japan.
	 CO₂ emissions = CO₂ emissions from energy sources + non-energy source greenhouse gas emissions CO₂ emissions from energy sources = Amount of purchased electricity consumed at business sites × CO₂ emission coefficient + Σ [amount of each fuel consumed at business sites × per-unit heat value of each fuel × CO₂ emission coefficient of each fuel] Non-energy source greenhouse gas emissions = CO₂ emissions from non-energy sources + non-CO₂ greenhouse gas emissions Per-unit heat value is determined in accordance with the Enforcement Regulation for the Act on Rationalizing Energy Use, Japan. CO₂ emission coefficients
	Based on the Report on Survey of Carbon Dioxide Emissions (Japan's Environment Agency 1992) and the Guideline for Measures to Prevent Global Warming (Japan's Environment Agency 1993)
	[RY2014 to RY2015] <fuel> Based on the Manual for Calculation and Report of Greenhouse Gas Emissions (Japan's Ministry of the Environment and Ministry of Economy, Trade and Industry)</fuel>
CO ₂ emissions (tons CO ₂ e)	<electricity> Data for Japan is effective emission coefficients for each electricity utility, and overseas data is according to the GHG emissions from purchased electricity (GHG Protocol).</electricity>
	[RY2016 to RY2018] <fuel> Based on the Manual for Calculation and Report of Greenhouse Gas Emissions (Japan's Ministry of the Environment and Ministry of Economy, Trade and Industry)</fuel>
	<electricity> Data for Japan is effective emission coefficients for each electricity utility Overseas data is according to effective emission coefficients for each electricity utility, CO₂ Emissions from Fuel Combustion (IEA) and The Emissions & Generation Resource Integrated Database (eGRID) (EPA). </electricity>
	 The method for calculating non-energy source greenhouse gas emissions is based on the Manual for Calculation and Report of Greenhouse Gas Emissions (by Japan's Ministry of the Environment and Ministry of Economy, Trade and Industry) The amount of CO₂ emissions in RY1990 is solely the amount of CO₂ emissions from energy sources at Kubota production sites.

Energy and CO₂-related

	Indicator (unit)	(unit) Calculation method	
Frei	ght traffic (ton-km)	 Freight traffic = Σ [Freight transportation amount (tons) × distance traveled (km)] Freight traffic refers to the volume of products and Kubota's industrial waste transported during domestic distribution 	
Energy use during transportation (J)		 Energy use during transportation = Σ [Freight traffic by truck × Fuel consumption per ton-kilometer × per-unit heat value] + Σ [Freight traffic by rail and water × energy use (heat value) per unit ton-kilometer] Calculation method is from the Manual to Support Merchants regarding Revisions to Energy Conservation Laws, 3rd Edition (April 2006, Japan's Energy Conservation Center of the Agency of Natural Resources and Energy, Japanese Ministry of Economy, Trade and Industry) In addition to the data for Japan, energy use associated with the overseas shipping of certain products from Japan has been included from RY2018. 	
CO: dist	e emissions during ribution (tons CO2e)	 CO₂ emissions during distribution = Σ [Fuel consumption for freight shipment by truck × CO₂ emission per ton-kilometer by fuel of transportation] + Σ [Fuel consumption for freight shipment by rail and water × CO₂ emission per ton-kilometer by means of transportation] Calculation method is based on the ton-kilometer method stipulated in the Manual for Calculation and Report of Greenhouse Gas Emission (Japan's Ministry of the Environment and Ministry of Economy, Trade and Industry) 	
Energy use during product operation (J)		 Energy use during product operation = Σ [Number of product units shipped × Fuel consumption per hour × Annual hours of use × Years of lifespan × Per-unit heat value of each fuel] Products: agricultural machinery (tractors, rice transplanters, combine harvesters), riding mowers, utility vehicles, construction machinery (compact excavators, etc.) Calculated by assuming the fuel consumption per hour, annual hours of use, and years of service life for each product. Per-unit heat value is according to the Manual for Calculation and Report of Greenhouse Gas Emissions (Japan's Ministry of the Environment and Ministry of Economy, Trade and Industry) 	
Scc (ton	pe 3 emissions s CO2e)	• The calculation method is based on the Basic Guidelines regarding the Calculation of Greenhouse Gas Emissions throughout the Supply Chain (Japan's Ministry of the Environment and Ministry of Economy, Trade and Industry) and the Emissions per Unit Database for the Purpose of Calculating the Greenhouse Gas and Other Emissions of Organizations throughout the Supply Chain	
	Resource extraction, manufacture and transportation related to purchased goods/ services	 Σ [Production volume × CO₂ emissions per unit] Products: Agricultural machinery (tractors, rice transplanters, combine harvesters), construction machinery (compact excavators, etc.), and ductile iron pipe Production volume: Number of units shipped for agricultural and construction machinery, and production weight for ductile iron pipes CO₂ emissions per unit: Estimated from the CO₂ emissions per unit of production of the product 	
	Manufacture and transportation of capital goods such as purchased equipment	Equipment investment amount × CO ₂ emissions per unit	
	Resource extraction, manufacture and transportation related to purchased fuels/ energy	• Purchased electricity consumed at business sites × CO ₂ emissions per unit	
	Disposal of wastes discharged from business sites	• Σ [Amount of waste discharge by type × CO ₂ emissions per unit]	
	Employee business travels	 Σ [Transportation expenses paid by method of transport × CO₂ emissions per unit] Transportation expenses paid by method of transport are for airline tickets and railway tickets. For a part of the overseas subsidiaries (67 sites), estimate by multiplying the net sales of the subsidiaries in each of the regions and countries mentioned by the ratio of transportation expenses for each method of travel included in the net sales of major subsidiaries in Europe, America, Asia and China. 	
	Employee commuting	 Σ [Transportation expenses paid by method of transport × CO₂ emissions per unit] The amount of transportation expenses is for the amount paid for Kubota employees' railway tickets and car travel. 	
	Transportation of sold products	 The calculation method is the same as that for CO₂ emissions during distribution. In addition to the data for Japan, CO₂ emissions associated with the overseas shipping of certain products from Japan has been included from RY2018. Target products: Agricultural machinery (tractors, rice transplanters, combine harvesters), riding mowers, utility vehicles, construction machinery (compact excavators, etc.), engines The scope of calculation includes CO₂ emissions associated with Kubota's transportation of waste. 	
	Processing of intermediate products	 Σ [Sales volume of intermediate products × CO₂ emissions per unit] Intermediate products: engines (external sales only) CO₂ emissions per unit: CO₂ emissions per unit at Kubota Group's processing plants 	
	Use of products sold	 Σ [Number of products sold × CO₂ emissions per unit] Products: agricultural machinery (tractors, rice transplanters, combine harvesters), riding mowers, utility vehicles, construction machinery (compact excavators, etc.) CO₂ emissions per unit: Fuel consumption per hour × Annual hours of use × Years of lifespan × per unit heat value of each fuel × CO₂ emission coefficient of each fuel (calculated by assuming the fuel consumption per hour, annual hours of use, and years of service life for each product) Per-unit heat value is according to the Manual for Calculation and Report of Greenhouse Gas Emissions (Japan's Ministry of the Environment and Ministry of Economy, Trade and Industry) 	
	End-of-life treatment of sold products	 Σ [Number of products shipped × CO₂ emissions per unit] Products: Agricultural machinery (tractors, rice transplanters, combine harvesters) and construction machinery (compact excavators, etc.) CO₂ emissions per unit: estimated CO₂ emissions per unit of product 	

Waste-related

Indicator (unit)	Calculation method	
Amount of waste, etc. discharge (tons)	• Amount of waste, etc. discharge = sales amount of valuable resources + amount of waste discharge	
Amount of waste discharge (tons)	• Amount of waste discharge = Amount of industrial waste discharge + Amount of general waste discharge from business activities	
Amount of resource recycling (tons) Amount of volume reduction (tons) Amount of landfill disposal (tons)	 Amount of resource recycling = Amount of waste directly recycled + Amount of resource recycling after external intermediate treatment Amount of volume reduction = Volume of external intermediate treatment - Amount of resource recycling after external intermediate treatment - Final landfill following external intermediate treatment Amount of landfill disposal = Direct landfill disposal + Final landfill disposal following external intermediate treatment Amount of resource recycling after external intermediate treatment includes heat recovery Amount of resource recycling after external intermediate treatment, amount of final landfill disposal, amount of volume reduction are calculated based on the results of surveys at the contractor. 	
Recycling ratio (%)	 Recycling ratio = (Sales amount of valuable resources + external recycling amount) / (Sales amount of valuable resources + external recycling amount + amount of landfill disposal) × 100 External recycling amount includes heat recovery 	
Amount of construction waste, etc. discharged (tons)	 Amount of construction waste, etc. discharged = Amount of construction waste discharged + sales amount of valuable resources generated from construction Targeting construction work in Japan Amount of construction waste discharged includes construction waste other than specific construction materials Sales amount of valuable resources covers valuable material operators with whom the Kubota Group is directly contracted 	
Amount of construction waste, etc. discharged Recycling ratio (%) Recycling and reduction ratio (%)	 In RY2016, a new calculation method was adopted in which the reduction volume is calculated in accordance with the Promotion Plan for Recycling of Construction Waste 2014 (Ministry of Land, Infrastructure, Transport and Tourism) and the recycling and reduction ratio is determined. [RY2014 to 2015] Recycling ratio = {Sales amount of valuable resources + resource recycling + volume reduction (heat recovery)} ÷ amount of construction waste, etc. discharged × 100 [RY2016 to RY2018] Recycling and reduction ratio = {Sales amount of valuable resources + resource recycling (including heat recovery) + volume of reduction} ÷ amount of construction waste, etc. discharged × 100 	

Water-related

Indicator (unit)	Calculation method
Water consumption (m ³)	 Water consumption = City water consumption + groundwater consumption City water includes service water and water for industrial use
Wastewater discharge (m ³)	 Wastewater discharge = Amount of wastewater discharge to public water areas + amount of discharge to sewage lines Wastewater discharge includes rain and spring water at some business sites
Amount of recycled water (m ³)	• Amount of water purified in on-site effluent treatment facilities and recycled (excluding the circulating cooling water used)
COD (tons) Nitrogen discharge (tons) Phosphorus discharge (tons)	 COD = COD per unit wastewater discharge amount × wastewater discharge to public water areas Nitrogen discharge = nitrogen concentration × wastewater discharge to public water areas Phosphorous discharge = Phosphorous concentration × wastewater discharge to public water areas Targeting business sites subject to total emission control in Japan

Chemical Substance-related

Indicator (unit)	Calculation method
Amount of PRTR-designated substances handled (tons)	• Total amount of chemical substances handled at Japanese sites, which are designated as Class I under the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (the PRTR Law) whose amount handled by each business site is one ton or more (or 0.5 ton or more for Specific Class I Designated Chemical Substances) per year
 Total release and transfer amount of the chemical substances which are designated as Class PRTR Law at Japanese sites and whose annual total amount handled by each business site is more (or 0.5 ton or more in case of Specific Class I Designated Chemical Substances). Amount of PRTR-designated transferred (tons) Amount released = amount discharged to the atmosphere + amount discharged to public wa amount discharged to soil + amount disposed of by landfill in the premises of the business site is the amount of each substance released and transferred is calculated in accordance with the PRTR Release Estimation Methods Ver. 4.2 (March 2018) of Japan's Ministry of the Environm Ministry of Economy, Trade and Industry, and the Manual for PRTR Release Estimation Methods Steel Industry Ver. 13 (March 2014) of the Japan Iron and Steel Federation. 	
Amount of chemical substances (VOC) handled (tons)	• The total amount handled at overseas sites of the six substances of xylene; toluene; ethylbenzene; styrene; 1,2,4-trimethylbenzene; 1,3,5-trimethylbenzene that are at each site handled in amounts of one ton or more per year
VOC emissions (tons)	• The total emissions of the six substances of xylene; toluene; ethylbenzene; styrene; 1,2,4-trimethylbenzene; 1,3,5-trimethylbenzene that are at each site handled in amounts of one ton or more per year
SOx emissions (tons) NOx emissions (tons) Soot and dust emissions (tons)	 SOx emissions = Amount of fuel consumed (kg) × sulfur content in the fuel × (1 – desulfurization efficiency) × 64/32 or SOx emissions = {(amount of coke consumed × sulfur content in coke) - (amount of molten metal × sulfur content in molten metal) – (volume of slag, dust, etc. × sulfur content in slag, dust, etc.)} × 64/32 or SOx emissions = SOx concentration × amount of gas emitted per hour × annual operation hours of the relevant facility NOx emissions = NOx concentration × amount of gas emitted per hour × annual operation hours of the relevant facility Soot and dust emissions = soot and dust concentration × amount of gas emitted per hour × annual operation hours of the relevant facility Targeting the smoke and soot generating facilities at business sites in Japan as defined by the Air Pollution Control Act, and the facilities at overseas business sites subject to the application of measurement obligations stipulated in the statutory and regulatory requirements of those countries in which sites are located

Product-related

Indicator (unit)	Calculation method
Sales ratio of Eco- Products (%)	• Sales ratio of Eco-Products = Sales of Eco-Products/sales of products (excluding construction work, services, software, parts, and accessories) × 100
Usage ratio of recycled materials (%)	 Usage ratio of recycled materials = Amount of recycled materials input in the melting process / total input volume × 100 Target products: Materials used in the cast metal products and parts manufactured by the Kubota Group (such as ductile iron pipes, fittings, machine cast products (engine crankcase, etc.)) The amount of recycled materials input and the total input amount does not include the indirect materials that are not the constituent materials of casting products and parts.

Third-Party Assurance of Environmental Report

Since 2004, the Kubota Group has received third-party assurance for the purpose of improving the reliability and comprehensiveness of its environmental data. Information that is marked with a symbol indicates that that information has been assessed by a third party. Based on the third-party assurance obtained this reporting year, the KUBOTA REPORT 2019 <Full Version> received the J-SUS Assurance Symbol of the Japanese Association of Assurance Organizations for Sustainability Information (J-SUS). This symbol indicates that an assurance was undertaken by an assurance body certified by J-SUS regarding the reliability of the environmental data presented in the report.

	Independent Assurance Report
Do t	he President and Representative Director of Kubota Composition
	на гланован шиа текриваници че кличано на текнова согранитан
We perf	were engaged by Kubota Corporation (the "Company") to undertake a limited assurance engagement of the environmental armance indicators marked with "ed" (the "Indicators") for the period from January 1, 2018 to December 31, 2018 included s KUBOTA REPORT 2019 «Full Version» (the "Report") for the fical year ended December 31, 2018.
The	Company's Responsible for the preparation of the Indicators in accordance with its own reporting criteria (the "Company's references and the Decement of the Decement of the Indicators in accordance with its own reporting criteria (the "Company's references and the Decement of the Decement of the Indicators in accordance with its own reporting criteria (the "Company's references and the Decement of the Decement of the Indicators in accordance with its own reporting criteria (the "Company's references and the Decement of the Decement of the Indicators in accordance with its own reporting criteria (the "Company's references and the Decement of the Decement of the Indicators in accordance with its own reporting criteria (the "Company's references and the Decement of the Decement of the Indicators in accordance with its own reporting criteria (the "Company's references and the Decement of the Decement of the Indicators in accordance with its own reporting criteria (the "Company's references and the Decement of the Decement of the Indicators in accordance with its own reporting criteria (the "Company's references and the Decement of the Decement of the Indicators in accordance with its own reporting criteria (the "Company's references and the Decement of
cpc	rang emeria), as described in the report.
Cor	Interponsibility is to express a limited assurance conclusion on the Indicators based on the procedures we have performed. We bacted our engagement in accordance with the 'International Standard on Assurance Engagements (ISAE) 3000, Assurance segments other than Audits or Reviews of Historica Financial Information' and the 'ISAE' 3140, Assurance Engagements on mhouse Gas Statements' issued by the International Auditing and Assurance Standards Board. The limited assurance gement consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the rt, and applying analytical and other procedures, public the procedures performed vary in nature from, and are less in extent than a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable mace engagement. Our assurance procedures, included: Interviewing the Company's responsible personnel to obtain an understanding of its policy for preparing the Report and reviewing the Company's responsible personnel to obtain an understanding of its policy for preparing the Report and reviewing the Company's responsible personnel to obtain an understanding of its policy for preparing the Report and reviewing the Company's responsible personnel to obtain an understanding of its policy for preparing the Report and reviewing the case of the systems and methods used to collect and process the Indicators. Performing analytical procedures on the Indicators. Varianting on a test basis, veidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company's reporting criteria, and recealculating the Indicators. Visiting one of the Company's usbidiaries selected on the basis of a risk analysis. Evaluating the overall presentation of the Indicators.
Base ndi	d on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the cators in the Report are not prepared, in all material respects, in accordance with the Company's reporting criteria as described a Report.
Dur	Independence and Quality Control
Ve loco prof Qua	ave complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for suntants, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, sissional competence and due care, confidentiality and professional behavior. In accordance with International Standard on lity Control I, we maintain a comprehensive system of quality control including documented policies and procedures regarding pliance with ethical requirements, professional standards and applicable legal and regulatory requirements.
k	PMG A299 Sistemability Co. Id.
CPN	dG AZSA Sustaínability Co., Ltd.
)sal	ia, Japan

J-SUS Assurance Symbol



This symbol indicates that an assurance was undertaken by an assurance body certified by J-SUS regarding the reliability of the environmental data presented in the KUBOTA REPORT 2019 <Full Version>.



* Japanese version www.j-sus.org/ * English version www.j-sus.org/english.html

Factory Visit



Kubota Agricultural Machinery (Suzhou) Co., Ltd. (China)

Social Report

Target and Results Concerning Social Aspects

<SDGs related to this section>



The Kubota Group aims to increase the satisfaction of its various stakeholders and enhance its corporate value by implementing the PDCA cycle in each category.

Summary of Social Report for FY2018, and Priority Issues for FY2019 and Medium-Term Targets

	Major	Main focus	Plan	Do	
	items	of activity	Priority issues for FY2018	Activity results in FY2018	Applicable scope shown to the left
stomers		Quality and services to improve	 Further specify quality risks and enhance risk management through audits 	 Conducted quality audits both domestically and overseas as planned 	Japan: 11 business divisions Overseas: 7 business divisions
	Customer satisfaction		Quality and services to improve customer	 Ensure that the ISO 9001 requirements are integrated with business processes, and continuously improve the quality and efficiency of work processes 	Strengthened ISO 9001 training and improved business processes. However, in some divisions certification was suspended due to inappropriate actions
S		satisfaction	• Operate the customer desk service using the new system	Began analyzing recordings of customer inquiries from the customer desk service	Rubbla Corporation only
			Publicize FAQ for distributors and for the general public	 Began publicizing FAQs for distributors, and for the general public via Kubota Cyber Farm Machinery Square 	
			 Further expand the global development of manufacturing improvement activities and promote optimal global procurement 	 Promoted improvement activities based on KPS by uniting procurement managers and suppliers, and developed activities to improve one another's manufacturing globally 	Kubota Corporation (Farm & Industrial Machinery) All overseas Group companies (Farm & Industrial Machinery)
ers	000	000		 Requested major domestic suppliers assess their own operations with a CSR procurement check sheet 	Kubota Corporation (Farm & Industrial Machinery)
Supplie	procurement initiatives	procurement initiatives	Continue to promote suppliers' environmental load reduction activities and maintain the award system for environment-friendly production activities such as saving energy and recycling and aim to expand business with winning suppliers	 Encouraged business partners to participate in the award system, and awarded those who had promoted environment-friendly production activities Spread, and aim to expand, the award system to overseas Group companies 	Kubota Corporation (Farm & Industrial Machinery) All overseas Group companies (Farm and Industrial Machinery)
			 Continue to seek understanding of suppliers regarding our policy on conflict minerals and request their cooperation in surveys conducted by the Kubota Group 	 Sought understanding of initiative policies by suppliers and requested their cooperation with surveys conducted by the Kubota Group Requested that suppliers formulate their policies on conflict minerals 	All Group companies, including overseas
irs, etc.	Timely and	Timely and	In view of the purpose and intention of the fair disclosure rules enforced in April 2018, ensure early and fair disclosure of information and promote active dialogue	 Obtained further understanding of business from shareholders and investors by holding proactive dialogue through meetings, plant tours and business briefing sessions By publishing the contents of our results briefings and summaries of question and answer sessions online, promoted the timely and fair disclosure of information Published IR policies, which set out the basic policy for IR activities and disclosure of information 	All Group companies, including overseas
reholde	appropriate release of information	appropriate release of information	 Organize tours of facilities as opportunities to promote active talks with individual investors Promote initiatives to increase individual shareholders 	Organized a plant tour for shareholders Held a Company explanation session for investors, participated in IR fairs, etc.	Kubota Corporation only
Shan			 Disseminate straightforward corporate information Enhance the appeal power of the Kubota brand through a consistent and strong presence throughout the Group both inside and outside Japan 	 Produced materials introducing Kubota's initiatives towards business, the latest technologies, and SDGs Created a website template for machinery sales companies overseas, and strengthened both our ability to broadcast our message around the world and our brand appeal 	All Group companies, including overseas
		Creating a safe workplace for all employees	 Reexamine the risk assessment of work operations Work to identify all risks that have the potential to lead to serious accidents like entrapment and entanglement by machines, with no exceptions 	Promoted risk assessment in work activities where the focus is on risks connected to serious accidents. As a result, in addition to advancing equipment safety measures, we have also advanced the creation of work standards that show that describing the details of a risk provides a reason for compliance with procedures as well as detailing the procedures for avoiding risk so that we can prevent the incidents that result from result and risk provides a reason for compliance with procedures for sublic more sublicity of a second to the second the second to the second the second to the indicate the second to the s	All domestic Group companies
			 Continue to promote safety measures based on the Safety Control Guidelines for assessment and promotion of inher- ently safe equipment 	We have started activities to draft and fulfill a 5-year implementation plan by which all existing equipment that has not achieved Level II will be brought up to where they should be at Level II, based on the Safety Control Guidelines for assessment and promotion of inherently safe equipment. We have commenced operations so that new equipment will be brought up to the higher Level III at the time of its introduction, based on the risk assessment for machine safety that was revised in FY2017	8 domestic Group companies 16 overseas Group companies
		Creating a vibrant workplace	 Continue to share information with labor-management committees 	 Shared information and held discussions in various labor-management committees (central, business sites) on current issues, etc. Discussed and promoted initiatives for securing a work-life balance (promoting the use of annual paid leave, etc.), improving the workplace environment, etc. Discussed response to revisions of labor-related laws and regulations, examined measures to be taken, and promoted the implementation thereof 	Kubota Corporation only
			 Promote specific measures based on the "Kubota Wellness (Mental Health) Action Plan" across the Kubota Group 	 Expanded the scope of meetings with nurses based on the results of stress checks to all Group companies 	All domestic Group companies
see	Creating		Continue to promote the second phase of Health Kubota 21	 Held the Kubota No-smoking Contest, in tune with the annual promotion theme "No-smoking" Encouraged participation in the Kubota Health Mileage project to support good health 	All domestic Group companies
Employ	rewarding and lively workplaces		 Prevent harassment (sexual, maternity and power harass- ment, etc.) and improve the capacity to resolve harassment in Japan 	 Continued awareness-raising activities for the prevention and resolution of harassment (sexual, maternity or power harassment, or harassment against LGBT) within Japan, including distributors 	All domestic Group companies
		human rights	 Assess the human rights conditions at overseas sites and continue to consider human rights activities with an under- standing of international standards relating to human rights, while referring to the initiatives taken by other companies 	 Assessed the human rights conditions at overseas sites and implemented activities in accordance with the human rights standards of each country, such as announcing a state- ment on the UK Modern Slavery Act 	All Group companies, including overseas
		Promotion of diversity	 Promote development of female employees Hold ongoing training for women in managerial positions Carry out in-depth study of diversity management Promote main action plan for general business law supporting women's activities Expand the scope of diversity (LGBT) 	 Held training for female prospective managers and carried out follow-up training for participants of the prior fiscal year's managerial training Continued promotion of the main action plan for general business law supporting women's activities Held LGBT training for management (organized by the Human Rights Advancement Department) 	Kubota Corporation only
		Continue to study/implement human re essential to promote global management	 Continue to study/implement human resource policies essential to promote global management 	 Continued training for next-generation managers in North America, and enhanced pro- grams to accept trainees at Kubota sites in Japan for the purpose of developing candidates as managers and supervisors, and engineers of overseas Group companies 	All Group companies, including overseas
		Personnel policies		 Continued overseas language training programs (overseas exchanges, language training in North America and the Philippines, internships at overseas companies, etc.) 	Kubota Corporation only
		globalization		Enhanced overseas trainee program and continued the program to dispatch interns to Harvard Business School	Kubota Corporation only
			Foster compliance-minded employees based on the Rule of Conduct	 Collated the Rule of Conduct (Kubota corporation only) Spread the corporate principles through the training of new employees and company newsletters 	All Group companies, including overseas
Communities	Social	Contributions to international society and local communities	 Start full-fledged operation of a system to aggregate activity results both inside and outside Japan Support activities conducted locally by overseas sites 	 Conducted an advance survey of a system to aggregate activity results both inside and outside Japan Held opinion exchanges between supervisors at overseas sites 	All Group companies, including overseas
	social c contribution activities F n a	Rejuvenation and reconstruction of areas affected by natural disasters	 Continuously promote reconstruction support activities true to Kubota style, remaining aware of the themes of food, water, and the environment 	 Revised part of the curriculum used to support classes at industrial high schools drawing on next-generation education perspectives Investigated and conducted support activities for disaster-stricken areas (after the 2018 floods in western Japan, the earthquake in Hokkaido, etc.) in a way only Kubota can 	All domestic Group companies

Major		Main focus	Check	Act Plan							
	items	of activity	Self-assessment	Priority issues for FY2019	Medium-term targets						
			0	Strengthen auditing functions	 Strengthen awareness of rules concerning quality assurance, and review governance 						
Istomers				 Ensure that the ISO 9001 requirements are integrated with business processes, and continuously improve the quality and efficiency of work processes 	Be able to respond rapidly to issues with quality						
	Customer satisfaction	services to improve customer		 Thoroughly investigate the operational status of delivered goods and rapidly solve issues in order to improve satisfaction levels among customers, dealers and suppliers 							
อี		satisfaction		 Improve satisfaction among customers by improving the accuracy and speed of responses 	 Improve operations to better reflect the customers' voices relayed by the customer service desk 						
			0	 Increase the percentage of customers looking at online FAQs while also raising the ratio of issues that are resolved successfully 	Strengthen response to customers' needs, including inspections and maintenance						
				 Further expand the global development of manufacturing improvement activities and promote optimal global procurement 	 Promote practices according to guidelines by suppliers of each Kubota Group company and spread CSR procurement through the supply chain 						
srs				Get a firm idea of suppliers' CSR systems, which is linked to improvement							
Supplie	CSR procurement initiatives	CSR procurement initiatives	0	Expand the suppliers eligible to receive awards for environment-friendly activities and environmental load reduction activities such as saving energy and recycling, and expand the awards both in Japan and overseas							
				 Continue to seek understanding of suppliers regarding our policy on conflict minerals and request their cooperation in surveys conducted by the Kubota Group 							
				 Encourage extensive information disclosure and constructive dialogue able to meet the wishes of shareholders and investors. This can be accomplished by continuing to hold IP average are meritings, and by improving the website 	 Hold ongoing dialogue with stakeholders through meetings and IR events, which contributes to the enhancement of corporate value on a mid- to long- torm horic. 						
rs, etc.	Timely and	Timely and	0	for investors	Promote IR activities to ensure an appropriate stock value reflecting the actual circumstances of the Company						
ireholde	appropriate release of information	appropriate release of information		 Conduct activities to continuously create new shareholders Implement measures to encourage existing shareholders to hold their shares for a long period of time 	• Obtain the trust of all stakeholders and strengthen the base of stable share- holders through the timely and appropriate release of information						
Sha			0	 Disseminate straightforward corporate information so as to further under- standing and increase brand appeal Provide information in response to regional marketing 	 Strengthen mid- to long-term brand communication and information dissemi- nation responding to local needs 						
		Creating a safe workplace for all employees		Put in place measures to prevent the recurrence of equipment abnormalities	Aim for all Kubota Group employees to position safety as the top priority in all tasks and achieve zero incidents that have the potential to lead to serious accidents such as entrapment and entanglement by machines						
			0	Promote safety measures based on the Safety Control Guidelines for assessment and promotion of inherently safe equipment							
		Creating a vibrant workplace		 Continue to share information and hold discussions at labor-management committees 	 Provide vibrant workplaces, and make it so that all employees of the Kubota Group can live rich, healthy lives 						
			0	Promote specific measures based on the "Kubota Wellness (Mental Health) Action Plan" across the Kubota Group Enhance the contents of mental health education Continue to promote the second phase of Health Kubota 21							
yees	Creating										· Plan events focusing mainly on the annual theme of eating habits and nutrition
Emplo	and lively workplaces	Respecting human rights	Respecting human rights	Respecting human rights		 Prevent harassment (sexual, maternity or power harassment, or harassment against LGBT) and improve the capacity to resolve harassment in Japan by enhancing contact points for consultation 	 Spread activities to raise awareness of human rights across the entire Kubota Group, both inside and outside Japan 				
					human rights	0	 Promote activities with an understanding of international standards relating to human rights 				
		Promotion of diversity		 Promote development of female employees Hold ongoing training for female prospective managers Carry out in-depth study of diversity management Promote main action plan for general business law supporting women's activities Expand the scope of diversity 	 Continue promoting diversity management (Investigate how to foster a corporate culture/create policies that draw out the abilities and ambitions of all employees, regardless of gender, nationality, age, etc.) 						
			0	 Continue to study/implement human resource policies essential to promote global management 	 Put "the right person in the right job" globally, thereby "maximizing human resource utilization" 						
		Personnel policies in tune with globalization									
				0	Implement e-learning and other programs based on the Rule of Conduct Promote activities to instill the corporate principles, which are tied to promoting SDGs activities	 Foster CSR- and compliance-minded employees based on the corporate principles and the Rule of Conduct 					
Communities	Social	Contributions to international society and local communities	Δ	 Build a system to aggregate activity results both inside and outside Japan, and release it next fiscal year in the web version Report Support activities conducted locally by overseas sites 	Expand overseas initiatives Promote ties with NGOs, NPOs and other organizations						
	contribution activities	Rejuvenation and reconstruction of areas affected by natural disasters	0	 Continuously promote reconstruction support activities true to Kubota style, remaining aware of the themes of food, water, and the environment 							

<SDGs related to this section>

Relationships with Our Customers

Based on the "Customer First Principle," Kubota aims to offer products, technologies, and services that exceed customers' needs at a speed beyond their expectations. We seek what we have to do to maximize customer satisfaction based on the "Onsite" approach policy perspective, which includes going to the actual site, seeing the product, and confirming actual facts, and put into immediate action whatever we can.

Kubota will continue to promote initiatives in all aspects of its operations, including development, production, sales and services, aiming not only to improve sales and profits, but also to establish itself as a "Global Major Brand" trusted by a maximum number of customers and capable of making a maximum contribution to society.

R&D

Strengthening Our R&D System

Basic Concept

Because of the globalization of business, it is becoming increasingly important to offer impressive products that satisfy the needs of customers throughout the world, along with the regional circumstances. For this reason, Kubota is continuing to improve its global R&D system with Japan as its hub by clarifying the roles of its R&D sites in Japan and overseas, thereby responding to the local needs of each area of the world.

Regional Marketing and Product Development

When Kubota began developing its business overseas, products were developed and manufactured in Japan first, and then launched in local markets, and local production was introduced later on. However, in order to grow into a genuine global company, it is crucial to understand the needs of foreign customers overseas and rapidly develop new products. For this reason, Kubota is strengthening local-oriented product development.

Establishment of New Sites in Response to the Local Needs of Major Countries

In Japan, with the aim of speeding the development of agricultural and construction machinery, Kubota opened two research buildings in 2016. In 2018, in the interest of unifying and thereby improving the efficiency of scattered bases, and of strengthening development of core and cuttingedge technology, Kubota began construction of a new development base.

Overseas, looking to improve developmental efficiency of farm machinery and implements built to local specifications, Kubota opened a largescale R&D base in Thailand in 2016. In North America, along with aiming at an increase in the number of R&D bases for tractors and general-purpose machines, Kubota also opened an R&D base related to water environments and strengthened R&D concerning the planning and operating control of membrane systems. Kubota is looking to establish a new R&D base in Crépy-en-Valois in France in FY2020, promoting the development of upland farming tractors and general-purpose products.



Newly established R&D building in Japan (Sakai)

Newly established R&D site in Thailand

Newly established R&D site for Water and Environment in North America



Social Report

Kubota Group R&D Conference to Share Technical Information Across Divisions

As a result of its commitment to continuously pursuing social needs over the years, the Kubota Group has created technologies spanning a variety of fields.

To solve social issues in the food, water and environment fields on a global scale, it is important for us to conduct development beyond company department boundaries. Thus, every year, the Kubota Group holds "The Kubota Group R&D Conference," where the outcome of the research and development of each division is presented. Over 1,000 engineers join the conference and share information.



Main hall of the Kubota Group R&D Conference

Presentation by SIAM KUBOTA Corporation Co., Ltd. (SKC)

Creating Value by Integrating Core Products and Information Communications Technologies (ICT)

With the growing popularity of information communications technologies (ICT) such as the Internet and mobile telephones, there are an increasing number of services aimed at society and everyday life that utilize these forms of ICT.

In fields such as agriculture and water infrastructure, Kubota is integrating its core products with a geographic information system (GIS) that utilizes the ICT of Internet and mobile terminals together with map data obtained from satellite images. This technology achieves the consolidated management and visualization of data, thereby providing a high-value service. Further in the agriculture field, Kubota installs a global positioning system (GPS) on its core products, with the aim of helping to save labor and improve efficiency in farm work.

Integrating Agricultural Machinery and ICT

In Japan, the agricultural sector is characterized by an aging population of farmers and an increasing amount of idle farmland. The presence of agricultural business operators* and leading farmers is becoming more and more significant as a solution to utilizing the abandoned farming land. From the outset, there were relatively small farms scattered throughout Japan, and increasing the scale of a farm was considered to increase the burden involved in managing scattered crops. Therefore, it is difficult to increase earnings. Consequently, farmers are looking for a way to increase the quality of their crops as a means of increasing their cost competitiveness.

As a solution to this problem, Kubota began offering the Kubota Smart Agri System (KSAS), a data-based agricultural system which integrates agricultural machinery and ICT to achieve the visualization of various data such as information on fields, farm work and harvest performance. This service also helps to effectively utilize data gathered through this system on the operational status of the harvesting machinery for diagnosis or other services. At present, approximately 6,700 customers are using this service. To further save labor and improve the efficiency of farm operations, Kubota has brought out the Farm Pilot series of GPS-mounted machinery. This includes a rice transplanter with a straight-line keeping function; a compact tractor equipped with a straight-line assist function; a tractor with autosteering; an AGRIROBO tractor (an autonomous agricultural vehicle capable of performing unmanned autonomous operations such as tillage and soil puddling by remote control under manned surveillance); and an automatic AGRIROBO combine enabling the harvest of rice and barley while the tractor, even though manned, is driven automatically.

* Farm operators and agricultural production corporations that have formulated a management improvement plan pursuant to the Act on Promotion of Improvement of Agricultural Management Foundation, and obtained approval from the relevant municipalities. Often owners of large-scale farmlands hiring employees (workers), actively engaged in farm management.

Monitoring Water and Environment Infrastructure with IoT and AI

In Japan, as the result of governmental financial difficulties and reductions in staff, the efficient and economic management of important infrastructure is becoming a major issue. To address this issue, Kubota, with many products in the water, environment, and farming fields, has introduced its remote monitoring system to over 5,000 infrastructure facilities, such as water supply and sewage equipment, and agricultural water facilities.

Meanwhile, local governments are facing increasing demand for products that help systematize the operation of machinery and plants. To meet this demand, Kubota launched the Kubota Smart Infrastructure System (KSIS) in 2017, which conducts remote monitoring and diagnosis for machinery and plants on a common platform using the IoT (Internet of Things)^{*1}. Moreover, a partnership agreement with the NTT Group allows Kubota to diagnose and control various machinery using AI technology. Via joint research with NARO^{*2}, Kubota is also engaged in the conservation of water for agriculture and in labor-saving measures. In 2018, Kubota put WATARAS, a field water management system enabling labor saving in paddies, on advanced sale, and in 2019 begins general sales.

*1 A mechanism in which things are interconnected via the Internet, enabling them to monitor and control each other without interaction with humans

^{*2} National Agriculture and Food Research Organization

Production / Quality Control

Strengthening Production Systems

Building a Global Production System

In order to achieve the goal of becoming a "Global Major Brand," Kubota has established production bases around the world in locations close to their respective markets, with the mother plant supporting all the other plants in order to secure consistent quality. Furthermore, Kubota is promoting the deployment of the Kubota Production System (KPS) at each of its bases, and implementing initiatives to raise the QCD level throughout the entire supply chain.



Establishment of overseas bases (from 2011)

- 2011: Kubota Engine (Thailand) Co., Ltd. (Thailand) Manufacturing of vertical-type diesel engines
- 2011: Kubota Precision Machinery (Thailand) Co., Ltd. (Thailand) Manufacturing and sales of hydraulic equipment components
- 2011: Kubota Construction Machinery (WUXI) Co., Ltd. (China) Manufacturing and sales of hydraulic shovels
- 2012: Kverneland AS [made part of the group] (Europe) Manufacturing and sales of implements
- 2012: Kubota Engine (WUXI) Co., Ltd. (China) Manufacturing of diesel engines
- 2013: Kubota Farm Machinery Europe S.A.S (Europe) Manufacturing of large upland farming tractors
- 2016: Great Plains Manufacturing, Inc. [made part of the group] (United States) Manufacturing and sales of implements

Expansion of local production

- 2013: Kubota Industrial Equipment Corporation (United States) Manufacturing of medium-sized tractors
- 2016: Kubota Industrial Equipment Corporation (United States) Manufacturing of 4W compact construction machinery (SSL)
- 2017: Kubota Manufacturing of America Corporation (United States) Start of operation of new plants for utility vehicles
- 2017: Kubota Agricultural Machinery (Suzhou) Co., Ltd. (China) Start of operation of a new plant for tractors and wheel combines

Deployment and Dissemination of the Kubota Production System

Kubota Production System

Kubota's basic principle for manufacturing

Kubota aims to achieve manufacturing that impresses customers by offering products and services that exceed customers' needs at a speed that exceeds their expectations.

Kubota Production System

Kubota Production System (KPS) is the fundamental concept and perspective of the Kubota Group's manufacturing.

While adhering to the basic philosophy, KPS is based on "just-in-time" and "Jidoka," and continuously pursues thorough elimination of waste.

Activities during 2018

• To further strengthen KPS promotional efforts, Kubota began autonomous study activities. Members of multiple bases gather at one base, where they confirm conditions and activities at the base and offer guidance. When necessary, they also work to implement improvements.

This enables the acceleration of improvements at the base, promotes exchanges between bases, and develops human resources. By continuing the program, Kubota will further strengthen KPS promotional efforts.

• A work reform trial implemented in select departments and involving the elimination of waste in indirect operations suggested that the company could save approximately 20,000 work hours per year, so in November Kubota inaugurated a work reform project covering activities throughout the company.

In the next two years, Kubota aims to strengthen back-office operations and improve work-life balance by involving approximately 850 headquarters employees in the elimination of waste in indirect operations.



Maintaining and Improving Quality

Quality Assurance in Design and Development

Kubota endeavors to prevent quality problems, and a representative activity in this effort is the initiative to strengthen design reviews. Incorporating the DRBFM^{*1} approach, we discuss, test and verify even the smallest incidental change when developing new products, in order to prevent quality problems from arising therefrom.

*1 DRBFM is the abbreviation for "Design Review Based on Failure Mode," a method of preventive action of potential problems from arising by focusing on incidental changes in design and development.



A design review

Social Report

Quality Audits, Quality Compliance Audits, and Audits at Short Notice

The Kubota Group periodically conducts quality audits for the purpose of providing its customers with even better products and services, thereby ensuring the continuous improvement of its quality management system. Since FY2018, Kubota has been implementing quality compliance audits to verify that company products and services conform with laws and regulations, legal standards and the conditions set forth in contracts with Kubota's clients. Moreover, audits at short notice are conducted whenever it is evaluated necessary under the internal control system.

Raising Awareness of Safety, Environment, and Quality

In November 2018, Kubota held the Safety, Environment and Quality Forum, attended by approximately 390 people, mainly management executives.

Mr. Noboru Furusawa, formerly of Toyota Motor Corporation and representing the organization Supporting Safety and Developing Human Resources, lectured on the theme, "Safety, environment, and quality are the basis of corporate activity: That's what management is all about."

Mixing specific examples drawn from his initiatives at Toyota Motor Corporation and his experience in providing guidance at Kubota, Mr. Furusawa emphasized the importance of people who continually work towards improvement, and of workplace formation.

Recent recall status (as of December 18, 2018)

- Recall of M108W tractors: Total 779 units (began January 9, 2018)
- Recall of ER combine harvesters: Total 659 units (began March 20, 2018)
- Recall of M7 series tractors: Total 179 units (began October 5, 2018)
- Recall of M7 series tractors: Total 353 units (began October 5, 2018)
- Recall of SL series tractors: Total 104 units (began December 6, 2018)

We deeply apologize for the inconvenience caused to our users.

For details, click here. (Only in Japanese)

QC Circle Activity

Starting in FY2017, eligibility for awards has been expanded to include both domestic and overseas subsidiaries and affiliates. For the QC Circle activities Presentation Competition held this fiscal year, 18 circles selected from 674 Kubota circles (domestic and overseas) participated.

Circles producing outstanding results participated in the QC Circle National Competition.



QC Circle activities Presentation Competition (November 2, 2018)



Safety, Environment and Quality Forum (November 20, 2018)

ISO 9001 Certification Status

Kubota [Farm and Industrial Machinery Consolidated Division]

Business divisions	Offices	Certification scope (excerpt)	Date of certification	Certifying body
Farm and Industrial Machinery Consolidated Division and Procurement Headquarters, Quality Assurance Headquarters (Departments affiliated with the Farm and Industrial Machinery Consolidated Division)	Head Office Sakai Plant Sakai Rinkai Plant Okajima Business Center Tsukuba Plant Utsunomiya Plant Hirakata Plant Kyuhoji Business Center	Agricultural machinery, construction machinery, engines and related equipment for all the above	1994.06	LRQA*1
Farm Machinery Products and Post-Harvest Division (Precision Equipment Business Unit)	Kyuhoji Business Center	Scales, load cells	1994.08	DNV*2

*1 LRQA: Lloyd's Register Quality Assurance Ltd. *2 DNV: DNV GL BUSINESS ASSURANCE JAPAN K.K.

Kubota [Water and Environment and Infrastructure Consolidated Division]

Business divisions	Main offices	Certification scope (excerpt)	Date of certification	Certifying body
	Hanshin Plant Keiyo Plant	Ductile iron pipes, fittings, accessories, other ductile iron products and related products	1999.01	JCQA*1
Pipe Systems and Infrastructure Division	Hirakata Plant	Pumps, pump stations, sewage treatment and water purification plants, valves and gates	1997.10	LRQA
	Ichikawa Plant	Spiral welded steel pipes	1998.07	JICQA*2
Environmental Solutions	Tokyo Head Office Hanshin Office	Sewage and sludge treatment, water purification and wastewater treatment	2014.07	Intertek*3
Division	Shiga Plant	Plastic water purification tanks	2003.04	JUSE*4

*1 JCQA: Japan Chemical Quality Assurance Ltd. *2 JICQA: JIC Quality Assurance Ltd. *3 Intertek: Intertek Certification Ltd.

*4 JUSE: Union of Japanese Scientists and Engineers

Social Report

Affiliates in Japan

Affiliates	Certification scope (excerpt)	Date of certification	Certifying body
Kubota Seiki Co., Ltd.	 Design, develop and manufacture of hydraulic valves and hydraulic cylinders for agricultural and construction machinery Manufacture of transmissions and hydraulic pumps for off-road vehicles and agricultural machinery, and hydraulic motors for construction machinery 	2007.04	LRQA
Kubota ChemiX Co., Ltd.	Design, develop and manufacture of plastic pipes, joints and accessories	1998.04	JUSE
Nippon Plastic Industry Co., Ltd.	 Design, develop and manufacture of hard vinyl pipes and secondary processed products Design, develop and manufacture of polyethylene and other plastic pipes Design, develop and manufacture of polystyrene/polyethylene and other plastic sheets/plates 	1998.12	JSA*1
Kubota Pipe Tech Co.	 Construction and construction management of various pipelines Investigation and diagnosis of pipelines and attached facilities Installation training for fittings and pipe laying Pipe-laying equipment rental 	2002.03	JCQA
Kansouken Inc.	 Design and develop package software for supporting water-supply business Support operation of package software for supporting water-supply business and provide data-input service Provide survey and consulting services for water network 	2004.04	JCQA
Kubota Environmental Service Co., Ltd.	Design, construction, maintenance and servicing of plant facilities for water supply, sewer drainage, solid waste processing, excreta disposal and garbage	2000.02	MSA*2
Kubota Kasui Corporation	Design and construction of environmental conservation plants	2000.01	BCJ-SAR*₃
Kubota Air Conditioner, Ltd.	Design, develop, manufacture and ancillary services for large-scale air-conditioning equipment	2000.02	JQA*₄
Kubota Systems Inc.	 Consigned development of software products and software packaging, design, develop and construct network structures, and maintenance services Information system operation, and operation and maintenance of networks Sales of purchased products 	1997.05	BSI-J*₅
Heiwa Kanzai Co., Ltd.	Design, develop and supply of cleaning services for buildings and facilities	2002.07	JICQA
Kubota Construction Co., Ltd.	Design and construct civil engineering structures and buildings	2011.12	JQA

*1 JSA: Japanese Standards Association
*2 MSA: Management System Assessment Center Co., Ltd.
*3 BCJ-SAR: The Building Center of Japan
*4 JQA: Japan Quality Assurance Organization
*5 BSI-J: BSI Group Japan K.K.

Overseas Group companies

Affiliates	Certification scope (excerpt)	Date of certification	Certifying body
Kubota Manufacturing of America Corporation	Manufacture and distribution of farm implements, lawn tractors, sub-compact and RTVs.	1999.12	DEKRA
Kubota Industrial Equipment Corporation	Manufacture and distribution of farm implements and assembly of tractors.	2005.12	DEKRA
Kubota Materials Canada Corporation	Design, development and manufacture of cast steel including stainless, heat- and corrosion-resistant alloys, in the production of steel castings and fabricated assemblies, as well as the manufacture of non-metallic mineral products (titanic oxide compounds).	1995.02	SGS North America
Kubota Europe S.A.S.	Tractor reassembly: Local market application	2016.12	Apave Certification
Kubota Farm Machinery Europe S.A.S	Production and shipping of agricultural tractors, technical assistance and spare parts.	2017.02	BUREAU VERITAS
Kubota (Deutschland) GmbH	Sales and customization of tractors, machines for ground care, attachments, spare parts, engines, engine accessories, service and customer support.	2018.09	EQ ZERT
Kubota Baumaschinen GmbH	Development, distribution, procurement, manufacturing and service of construction machines.	2016.02	PÜG mbH
KUBOTA (U.K.) Ltd.	Provision of groundcare, agricultural and construction machinery through an international dealership network.	2016.08 (Date of renewal)	CQS*1
Kverneland AS (Some bases have been certified)	Development, production and sales of farm implements for soil cultivation.	1993.11	DNV GL
KUBOTA Turkey Makine Ticaret Limited Sirketi	Performance of quality management system.	2017.01	ASB*2
Kubota Agricultural Machinery (Suzhou) Co., Ltd.	Design and manufacture of harvesters and transplanters; manufacture of tractors.	2011.06	CAM
Kubota Construction Machinery (Wuxi) Co., Ltd.	Production of hydraulic crawler excavators (operating weight less than or equal to Kx183 type)	2014.12	CQC* ₃
Kubota Engine (Wuxi) Co., Ltd.	Manufacture of water-cooled multi-cylinder diesel engines used in industrial machinery and agricultural machinery	2014.11	SGS United Kingdom
Kubota Sanlian Pump (Anhui) Co., Ltd.	Design and manufacture of clean water pumps, sewage pumps, axial flow pumps, mixed flow pumps.	2016.05	CCS*4
SIAM KUBOTA Corporation Co., Ltd.	Manufacture of farm tractors with the without wheels and tires, including transmission and front axle, agricultural machinery (combine harvester), implemsnts (rotary tillers, slasher).	2014.02	LRQA
SIAM KUBOTA Metal Technology Co., Ltd.	Manufacture of casting iron parts	2012.01	MASCI*₅
KUBOTA Engine (Thailand) Co., Ltd.	Manufacture of diesel engines.	2013.01	LRQA
KUBOTA Precision Machinery (Thailand) Co., Ltd.	Manufacture of transmission assembly and linkage hitch hydraulic cylinders for agricultural tractors.	2015.07	LRQA
P.T. Kubota Indonesia	Manufacture of internal combustion engines.	1998.01	LRQA
Kubota Saudi Arabia Company, LLC	Production of cracking coils for petrochemical companies, reformer tube for refinery and fertilizer companies. Valve maintenance for industries.	2011	TÜV NORD CERT

*1 CQS: Certified Quality Systems
*2 ASB: ASB International Certification Surveillance, Auditing and Training Services
*3 CQC: China Quality Certification Centre
*4 CCS: China Classification Society
*5 MASCI: Management System Certification Institute (Thailand)
Announcement on the Inappropriate Action Relating to a Record of Inspection Results (Actions to Prevent Recurrence)

We sincerely apologize again for causing concern and inconvenience to all our customers and parties concerned regarding "Kubota Corporation's Statement on its Rolling Mill Roll Inspection Process" announced on September 12, 2018.

Regarding the inappropriate action, a thorough investigation has been conducted by an external law firm, and the report of the investigation has been accepted. Kubota has given serious consideration to the investigation results, and published the Report Regarding Inappropriate Conduct Relating to Inspection Report on November 29, 2018 and is implementing in sequence the measures to prevent recurrence described in the report.

Hereafter, Kubota Group will implement the recurrence prevention measures and strive fully to recover the trust of our customers and parties concerned as we work to make sure this type of misconduct never occurs again.

For further information, please visit www.kubota.co.jp/new/2018/18-29j.pdf

Ensuring Skills to Maintain Customer Satisfaction

Holding the Kubota Group Technical Skills Competition

Kubota holds the Kubota Group Technical Skills Competition every year with the aim of improving manufacturing capabilities. During the contest for FY2018, a total of 240 contestants from 28 bases in 9 countries gathered and put their technical skills to the test in 15 categories, including casting, lathing, finishing and welding. The number of contestants from overseas has increased to approximately 30% of all contestants, and the contest has become a fixture as a global event for the Kubota Group. The contest provides an important opportunity for contestants and staff members of the competition, as well as the supporters gathering from each base, to acquaint themselves with the skill levels of each base, communicate with each other, and get motivated. Kubota will continue to hold this competition in FY2019 and beyond, with the aim of further improving its manufacturing capabilities.

No. of Contestants in the Technical Skills Competition



Participating in National Skills Competition

To demonstrate the Kubota Group's position with respect to mastering advanced manufacturing skills and developing human resources fit to play leading roles in the workplace, Kubota has participated in the "lathing" and "mechanical assembly" categories at the National Skills Competition.* At the Competition for FY2018, the Kubota representatives won the Silver Prize, the Bronze Prize and the Fighting Spirit Prize in mechanical assembly, and the Fighting Spirit Prize in lathing.

* National Skills Competition: National competition for young technicians (23 or younger). Representatives for the WorldSkills Competition held every two years are selected at this competition. It is the "Olympics" of skills, in which young technicians from all over Japan compete in terms of skills.



Group photo of Gold Prize winners (at Sakai site)



Mechanical assembly match

Fostering Manufacturing Personnel to Establish Kubota as a Global Major Brand

Kubota promotes the Kubota Production System (KPS) at its domestic and overseas bases with the aim of becoming a "Global Major Brand." The "5-Gen Principle" is implemented to achieve site improvements necessary to advance KPS. The 5-Gen encompasses a philosophy based on the actual site (Genba), actual things (Genbutsu), actual facts (Genjitsu), principles (Genri) and basic rules (Gensoku). The 5-Gen Dojo training is a place for fostering employees who will implement improvements aimed at closing the gap that can arise between the actual and the ideal. Approximately 400 people attended this training program in FY2018.

Starting from 2014, Kubota has introduced the 5-Gen Dojo at its major overseas sites, with the goal of strengthening manufacturing capability and localizing human resource development.

In May 2016, Kubota established the 5-Gen Dojo in Thailand, where human resources capable of strongly promoting improvement are developed through lectures and on-site improvement training by local instructors.



Local employees in an improvement practice at the 5-Gen Dojo in Thailand

Participants by country (Jan. 2018-Dec. 2018)

- Japan : 248
- North America : 50
- Thailand : 50
- China : 5
- Europe : 5
- Indonesia : 6

5-Gen Dojo History

- Apr. 2002-Mar. 2003 : Established 5-Gen Dojo at the Sakai Plant in Japan
- Apr. 2005-Mar. 2006 : Began receiving overseas employees at the 5-Gen Dojo
- Apr. 2014–Mar. 2015 : Established 5-Gen Dojo at Kubota Manufacturing of America Corporation in the U.S.
- Jan. 2016-Dec. 2016 : Established 5-Gen Dojo at SIAM KUBOTA Corporation Co., Ltd. in Thailand

Customer Service

Creating Value by Integrating Core Products and Information Communications Technologies (ICT)

Parts Sales Action Plan Meeting for East Asian Kubota Overseas Subsidiaries

In Asia and other emerging markets, cheap and low-quality imitation parts prevail, which may have a serious impact on product performance. Allowing the use of such imitation parts may result in undermining the reliability of Kubota products.

Kubota therefore promotes activities to disseminate genuine parts of reliable quality in the market, with the aim of ensuring long product life and improving trust in the Kubota brand. By achieving this, Kubota aims to improve the efficiency of farming in emerging countries, thereby contributing to the realization of richer and more stable food production.

In July 2017, with a view to improving the parts sales and marketing abilities of East Asia distributors and the spread of genuine parts, Kubota held the Parts Sales Action Plan Meeting for East Asian Kubota Overseas Subsidiaries at Kubota Agricultural Machinery (Suzhou) Co., Ltd. (KAMS) in China, targeting the personnel in charge of parts sales of seven Kubota overseas distributors and manufacturers in China, Korea and Taiwan. A lecture by a representative of KAMS, which was excellent in terms of market analysis and parts sales know-how, helped improve the parts sales capabilities of the members of each subsidiary and foster their sense of unity as a member of the Kubota Group. At the meeting, discussions were held on the problems faced by each country and the countermeasures thereof, and good practices in sales promotion activities were shared. Making use of these results of the meeting, Kubota will make continued efforts to increase sales of genuine parts and improve customer satisfaction.



Parts sales promotion activities by each company were presented. * Photo shows the presentation by KAMS of China.



* Attending distributors: Kubota Agricultural Machinery (Suzhou) Co., Ltd. [KAMS] Kubota Construction Machinery (Shanghai) Co., Ltd. [KCS] Kubota Engine (Shanghai) Co., Ltd. [KESCO] Kubota Construction Machinery (Wuxi) Co., Ltd. [KCW] Kubota Korea Co., Ltd. [KEW] Kubota Korea Co., Ltd. [KKR] Shin Taiwan Agricultural Machinery Co., Ltd. [STA]

Holding Contests for Service Technical Skills and Solution Proposal Skills

On December 4th and 5th, 2018, Kubota held the Service Technical Skills Contest and the Proposal Skills Contest for advanced farmers. In the 42nd Service Technical Skills Contest, 21 representatives participated who had won the district qualifying. As the aftermarket service business is becoming an important source of revenue, the contestants competed on the Kubota Group's highest-level service skill, proper inspection and repair skills against malfunction, as well as the communication skill to satisfy customers.

The 5th Proposal Skill Contest for the advanced farmers was held under the theme 'Everything for the Customer.' Each representative competed to get the first prize of the proposal skill which realizes the customer's desire through the profitable presentations within a limited time. All the participants competed with the pride of their respective companies. Kubota will continue to improve its service technologies and proposal-

making skills through these contests, with the goal of the customer's trust and security.



Service Technical Skills Contest



Proposal Skills Contest for advanced farmers



Service Technical Skills Contest



Proposal Skills Contest for advanced farmers

Customer Satisfaction Survey

Kubota conducts a survey to obtain feedback related to domestic farm machinery from the customers of its dealers, and monitors customer satisfaction with its products. We share the feedback and survey scores received from the respondents with the dealers and related departments, and utilize the information to improve our sales and service activities, as well as our products.

"Overall customer's satisfaction with store where purchased" for July 2017 to June 2018 improved over the previous year (surveyed from July 2016 to June 2017), rising from 63.5 to 64.5.

Relationships with Business Partners





Procurement

Procurement Policy

The following explains Kubota's basic approach to materials procurement in its business activities.

Basic approach to materials procurement

1. Providing fair opportunities

We provide opportunities for competition among all of our business partners in a fair and equitable manner.

2. Economical rationality

When selecting a business partner, we make a full evaluation on the material quality, reliability, delivery timing, price, technology and development capability, proposal ability, and business stability, etc. of that partner, and then select the best business partner based on a suitable set of criteria.

3. Mutual trust

We establish relationships of trust with our business partners and also aim for mutual development.

4. Social trust

We are committed to ensuring adherence to all relevant laws and regulations when making procurement deals. We will also ensure the confidentiality of our business partners' confidential information that we have gained through our procurement deals.

5. CSR procurement

We promote CSR procurement, while paying close attention to compliance with laws and regulations, occupational health and safety, human rights (including addressing the issue of conflict minerals), environmental conservation, symbiosis with society, and information disclosure in a timely and appropriate manner.

6. Green procurement

We are committed to the procurement of products with a reduced environmental impact from business partners that engage in environmental activities, as part of our commitment to providing society with products that are friendly to global and local environments.

Promoting CSR Procurement Based on Established Guidelines

Customers are becoming increasingly aware of what goes on in the entire supply chain that creates products and services.

For this reason, Kubota has established the Kubota Group CSR Procurement Guidelines, based on the belief that it is necessary to have a common understanding of CSR with its major business partners in order to engage in collaborated efforts. By requesting business partners to submit a consent form indicating their intention to observe the terms of these guidelines, Kubota is encouraging its business partners' initiatives that target safe work practices, respect for human rights, and other important factors.

The Kubota Group CSR Procurement Guidelines

- 1. Winning Customer Satisfaction
- 2. Conducting Corporate Activities Based on Compliance with Legal Regulations and Ethical Principles
- 3. Respecting Human Rights
- 4. Building up a Safe and Vibrant Work Environment
- 5. Conserving the Global and Local Environment
- 6. Achieving Symbiosis with International and Local Societies
- 7. Fulfilling Responsibilities for Improving Management Transparency and Accountability

Click here for the Kubota Group CSR Procurement Guidelines. www.kubota.com/company/csr/stake_h/procure/pdf/csrprocure.pdf

Information Security Measures Kubota Requests Its Business Partners to Implement

In promoting CSR management, Kubota requests its business partners that share confidential information with Kubota Corporation and its subsidiaries and affiliates (hereunder, "the Group") to implement certain information security measures. Thus the Company hereby presents the matters related to its information security measures.

Through proper management of confidential information, we will realize stable business continuity, thereby aiming for the ongoing synergistic development of the Company, business partners, and society. We would like to ask for your further understanding and cooperation.

Information Security Measures Standards for Business Partners Japanese version www.kubota.co.jp/csr/SecurityStandardjp.pdf English version www.kubota.co.jp/csr/SecurityStandarden.pdf

Information Security Measures Standards for Business Partners Check Sheet Japanese version www.kubota.co.jp/csr/SecurityStandard_CheckSheetjp.xlsx English version www.kubota.co.jp/csr/SecurityStandard_CheckSheeten.xlsxdf

Green Procurement

Click here for the Green Procurement Guidelines. www.kubota.co.jp/kubota-ep/main/files/green201801en.pdf

Handling of Conflict Minerals

Policy on conflict minerals

Tantalum, tin, tungsten and gold, and their derivatives ("conflict minerals") produced in the Democratic Republic of the Congo and its adjoining countries are the source of funds for armed insurgents, who have repeatedly committed inhumane acts in these countries. This is a major social issue of concern related to human rights, the environment, etc. in the supply chain.

As a part of its corporate social responsibility (CSR), Kubota promotes banning of the use of conflict minerals, which serve as a source of funds for the armed insurgents, and promptly takes steps to discontinue their use in the unlikely event that it becomes clear they are being so used. Kubota seeks mutual understanding regarding this issue with its business partners, which are a part of the supply chain, and requests their cooperation in surveys and audits conducted by Kubota.

In FY2018, Kubota requested that its business partners formulate their policy on conflict minerals. Kubota also conducted the FY2018 survey, which achieved a 100% response rate.



Democratic Republic of the Congo and Adjoining Countries

Democratic Republic of the Congo

Neighboring countries Republic of South Sudan Republic of Uganda Republic of Rwanda Republic of Burundi United Republic of Tanzania Republic of Zambia Republic of Angola Republic of Congo Central African Republic

Promoting Optimal Regional Procurement and Supplier Quality/Productivity

Procurement at overseas production bases has risen sharply in parallel with the rapid globalization of business.

The Kubota Group promotes optimal procurement in every region through the establishment of a global supply system. Moreover, the Group unites with major global suppliers to promote systematic improvement activities for the purpose of strengthening competitiveness by improving quality and productivity.

In FY2018, as a continuation of the previous year, Kubota held the 5th Kubota Supplier Technical Skills Competition to improve the skill level of its suppliers. Moreover, the 4th Kubota Kaizen World Cup was also held in order to vitalize improvement activities. In this World Cup, suppliers selected from various regions around the world present their company's successful improvement cases as they compete for the status of World Champion.

Throughout the entire supply chain, Kubota will continue its efforts to make the Kubota brand trusted and appreciated by its customers around the world.



Kubota Supplier Technical Skills Competition



Kubota Kaizen World Cup

<SDGs related to this section>

Relationships with Our Shareholders and Investors



Constructive Dialogue with Shareholders

Kubota promotes constructive dialogue with shareholders and investors in order to sustain corporate growth and improve corporate value in the mid- to long-term.

Kubota holds results briefings for domestic and foreign institutional investors, company information sessions for individual investors, and factory tours. Going forward, Kubota will continue to actively engage in dialogue with all stakeholders.

Dialogue with Individual Shareholders

In 2018, Kubota held factory tours for 38 stockholders at the Utsunomiya Plant as PR for the advanced production management system for rice transplanters and combine harvesters. Elsewhere, 48 stockholders were given a tour of the Hirakata Plant, where construction machinery and pumps are produced.

Kubota held three rounds of company information sessions, which also served as occasions for face-to-face talks between Kubota's CEO and individual investors, while also gaining understanding of Kubota Group's business activities and management strategy among over 2,000 individuals by participating in the 2018 Nikkei IR and Investment Fair for the first time.

Aiming to expand its number of actively supportive stockholders, Kubota also held company information sessions and engaged in discussions around the country on nine occasions.

Moreover, in a new undertaking, Kubota invited 500 stockholders to the Kubota New Year Session exhibition of the company's new products, creating opportunities for the shareholders to see the products at first hand and to interact with Kubota employees.





Plant tour for shareholders (Utsunomiya Plant)



New Year Session 2018 (Kyoto)



Plant tour for shareholders (Hirakata Plant)



Nikkei IR and Investment Fair 2018

Dialogue with Institutional Investors and Analysts

Kubota Corporation has approximately 370 individual and group meetings per year with institutional investors and analysts. In addition, Kubota Corporation holds a new product exhibition and a briefing on business operations in January, a results briefing for the year-end in February, and a results briefing for the first half in August. Furthermore, Kubota Corporation makes timely disclosure of its financial and other information in Japanese and English. Moreover, in accordance with the intent of fair disclosure rules, starting in 2018, Kubota Corporation is also working to enhance the early and fair disclosure of information by releasing on the corporate website the details of explanations and Q&A summaries from the results briefings for the first half and year-end, as well as supplementary information for results for the first quarter and third quarter.

In addition, Kubota Corporation regularly conducts tours of its domestic factories and overseas subsidiaries and briefings on business operations. In 2018, Kubota Corporation held briefings and factory tours of the construction machinery business at its Hirakata Plant.



Social Report

Relationships with Employees

<SDGs related to this section>



Customer satisfaction cannot be accomplished without employee satisfaction. The Kubota Group promotes the creation of comfortable and motivated workplaces where its employees can not only work safely and securely but also feel pride and joy in their work.

In accordance with the Kubota Group Charter for Action & Code of Conduct, which is our global standard for conduct, we carry out audits and interviews at overseas bases with a clear understanding of the circumstances of each country and region, in order to raise the level of employee-related policies across the entire Group.

Creating a Safe Workplace for All Employees

Promoting a Safer Workplace

Kubota formulated its Basic Policies on Safety and Health in April 2013 for the purpose of creating a safer and more secure workplace. Based on these policies, Kubota is enforcing the ethic whereby all people involved in the business, including contractor employees, behave based on the philosophy that "Safety is Our First Priority."

In September 2014, three specific instructions to ensure the "Safety is Our First Priority" philosophy were announced by the President.

The Kubota Group's Mid-term Plan (FY2018 to FY2022) has put forth a variety of strategies to achieve a goal of zero Class-A incidents,* with initiatives promoting inherently safe equipment; promoting safe operations; enhancing personnel development to support safety; and maintaining and improving a safe and healthy working environment as its pillars.

* Class-A incident refers to:

1) contact with a high-heat object, etc., 2) contact with a heavy load, etc., 3) entrapment and entanglement by machines, 4) fall from heights, 5) contact and the like with forklift / vehicle, 6) falling from or contact with agricultural/construction machinery, 7) electric shock, 8) hit by a flying / falling object, 9) acute poisoning by harmful substances, or 10) fires or explosions

The Kubota Group Basic Policies on Safety and Health

"In the Kubota Group, no work should be carried out without serious consideration of safety and health." To achieve this, we established the fundamental principle that all the people involved in the business shall behave based on the philosophy that "Safety is Our First Priority."

Safety is Our First Priority

- 1. All the people involved in the business of the Kubota Group shall observe the determined rules and behave based on the philosophy "Safety is Our First Priority," to protect themselves from accidents.
- 2. Management executives shall operate the business keeping in mind the philosophy "Safety is Our First Priority," respect and listen to the voices of frontline worksites, and be reminded that "the worksite is a mirror that reflects yourself."
- 3. Management-level employees shall identify any risk that may lead to a serious incident and take faithful action to address such risk, while endeavoring to create a corporate culture that allows straightforward talk about safety and to develop human resources that support safety.

Kubota Group's Mid-term Plan (FY2018 to FY2022) Target and Major Tasks

Kubota sets a target for the period up to FY2022 as the final year, and will mainly address the tasks below.

Target: Zero Class-A incidents

<Major tasks>

- 1. Promoting inherently safe equipment
 - (1) Apply the risk assessment for machine safety to all new equipment.
 - (2) Complete measures for existing equipment to achieve the target levels determined in the Safety Control Guidelines for assessment and promotion of inherently safe equipment.
 - (3) Work to prevent the recurrence of equipment abnormality.
- 2. Promoting safe operations
 - (1) Review the risk assessment for work operations, and based on the results of the assessment, formulate work instruction sheets in which a description of content of risk and the risk aversion procedures are provided.
- 3. Enhancing personnel development to support safety (the Kubota Group Safety-Aware Employee Development)
 - (1) Promote activities to enable all employees to follow the "basic daily cycle" described in the Basic Guidelines for Safety-Aware Employees as a habit.
- 4. Maintaining and improving a safe and healthy working environment
 - (1) Accumulate improvement examples at model dusty workplaces before deployment to other offices and workplaces.

Basic Guidelines for Safety-Aware Employees



Initiatives Implemented for Priority Issues of FY2018

In FY2018, the initiatives below were implemented with regard to priority issues.

1. Achievement of Level II for existing equipment and Level III for new equipment (8 domestic Group companies and 16 overseas Group companies)

We have started activities to draft and fulfill a 5-year implementation plan by which all existing equipment that has not achieved Level II will be brought up to Level II, based on the Safety Control Guidelines for assessment and promotion of inherently safe equipment, which categorizes equipment into degrees of safety from Levels I to IV. We have commenced operations so that new equipment will be Level III at the time of its introduction, based on the risk assessment for machine safety that was revised in FY2017.

2. Initiative to prevent recurrence of equipment abnormalities (all domestic Group companies)

We have constructed a culture where, when equipment abnormalities occur, workers are able to stop the equipment as a matter of course. We have also promoted the prevention of such abnormalities from recurring through their visualization, and we have begun activities intended to eradicate incidents that result from not stopping equipment when abnormalities occur.

3. Promotion of risk assessments of work operation activities (all domestic Group companies)

Through our promotion of risk assessment of work operation activities that place an emphasis on the risks linked to Class-A incidents, we have been able to advance equipment strategies. We have also advanced the creation of work standards sheets that show that describing the details of a risk provides a reason for compliance with procedures as well as detailing the procedures for avoiding risk so that we can prevent the incidents that result from residual risk. We have also held guidance seminars where employees can receive instruction from external consultants who have observed the actual work on our manufacturing floors so that we can improve our risk identification capabilities linked to Class-A incidents.

4. Initiatives to instill the Basic Guidelines for Safety-Aware Employees (all domestic Group companies)

We have undertaken educational activities via the serial publication of messages from the management in our company newsletters, so that it will become a habit for all of our employees to always abide by the Basic Guidelines for Safety-Aware Employees, and that habituation will help achieve our organizational culture.

5. Education on how to teach safe operations (all domestic Group companies)

As part of our rank-based education initiatives, we have established a defined way of how to teach safe operations that clearly describes specific approaches to work-related teaching and methods for confirming and assessing degrees of proficiency. With this, workers can receive easy-tounderstand guidance regarding the work they are in charge of, allowing them to perform their work more safely once they learn methods to avoid risks and the rationale behind why they need to abide by those methods.

6. Maintaining and improving a safe and healthy working environment (all domestic Group companies)

We have designated model workplaces for particulate reduction strategies, where we have conducted source testing for accumulated particulates and implemented strategies for reducing those particulates. As we build up accomplishments in these model workplaces, we are expanding the results to other offices and workplaces.

The Kubota Group Safety and Health Target for FY2019

Kubota has clearly set the target below for FY2019, and is promoting Company-wide efforts to create safe workplaces.

Target: Zero Class-A incidents

[Priority implementation issues]

Business sites and plant departments

- 1. Promoting inherently safe equipment
- 2. Promoting safe operations
- 3. Developing Safety-Aware Employees
- 4. Promoting sanitary management
- 5. Operating the Kubota Group health and safety management system
- 6. Taking action for Group manufacturing companies outside Japan

Construction departments

- 1. Developing Safety-Aware Employees
- 2. Promoting safe operations
- 3. Promoting inherently safe equipment
- 4. Promoting sanitary management
- 5. Promoting environmental management

Raising Awareness of Safety, the Environment, and Quality

In October, we cosponsored with our Environmental Protection Department the Chinese Region Conference for Managers of Safety, Health and Environmental Issues geared towards our Group companies in the Chinese region. Safety, Health, and Environmental Supervisors from Japan from our mother plant (the Sakai Plant), as well as the Hirakata Plant and the Tsukuba Plant, took part in the conference to convey policies and share issues, and executive staff from the various regional companies gathered to discuss these topics.

In November, Kubota held a Safety, Environment, and Quality Forum. Noboru Furusawa delivered a lecture entitled "Safety, the environment and quality are the basis of corporate activity: That's what management is all about" based on his starting of the Supporting Safety and Developing Human Resources organization after his time at Toyota Motor Corporation as the Supervising Director of the Safety and Health Promotion Division. He offered the following wisdom, including, "If you start with safety and continue to make improvements, difficult work will become more easy to perform, and quality will improve," and, "The production line can also be something simple, and from an environmental perspective it can be linked to a reduction in energy consumption," as well as "people who continually work towards improvement and workplace formation are important."



Safety, Environment, and Quality Forum (November 20, 2018)

Severity Injury Rate (Kubota Corporation)

Lost Time Incident Rate/Severity Injury Rate



Lost Time Incident Rate (Kubota Corporation)

---- Kubota (plants)

Kubota (construction)

- Average for manufacturing industry
- ----- Construction industry (average for projects by occupation)
- * Due to the occurrence of accidents accompanied with multiple absences from work at one time
- Tallied from April 1 to March 31 of the following year up until 2014.

In 2015, tallied from April 1 to December 31.



- Kubota (plants) -
- Kubota (construction)
- Average for manufacturing industry
- Construction industry (average for projects by occupation)

Tallied from April 1 to March 31 of the following year up until 2014. In 2015, tallied from April 1 to December 31.

Safety and Health Education Implementation Status in FY2018

Safety and health education is provided for each rank, including for new employees (education at the time of employment).

Manufacturing Departments

Name of education program	No. of times held	Total participants
Education for new employees	6	305
Elementary (for young employees)	6	155
Semi-intermediate (for mid-career employees)	2	45
Intermediate (for workplace leaders)	2	40
Training for newly appointed supervisors	4	70
Training for newly appointed foremen	1	10
Education for foremen, etc. (supervisors or lead persons)	2	40

Other than Manufacturing Departments

Name of education program	No. of times held	Total participants
Education for new employees	2	145
Education at the time of appointment of safety managers	2	20
Safety and health education for mid-career entrants at the time of employment	12	120
Equipment safety education	12	200
Training for newly promoted managers	1	130
Training for newly appointed section managers	4	60
Training for newly appointed department managers	1	20
Education for officers	1	28

* Figures for the total number of participants are rounded to the nearest five, except in the case of "education for officers."

Sites with Occupational Health and Safety Management System Certification (OHSAS 18001)

To ensure safety for employees and provide them with a workplace environment that allows them to feel safe concentrating on their duties, Kubota has acquired OHSAS 18001 certification for its business sites below, while establishing an occupational health and safety management system focusing mainly on risk assessment for other sites.

In Japan

Tsukuba Plant	Certification acquired in Dec. 2000
Keiyo Plant	Certification acquired in Dec. 2002 Transitioned to ISO 45001 certification in Nov. 2018
Ichikawa Plant	Certification acquired in Dec. 2002 Transitioned to ISO 45001 certification in Nov. 2018
Hanshin Plant (Mukogawa)	Certification acquired in Nov. 2003
Hanshin Plant (Amagasaki)	Certification acquired in Apr. 2005
Hirakata Plant	Certification acquired in Jun. 2007

Overseas

Kubota Materials Canada Corporation	Certification acquired in Aug. 2012
SIAM KUBOTA Corporation Co., Ltd.	Certification acquired in JanFeb. 2014
Kubota Baumaschinen GmbH	Certification acquired in Jul. 2014
SIAM KUBOTA Metal Technology Co., Ltd.	Certification acquired in Dec. 2014
KUBOTA Engine (Thailand) Co., Ltd.	Certification acquired in Jul. 2015
Kubota Farm Machinery Europe S.A.S	Certification acquired in Feb. 2017

Respecting Human Rights

Basic Policies Regarding Human Rights

The Kubota Group supports the Universal Declaration of Human Rights, respects the human rights of all people, and does not discriminate or violate human rights on the basis of nationality, race, age, gender, sexual orientation, gender identity or disability, or for any other reason.

The Kubota Group does not permit forced labor or child labor, and also requests that its business partners comply in this regard. These policies are declared in the KUBOTA Group Charter for Action & Code of Conduct and put into practice.

Code of Conduct (excerpts)

- We support the Universal Declaration of Human Rights, and respect the human rights of all people.
- We do not discriminate or violate human rights on the basis of nationality, race, age, gender, sexual orientation or gender identity,* disability, or for any other reason.

* The concept of how one perceives one's own gender.

• We do not permit forced labor or child labor, and also request our business partners to comply in this regard.

Human Rights Advancement System

Kubota has a Human Rights Advancement Planning & Coordination Committee headed by the director in charge of CSR Planning & Coordination Headquarters. Its members at each Kubota site are promoting activities based on the human rights advancement activity policies. At the beginning of each fiscal year, a meeting is held gathering the committee members of all sites.

Besides the committee members, a human rights advancement leader is appointed at each site, who leads the human rights advancement activities of the site.



Human Rights Education

Aiming to create a harassment-free, worker-friendly workplace environment, Kubota plans and provides human rights education programs for all employees, including President and Directors, every year, based on the human rights advancement activity policies.

It is now possible to receive human rights education from overseas via a video conference system. The education programs include rank-based training, such as training for new employees, and human rights education provided at each site. Employees who are unable to receive such programs can receive education via a video conference system, or study by themselves using DVDs, textbooks, and FAQs.

In FY2018, all Kubota employees (in terms of the total number of participants) in Japan received human rights education through internal training or training offered by external organizations.

[Results of Internal Training in 2018]

	Internal training	External training	Total
Kubota	13,899 people	389 people	14,288 people
Group companies in Japan	8,310 people	110 people	8,420 people

Social Report

Major Internal Education Programs

Training for directors and managers	187 people (including presidents, etc. of Group companies in Japan)
Training for new employees	1,090 people (including those from Group companies in Japan)
Training for newly appointed foremen	14 people (including those from Group companies in Japan)
Training for newly appointed supervisors	36 people (including those from Group companies in Japan)
Seminar for harassment consultation office personnel	70 people (including those from Group companies in Japan)
Fieldwork training for human rights leaders	37 people (including those from Group companies in Japan, etc.)
Training for expatriates	25 people

* The figures include temporary and re-hired employees.

* Education programs are held at each Group company in Japan.

* For the hearing-impaired, DVD transcripts (or a DVD with subtitles) or lecture texts are provided in advance, so that they can receive training with other participants in the same room.

Major Education Themes

- Prevention of harassment (Sexual harassment, maternity harassment,^(*1) power harassment, or harassment against sexual minorities (LGBT,^(*2) SOGI,^(*3) etc.), etc.)
- Responses to harassment counseling for superiors
- Social discrimination (Dowa) (such as online discrimination towards minority groups (e.g. Buraku), etc.)
- Issues facing the disabled (Act to Advance the Elimination of Discrimination against the Disabled, the disabled employment ratio, etc.)
- Issues facing foreign residents in Japan (hate-based harassment, etc.)
- UK Modern Slavery Act
- The supply chain and human rights (SDGs)
- Various human rights issues (such as color vision variations and universal color design)
- Results of surveys on CSR awareness
- Revision of the employment regulations, etc. associated with the revision of the Equal Employment Opportunities Act and the Child Care and Family Care Leave Act

*1 Harassment relating to pregnancy, childbirth, childcare leave, etc.

*2 Acronym of lesbian, gay, bisexual, and transgender *3 SO (sexual orientation), GI (gender identity).

Major External Training

Kubota also encourages its employees to proactively participate in seminars hosted by corporate organizations addressing human rights issues and government organs.

Examples: Dowa and Human Rights Issue Awareness-Raising Seminar (for management-level employees) hosted by the Corporate Federation for Dowa and Human Rights Issues: 10 participants

Dowa and Human Rights Issue Awareness-Raising Introductory Seminar hosted by the Sakai City Human Rights Education Promotion Council: 94 participants

The 38th Human Rights and Dowa Issue Corporate Awareness-Raising Seminar hosted by the Executive Committee^(*4): 42 participants (including those from Group companies in Japan)

The 48th Buraku Liberation and Human Rights Summer Seminar hosted by the Executive Committee^(*4): 13 participants (including those from Group companies in Japan), etc.

*4 Hosted by Osaka Prefecture, Osaka City, Buraku Liberation and Human Rights Research Institute, etc.



Directors and Managers Human Rights Training (Aug 6, 2018) (Theme: Human rights issues in global corporations – The supply chain and human rights) (Lecturer: Yozo Yokota, President of the Center for Human Rights Education and Training)



Kubota Headquarters Human Rights Training (Oct 17, 2018) (Lecturer: Hiroyuki Ikenaga, General Manager of the Human Rights Advancement Department, CSR Planning & Coordination Headquarters)



Kubota Headquarters Human Rights Training (Oct 17, 2018) Kubota Hokkaido Regional Office Human Rights Training (Lecturer: Hiroyuki Ikenaga, General Manager of the (July 30, 2018)

(Lecturer: Ryo Tamura, Head of Human Rights Awareness Division, Human Rights Awareness Department, CSR Planning & Coordination Headquarters)

Consultation Office System

As remedial action for victims of human rights violation, Kubota established the Kubota Hotline—a whistleblowing system that includes the use of outside lawyers—and consultation office systems at each of its bases, including those overseas, thereby enabling it to respond swiftly to any issues that may arise.

Number of cases reported on human rights issues (including harassment) in 2018: 67 (21 of which were recognized)

[Whistleblowing System (Kubota Hotline)]

We distribute pocket cards with contact details and introduce such offices through the Company intranet, posters, email magazines, human rights seminars, and so on.

[Consultation Office System in Japan]



Harassment Consultation Office Personnel Seminar (July 10, 2018) (Lecturer: Satomi Kuwano, CEO, Business Partner Office)

Each year, Kubota holds a seminar for harassment consultation office personnel inviting external lecturers, with the aim of improving their counseling ability and preventing secondary victimization. A total of 70 employees, focusing on newly appointed supervisors and including those who participated via a video conference system, took part in this seminar in 2018.

The seminar focused on enabling the participants to take prompt and appropriate action against many types of harassment, such as sexual, power, or maternity harassment, or harassment against sexual minorities, without causing any disadvantage to the informant.

Activities to Raise Human Rights Awareness

In order to enhance awareness of human rights, Kubota invites human rights-related slogans from all Japan-based employees, including those from Group companies in Japan, every year, and awards excellent slogans during Human Rights Week, which is celebrated every December.

In 2018, entries were received from a total of 17,602 applicants (an application rate of 85.3%) and the best slogan from each business site was posted on a long strip of paper. Starting from 2016, the awarded slogans have also been posted at distributors.

Human Rights Week Activities at Each Base



Installation of banners (headquarters)



Awarding the winner of the human rights slogan contest (Group company in Japan)

Installation of banners (Hirakata Plant)



Implementation of human rights training (Tsukuba Plant)



Installation of standing signboards (Sakai Plant)



Display of human rights slogans (Group company in Japan)

Protection of Privacy

From the perspective of respecting human rights and protecting privacy, Kubota conducts several inspections each year for each base to ensure there are no insufficiencies in investigation tasks such as credit surveys, and there are no problematic contents or descriptions from the perspective of human rights violation included in the investigation reports.

Developing Human Rights Leaders

Kubota appoints human rights leaders and holds a human rights leaders' meeting every year, at which leaders explain their human rights advancement policies, give presentations on human rights advancement activities, and discuss the contents of human rights education.

Fieldwork training is also conducted twice a year (once in the eastern Japan area and once in the western Japan area). The participants learn about the local situation of the area by listening to lectures by external lecturers or persons actually involved in the lecture topic, and by walking around the local area.

In 2018, participants in the fieldwork for the eastern Japan area studied in Shinjuku, Tokyo, while the participants in the western Japan area in Kobe, Hyogo Prefecture, learned about the issue of discrimination against foreigners residing in Japan.



Eastern Japan area: Fieldwork training in Shinjuku, Tokyo (March 7, 2018)

Details: A lecture about "The History of Exchange Between Japan and Korea" and sightseeing at locations such as the Korea Museum, Japan Evangelical Lutheran Church, Islam Yokocho, and the Okubo Library (Participants: 14 people)



Western Japan region: Heldwork training within Kobe, Hyogo Prefecture (March 13, 2018) Details: A lecture about "Building a Town for Multicultural Coexistence," and sightseeing at locations such as the area around Shin-Nagata Station, the Kobe Foreigners Friendship Center, the Kobe Korean Educational Culture Center, the Honmachi-suji shopping street, the Marugo Market, the Taisho-suji shopping street, Daikoku Park, Tetsujin-hiroba Plaza, and Takatori Catholic Church (Participants: 23 people)

Respecting Human Rights throughout the Supply Chain

Kubota declares in the Kubota Group Charter for Action, "we do not permit forced labor or child labor, and also request our business partners to comply in this regard."

Also, in its CSR Procurement Guidelines, Kubota declares that it does not permit forced labor or child labor, and also requests that its suppliers comply in this regard. The Guidelines also clearly prohibit the use of conflict minerals, * which are a source of funds for armed insurgents.

In May 2017, the Kubota Group released its Group statement with regard to the UK Modern Slavery Act, and has updated its statement each year, which can be seen on our website.

For employees in Japan, explanation was provided during their human rights education programs. At overseas Group companies, the business site heads of each company provided explanation to the employees.

Click here for details.

www.kubota.com/company/csr/stake_h/procure/pdf/csrprocure.pdf

* Tantalum, tin, tungsten and gold and their derivatives, produced in the Democratic Republic of the Congo and its neighboring countries, which constitute a source of funds for armed insurgents, who have repeatedly committed inhumane acts in these countries.

Awareness Survey on Harassment

An awareness survey on harassment is conducted collaboratively by the labor union and the Human Rights Advancement Department, targeting Kubota employees. The results of the survey are released through the Company intranet and on the newsletter distributed to union members. Details are explained in human rights education programs, etc.

External Related Organizations

Kubota participates in the external organizations below and is working to create a discrimination-free society.

- The Corporate Federation for Dowa and Human Rights Issues, Osaka (also participating in Shiga, Wakayama, Hyogo, Chiba and Hiroshima)
- Osaka City Corporate Human Rights Promotion Council (with related organizations in each municipality)
- The Center for Fair Recruitment and Human Rights Advancement
- Multi-Ethnic Human Rights Education Center for Pro-existence
- Osaka Career Support & Talent Enhancement Plaza
- Buraku Liberation and Human Rights Research Institute, etc.

Promoting Diversity

Empowering Women in the Workplace

As a focal point of diversity management, Kubota supports women in the workplace through initiatives such as changing the human resources system and offering various training programs. Kubota steadily advances the promotion of women through expanding the occupational scope of women by implementing the consolidation of occupational roles and other means. The number of women who are promoted to managerial positions has been increasing year by year. The gap in the number of years of working experience between men and women has also been shrinking every year.

Trend in the Number of Women in Management Roles* (Kubota Corp.)





* As of April each year (from 2016, as of January)

Offering Various Training Programs to Support Women

To date, Kubota has established Group-wide activities aimed at women's participation in outside forums and networking for the purpose of supporting career advancement and fostering a corporate culture that empowers women in the workplace.

To promote the empowerment of female employees, Kubota holds leader development training for female employees expected to undertake leadership roles.

The aim of the training is to help the participants develop their careers and play more active roles by acquiring the mindset and skills necessary for a leader.

Participating Forums

1. 14th Women's Networking Forum in Tokyo

2. 15th Women's Networking Forum in Osaka

Signed Women's Empowerment Principles (WEPs)

The Women's Empowerment Principles (WEPs) is a set of principles jointly prepared by the UN Global Compact^{*1} and UN Women^{*2} in March 2010 to create work and social environments where women's strengths can be leveraged in corporate activities.

The Kubota Group supports these principles and endorsed the doctrine in July 2012, thus positioning gender equality and the empowerment of women as a focal point of its management and pledging to autonomously carry out initiatives.

*1 Global initiative to achieve sustainable growth in international society announced by the UN Secretary-General at the 1999 World Economic Forum



Leader development training for female employees in staff positions (joint session with supervisors and female managers)



Certification for Women's Empowerment Principles

^{*2} United Nations entity working for gender equality and the empowerment of women

Support for Job Creation and Establishing a Work Environment for Disabled People

The Kubota Group is active in its initiatives towards the employment of disabled people that are aimed at supporting self-reliance, especially through its special subsidiary companies* (Kubota Works Co., Ltd. and Kubota Sun-Vege Farm Co., Ltd.).

Kubota Works Co., Ltd. conducts cleaning work at various offices and work mainly involving business card and document printing. Kubota Sun-Vege Farm Co., Ltd., on the other hand, is involved in initiatives to use hydroponic culture to grow vegetables safely and securely with the goals of living in harmony with the community and the practical use of unused agricultural land. The vegetables grown there are used in our company cafeteria and are available for sale to our employees, and some are being sold at supermarkets in Osaka Prefecture.

In addition, Kubota Staff Corporation (one of our Group companies) is actively involved in the employment of disabled people by outsourcing computer data entry and office work, and is promoting job creation.

* One of our subsidiary companies where organizers give special consideration to the employment of disabled people in order to promote employment of the disabled and to plan for their stability.



Kubota Sun-Vege Farm Co., Ltd



Kubota Staff Corporation

Trend in Percentage of Employees with Disabilities (Applicable Kubota Group Companies in Japan)



* As of June each year

Awarded the Osaka Governor's Prize (1st Place) at Our Debut at the Abilympics (Ability Olympics – a Skills Competition for People with Disabilities) Osaka 2018

The Abilympics Osaka 2018, sponsored by the Osaka Office of the Japan Organization for Employment of the Elderly, Persons with Disabilities and Job Seekers, was held in Settsu, Osaka Prefecture, and three people from Kubota Works Co., Ltd. took part for the first time.

One of the three participants was awarded the 1st place Osaka Governor's Prize in the Office Assistant Division, and also participated as an Osaka Prefecture representative in the National Abilympics held in the autumn in Okinawa Prefecture.



FOCUS

Voices of Participating **Employees**

This was my first time participating, so at the advance practice meetings I didn't know the ropes and was totally hopeless. But I did a lot of practice with the instructors at work, and I was able to show the results of that practice on the day of the event. Even I was surprised to win first place. It was also fun to be at the national event in Okinawa.

I'm going to do everything I can to shoot for a prize in the 2019 national event.



Kazuma Shirakami Business Printing Department Kubota Works Co., Ltd.



During the competition With supporters at the National Abilympics



The athlete Daiki Kubo, an employee of KBS Kubota Corporation, took part in the Asian Para Games from October FOCUS 7th to 12th of 2018. There, he showed a strong performance by setting 3 new Japanese records, winning 2 gold medals, 3 silver medals, and 3 bronze medals.



Daiki Kubo Business Department KBS Kubota Corporation

Prior to joining KBS Kubota, I had been trying to participate alone as a representative of Japan, so when I first put on this swimsuit with the KBS Kubota company name to take part in the Games, it really raised my spirits. I was deeply happy to receive so much support from those around me.

I plan to train even more so that I can win a medal in the Tokyo Paralympics.



Daiki Kubo's Winnings

VOICE

■ Japan Para Championships: September 22–24
■ Asian Para Games: October 7–12

	Result	Event	Result	Event
	3rd place	200m individual medley:	3rd place	00m butterfly (S9):
New Japanese Rec	2nd place	100m freestyle:		
1	Champion	400m relay:		
New Japanese Rec	3rd place	100m breaststroke:		
	5th place	100m backstroke:		
New Japanese Rec	2nd place	400m medley relay:		
	3rd place	50m freestyle:		
	Champion	100m butterfly:		

Initiatives for Sexual Minorities Such as LGBT Groups

Received Work with Pride Gold 2018

As part of how Kubota promotes diversity, we are promoting initiatives for sexual minorities. We strive to be a workplace where a diverse workforce can be active regardless of sexual orientation or gender identity, and we are making contributions towards establishing a diverse society where a broad range of values are accepted.

work with Pride



Creating a Vibrant Workplace

Maintenance and Enhancement of the Health of Employees

Kubota, including all Group companies in Japan, has set priority targets in the medium to long run in its wellness project Health Kubota 21, and promotes the maintenance and enhancement of the health of its employees by setting specific themes for each fiscal year. In FY2015, the Health Mileage system was incorporated in the project, with the aim of encouraging employees to take spontaneous action to improve their health with interest.

Health Kubota 21

Slogan: For Tomorrow, For Smile

Objective: To raise the health literacy (self-management ability regarding health) of the insured, thereby increasing those who are able to take voluntary action to develop their health

Health Kubota 21 (2nd Phase) (2013–2022) (Group Companies in Japan)

Priority Targets: 1) Nutrition and Diet 2) Physical Exercise 3) Quitting Smoking

Item	Nutrition and diet		Physical activity and exercise		Quitting smoking
Contents	Increase the percentage of people who maintain a suitable weight (BMI 18.5–24.9)	Decrease the number of people who skip breakfast three times or more a week	Increase the participation rate in the Walking Campaign	Increase the number of people who exercise at least 30 minutes a day	Decrease the smoking rate
2012 results	67.40%	19.60%	35.30%	37.90%	36.70%
2022 targets	75%	18%	80%	45%	18%

Maintenance and Enhancement of Mental Health

Based on the Safety and Health Guidelines of the Kubota Group, the Kubota Mental Health Improvement Targets were formulated. These targets specify activity objectives and goals, and the tangible actions that need to be undertaken in order to realize them. Based on these targets, our aim is to prevent mental health issues from arising, and detecting those that do at the earliest possible stage, doing so from the perspectives of self-care and line-care.

In regard to self-care, stress check, training programs, consultation services with medical staff are available, giving individual employees opportunities to recognize their own stress levels and learn how to deal with stress. For line-care, Kubota offers training for managers and supervisors as an opportunity to learn how to care for the mental health of their subordinates. Personal training programs are also available for personnel in charge of promoting mental health to improve their individual skill levels.

A stress check system was introduced in FY2016, which offers fine-tuned support for employees suffering from high stress, such as through meetings with medical doctors for those who want them, and support meetings with nurses for those who do not want to consult doctors. In addition, Kubota will conduct group analysis of the results of the stress checks for each workplace and, based thereon, start working on improving the working environment, with the aim of creating vibrant workplaces.



Mental health training session

Securing a Work-life Balance

FOCUS

In promoting the action plan for general business operators set out in the Act of Promotion of Women's Participation and Advancement in the Workplace, Kubota is eliminating consciousness of gender-based roles in responsibility allocation.

- The gap in the number of years of working experience between men and women is shrinking.
- 70% of women are returning to work within one year of taking childcare leave.

In light of the above two points, Kubota proactively encourages its male employees to take childcare leave based on the belief that they should contribute to housework and child-raising so that women may continue to pursue their careers.

For both male and female employees, Kubota promotes the creation of a working environment in which a good work-life balance is ensured.



"Kurumin Mark" for companies with next-generation childcare systems

Kubota Received the Excellence Prize in the Osaka City Mayor's Awards for Leading Companies in Women's Empowerment

Osaka City certifies companies that actively promote initiatives to create organizations in which motivated women can continue to play active roles, support the securement of a good work-life balance, and support participation by men in child-raising, housework, and community activities, as Leading Companies in Women's Empowerment. Every fiscal year, companies that undertake excellent initiatives are selected from among certified leading companies and awarded. This year, prize winners were selected from among 95 organizations that had acquired the certification from January to December 2016.

Kubota Corporation acquired the certificate on March 31, 2016. Kubota's efforts of "steadily advancing the promotion of women by consolidating job systems to expand women's job scopes and other means," and "establishing effective systems to support childbirth and childcare, while encouraging male employees to take childcare leave through enhancing training programs, launching campaigns, publishing awareness-raising leaflets, etc. with the aim of eliminating the perception of fixed gender roles" were highly appreciated.

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Certification of the Excellence Prize

Training for Employees Returning from Childcare Leave

To dispel concerns regarding returning to the workplace after childcare leave, Kubota provides training for employees who have taken childcare leave, which their supervisors and spouses can attend.

(Kubota emphasizes that taking leave to raise one's children does not mark the end of one's career. Accordingly, we refrain from using the term "holiday leave" and refer to this instead as "childcare leave.")



Trend in the Percentage of Women Who Return to



Training for employees returning from childcare leave

* Tallied from April 1 to March 31 of the following year for each year

Re-entry

This program is targeted at employees who have left Kubota for childbirth, parenting, or nursing care, or due to the transfer of their spouse, giving them the opportunity to re-enter the workplace.

Participants in Re-entry Program (Kubota Corp.)



Commenced re-entry in Sep. 2012

* Nine months between April and December of FY2015 (settlement moved to December)

* From January through December, as of FY2016

Encouraging Male Employees to Take Childcare Leave

Kubota sets phased targets for the number of male employees taking childcare leave, and actively encourages participation.

No./Percentage using Childcare Leave (Male) (Kubota Corp.)



* Tallied from April 1 to March 31 of the following year for each year

Promoting the Use of Annual Paid Leave

Kubota encourages employees to use their paid leave days from the standpoint of maintaining their mental and physical health, preventing excessively long working hours, and securing a good work-life balance.

With the promotion policy and specific measures of encouragement shared by labor and management, Kubota encourages the use of paid leave in cooperation with the labor union.

Promotion Policy

- 1. Recommend that employees take paid leave during labor management negotiations.
- 2. Create an environment where it is easy to use paid leave.
- 3. Foster opportunities to rethink the way one works.

Specific Measures of Encouragement

- 1. Set achievable targets company-wide.
- 2. Continue and strengthen initiatives unique to each business site, and spread awareness and disseminate information about using annual paid leave.
- 3. Discuss and implement efficient ways to work, visualize work, and create work manuals to promote communication at each workplace about using paid leave.

Trend in the Percentage of Employees Taking Annual Paid Leave (Kubota Corp.)



* Tallied from December 16 to December 15 of the following year for each year from 2016

Initiatives to Improve the Retention Rate of New Employees

Every year, many new graduates (from universities and high schools) and mid-career entrants join Kubota.

Kubota endeavors to create an environment that allows new employees to retain and play active roles in early stages, by offering training programs before assignment and follow-up support after assignment.

Trend in the Retention Rate of New Employees (Kubota Corp.)



Personnel Measures in Tune with Globalization

Expanding the Overseas Trainee System

From the World to Japan

/OICE

As overseas businesses are expanding rapidly, it is urgently necessary to develop human resources who are capable of playing a core role in promoting the autonomy of overseas sites.

Under these circumstances, Kubota started an overseas trainee system in 2015 with a view to developing candidates for managers and supervisors, and engineers at overseas sites.

At present, trainees from KAMS in China and KET in Thailand are learning Kubota-style manufacturing concepts and know-how, technologies, and knowledge at their mother plants in Japan for a period from six months to a year.

Kubota has accepted a total of 25 trainees so far. While continuing to receive trainees from China and Thailand, the Company will also invite trainees from other areas, thereby promoting human resources development to help foster the autonomy of overseas sites.

I Worked at the Tsukuba Plant as a Trainee from KET for About a Year.

I worked at the Tsukuba Plant, the mother plant of KET in Thailand, as a trainee for about a year. At KET, it takes more time than at the Tsukuba Plant to solve the same problem in terms of quality, cost, or productivity. During this training, I learned various problem-solving approaches, such as 4M analysis and the 3-Gen Principle. After returning, I will form a promotion committee concerning quality, cost, and productivity and make KET a strong plant with SEQCD equivalent to the Tsukuba Plant.



Wanthida Taraket KUBOTA Engine (Thailand) Co., Ltd.

From Japan to the World

Since 1997, Kubota has dispatched a number of employees to its overseas subsidiaries and affiliated companies each year for training purposes. In September 2016, Kubota began to dispatch trainees to agricultural universities in Europe to learn the latest precision farming for two years. Kubota will continue to dispatch employees overseas as one of its most effective initiatives to foster global human resources.



Instructor and trainee

The Second Next-generation Management Training in North America Held

Kubota held the third-year session of the North America management training program to develop local management executives, which was launched in April 2016 jointly by five companies in the North America area of the Kubota Group Machinery business, and Kubota's Machinery Overseas Administrative Division and Human Resources Department. The aim of the North America management training is to develop local management executives who are capable of contributing to the global management of Kubota, as well as to raise the motivation of local staff and foster a sense of unity among the training participants from each company. The six selected trainees received programs necessary for prospective leaders at the business school of Emory University in the United States.

Kubota will endeavor to activate exchanges between overseas and domestic operation sites, and also among overseas sites, thereby strengthening its global management system.



Ongoing Foreign Language Training Abroad for New Employees

In an effort to foster global human resources with the necessary language skills and the ability to adapt to different cultures, since FY2008, Kubota has been offering new employees (administrative and general class) the opportunity to participate in a foreign language education program abroad.

Employees are classified into different courses depending on their language ability at the time of employment and the needs of the department to which they are assigned, and sent to a language school in North America or the Philippines for about one month.

Employees who have acquired high language skills are provided with more practical learning opportunities, such as an internship program at an overseas company.



Personnel Policies and HR System (Kubota)

Basic Personnel Policies

Foster a corporate culture full of vigor with emphasis on taking on challenges and creativity. Find the right person for the right job based on their abilities and ambitions.

Basic idea of personnel system operations

- 1. Equal opportunity Each employee can strive to attain any role or position.
- 2. Right person for the right job Aim to place the right person in the right job based on their abilities and ambitions

Overview of Personnel Training, Performance-based Promotion and Compensation

There are three career paths comprising expert positions, staff positions and technical positions for different roles and responsibilities. The personnel system offers personnel training, and performance-based promotion and compensation for each of these career paths. Employees can change career paths based on their abilities and ambitions.

Career	Expert positions (management class)	Staff positions (administrative and general class)	Technical positions (technical class)	
Definition of personnel (main roles)	People who drive the business, solve problems that arise in operations, and exhibit a high level of performance based on their willingness to take on challenges, advanced expertise, abun- dant knowledge and extensive experi- ence and know-how	People who contribute to the busi- ness, take on challenges for their own growth, and take on broad responsi- bilities, especially work that requires expertise, creativity and experience, while aiming to establish a field of expertise	 People who are in charge of work responsibilities, supervise and nur- ture subordinates, and achieve work objectives People who improve work pro- cesses based on advanced skills, knowledge and experience, and can perform complicated work 	
Training and education	 Department and section head class: management training Upcoming management assistants: selective training 	Specialized training for specific objec- tives that employees can choose on their own from a curriculum of about 140 courses of varying difficulty and subject matter	Rank-based training to improve tech- nical skills and quickly foster supervi- sors with a particular focus on training in the "5-Gen" principles	
Evaluations	 Employees set targets with their boss held during the year to evaluate prog a self-evaluation and a review meetin of the year. Bosses evaluate their subordinates, in and work behavior. 	ses at the start of the year. Meetings are ress towards these targets, followed by ng on the achievement status at the end ncluding their performance of processes	 Executives set targets with their bosses at the start of the year. Meetings are held during the year to evaluate progress towards these targets, followed by a self-evaluation and a review meeting on the achievement status at the end of the year. Non-executives endeavor to achieve the targets set with their bosses. Both executives and nonexecutives are evaluated comprehensively based not only on the achievements and results, but also on their attitudes, behavior and roles. 	
Rotation	The work responsibilities of each emp into consideration workplace needs an having employees perform the same w	bloyee are reviewed periodically, taking ad the employee's preferences, to avoid ork for long periods.		
Ranking (Basis upon which compensation is determined)	 Five rankings Moves up in the rankings based on contribution to performance 	 Seven rankings Moves up in the rankings based on contribution to performance (Some require testing) 	 11 rankings Moves up in the rankings based on contribution to performance (Some require testing and technical qualifications) 	
Salaries	Each ranking has upper and lower limit	ts to its monthly salary.		
Bonuses	Bonuses are designed to reflect con- solidated performance, affiliated busi- ness performance, and individual performance.	n- si- Bonuses are designed to reflect individual performance and bonus amounts al set as standards in annual labor-management negotiations.		
Retirement benefits	Retirement benefits are based on a poi	int system that reflects rank, years of ser	vice, and evaluation.	

Fostering a CSR-based Mindset

Activities for Instilling the Corporate Principles Instilling a Mindset Capable of Resolving Social Issues

As globalization of the economy and advancement of diversity have enabled the employment of a wide variety of personnel, there is a growing need for all Kubota Group employees around the world to understand and share, across national borders, generations and job ranks, the basic philosophy and concepts that serve as the basis of the Kubota Group's global management. All employees of the Kubota Group are expected to understand and recognize the Group's founding spirit and common values, thereby further enhancing loyalty and advancing the Group-wide promotion of business activities. To this end, the Kubota Global Identity, global common corporate principles of the Kubota Group, were established on October 1, 2012. In order to instill these corporate principles throughout the entire Group, including at overseas bases, Kubota has systematically promoted activities since the year ended March 31, 2014.



Attendees at the corporate principles symposium held on April 6, 2018 (from our company newsletter)

Click here for the Kubota Global Identity. www.kubota.com/company/c-data/identify/

These activities have been repeatedly conducted worldwide in a 5-year plan between 2013 and 2017. Since 2018, we have shifted to activities focused on those entering the company, and we are working towards a kind of ongoing instillation of the corporate principles that will allow each person to look back on it regularly, via activities such as holding conversations with employees about the corporate principles and introducing employee thoughts about them via company newsletters.

Fiscal year implemented	Activity step (5-year plan)	Number of participants	Degree of satisfaction*
FY2013	(1) Acknowledgement	28,969	71%
FY2014	(2) Understanding	35,470	73%
FY2015	(3) Practice and application	35,089	78%
FY2016	(4) Concrete practice	40,855	83%
FY2017	(5) Concrete practice (continued)	41,400	79%

Participation Statistics for Our Corporate Principle Activities (Including Temporary Employees)

* Numbers in parentheses are the percentage of people responding at least "somewhat satisfied" for degree of satisfaction in lectures attended domestically

Attendee Impressions (from Those Entering the Company)

- I was impressed with the never-give-up attitude of the founder. I chose Kubota as a new place to work because I felt an appeal by the company's social contributions in the fields of "Food, Water, and the Environment." I hope I can rise to the challenge as an employee soon. [An employee entering the company as a mid-career hire]
- I feel pride in being able to work at a company that is creating the things indispensable for people to live their lives, such as water pipes and agricultural machinery. I hope that I will be able to demonstrate the fire and drive to meet any challenge, like the founder and my seniors at the company, and I'm going to work tenaciously to see things through to the end. [An employee entering the company as a new college graduate]



Rank-based Education Related to CSR

Since the scope of CSR covers a lot of ground, when employees enter the company or are promoted, our CSR Planning Department conducts rank-based education to explain and educate regarding general issues on CSR and compliance, in addition to its explanation and education on the details regarding issues such as quality, environment, safety, and human rights. The CSR Planning Division employs tools such as PowerPoint presentations and various pamphlets, weaving in case studies, to provide education regarding our ways of thinking about CSR management as well as overviews of plans and initiatives for undertaking philanthropic activities and promoting compliance.

FY2018 Statistics (Lecturers from the CSR Planning Department)

	Intended participants	When performed	Length (per session)	Number of lecture attendees	Comments
	Newly appointed section managers	February to October 2018	50 minutes	67	Split up into 4 sessions for participants
	Employees promoted to expert positions	March 2018	50 minutes	132	
Kubota	New staff hires	April to May 2018	60 minutes	292	Two content-based sessions
Rubola	Employees entering the company as mid-career hires	January to December 2018	70 minutes	122	Held in the month the employee was hired (monthly)
	Newly appointed foremen	March 2018	60 minutes	13	
	Newly appointed supervisors	March and September 2018	90 minutes	32	Split up into 2 sessions for participants
	Affiliated companies (newly appointed section managers)	July and September 2018	65 minutes	54	Split up into 2 sessions for participants
Affiliated	Affiliated companies (new employees)	April 2018	60 minutes	56	
companies	Affiliated companies (new employees, etc.)	June 2018	110 minutes	10	
	Affiliated companies (requests from each company)	November to December 2018	135 minutes/ 120 minutes	31	Split up into 2 sessions for participants
Agricultural machinery distributors	Candidates for branch directors of agricultural machinery distributors	November 2018	60 minutes	39	Split up into 2 sessions for participants
Overseas	Overseas supervisors (when leaving for their post) (France, Myanmar, Indonesia, Canada, Dubai)	April to August 2018	20 minutes	5	Held in the month when leaving for their post
Unions	Each enterprise-based union executive committee class, etc.	May 2018	60 minutes	38	
TOTAL				891	

CSR Forum for Management-level Employees

In May of 2018, we held a CSR Forum, in which 192 management-level employees participated. The forum was also relayed via video conference to 10 offices.

During the forum, Professor Taikan Oki, the Special Advisor to the President of the University of Tokyo and a specialist in SDGs* from the Integrated Research System for Sustainability Science (its name at the time), gave a lecture entitled "Water, food, the environment, and SDGs."

Professor Oki discussed his experiences in an easy-to-understand manner, emphasizing the following: "SDGs raise a high-minded ideal that no one should be left behind. In addition, corporate initiatives are not philanthropic work, they are instead an investment in the main business in order to resolve social issues. I expect that from here on out, corporations that promote SDGs will gain a great deal of trust from consumers."

For Kubota, which is engaged in the business fields of "food, water, and the environment," obtaining new business opportunities via initiatives to achieve SDGs has been linked to enhanced CSR management. This forum provided us with a valuable opportunity to once again see in a new light the significance of taking on the challenges of SDGs.

* SDGs: Common goals for international society established by United Nations resolution in 2015. "SDGs" is an abbreviation of "Sustainable Development Goals."





CSR Forums Held (for the Last Six Years)



Time	Lecturer	Lecture theme	Participants (including participants via the video conference system)
Dec. 2013	Other advanced company	Promoting the Kubota Global Identity and CSR management	141 people
Dec. 2014	Lawyer	Adapting to environmental changes and compliance	147 people
Sep. 2015	Lawyer	Global compliance management	163 people
Sep. 2016	University professor	Thinking about the Kubota Group's sustainable management	195 people
Sep. 2017	Lawyer	The roles of management executives in preventing/responding to corporate scandals	268 people
May 2018	University professor	Water, food, the environment, and SDGs	233 people

Employee CSR Awareness Survey

In August through October 2018, Kubota Group employees in Japan were surveyed regarding their awareness of CSR. A total of 12,840 participants (1,181 more than in the previous year and including a portion of companies who are unable to respond online), including employees of some distributors, who were newly added to the survey target, responded. The survey ascertained that employees are sufficiently aware of and understand Kubota's corporate principles, Code of Conduct, CSR management, and compliance, as well as the workplace environment. In the section to voice one's opinion freely, the respondents provided many frank points of view on how to improve Kubota Group. The Company's responses to these points of view and other feedback from this are communicated to employees through the Company intranet.

The CSR survey is a valuable form of communication between employees and the Company, and we plan to continue conducting it every year as a means of increasing employee awareness and identifying areas for continual improvement as a company.

Respondents

Fiscal year implemented	Number of respondents	Percentage of free opinions*
FY2013	6,366	10%
FY2014	7,316	8%
FY2015	7,696	9%
FY2016	8,427	10%
FY2017	11,659	9%
FY2018	12,840	12%

* Numbers are percentages of free opinions

Answers to Key Questions in the Employee CSR Awareness Survey

Are you aware of the Kubota Group's mission of helping to solve issues surrounding food, water and the environment, elements essential to human survival, and our brand statement, "For Earth, For Life?" And, do you think about what you can do in your position?

2013	21%	51%	25%	2%
2014	21%	53%	24%	2%
2015	22%	55%	22%	1%
2016	23%	55%	22%	1%
2017	20%	52%	25%	2%
2018	21%	55%	23%	2%

2013 11% 2014 13% 529 2015 14% 53% 2016 12% 54% 2017 13% 55% 2018 <u>12%</u> 52%

- I fully understand it.
- I mostly understand it.
- I don't understand it well.
- I don't understand it at all don't know. etc

Decimals rounded to the nearest whole number

Does your superior listen to you and support you when you are troubled with something?

2013	29%	55%	13% 3%
2014	28%	56%	13% 2%
2015	29%	56%	13% 2%
2016	27%	57%	13% 3%
2017	27%	56%	14% 3%
2018	25%	55%	16% 4%

Yes, I think so to some extent. No, I do not really think so.

Yes, I think so very much.

No, I do not think so at all.

We have made efforts to enhance the Hotline System (our internal whistleblowing system) and conducted repeated public relations activities. While it appears that employees' degree of awareness about the existence of the system itself is improving, we are learning that there is still some uneasiness about using the system, and the degree of understanding about the significance of the system and its details remain an issue.

Communication is very important for good work performance. But some workplaces are too busy to allow sufficient communication. We will advance workstyle reform and promote initiatives to create worker-friendly workplaces.

them into practice

not put them into practice.

I am not aware of them at all

principles started, employees' awareness has been rising gradually. (The figure decreased in FY2017 because the survey target was substantially broadened.)

Since FY2013, when activities to instill the corporate

I am aware of them and put

I am aware of them, but do

I am not really aware of them

* Decimals rounded to the nearest whole number Do you understand the Kubota Hotline System well?

KUBOTA REPORT 2019

Social Report

<SDGs related to this section>

Involvement with Local Society 10 minutes 1 to 10 minutes 1 to

The Kubota Group respects the cultures and customs of each country and region in which it conducts business, and endeavors to establish relationships of trust with local communities. Moreover, Kubota proactively engages in social contribution activities in order to fulfill its responsibilities as a corporate citizen.

The Kubota e-Project

Social Contribution Activities in the Areas of Food, Water and the Environment

In an effort to contribute to society in the areas of food, water and the environment, Kubota commenced the Kubota e-Project in FY2008. Kubota promises to continue to support the prosperous life of humans while protecting the environment of this beautiful earth. Through this promise to everyone, Kubota seeks the understanding and cooperation of its stakeholders as it contributes to the creation of a sustainable society.



the Kubota e-Project (only in Japanese)
Resolution of Social Problems

Support for Regeneration of Abandoned Cultivated Land

Efforts to regenerate abandoned cultivated land, which is widespread in Japan, are supported through assistance in work using agricultural machinery.

The total area of abandoned cultivated land in Japan is approximately 400,000 hectares.*
* From the confirmed 2015 Census of Agriculture and Forestry, Vol. 2, Agriculture and Forestry Management Entities Survey
Report, Summary



Deepening Employees' Understanding of Agriculture — Participation of Utsunomiya Plant Employees in Activities to Preserve the Ishibatake Rice Terraces

At the Ishibatake Rice Terraces (selected for inclusion in Japan's 100 Selected Terraced Rice Fields, certified by the Ministry of Agriculture, Forestry and Fisheries) located in Motegi, Tochigi Prefecture, local terraced rice field preservation councils are recruiting rice field owners to experience terraced rice paddy agriculture, in order to preserve the beautiful rural landscapes. Kubota's Utsunomiya Plant, as a facility that manufactures agricultural machinery such as rice transplanters and combines, has participated in this activity since FY2015 with the aim of furthering the understanding of agriculture so as to enable manufacturing from the perspective of the customer.

Together with about 100 people from the local community and from Tokyo, employees from the plant visited the field each month from the planting in May through to the harvest in September to actually toil in the fields and learn about rice-growing.



FOCUS

Voice of a Participating Employee

This was the first time I participated in the entire range of agricultural activities. It really was a lot of work, but it helped me to gain a direct understanding of the troubles that are routinely faced by famers, and at the same time I gained a renewed sense of the need for the machinery that I am helping to manufacture.



Manato Fukuda Second Manufacturing Division Kubota Utsunomiya Plant



Employment of People with Disabilities and Hydroponic Cultivation with the Goal of Utilizing Idle Farmland: Kubota Sun-Vege Farm Co., Ltd.

This company was established in February 2010 as a special subsidiary of the Kubota Group.

Today, in addition to supplying safe and secure foods of good quality, agriculture also plays the important, in fact critical, role for society of protecting the natural environment of rural communities. In this context, the company is utilizing unused farmland in the Minamikawachi District of Osaka Prefecture to produce and sell hydroponic vegetables. Through this business, the company has created employment for people with disabilities, and is striving to create a work environment in which employees with disabilities can work cheerfully.

The company currently employs 16 people with disabilities there.







Introductory movie (only in Japanese) www.kubota-works.co.jp/

Educating the Next Generation

Kubota TERRA-KOYA Summer Camp

Kubota sponsors the "TERRA-KOYA" summer camp, which enables children to experience the abundance of nature as well as learn about the importance of the global environment. Since this program began in 2007, a total of 247 children have participated.



Kubota Active Lab

Kubota Active Lab offers participating high school students the opportunity to learn on their own about topics concerning food, water and the environment. Kubota has sponsored this program since 1985, accepting 50 to 60 participants each year.



Activities to Promote Sports

Kubota is engaged in a project in cooperation with Osaka Evessa,* a professional basketball team, to invite students of elementary and junior high schools in the Naniwa ward, where its Head Office is located, to basketball games. The aim of this project is to help children develop a healthy mind and body by directly communicating the excitement and pleasure of sports to them.

 * Osaka Evessa is the only team in Osaka that belongs to the B. LEAGUE, the professional basketball league.

Past contributions

2017 360 tickets 2018 400 tickets



Visiting Lectures

This program provides opportunities for young people from elementary school through to junior high school and high school, who will be responsible for future generations, to learn how to engage in issues related to food, water and the environment by teaching them about farm machinery, mechanisms for purifying water, etc.



Kubota Genki Agriculture Experience Workshop

This program aims to deepen understanding of agriculture and promote emotional education opportunities through rice growing experiences such as rice transplanting and harvesting as well as tasting the harvested rice.



Programs to Support Science Career Choices

Through events providing experiences in operating agricultural machinery, lectures and panel discussions with employees who are engineers, and similar activities, opportunities are provided to junior high school and high school students to support career paths in the sciences (through Kansai Kagakujuku and other programs).



Support for Citizen Activities

Mainichi Earth Future Prize

In the field of food, water and the environment, Kubota admires individuals and groups working on solutions for social issues at the grass-roots level in Japan and overseas, and sponsors activities that honor them publicly. Kubota has sponsored the Mainichi Earth Future Prize, which began as the Mainichi International Exchange Prize in 1989. Since it was renamed in 2011, a total of 609 individuals and groups have applied for the prize.





FOCUS

Encouragement of High School Student Activities by the Entire Kubota Group! - Offering Vegetables Grown Using Compost Prepared by High School Students to Employees

A green recycling social eco-project team that received an Honorable Mention in the seventh Mainichi Earth Future Prize (held by The Mainichi Newspapers, with the cooperation of Kubota) is engaged in activities to produce fertilizer, Mottai-nai No. 2, created from grass cut in dry riverbeds.

At Kubota head office, this Mottai-nai No. 2 is being used to fertilize gardens on the company grounds, and vegetables grown there are harvested as part of activities to provide nursery school children in the area with harvesting experiences, and are served in the company cafeteria.



Harvested vegetables

Social Contribution Activities through Corporate Sporting Events

Managing the Rugby League Team Kubota Spears, Contributing to the Development of Young People and the Vitalization of Local Communities through Rugby

Kubota is part of the Japan Rugby Top League, the top rugby league in Japan, and manages the Kubota Spears, a rugby team based in Funabashi, Chiba.

Having concluded a home town agreement with Funabashi City in 2017, the team aims to foster the adoration of the community through teaching rugby and proactively participating in traffic-safety activities and local events.



Working together with the Board of Education, a visiting lecture was conducted at a neighboring elementary school (coaching tag rugby)



An under-15 development project taught rugby to junior high school students



The Kubota Spears Rugby Festival in Funabashi, co-sponsored with Funabashi City



Disseminating and coaching rugby in regional areas by participating in a rice-field rugby tournament

Kubota Spears Official Website (only in Japanese) www.kubota-spears.com/



Crime prevention activities with athletes as one-day police chiefs



Patrol Running together with the local community members

Environmental Conservation

Kubota Forest

Kubota participated in the sponsorship of forest preservation activities by the Tokyo Metropolitan Government, and named a 2.89 ha lot of a water source forest managed by the Tokyo Waterworks Bureau as "Kubota Forest." From 2017, new employees have been engaged in ground-setting work, grass cutting, and planting trees.



Regional Exchanges (Cleaning and Beautification Activities)



Kubota e-Day

Kubota employees volunteer in community beautification and cleanup activities throughout the region. Since 2008, when companywide involvement started, approximately 8,000 people have participated in this program each year.

Regional Exchanges (Region Volunteers)

Japan Cup Cycle Road Race

In the Japan Cup Cycle Road Race, held each year in Utsunomiya, the employees of three Kubota Group companies in Tochigi Prefecture (Kubota Utsunomiya Plant, Kubota ChemiX Co. Tochigi Plant, and Kubota Air Conditioner Tochigi Plant) assist with sentry duties during the race and clean-up activities afterward.



Overseas Activities to Contribute to Society

Support for Well Construction

In order to reduce the number of people without access to safe water as much as possible, the Kubota Group is working to provide local support through NGOs that have been active in Asian countries for many years. Through these efforts, six wells had been completed by 2018.



Residents drawing water from a completed well (India)

Donating Books for Children

Kubota Agricultural Machinery (Suzhou) Co., Ltd. (China) donates books for children to provide the children in its neighborhoods with opportunities to read books.

[Number of books donated]

2016 300 books2017 144 books2018 220 books



Children reading donated books

Mangrove Tree Planting Activities

PT. KUBOTA INDONESIA (Indonesia) is taking part in activities to plant mangroves for environmental protection.



Supporting the Young Farming Generation

SIAM KUBOTA Corporation Co., Ltd. (Thailand) is supporting younger-generation farmers to become more knowledgeable of farming, fostering motivation to take up farming by instilling a positive attitude, teaching them various skills, and more.



Training on how to use organic fertilizers

Environmental Education for Elementary School Students

PT. KUBOTA INDONESIA (Indonesia) conducts environmental education through environmental activities such as donating LED lamps for local elementary schools and the families of elementary school students.

[Number of lamps donated]

2016 500 lamps2017 420 lamps2018 225 lamps



Support for Vocational Training Colleges

Kubota Manufacturing of America Corp. (U.S.) and Kubota Industrial Equipment Corp. (U.S.) have contributed to the founding of a new campus for Lanier Technical College (a two-year college certified by the State of Georgia which emphasizes technical training for equipment maintenance engineers, welders, and the like).



Social Report

Cooperation in Rural Community Development Programs

Kubota Agricultural Machinery India Pvt. Ltd. has a cooperative arrangement with a local Rotary Club to regenerate wells for irrigation and for household water use, and to install facilities for water treatment to produce potable water.



Releasing Fish into a Reservoir

Siam Kubota Metal Technology Co., Ltd. (Thailand) has promoted environmental education for the children of a local school, and has released young fish into a reservoir.



Drawing Contests for Elementary School Students

Kubota Farm Machinery Europe S.A.S. (France) has hosted a drawing contest in which drawings of tractors were submitted by 55 students from a nearby elementary school.

The submitted works were displayed within the plant, and employees voted for the best drawings; winners were presented with awards and miniature tractors at a school festival.





Celebrating 40 Years Since Its Founding, a Kubota Group Company in Thailand Launches 40 Different CSR Activities!

In 2018, on the 40th anniversary of its founding, SIAM KUBOTA Corporation Co., Ltd. (Thailand) has carried out 40 kinds of CSR activities.

The types of activities varied widely, from playground improvements to mangrove-tree planting, maintenance of agricultural reservoirs, and school repairs and painting. A total of 2,843 employees participated (including employees from SIAM KUBOTA Leasing Co., Ltd.).



Creating a garden on school grounds



Releasing sea turtles



Agricultural reservoir maintenance



Playground equipment improvements and painting

Support for Rejuvenation and Reconstruction of Areas Affected by Natural Disasters

The Great East Japan Earthquake

Providing Soup and Bread to People in Disaster Areas

Students from Miyagi Prefecture Agricultural High, to which the Kubota Group has been providing technical support and the like since the earthquake, provided original-recipe soup at a memorial service held at the Yuriage Elementary and Junior High School in Natori, Miyagi Prefecture. The soup used whitebait caught near Natori, which is the northernmost limit for catching the fish.

On the day of the event, Kubota dispatched employees as volunteers to help run the event. At the same time, as part of the initiative to establish ties between disaster-afflicted areas, Kubota distributed brown rice bread made by Nakakyushu Kubota using rice produced in Kumamoto Prefecture.



Students provide original-recipe soup



Distributing brown rice bread

Supporting the Youth, Bearers of the Future, through Farming —Cooperating with Rice Farming at Agricultural High Schools in Miyagi and Fukushima

As part of efforts towards reconstruction after the Great East Japan Earthquake, Kubota supports the youth who will play a role in Tohoku's agricultural industry in the future. At Miyagi Agricultural High School and Fukushima Iwaki Agricultural High School, Kubota helps with practical rice farming using the approach of directly sowing iron-coated seeds.* Kubota hopes to contribute to the reconstruction of the disaster-affected areas and the development of strong human resources by imparting the latest cultivation technologies.

* Directly sowing iron-coated seeds: As opposed to the conventional method of growing rice from seedlings, this cultivation technology involves directly planting rice seeds coated with iron powder in the field.





Social Report

Supporting the Youth, Bearers of the Future, through Farming — Implementing Agricultural Machinery Maintenance Training and Special Lectures with Trial Rides

Agricultural machinery maintenance training and special lectures with trial rides are being conducted for advanced technical schools in disasterstricken areas. This is a new version of the special manufacturing classes that had been held up until 2017; 39 students participated in this first course, held in FY2018.

By having students actually see and touch the latest agricultural machinery, they are provided with opportunities to learn about agriculture and agricultural machinery.





For more information (only in Japanese) https://www.kubota.co.jp/kubotainfo/index129.html

Kumamoto Earthquake

Introducing Food Products of Kumamoto at Business Sites

At various events (summer festival, etc.) held at its business sites, the Kubota Group sold the food products of Kumamoto to support the revitalization of the disaster-affected areas, and offered for tasting the brown rice bread made and sold by Genkido, a company run by the Nakakyushu Kubota Group (www.genkido-genmai.com/) (only in Japanese). The bread uses rice produced in Kumamoto Prefecture.

Part of the sales of these products was donated to the areas, and they sold well as souvenirs of the events.







Brown rice bread by Genkido, offered for tasting

Support for Temporary Housing Residents

At a memorial service held in Kumamoto on the occasion of the second anniversary of the earthquake there, brown rice pasta, made from Kumamoto-grown rice and produced and sold by Genkido, a company managed by the Nakakyushu Kubota Group (www.genkido-genmai.com/) (only in Japanese), was provided.



From Nakakyushu Kubota to a support group

For more information (only in Japanese) https://www.kubota.co.jp/kubotainfo/index130.html



Steps to recovery being screened at a meeting facility

Support for Disaster-stricken Areas throughout Japan

Okayama, Hiroshima, and Hokkaido Prefectures

In Mabi, an area of Kurashiki in Okayama Prefecture, a total of 14 people, mainly new employees, undertook volunteer activities. Splitting up into groups of five, they set off for disaster-affected homes and applied themselves to tasks such as mud removal. The participating new employees reported that, "Through my volunteer work, I came to appreciate just how long the road to recovery is" and, "The extent of the disaster was well beyond what I had imagined."





Thinking that the residents of the affected area might be cheered through rugby, the Kubota Spears rugby team held a rugby clinic for high school students who play rugby in areas struggling in the aftermath of the 2018 floods in western Japan. In addition, participants in the rugby clinic were invited to matches held in Okayama and Hiroshima.





As prizes at events (such as summer festivals) sponsored by business sites in the Kubota Group, delicacies such as grapes from Okayama Prefecture and horsehair crabs from Hokkaido were served in stricken areas.



For more information (only in Japanese) https://www.kubota.co.jp/kubotainfo/index131.html



Kubota Group's Products Playing a Part in Reconstruction Support

Various Kubota Group products are being used in the restoration, recovery and community development of disaster-stricken areas. Examples include the restoration of water supply and sewage lines, the construction of pipelines and the treatment of effluent for temporary housing, and the restoration of agricultural water.



Ductile iron pipe (used in the restoration and maintenance of lifelines, such as water supplies, sewage lines, and gas lines)



Valves (used in the restoration and maintenance of lifelines, such as water supplies, sewage lines, and gas lines, by controlling liquids and gases)



Plastic pipes (used in the restoration and maintenance of lifelines, such as water supplies, sewage lines, and gas lines)



Water treatment plant (used to purify wastewater, including residential and industrial sewage)



Pumps (used for emergency drainage as a countermeasure for flooding caused by heavy rainfall and high tides)



Wastewater treatment tanks (used to process wastewater from temporary housing in regions with insufficient sewage lines)



Spiral welded steel pipes (used as foundation piles in a variety of structures, such as bridge foundations, ports, rivers, and building foundations)



Manhole pumps (for pneumatic transportation of sewage)

Response to disasters (only in Japanese) www.kubota.co.jp/message/



Construction machinery (used for removing debris and various civil engineering work)



Truck scales (used to weigh truck cargo, such as debris)

Response to Asbestos Issues

Kubota takes very seriously the fact that some residents living in proximity of the former Kanzaki Plant and employees working at the plant have developed asbestos-related diseases. From the perspective of fulfilling our social responsibility as a company that previously handled asbestos, we will continue to address this issue with the utmost sincerity.

For details please see: www.kubota.co.jp/kanren/ (Only in Japanese)

Regarding the residents living nearby, without particular regard for individual cause-and-effect relationships, Kubota established the Regulations for Payment of Relief Funds to Sufferers of Asbestos-related Diseases and their Families Living in Proximity of the Former Kanzaki Plant. This is in addition to the Act on Asbestos Health Damage Relief, which was enacted by the Japanese government and provides relief funds in order to alleviate, even marginally, the hardship and mental burden of the people receiving treatment and their families.

Governance Report

<SDGs related to this section>

Corporate Governance



In order to speed up its response to management conditions and achieve enhanced transparency in its management, Kubota has been committed to enhancing its corporate governance structure. Moreover, by building an internal control system and implementing steady improvements continuously during its business activities, Kubota not only enforces the observance of laws and regulations, but also reduces risks.

Corporate Governance Structure

Ensuring Quick Response to Management Conditions and Improving Management Transparency

In order to speed up its response to management conditions and achieve enhanced transparency in its management, Kubota has adopted the following corporate governance structure.



Board of Directors

The Board of Directors makes strategic decisions and oversees the execution of duties by the Executive Officers. It consists of nine Directors (three of whom are Outside Directors). In addition to its regular monthly board meetings, it also meets as and when required to discuss and make decisions relating to management planning, financial planning, investment, business restructuring, and other important management issues.

Moreover, the Board of Directors holds a meeting once a year to report the results of risk management activities. This is done in order to verify that there are no inadequacies in the internal control system that could have a serious impact on corporate management with regards to the organization and operation of the management system for key risks identified by the Company.

Audit & Supervisory Board

Kubota is a company with an Audit & Supervisory Board, which oversees and audits the execution of duties by the Directors. It consists of five Audit & Supervisory Board Members (three of whom are Outside Audit & Supervisory Board Members).

In addition to its regular monthly Audit & Supervisory Board Meetings, it is held as needed to discuss and determine auditing policy, audit reports, and other matters.

Executive Officers' Meeting

Kubota has adopted the Executive Officer System in order to strengthen business execution by each department and make prompt and appropriate business decisions. The Executive Officers' Meeting consists of the President and Representative Director (the "President") and 33 Executive Officers. In addition to its regular monthly meetings, it also meets as and when required. The President instructs the Executive Officers on policies and decisions made by the Board of Directors. The Executive Officers report to the President regarding the status of their execution of duties.

Management Committee and Investment Council

Kubota has a Management Committee and Investment Council in place in order to discuss and make decisions in regard to specific and important issues. The Management Committee meets to deliberate on important management matters, such as investments, loans, and mid-term management plans, before they are discussed by the Board of Directors. The Investment Council gives the President advice on matters to be decided by the President, except those deliberated by the Management Committee, as well as special matters.

Nomination Advisory Committee and Compensation Advisory Committee

Kubota has a Nomination Advisory Committee and Compensation Advisory Committee in place, in which more than half of the members are Outside Directors, to give advice to the Board of Directors. The Nomination Advisory Committee and Compensation Advisory Committee meet to deliberate on nominations of candidates for Directors, and the compensation system and compensation level of the Directors with appropriate involvement and advice from the Outside Directors.

The Nomination Advisory Committee met once during the fiscal year for the purpose of discussing the nomination of new candidates for Directors, the reappointment of existing Directors, and the nomination of specially appointed advisers. Meanwhile, the Compensation Advisory Committee met twice during the fiscal year for the purpose of discussing both the consistency of levels of compensation paid to the Directors, Executive Officers, and specially appointed advisers, and the adequacy of the stock compensation plan. (Including one resolution in writing.)

Policy for Appointing Outside Directors and Outside Audit & Supervisory Board Members

In selecting candidates for the positions of the Outside Directors and the Outside Audit & Supervisory Board Members, Kubota considers experience outside Kubota, professional insight, and other qualifications, and makes recommendations on them to the General Meeting of Shareholders after approval by the Board of Directors.

Kubota established policies related to criteria for independence when electing the Outside Directors by reference to the rules for Independent Executives defined by the TSE. Kubota elects those who have no conflict of interest with ordinary shareholders accordingly.

Reasons for Appointing Outside Directors (Independent Executives)

Kubota elected Yuzuru Matsuda as an Outside Director since Kubota wishes to receive his advice about general management based on his adequate experience and considerable insight in management which he acquired through his duties as the long-time president of a listed company. Kubota has no business relationship with Kyowa Hakko Kirin Co., Ltd., for which Mr. Matsuda used to serve as a director, and Kato Memorial Bioscience Foundation, BANDAI NAMCO Holdings, Inc., and JSR Corporation, for which Mr. Matsuda currently serves as a director. Kubota places him as an Independent Executive since there is no particular vested interest between Kubota and him, and there appears to be no conflict of interest with ordinary shareholders.

Kubota elected Koichi Ina as an Outside Director since Kubota wishes to receive his advice about general management based on his adequate experience and considerable insight into management which he acquired through his duties as a president, chairman, and plant and manufacturing manager in the motor vehicle industry. Kubota has no business relationship with Toyota Motor Corporation, for which Mr. Ina used to serve as a director and adviser. Kubota has a business relationship with Daihatsu Motor Co., Ltd., for which Mr. Ina currently serves as adviser, but the amount arising from the above transactions for the year ended December 31, 2018 was less than 1% of total consolidated revenues of the Company. Kubota places him as an Independent Executive since there is no particular vested interest between Kubota and him, and there appears to be no conflict of interest with ordinary shareholders.

Kubota elected Yutaro Shintaku as an Outside Director since Kubota wishes to receive his advice about general management based on his accomplishments in actively promoting strategy and experience which he acquired through his duties as a member of top management of a medical device manufacturer. Kubota has no business relationship with Terumo Corporation, Santen Pharmaceutical Co., Ltd., J-Oil Mills, Inc., and Tonen International Scholarship Foundation, for which Mr. Shintaku currently serves as an advisor, director, and executive trustee. Kubota places him as an Independent Executive since there is no particular vested interest between Kubota and him, and there appears to be no conflict of interest with ordinary shareholders.

Reasons for Appointing Outside Audit & Supervisory Board Members (Independent Executives)

Kubota elected Masaki Fujiwara as an Outside Audit & Supervisory Board Member since Kubota expects him to further enhance its auditing procedures during this period of further global advancement of the Company. Having served in key administrative and executive roles at Panasonic Corporation and its subsidiaries and affiliated companies, he has both considerable knowledge relating to administration and corporate accounting, and a good feel for global business through his long-standing experience stationed overseas. Kubota has a business relationship with Panasonic Corporation, at which Mr. Fujiwara initially started his career, but the amount arising from the above transactions for the year ended December 31, 2018 was less than 1% of total consolidated revenues of the Company. Kubota has no business relationship with Sansha Electric Manufacturing Co., Ltd., for which Mr. Fujiwara currently serves as a director. Kubota places him as an Independent Executive since there is no particular vested interest between Kubota and him, and there seems to be no conflict of interest with ordinary shareholders.

Kubota elected Masato Hinenoya as an Outside Audit & Supervisory Board Member since Kubota expects him to further enhance its auditing procedures during this period of further global advancement of the Company. In addition to his considerable insight as a CPA in corporate accounting and finance, Mr. Hinenoya also possesses a global sensibility based on his long experience working abroad. Kubota has no business relationship with KPMG AZSA LLC, at which he initially started his career as a CPA, and Hinenoya CPA Office for which Mr. Hinenoya currently serves as a representative. Kubota places him as an Independent Executive since there is no particular vested interest between Kubota and him, and there seems to be no conflict of interest with ordinary shareholders.

Kubota elected Kumi Arakane as an Outside Audit & Supervisory Board member since Kubota wishes her to further enhance its auditing procedures based on her long career at KOSÉ Corporation serving as a Director and being in charge of various areas of business, including product development, research, quality control, and purchasing. Ms. Arakane currently serves as an Audit & Supervisory Board Member of KOSÉ Corporation; she is also well versed in those duties. Kubota has no business relationship with KOSÉ Corporation, at which Ms. Arakane started her career and currently serves. Kubota places her as an Independent Executive since there is no particular vested interest between Kubota and her, and there seems to be no conflict of interest with ordinary shareholders.

Attendance Rate of Outside Executives (Mar. 2018–Feb. 2019)

Attendance rate of Outside Directors at Board of Directors' meetings	Yuzuru Matsuda 100%	Koichi Ina 100%	Yutaro Shintaku 100%
Attendance rate of Outside Audit & Supervisory Board Members at Audit & Supervisory Board meetings	tendance rate of Outside dit & Supervisory Board embers at Audit & Supervisory pard meetings		Masaki Fujiwara 100%

System Supporting Audit & Supervisory Board Members

Kubota established the Office of Audit & Supervisory Board Members and has assigned five employees to exclusively support the Audit & Supervisory Board Members in performing their duties. Those employees' independence is ensured as the employees' appointment and evaluation require a discussion with and consent from the Audit & Supervisory Board Members.

As of March 22, 2019, Kubota places four members in the Office of Audit & Supervisory Board Members, to engage in audits exclusively for subsidiaries in order to provide support for Kubota's Audit & Supervisory Board Members and improve internal control over the Kubota Group. Also, Kubota maintains a system which facilitates disbursement of expenses incurred related to execution of duties by the Audit & Supervisory Board Members.

Internal audit departments and the Independent Auditors of Kubota report audit plans and the results of audits to the Audit & Supervisory Board Members periodically, and as needed collaborate with each other.

Compensation of Director and Audit & Supervisory Board Members

At the Meetings of the Board of Directors, the basic remuneration for the Directors is determined within the range of the maximum aggregate amount of remuneration approved at the General Meeting of Shareholders after it has been deliberated on in the Compensation Advisory Committee in consideration of the Company's operating results, compensation levels of other companies, and other factors.

In addition, the total amount of bonuses for the Directors is decided by the General Meeting of Shareholders. The amount of stock compensation is determined at the Meetings of the Board of Directors after being deliberated on in the Compensation Advisory Committee, within the limits established by the total amount of the monetary compensation claims and the total number of common shares to be issued or disposed of as approved at the General Meeting of Shareholders.

Furthermore, if the Director covered by the restricted compensation plan is a non-resident of Japan because of reasons such as playing the role of an overseas representative, the monetary compensation claims are temporarily suspended during the above period, in consideration of local laws and regulations. However once his/her role is over and he/she becomes a domestic resident, the suspended monetary compensation claims are granted to him/her.

Compensation for the Audit & Supervisory Board Members consists solely of basic remuneration in the light of their role and independency. Their compensation is determined upon consultation among the Audit & Supervisory Board Members within the range of the maximum aggregate amounts of compensation approved at the General Meeting of Shareholders in consideration of the roles of the respective Audit & Supervisory Board Members.

Director and Auditor Remuneration (Jan.-Dec. 2018)

	Number of persons	Total amount of	Total amount by type (millions of yen)		
Position		compensation (millions of yen)	Remunerations	Bonuses	Restricted stock compensation
Directors (excluding Outside Directors)	8	676	350	260	66
Audit & Supervisory Board Members (excluding Outside Audit & Supervisory Board Members)	3	72	72	_	_
Outside Directors and Outside Audit & Supervisory Board Members	6	74	74	_	_

Training for Executives

To provide opportunities to acquire and update knowledge necessary for supervising operations, Kubota holds annual executive forums led by visiting lecturers for all Directors, Audit & Supervisory Board Members and Executive Officers. (A total of three forums were held in FY2018 on themes of CSR, human rights, and safety/environment/quality.)

Kubota conducts training hosted by external organizations for all newly appointed Executive Officers, featuring content pertaining to laws and regulations, and corporate governance. For Outside Directors, Kubota conducts inspections and engages in discussions with on-site executives at its overseas affiliated companies and subsidiaries, and regional offices in Japan, so that those in attendance can gain a deeper understanding of the Group's business activities and make appropriate management decisions. (Inspections held in FY2018: North America Site, China Site, Thailand Site, Europe Site, agricultural machinery exhibition in Europe, Kubota exhibition in Japan, etc.)

For Audit & Supervisory Board Members, management issues are shared at periodic meetings with the President. Also, opinion exchange meetings are held periodically with Outside Directors to improve governance. (Meetings with the President were held a total of four times, and meetings with Outside Directors were held a total of four times in FY2018.)

Themes of the Forums for FY2018 and the Attendance of Executives

Date	Title of forum	Theme	No. of attending executives
May 22, 2018	CSR Forum	Water, Food and the Environment, and SDGs	32
August 21, 2018	Human Rights Training	Roles that each individual should play in fostering a safety- conscious corporate culture	32
November 20, 2018	Safety, Environment and Quality Forum	"Safety, the environment, and quality are the basis of corporate activity: that's what management is all about" — Practical activities to help strengthen corporate culture — Manufacturing is development of people	29

Policy for Constructive Dialogue with Shareholders

Kubota, recognizing that constructive dialogue with shareholders and investors contributes to the improvement of the Company's sustainable growth and medium- to long-term corporate value, regularly stays abreast of the shareholder composition, makes timely and appropriate disclosure of a wide range of information ranging from financial information to non-financial information and promotes constructive dialogue with shareholders and investors. The policies for development of systems and operations for this activity are as follows.

(1) Basic policy

The Company holds briefings where the President and General Manager of Planning & Control Headquarters present the basic management policy, priority measures, and results of operation, with the aim of promoting constructive dialogue with domestic and foreign institutional investors. Furthermore, the Company promotes two-way communication, such as timely disclosure to all stakeholders including individual investors through active use of the Company website and executing questionnaire surveys.

(2) IR organizational structure

The General Manager of Planning & Control Headquarters is in overall charge of directing and promoting IR. The department in charge of IR plays a central role in developing its IR activities through organic coordination with each related department, such as Corporate Planning & Control Dept., Accounting Dept., Corporate Communication Dept., CSR Planning Dept., General Affairs Dept. and Legal Dept.

(3) Feedback to management

Subjects of dialogue with investors are reported back to the Board of Directors, the Executive Officers' Meeting, and relevant departments by the President and General Manager of Planning & Control Headquarters as necessary.

(4) Dialogue with institutional investors and analysts

The Company holds individual and group meetings, product exhibitions and briefings on business operations, and results briefings with institutional investors and analysts. In addition, the Company discloses the results materials and the results briefings materials in both English and Japanese at the same time, and regularly holds tours and briefings on business operations in Japan and overseas.

(5) Dialogue with individual shareholders and investors

The Company aims to promote lively communication through such means as holding on-site factory tours for individual shareholders and inviting them to product exhibitions.

Also, in addition to holding company information sessions for individual investors to provide an opportunity for the President and individual investors to directly engage in dialogue, the Company also works on public relations to improve understanding of the Company's business activities through such activities as exhibiting in investor forums.

(6) Policy for insider information management when engaging in dialogue

Insider information, such as any undisclosed material facts, is not conveyed at the meetings with investors. The following section describes the structure and procedures regarding the timely disclosure of the Company information.

1. Financial Information Disclosure Committee

The Company has established the Financial Information Disclosure Committee so as to monitor and control financial information disclosure and, thereby, ensure its fairness, correctness, timeliness, and comprehensiveness. The committee consists of a committee chairperson, who is General Manager of Planning & Control Headquarters; committee members, who are Deputy General Manager of CSR Planning & Coordination Headquarters, General Manager of Corporate Planning & Control Dept., General Manager of General Affairs Dept., General Manager of Corporate Communication Dept., General Manager of Accounting Dept., General Manager of Global Management Promotion Dept., and General Manager of Corporate Auditing Dept.; and observers, who are full-time Audit & Supervisory Board Members. The committee meets periodically in order to draft and assess the Annual Securities Reports (*"Yukashoken Hokokusho"*) and the Quarterly Reports (*"Shihanki Hokokusho"*) pursuant to the Financial Instruments and Exchange Act. And the committee also meets in response to extraordinary events such as important decisions and material facts that must be disclosed immediately.

In accordance with the intent and meaning of fair disclosure rules set out in the Financial Instruments and Exchange Act, the Company takes all reasonable care to avoid selective disclosure of information, such as by simultaneously releasing Japanese and English versions of results briefing materials with attached explanations and the minutes of question-and-answer sessions via the corporate website, and by working to enhance the timely and fair disclosure of information in order to promote proactive dialogue with investors.

2. Company regulations for information disclosure

The Company has declared that "The Kubota Group makes appropriate and timely disclosure of corporate information and fulfills its responsibilities for transparency and accountability in corporate activities" in the "Kubota Group Charter for Action" and has stipulated "Appropriate and Timely Disclosure of Corporate Information" and "Prohibition of Insider Trading" in the "Kubota Group Code of Conduct." The Company strives to promote awareness and ensure thorough efforts in regard to the "Kubota Group Code of Conduct" and prevention of insider trading before it occurs through conducting education tailored to each management level within the Company.

Information for investors

Directors, Audit & Supervisory Board Members and Executive Officers (as of March 22, 2019)

Directors

President and
Representative
Director
Masatoshi Kimata

Representative Director and Executive Vice President Yuichi Kitao Directors and Senior Managing Executive Officers Masato Yoshikawa Shinji Sasaki Toshihiko Kurosawa Dai Watanabe Outside Directors Yuzuru Matsuda

Koichi Ina

Yutaro Shintaku

Audit & Supervisory Board Members

Toshikazu Fukuyama Yasuhiko Hiyama Masaki Fujiwara (Outside Audit & Supervisory Board Member) Masato Hinenoya (Outside Audit & Supervisory Board Member) Kumi Arakane (Outside Audit & Supervisory Board Member)

Executive Officers

Senior Managing Executive Officer Haruyuki Yoshida

Managing Executive Officers

Kunio Suwa Kaoru Hamada Yasuo Nakata Kazuhiro Kimura Takao Shomura Yuji Tomiyama Kazunari Shimokawa Mutsuo Uchida Nobuyuki Ishii Kazuhiro Shinabe Ryuichi Minami Yoshimitsu Ishibashi Yasukazu Kamada Katsuhiko Yukawa Executive Officers Ryoji Kuroda Eiji Yoshioka Muneji Okamoto Hiroto Kimura Koichiro Kan Hirohiko Arai Tomohiro litsuka Kazushi Ito Koichi Yamamoto Mampei Yamamoto Hitoshi Inada Shingo Hanada Nobushige Ichikawa

Directors



Yutaro ShintakuToshihiko KurosawaMasatoshi KimataShinji SasakiKoichi InaYuzuru MatsudaMasato YoshikawaYuichi KitaoDai Watanabe

Internal Control

Internal Control

The internal control system of the Kubota Group is a mechanism for clearly providing the rules that should be followed during the performance of business, and for checking whether or not business has been managed according to those rules. This system consists of the segments of business management, which entails the performance of business operations based on rules, and risk management, which entails the management of major risks in management.

In business management, basic matters necessary for operating businesses are determined in business rules, and each business division checks its daily business operations in accordance with the business rules. Business rules comprise common business rules (basic rules) and functional business rules.

In risk management, operations that each department in charge of risk management should implement are determined in the risk management rules. Based on these rules, necessary actions to be promoted for risk management are identified and the departments are audited, thereby verifying the effectiveness of the risk management.

In the internal control system, major risks in Kubota's management are classified into the following three categories:

1. Internal control over reliability of financial reporting

2. Internal control over the basic functions of the company, such as fair trade, environmental conservation, and health and safety

3. Internal control over compliance, such as compliance with rules and regulations related to equipment, and import and export control

To avoid these risks, each department in charge implements necessary actions to be promoted and conducts audits of the relevant operational division, and reports the results and the measures for the next fiscal year to the President and the Board of Directors. Thus the PDCA cycle for risk management is implemented properly.

Internal Control System Overview



Internal Control System Operation Activities (Risk Management Activities)

Kubota positions risk management activities as part of its business activities. Based on the awareness that risk management is the foundation of business activities, Kubota identifies risks common to the entire Kubota Group, such as those relating to the reliability of financial reporting, and exerts efforts to manage risks appropriately through continuous steady improvement to "immediately correct any inadequacies." At the same time, while accelerating the global development of its businesses, Kubota strongly recognizes that risk management activities are the foundation for the continuity of its businesses, and strives to improve such activities both in Japan and overseas.

In FY2018, as part of Kubota's initiative continuing from FY2017 to enforce risk management, each business division determined the risks that seemed most critical under the current circumstances.

Number of Audits and Contents of Risk Management

Risk management items		Risk to be avoided	Number of audited items for FY2018*1
Internal control over reliability of financial reporting	Financial reporting	Risk to reliability of financial reporting	5,627
	Fair trade	 Bid-rigging and price cartels Unfair trading concerning trading with distributors, etc. Non-compliance with the Subcontract Act 	95
	Environmental conservation	 Non-compliance with laws and regulations Environmental accidents Past environmental debt 	11,114
	Health and Safety	 Occurrence of serious accidents Occupational illnesses Administrative disposition and litigations 	1,921
Internal control over the basic functions of	Quality assurance	 Occurrence of quality problems detrimental to the Kubota brand, etc. 	392
the Company	Labor management	 Breach of obligation on attention to safety of employees Improper management of working conditions Improper management of employees under irregular employment, and contract and temporary workers Occurrence of overseas labor problems 	4,840
	Information security	 Computer virus infection Information leakage Information system failure 	1,332
	Intellectual property	Infringement of other companies' intellectual property	747
	Compliance with rules and regulations related to equipment	 Non-compliance with laws and regulations of the Building Standards Act, the Fire Service Act, and the Industrial Safety and Health Act, etc. in connection with assets and facilities owned by Kubota 	560
	Earthquake and other disaster response management	 Important managerial losses including danger to human lives due to earthquakes and other disasters, damage to equipment, and destruction of the information system 	133
	Compliance with the Construction Business Act	Non-compliance with the Construction Business Act	734
	Human rights advancement*2	Occurrence of human rights violation issues	_
	Safe driving management	 Accidents arising from non-compliance with traffic laws and regulations and violating acts 	170
Internal control over compliance	Prevention of illegal payments	 Trading with antisocial forces Non-compliance with the Political Funds Control Act Making inappropriate payments to overseas public servants 	102
	Classified information management	 The outflow of classified information including plans for development and sale of new products 	1,146
	Protection of personal information	 Leakage and loss of personal information related to customers, employees, etc. Improper use of personal information 	189
	Import and export control	• Non-compliance with laws and regulations related to importing and exporting, including the Customs Act, the Foreign Exchange and Foreign Trade Control Law, the Basel Convention, and laws related to chemical substances	92
	Compliance with laws and regulations related to logistics	• Non-compliance with the three major road laws, including the Road Traffic Act; and with the laws and regulations related to distribution, including the Labor Standards Act, etc.	696

*1 Number of audited items is a sum of the number of items audited in each of the divisions subject to audit.

*2 Activities for human rights advancement focused mainly on training, the release of information, and the follow-up of survey results.

Kubota Hotline (whistleblowing system)

As a framework to support risk management, Kubota operates a whistleblowing system. This system aims to prevent, or quickly detect and correct, any illegal or unethical acts as well as to develop an open corporate culture.

[Types of contact points and matters handled]

- CSR Planning Department: Compliance issues other than human rights (anonymous reporting acceptable)
- Human Rights Advancement Department: Issues of human rights (anonymous reporting acceptable)
- Outside lawyers: Compliance in general including human rights issues
- * Human Rights Advancement Consultation Office has been established at each company and business site so that people can more easily seek consultation.

* Starting from 2017, consultation by e-mail, in addition to telephone, is acceptable for outside lawyers.

[Available to]

Full-time, part-time and temporary employees of Kubota and its Group companies in Japan

* Each overseas location handles reporting individually and notifies the Kubota head office of any significant issues.

* Starting from 2017, all whistleblowing cases in China are reported to the Kubota head office.

[Protection of informants]

- The Whistleblowing System Operation Rules clearly state:
- "the informer shall not be disadvantaged as a result of reporting an issue."
- "excluding cases necessarily requiring investigations and official reporting, the content of the reported issue, personal information obtained during investigations, and all other information shall not be used or disclosed."

[Activities to raise awareness of the system]

Various creative ways have been employed to alleviate unease about the system, which is often the result of a lack of understanding. The Company newsletter and website provide information on:

- The number of reports received for each content category, and past cases (outline)
- The flow of processes for using the Hotline
- The objective of the system, protection of informants, handling of anonymity, etc.

[Number of cases reported (in Japan)]

Period	Number of cases
Jan.–Dec., 2016	30
Jan.–Dec., 2017	52
Jan.–Dec., 2018	71

* Including enquiries and matters that were found not to be problematic as a result of investigation

[Other]

Moreover, we have set up a space to write free comments in the Kubota Group Employee CSR Awareness Survey, which is answered in anonymity. It is an opportunity for employees to give their frank reports and opinions, enabling the Company to develop an open corporate culture.

Flowchart of Kubota Hotline



Securing Reliability of Financial Reporting

Kubota has established and operates an internal control system in order to confirm the reliability of financial reporting for the entire Kubota Group, including its overseas subsidiaries.

Also to confirm the effectiveness of the system, the Corporate Auditing Department and the auditing divisions of the subsidiaries conduct regular internal audits.

Kubota has also created a system for evaluating the effectiveness of internal controls on a Group consolidated basis. This assessment is based on the results of the abovementioned auditing results, and conforms to the internal control reporting system related to financial reporting stipulated by the Finance Instruments and Exchange Act (J-SOX) and other ordinances.

Compliance with the Anti-Monopoly Act/Competition Law

The President declared in the management policy, "No sales or profits achieved by undermining the corporate dignity exist in the Kubota Group," and emphasized that ensuring compliance is a major prerequisite for the Kubota Group's business activities.

Education and Enlightenment Activities

Kubota continuously offers training programs on the Anti-Monopoly Act/Competition Law at its business divisions as well as its Group companies both in Japan and overseas, for enlightenment and awareness-raising to ensure compliance. Legal training programs, which cover a broad range of legal matters including competition laws, are also provided for employees who are to be dispatched to overseas Group companies as managers.

Auditing and Risk Management Surveys

Kubota continuously conducts audits under the Anti-Monopoly Act, including on-site inspection, targeting Kubota and its Group companies in Japan. For overseas Group companies, Kubota conducts written audits, on-site interviews, and opinion exchange meetings, through which it determines the status of risk management.

Maintaining and Expanding the Consultation System

Kubota shares information with the relevant business departments and Group companies on matters related to business activities of Kubota and its Group companies that require examination under the Anti-Monopoly Act, and implements necessary measures including facilitating advance consultation with external experts, such as lawyers, and consulting the Fair Trade Commission.

Compliance with the Act against Delay in Payment to Subcontractors

Kubota conducts written surveys targeting each of its business divisions and Group companies in Japan on a periodic basis. This fiscal year, Kubota also conducted on-site surveys. Kubota also offers training programs to promote understanding of the Act against Delay in Payment to Subcontractors at each business site and Group company and holds consultancy sessions concerning practical operations, such as ordering, related to the Subcontractors Act, thereby developing voluntary risk management systems.

Information Management

Kubota is aware that the appropriate protection and management of personal information of its customers and other stakeholders is an important social responsibility. In order to secure its competitiveness, Kubota is also devoted to preventing the leakage of confidential information such as technological information.

Depending on the type of information, Kubota appoints main divisions to conduct ongoing activities such as revising rules, auditing and awareness-raising at their respective locations. These activities are also conducted at overseas bases. When necessary, these divisions cooperate with each other in risk management.

As shown by the EU's General Data Protection Regulation (GDPR), there is a growing trend to further enhance protection of information assets. As such, in FY2018, Kubota reorganized its emergency contact list and response procedures across the entire Group, including overseas subsidiaries and affiliated companies in order to promptly respond to information security-related incidents/accidents.

With Kubota-CSIRT – an organization for managing information security-related incidents/accidents – at the helm, in FY2019 Kubota will further enhance its initiatives to prevent information security-related incidents/accidents, respond promptly if they occur, and minimize damage.

Information Management System



* Initiatives to ensure information security

- To enhance security for personal information and other information assets of the customers, Kubota promotes on a company-wide basis the implementation of the initiatives below:
- (1) Establishing the Group-wide information security policy, continuously developing various regulations and guidelines, and monitoring the status of compliance therewith.
- (2) Assigning personnel in charge of promoting information security (IT Manager) at each workplace, and implementing Group-wide measures based on the policies formulated by the department in charge.
- (3) Introducing to all PCs an automatic monitoring program to constantly monitor the status of various security protection measures, such as anti-virus systems. Overseas, taking into consideration each local situation and improving information security in cooperation with the IT managers of each local site.
- (4) Providing IT managers and sub-managers with education and enlightenment programs on a periodic basis. For Group employees, also providing e-learning courses on personal information protection and information security, with the aim of raising understanding of the information security matters that each employee should observe.

Information Security Structure



Prevention of Illegal Payments

Among illegal payments, Kubota has placed particular focus on preventing bribery, and will work to achieve SDG 16.5: Substantially reduce corruption and bribery in all their forms.

The Kubota Group Anti-Bribery Policy delivers to all officers and employees a clear message from its top management that bribery will not be tolerated under any circumstances. In response to this message, Kubota has employed the risk-based approach, in which risk assessment is conducted in advance to determine the departments, markets, or business forms that are exposed to high risk, and prioritized risk management activities are conducted to tackle them. With this approach, Kubota aims to develop and operate effective programs. In FY2018, Kubota conducted written surveys at 87 departments/companies in Japan and 49 overseas bases as a part of its risk assessment.



Anti-bribery training session in Thailand

Furthermore, Kubota has established the Prevention of Illegal Payments Committee to investigate whether preventive frameworks are in place and sufficiently functioning in accordance with the Rules for Preventing Illegal Payments, as well as whether or not there have been any illegal payments.

As an effort to educate directors and employees on prevention of bribery, the Company repeatedly and continuously holds training sessions using the Kubota Group Handbook for Anti-Bribery. At these training sessions, the latest information is provided on laws and regulations related to preventing bribery as well as appropriate responses to bribery risks.

The Kubota Group Handbook for Anti-Bribery contains the globally common contents, and has been prepared in Japanese, English, French, Chinese, Indonesian, Filipino, Korean, Vietnamese, and Thai.

In addition to these, Kubota is preparing a handbook for each country and region, which contains more detailed information on the points to be noted and actions to be taken in the respective country or region. At present, handbooks for China, South Korea, Indonesia, Myanmar, the Philippines, Thailand, and Vietnam have been formulated, and to date, training sessions by local lawyers have been provided at 19 Kubota Group companies in China, South Korea, Indonesia, the Philippines, India, Vietnam, and Thailand.

The policies for these risk management activities and the results of the activities are periodically reported to the President, the Board of Directors, and the Audits & Supervisory Board through the Company-wide Risk Management Committee, composed mainly of Directors, and based on their feedback, the contents of activities are occasionally revised, thereby improving the level of the activities.

The Kubota Group Anti-Bribery Policy (excerpt)

As specified in the Kubota Group Charter for Action, we commit ourselves to "conducting corporate activities based on compliance with legal regulations and ethical principles." As such, the Kubota Group never allows any business based on unfair practices such as bribery. The Group also strictly prohibits all of its companies, officers and employees from being involved in bribery.

President, Kubota

Kubota Group Charter for Action & Code of Conduct

All the employees working for the Kubota Group, including those overseas, are required at the time of joining the Group to submit a written pledge that they will comply with the Kubota Group Charter for Action & Code of Conduct, and the corporate principles, the Kubota Global Identity.

Furthermore, various tools for education and awareness-raising are prepared with the aim of fostering a mindset based on compliance and the corporate principles.

* As part of its efforts to prevent recurrence of inappropriate actions regarding inspection reports, in FY2018 all employees of Kubota read out the Kubota Group Charter for Action & Code of Conduct at their respective workplaces. Workers reaffirmed the importance of compliance and points that require particular care.

Period	No. of participants
Oct. 9–31, 2018	12,235

Absent employees did so at a later date

Kubota Group Charter for Action & Code of Conduct (items)

- 1. Winning Customer Satisfaction
 - (1) Product Safety and Superior Quality
 - (2) Responding to Customer Requests and Complaints
 - (3) Appropriate Advertising and Labeling
- 2. Conducting Corporate Activities Based on Compliance with Legal Regulations and Ethical Principles
 - (1) Legal Compliance and Observance of Corporate Ethics Are Basic Conditions for Corporate Activities
 - (2) Observance of Laws of Individual Countries and Regions, as well as International Rules
 - (3) Early Detection and Prevention of Misconduct
 - (4) Compliance with Fair Trade Laws and Regulations
 - (5) Fairness and Transparency in Transactions
 - (6) Compliance with Internal Rules
 - (7) Prohibition of Activities Contrary to the Proper Interest of the Company
 - (8) Preservation of Company Assets
 - (9) Respect for and Usage of Intellectual Property
 - (10) Management of Confidential Information
 - (11) Security of Electronic Information
- 3. Respecting Human Rights
 - (1) Respecting Human Rights
 - (2) Prohibition of Harassment
 - (3) Protection of Personal Information

- 4. Building up a Safe and Vibrant Work Environment
 - (1) In-depth Supervision of Safety, Sanitation, and Health
 - (2) Building up a Vibrant Work Environment
- 5. Conserving the Global and Local Environment
 - (1) Environmental Conservation Efforts in All Business Activities
 - (2) Global Environmental Conservation
 - (3) Environmental Protection to Create a Symbiotic Relationship with Local Societies
 - (4) Our Voluntary and Organized Efforts in Environmental Conservation
- 6. Achieving Symbiosis with International and Local Societies
 - (1) Respect of Culture and Customs of All Countries and Regions
 - (2) Compliance with Export and Import Laws and Regulations
 - (3) Elimination of Relationships with Antisocial Elements
 - (4) Proper Relationships with Political Groups and Government Organizations
 - (5) Rules for Entertainment, Gifts, and Donations
 - (6) Contributing to Society
 - (7) Firm Commitment to Safe Driving
- Fulfilling Responsibilities for Improving Management Transparency and Accountability
 - (1) Appropriate and Timely Disclosure of Corporate Information
 - (2) Proper Accounting/Taxation Treatment
 - (3) Emphasis on Internal Audits
 - (4) Prohibition of Insider Trading

See here for the Kubota Group Charter for Action & Code of Conduct www.kubota.com/company/csr/policy/conduct/

* Kubota makes adjustments to its Kubota Group Charter for Action & Code of Conduct as and when necessary in response to changes in the social environment as well as applicable laws, and partial revisions were made on January 1, 2019. Of particular note is the addition of "contractual obligations" to "We comply with all applicable legal regulations, specifications, standards, and contractual obligations with our customers and business partners" in "1. Winning Customer Satisfaction" in our Code of Conduct. We also clarified that guaranteeing safety for our customers is our utmost priority. These revisions were part of efforts to prevent recurrence of inappropriate actions regarding inspection reports, announced in FY2018.

Tools for Awareness-raising

Code of Conduct Guidebook

A guidebook describing the Kubota Group Charter for Action and Code of Conduct in a straightforward way using illustrations and explanations. It is provided as a booklet to new employees and is also featured on the Company intranet.

Compliance Support Courier

A document that uses illustrations and Q&As to encourage employees to think about common compliance issues. Distributed monthly by e-mail.

Let's Keep Learning about CSR

A cartoon that introduces common compliance and CSR issues. Featured in the Company newsletter every other month.

Held on January 29, 2019

Dialogue with Outside Management and External Expert

-CSR Management at Kubota

As a CSR expert/facilitator, we invited Dr. Katsuhiko Kokubu, Professor in the Graduate School of Business Administration, Kobe University, and engaged in dialogue on CSR management at Kubota.

Anderse Marken Server Marken Server

Kunio Suwa, Managing Executive Officer * Official positions are as of the time of the dialogue.

1. Kubota's Corporate Principles The Relationship between Kubota Global Identity and Improving Corporate Value

Kokubu I think the corporate principles of all companies

have basically the same content. The essence of CSR activities is how to actualize that content. My view is that the most important point for corporate principles is indicating how a company can contribute, in the context of its own business activities, to society



Dr. Katsuhiko Kokubu Professor, Graduate School of Business Administration, Kobe University

and the happiness of humankind. What is Kubota's thinking regarding the role of corporate principles?

Suwa I believe principles are not something that come from the outside. It is the principles from a company's founding that serve as values the company aims for, and

when an important decision has to be made, I believe it is best if those principles serve as judgment criteria.

Suzuki I think the Kubota Global Identity is very well conceived. The Spirits and Mission sections touch on the core of manufacturing. It might be good to bring those aspects more to the fore.

Ina Occasionally one sees cases where the significance for a business—"why should we do this"—is not explained sufficiently, and people decide to do things on the spur of the moment. If the purpose of a project is clearly indicated, this may lead to increasing social value.

Kokubu There is also a connection with corporate culture, so it is important to indicate more explicitly that principles are used as a decision criterion by management. If that is done, the principles may take root more widely among employees.

Morita I feel that, as globalization progresses due to business expansion by the Kubota Group, there's a risk it will become more difficult for concerns about human rights and labor issues, and calls to abide by laws and regulations, to reach employees. I hope Kubota will work to ensure there are no negative aspects. Realizing corporate principles may require actions where Kubota itself exhibits greater leadership.

Suzuki There's no doubt that Kubota is an extremely global company, with 70% of its sales overseas. It seems there is a tremendous opportunity here. I believe it is best to position the Kubota Global Loop as a basis, and expand business from there in line with the environment inside and outside Japan. By doing that, corporate principles may help to improve corporate value.

2. Simultaneously Achieving Contributions to SDGs and Improvement of Corporate Value

Suwa The difficulty for Japanese companies is that numerical targets always take precedence. The business areas of our company, "Food, Water and the Environment," as indicated in the Kubota Global Loop, themselves serve as a management strategy. I believe it's necessary to create a narrative where goals derived from corporate principles come first, and numerical values come next.

Suzuki I feel that CSV [creating shared value] involves selling a company's own products to improve society. On that point, the Kubota Global Loop is extremely good. It connects easily with SDGs. However, I think there's no need to address all 17 items. It's probably sufficient to cover only the main items. Perhaps it's also best to lead the way by focusing on the food part of "Food, Water and the Environment."

Matsuda According to Michael Porter's definition, CSV does not leave social problems up to the national government. Private companies realize both business and social contribution through their business activities. Kubota has been that way since its founding as a company. Based on a desire to supply safe water to prevent the spread of cholera, Kubota produced water pipes, and then expanded into engines and tractors. The company's history itself can be regarded as CSV. Kubota's businesses and portfolio tell that story well.

Ina At Kubota, CSR is presented as a result, but I wonder if CSR as a goal or strategy is being presented clearly enough.

Morita If there are CSR-style goals to start with, and movement in that direction, it will raise the awareness of employees. I would like to see a little more visualization of goals. I feel the focus is only on results.

Corporate Principles

Kubota Global Identity

Spirits

- 1. Work for the development of society by drawing on all of our capabilities and know-how to offer superior products and technologies.
- 2. Build today and open the way to tomorrow, with the aim of bringing prosperity to the company and happiness to employees.
- 3. Challenge the unknown with creativity and courage.

Brand Statement For Earth, For Life

Mission

Food, water and the environment are indispensable for human beings.

The Kubota Group continues to support the future of the earth and humanity by contributing products that help the abundant and stable production of food, help supply and restore reliable water, and help create a comfortable living environment through its superior products, technologies and services.



Suwa As an example of promoting visualization of goals, there is the cultivator business in developing countries. A cultivator improves productivity tremendously when substituted for a manual tiller drawn by a water buffalo. Furthermore, its cost is low compared to a tractor. Therefore, from the standpoint of contributing to society, there is a much greater impact than switching from one machine to another, but within the company the impact as a business is small, so cultivators may draw less attention. Even if the person in charge works their hardest, it's quite hard to receive positive recognition. I believe there's a need to spread word of these efforts more broadly within the company. At present, our difficulty is how to position businesses with small impact.

Ina My definition of visualization, would be showing the sort of society you wish to create. So, what should be done with cultivator to achieve that? Kubota has a very good goal,



and I think it would be good to bring that more to the forefront and state the purpose behind it. It would be good to show that having people use such equipment as widely as possible helps to invigorate agriculture in those countries.

Koichi Ina Outside Director, Kubota Corporation

Fujiwara Some other companies find it difficult to express how their business contributes to achieving the SDGs, but the business areas of Kubota are "Food, Water and the Environment," so the relevance is direct. The sustained growth of Kubota also helps contribute to the SDGs' achievement. Perhaps there's a need to think harder about how to express that to society, investors, employees, and other stakeholders.

Kokubu Among leading companies, some companies are doing this as a project, rather than as part of business activities in their main field. In that regard, there is also the option of making this into an SDGs Special Project.

Ina Using cultivator as an example, if one looks only at a specific region, profits are low, but from the perspective of the world as a whole, a complete picture is revealed of how

great the need is, how large of a business it will become in the future, and the contribution it can make to the world. If Kubota describes that, and shows the objectives it is aiming for, I believe it will be an extremely worthwhile project. It's management's role to tell employees to do it, even if it will not produce profits immediately, provided there is a good prospect of it becoming a business in the future. This sort of thing is, I believe, the meaning of incorporating SDGs into business operations.

Matsuda The case of cultivator should definitely be

considered when thinking about strategies grounded in business. Management must clearly indicate that it will promote the project because it will come into its own as a business strategy in the future, even if it runs a deficit now.



Yuzuru Matsuda Outside Director, Kubota Corporation

Ina Imagine there is demand for a certain product. If you don't pursue that business because you think the business potential is unclear, you'll lose that spirit of taking on challenges. If you think something is necessary, you should be looking to set defined goals of how to proceed and until when so as to give it a go. Building an environment where

you can do this is also vital. **Suwa** With that approach, the crucial point is how to set the evaluation period, isn't it? The answer differs depending on whether the period is one, five, or ten years. For special projects, I think the approach will

change if the time period is



Kunio Suwa Managing Executive Officer, Kubota Corporation

set, for example, to between five and ten years.

Kokubu The time period is clearly the essence of commitment as a company, so it's probably best to indicate it. This means that it is tied into business strategy. I believe it's impossible for a company in business to ignore profit, but if there is even a little added value, business potential can

<Response to inappropriate actions>

Professor Kokubu also raised the issue of the Kubota Corporation's Statement on its Rolling Mill Roll Inspection Process, officially announced by Kubota on September 12, 2018, and the following proposals were made by outside management:

• Thoroughly analyze the cause, create a culture of "visualization," deploy this horizontally across the organization, and conduct auditing globally. Also, put the new arrangements into place quickly and firmly.

also be expected. Even if a business is significant in terms of SDG achievement, business judgment must play a major role in the end. When pressed about how long one should continue, I would definitely like Kubota to base its decisions on its corporate principles.

3. Further Steps to Contribute to SDGs and Improve Corporate Value

Kokubu As Mr. Matsuda pointed out earlier, the main premise is that Kubota will contribute to society through business, and this fits perfectly with the SDGs concept. However, like many other companies, I believe Kubota's efforts towards SDGs are at a stage where they have now been linked up with business activities. Going forward, what will be needed for Kubota as a whole to strive to achieve SDGs by 2030?

Suwa As part of the globalization process, Kubota recognizes that universal values are important for unifying the corporate group. While issues of capital are also important, we won't survive on those alone. If what we are doing isn't linked to those universal values, there won't be that unifying force. Isn't that what SDGs are truly about?

Morita When I went to the Kubota Machinery Group Dealer Meeting last year, the president spoke about the SDGs in front of an audience that included foreign employees from overseas group companies. I think his words won them over and



Akira Morita Outside Audit & Supervisory Board Member, Kubota Corporation

instilled a desire to do their best to achieve the SDGs. To encourage employees of group companies overseas as well as domestic employees to participate in collaborative management, I believe something must be done to boost their motivation. We're not in an era where just increasing profits is enough. Business should be of use to the world, and to all people, and SDGs are an effective tool for expressing that. Perhaps management should communicate that in an easy-to-understand way from time to time. **Kokubu** There are companies which have boosted their name recognition by actually using SDGs strategically, and linking them with their business activities. They are also used to stimulate enthusiasm within the company, through techniques like having employees make proposals concerning the SDGs. I believe SDGs activities can be broadened to the company as a whole, not just end up as a single project. **Fujiwara** The businesses of Kubota cover a diverse range,

so I imagine there are various ideas for new approaches, but

it is important that this does not become "one size fits all." It's essential to find areas where the company has specific strengths, and proceed steadily, not just as a one-off. First, how about developing a business plan for three to five years? Once



Masaki Fujiwara Outside Audit & Supervisory Board Member, Kubota Corporation

that is in place, I think policies and approaches should be considered, such as having a plan b and plan c.

Suzuki I know I'm repeating myself, but Kubota has quite a good fit with SDGs and CSV due to its focus on "Food, Water and the Environment." Kubota's strengths are its capacity to create products that can solve global issues, and

the ability to develop them. It's probably best to focus on the significance of Kubota's existence while highlighting connections with SDGs. I believe that will also help Kubota to achieve sustainable growth and improve its corporate value.



Teruo Suzuki Outside Audit & Supervisory Board Member, Kubota Corporation

Suwa Through that approach, I think Kubota will become "a brand that can make the greatest social contribution as a result of being trusted by the largest number of customers." In other words, it will advance towards the realization of "Global Major Brand Kubota." I would like to sincerely thank all of you for contributing your valuable perspectives today. We will keep the views you have shared in mind, and work hard in the future to further improve the level of our CSR management.

Based on these suggestions, we will ensure quality-first manufacturing in order to recover the trust lost due to this inappropriate conduct. For details on this incident and measures to prevent recurrence, please see: www.kubota.com/news/2018/pdf/20181129.pdf

[•] Properly monitor departments and divisions which are hard to keep an eye on as a matter of importance. Observation reminds employees they are being properly evaluated and helps improve motivation.

Closing Feature

-Aiming for a Disaster-Resistant World

Natural disasters such as earthquakes and typhoons occur frequently not only in Japan but in regions all over the world. Preparing to prevent and reduce their impact is an urgent issue.

The Kubota Group will contribute to the development of robust, sustainable societies through products, services, and people.

Prepare and Endure

Able to continue delivering water during disasters Earthquake-resistant ductile iron pipes



Used in Landslide areas overseas Large-diameter, earthquake-resistant ductile iron pipes (United States)



Protecting life from flood damage Storm water drainage pumps



Protecting life from earthquakes and tsunamis Steel pipe piles



Recover and Rebuild

Used for draining water during floods Pumper vehicles (Thailand)



Used for restoring and maintaining life lines Plastic pipes



Used for removing debris Mini excavator



Restoration work on a water purification plant Kubota Environmental Service



Used for transporting people during floods **Tractor** (Thailand)



Used for salt and pollution removal in earthquake-affected areas Tractor



Used for draining water during floods Sump pump engine (Thailand)



Used to treat wastewater from temporary housing Wastewater treatment plants (Johkasou)





<Related SDGs>

Be There for People

Providing necessary supplies after disasters



Volunteer activities in disaster-affected areas



Engaging with people in temporary housing



Supporting agricultural training for the next generation in disaster-affected areas



Corporate Data (as of December 31, 2018)

Corporate name:	Kubota Corporation
Head Office:	1-2-47 Shikitsu-higashi, Naniwa-ku, Osaka
Established:	1890
Capital:	¥84.1 billion
Total number of shares issued:	1,232,556,846
Number of shareholders:	43,194
Revenue (consolidated):	¥1,850.3 billion
Employees (consolidated):	40,202



Head Office

KUBOTA Group

Global Network www.kubota.com/network/index.php

Third-Party Comments

Third-Party Comments on the KUBOTA REPORT 2019



Katsuhiko Kokubu Professor Graduate School of Business Administration, Kobe University

Challenges Through 2030

The most noteworthy characteristic of this year's KUBOTA REPORT was the section on "Strategies as we approach 2030." Of course, 2030 is the final year by which to achieve the SDGs. At present, there is a kind of boom in SDGs, and a great number of corporations have been declaring their SDG initiatives. However, we remain in a situation where very few corporations are making an explicit commitment to SDGs. In that sense, Kubota's commitment to achieve its SDGs by 2030 is extremely important in showing its corporate stance. As well as looking forward and analyzing the road to 2030, Kubota is clearly stating the concrete contributions it is making and that shows it is already one step ahead in their response to the SDGs. That Kubota is declaring not only its SDGs but also its KPI goals is also something worth paying attention to. At present, these KPIs serve as qualitative targets, but as Kubota makes progress towards a quantitative assessment in the future, I feel that Kubota will be held in high regard as a model company for SDGs.

Disclosure of Information about the Risks and Opportunities of Materiality

The issues that draw global attention in the disclosure of sustainability-related information are the analysis of material (priority) issues and the disclosure of information about risks and opportunities. Once Kubota has identified material issues, it announces the impact of that materiality in a way that provides an ongoing grasp of aspects of both the risks and the opportunities. This constitutes a quite in-depth disclosure of information that reflects the demands of the Financial Stability Board's (FSB) Task Force on Climate-related Financial Disclosures (TCFD). However, most explanations tend to be qualitative in nature, so I feel that in the future, the quantification of information related to risks and opportunities will become a topic of discussion. In addition, I think that it will be vital to take SDGs into account in future materiality-related considerations.

CSR and Governance

CSR and governance are intimately related. While the policies of Kubota's president are of course important, it is extremely important to be able to understand the opinions regarding CSR held by the members that make up the Board of Directors. I was able to facilitate a dialogue where I could exchange opinions regarding CSR with Kubota's outside directors and auditors. I realized the significance of Kubota's intimate relationship with CSR and how sustainability is a characteristic of the company, and I was able to understand the importance of applying corporate principles to decision-making. The opinions of both directors and outside directors regarding CSR are extremely important for CSR activities, so in the future I hope Kubota further energizes its CSR activities by actively discussing these topics and continuing to post information about them.

In Response to the Third-party Comments

We wish to express our sincere appreciation to Dr. Kokubu for having provided invaluable third-party comments since FY2009. In addition, we would like to once again extend our gratitude for his cooperation this year with the <u>"Dialogue with Outside Management and</u> <u>External Expert."</u>

Dr. Kokubu's assessments regarding <u>the clarification of our commitment to SDGs and</u> <u>further demonstration of qualitative KPIs</u>, <u>the ongoing disclosure of information regarding</u> <u>the risks and opportunities of materiality</u>, and the significant exchange of opinions about CSR with outside directors and auditors (which he kindly facilitated) are extremely encouraging.

As to his suggestion of establishing quantitative targets for KPIs related to SDGs, we will be keeping in mind the possibility of making that a reality in our business as we investigate how we can present information and concrete data.

We intend to make efforts towards our future disclosure of information with regard to Dr. Kokubu's opinion that it is important to quantify information related to material issues and to take into account SDGs, and we will be considering ways to do this.

Dr. Kokubu also spoke of the way in which directors and outside directors need to proactively announce their thoughts on CSR issues. In addition to the responses I've already mentioned, we will organize exchanges of opinions between outside directors and auditors and experts like Dr. Kokubu, enhance our CSR activities, and strengthen our corporate governance. At the same time, we will proactively work to disseminate information about our efforts.

The Kubota Group positions its corporate principles—the Kubota Global Identity—as the foundation of its corporate management. All of the three areas of food, water and the environment are closely related to the SDGs, and Kubota's business opportunities and social responsibility are increasingly growing.

With the aim of establishing a Global Major Brand that can make the greatest social contribution as a result of being trusted by the largest number of customers, all the 40,000+ employees of companies in the Kubota Group act as one to become a corporate group that is always trusted and needed by members of society.



Kunio Suwa Managing Executive Officer, General Manager of CSR Planning and Coordination Headquarters Kubota Corporation

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