

# Environmental Management Basic Policy

In line with its brand statement, "For Earth, For Life," while protecting the beauty of the global environment, the Kubota Group is committed to the continued support of people's affluent lifestyles. Through business, the Group contributes to building a sustainable society.

## Environmental Charter / Action Guidelines

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### ■ 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, and technologies.

### ■ 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 for stopping climate change, creating a recycling-based society, and controlling chemical substances.
- (2) We promote global environmental conservation by providing technologies and products contributing 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 the 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

The mission of the Kubota Group is to contribute to conservation of the global environment through "Made by Kubota" manufacturing activities under the slogan, "For Earth, For Life."

The Environmental Management Strategy Committee was established in 2014 for the purpose of raising the Group's level of environmental management, including the global implementation of initiatives such as expanding our lineup of environmental-friendly products and reducing environmental load and environmental risk.

After the Paris Agreement was adopted at COP21 held late last year, and amidst heightened emphasis on initiatives towards planet environmental issues such as climate change, we added the Long-Term Environmental Conservation Targets for RY2030 and Medium-Term Environmental Conservation Targets for RY2020; two new targets based on the results of the Medium-Term Environmental Conservation Targets for RY2015 and the medium-term plans of each division.

We will continue working towards building a sustainable society and unite to proactively engage in activities for the conservation of the planet's environment, and ultimately become "Global Major Brand".



**Kenshiro Ogawa**  
 Director and Senior Managing Executive Officer General Manager of Manufacturing Engineering Headquarters (Environmental Conservation Control Officer), Kubota Corporation

## Basic Direction of Corporate Environmental Management / Key Measures

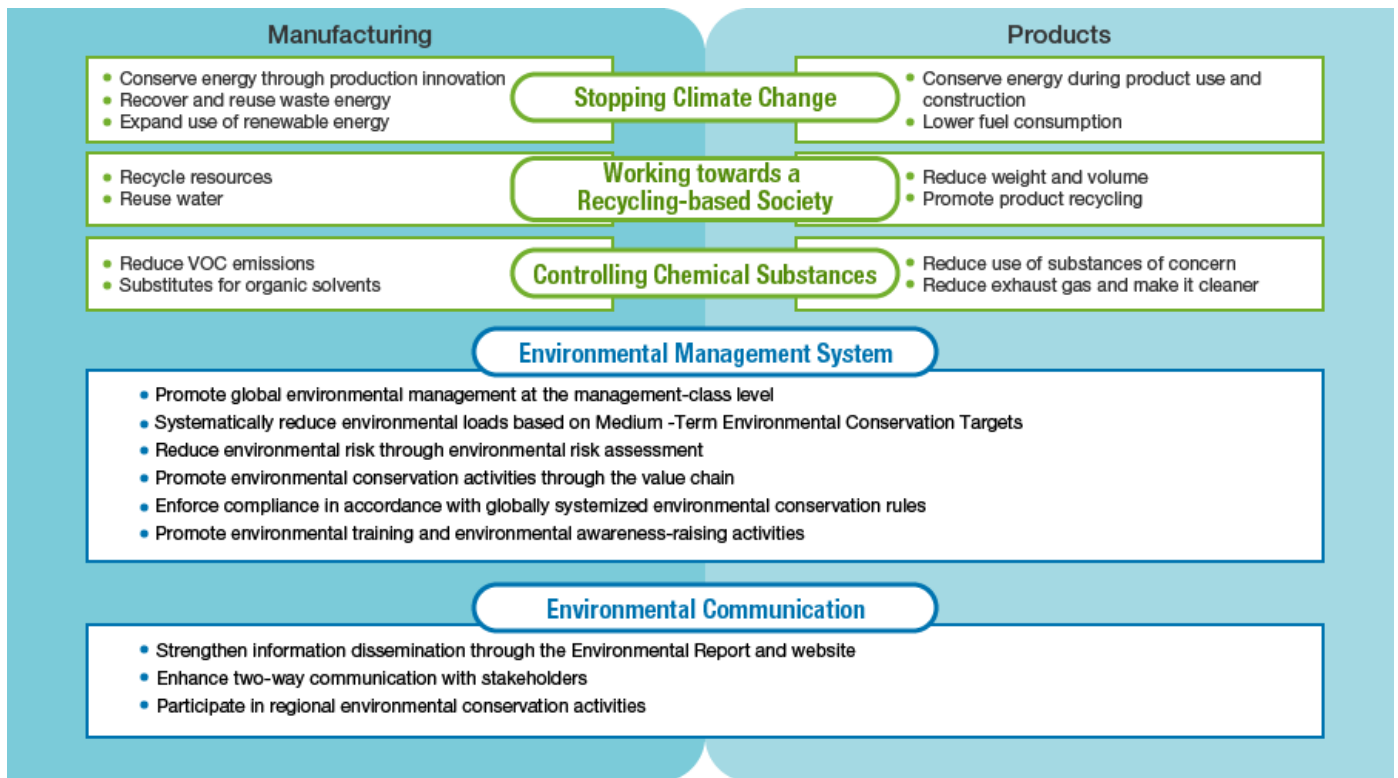
### Basic Direction of Corporate Environmental Management

As stipulated in the Basic Direction of Corporate Environmental Management prepared for the Kubota Group, three initiatives have been established: "Stopping Climate Change," "Working towards a Recycling-based Society" and "Controlling Chemical Substances."



## Key Measures

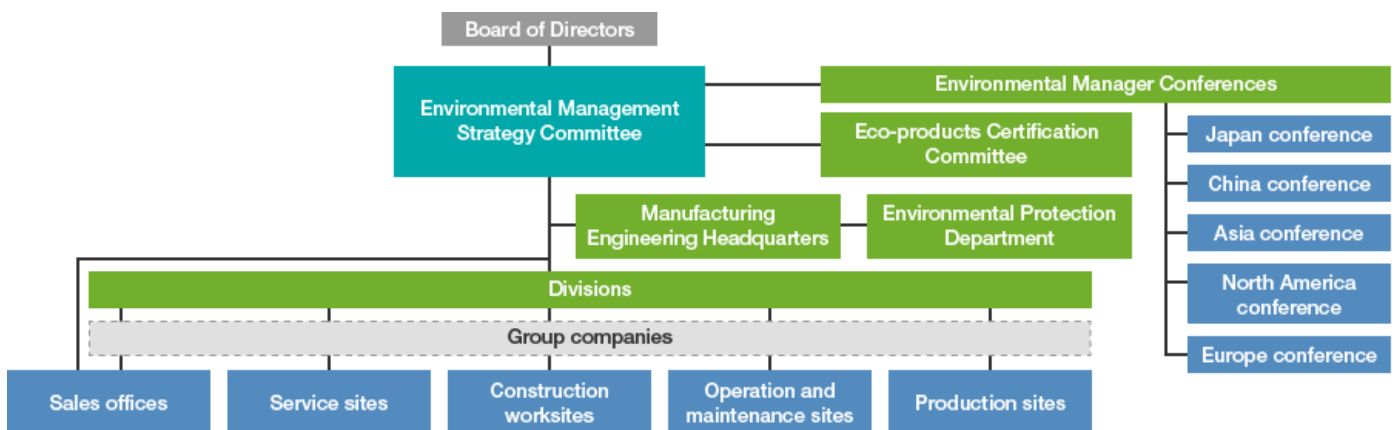
Aiming to achieve the Basic Direction of Corporate Environmental Management, the Kubota Group engages in environmental management with key measures focused on the two perspectives of manufacturing and products, and in accordance with the basic concept of reducing environmental load at the same time as improving management efficiency.



## Environmental Management Promotion System

### Organization Structure

In RY2014, 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.



## ■ Environmental Management Strategy Committee

The Environmental Management Strategy Committee is chaired by Kubota's executive vice president and is comprised of executive officers. The Committee discusses the direction of the Kubota Group's environmental management for the medium- and long-term, including topics such as the group-wide transition to LED lights. It determines issues such as items and plans that should be carried out in order to reduce environmental impact and risk, and what products to add to extend the lineup of environmentally-friendly products.

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 Committee

## ■ Environmental Manager Conferences

The Kubota Group holds Environmental Manager Conferences aimed at strengthening the environment management system and reducing environmental load and environmental risk on a global basis.

In RY2015, we held these conferences for the Asian and North American regions as a joint initiative with the Safety and Health Promotion Department. Environmental managers and staff members from seven companies with production sites in Asia, excluding Japan and China, and three companies with production sites in North America for the North American region, attended these conferences, respectively. Environmental managers from Japan's mother plants also attended.

Each company presented case studies, and a group discussion was held on the theme of environmental management, thus providing an opportunity to share issues and excellent case studies between sites.

We will position these conferences as a function for enhancing our activities on a practical basis, and continue raising the level of environmental conservation activities at each site through gatherings such as these.



Environmental Manager Conferences held for Asian region  
P.T. Kubota Indonesia



Environmental Manager Conferences held for North American region  
Kubota Manufacturing of America Corporation

## Medium- to Long-Term Environmental Conservation Targets and Results

To properly execute the Basic Direction of Corporate Environmental Management and systematically promote environmental conservation activities in the production and product development stages, the Kubota Group has established Medium- and Long-Term targets relating to environmental conservation.

In RY2015, we promoted initiatives based on "Medium-Term Environmental Conservation Targets 2015" established in 2013.

Moreover, we have newly established Long-Term Environmental Conservation Targets 2030 and Medium-Term Environmental Conservation Targets 2020 as targets for the years RY2030 and RY2020, respectively. We will continue to exert all efforts towards achieving these targets.

Environmental information in the online version of the KUBOTA REPORT 2016 Business and CSR Activities <Full Report Version> (PDF) has received third-party assurance from KPMG AZSA Sustainability Co., Ltd. Indicators covered by this assurance are marked with the "🌱" symbol.

### Medium-Term Environmental Conservation Targets and Results for RY2015 🌱

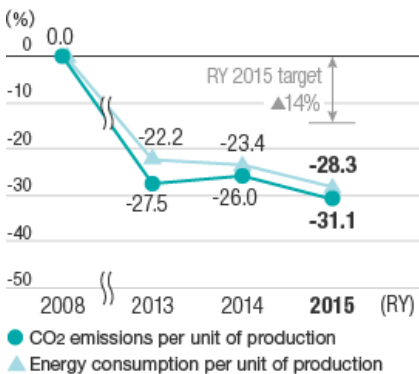
RY2015 was the final year of this initiative. As the following table shows, we achieved our targets with the exception of Recycle ratio for overseas production sites.

Scope	Issues	Actions items	Management Indicators*3	Base RY	Targets for RY 2015*6	Results of RY 2015*6	Self-evaluation*7	Achievement Status
Global Production Site	Stopping Climate Change	Reduce CO <sub>2</sub> *1	CO <sub>2</sub> emissions per unit of production	2008	▲14%	▲31.1%	◎	We achieved this target through the energy-saving initiatives for production equipment, air conditioning, lighting, etc. and the introduction of solar power generation.
		Save energy	Energy consumption per unit of production	2008	▲14%	▲28.3%	◎	
	Working towards a Recycling-based Society	Reduce waste	Waste discharge per unit of production	2008	▲14%	▲29.1%	◎	We achieved this target through making valuable resources out of waste by sorting, adopting returnable packaging, etc.
			Recycle ratio (Japan)*4	-	99.5% or more	99.8%	○	We maintained the existing level and achieved the target.
			Recycle ratio (Overseas)*4	-	90.0% or more	85.5%	×	We pursued reducing the amount of waste sent to landfills by changing contractors, etc., but did not achieve the target.
		Conserve water resources	Water consumption per unit of production	2008	▲21%	▲38.3%	◎	We achieved this target through the introduction of wastewater recycling equipment.
	Controlling Chemical Substances	Reduce VOCs*2	VOC emissions per unit of production	2008	▲21%	▲28.9%	◎	We achieved this target through improving coating efficiency, using VOC-free paint, etc.
Product	Improving Product's Environmental Performance	Expand Eco-Products	Sales ratio of Eco-Products*5	-	40%	45.2%	○	We achieved this target through certifying 40 Eco-Products in RY 2015.

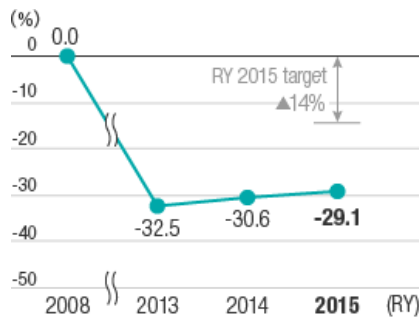
\*1 CO2 emissions include greenhouse gases from non-energy sources. We use the emissions coefficient for electricity of the base year in our calculation of CO2 emissions from energy sources.  
 \*2 VOCs comprise the six VOCs that are most prevalent in emissions from the Kubota Group: xylene, toluene, ethylbenzene, styrene, 1, 2, 4-trimethylbenzene, and 1, 3, 5-trimethylbenzene.  
 \*3 The figures per unit of production represent the intensity of the environmental load per unit of production money amount. The exchange rate of the base year is used when translating the production money amount of overseas sites into Japanese yen.  
 \*4 Recycle ratio (%) = (Sales volume of valuable resources + External recycling volume) / (Sales volume of valuable resources + External recycling volume + Landfill disposal) × 100. Heat recovery is included in external recycling volume.  
 \*5 Eco-Products mean the products which 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  
 \*6 ▲ is a symbol used to express "minus".  
 \*7 Self-evaluation rating symbols: ◎Target exceeded (by at least 20%) ○Target reached XTarget not reached

## Results of Three Years Against Medium-Term Environmental Conservation Targets 2015

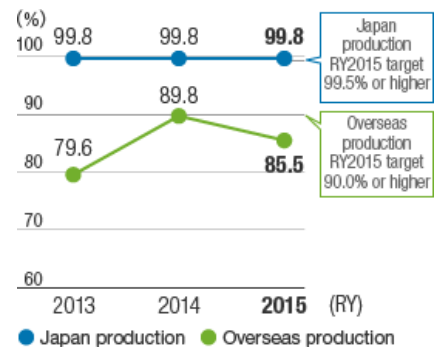
**Trends in the Reduction of CO2 and Energy per Unit of Production**



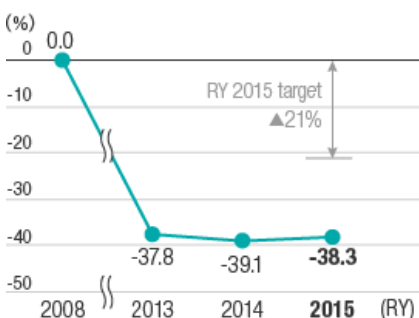
**Trends in the Reduction of Waste Discharge per Unit of Production**



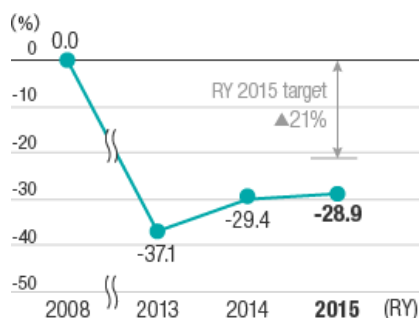
**Trends in Waste Recycle Ratio**



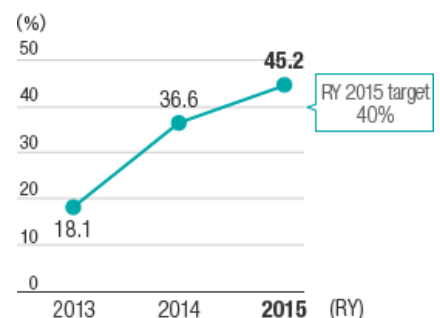
**Trends in the Reduction of Water Consumption per Unit of Production**



**Trends in the Reduction of VOC Emissions per Unit of Production**



**Trends in the Sales Ratio of Eco-Products**



## Establishment of Medium- and Long-Term Environmental Conservation Targets

It has been gradually worsening the influence due to climate change such as extreme weather events. Under the circumstances, the "Paris Agreement" was adopted at COP21 (i.e., the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change) in December 2015. The world's movement on the reduction of greenhouse gas has been activated. Global environmental issues are posing a significant threat to "ensure food security" and "ensure a safe and secure water supply."

In order to contribute to building a sustainable society as a sustainable company, the Kubota Group has been implementing environmental management. This time, we newly formulated "Long-Term Environmental Conservation Targets 2030."

We also established "Medium-Term Environmental Conservation Targets 2020" as our targets for the next five years. We will strengthen our initiatives in production and product development, and promote activities to achieve these new targets.

As defined in the Kubota Group's Basic Direction of Corporate Environmental Management, the three issues to be dealt with regarding production activities are "Stopping Climate Change," "Working towards a Recycling-based Society" and "Controlling Chemical Substances." We will proactively engage in activities to reduce environmental load not only in Japan, but also at our overseas production sites.

Regarding the product area, in addition to the existing target of "Expand Eco-Products," we have set the new initiatives for "Promote recycling" and "Develop vehicles compliant with gas emission regulation." We are making steady progress towards providing our customers and society with more environmental value through environment-friendly products.

## ■ Long-Term Environmental Conservation Targets 2030

### □ Efforts to Stop Climate Change

Reduce CO<sub>2</sub> emissions from the Kubota Group in Japan\*<sup>1</sup> by 30% compared to the base year 2014

### □ Efforts to Develop Environment-Conscious Products

Increase the sales ratio of Eco-Products certified products\*<sup>2</sup> to 80%

Aim to put all new products which are certified as Eco-Products on the market in 2030 and later

## ■ Medium-Term Environmental Conservation Targets 2020

Scope	Issues	Actions items	Management Indicators* <sup>4</sup>	Base RY	Targets for RY2020* <sup>8</sup>
Global production Site	Stopping Climate Change	Reduce CO <sub>2</sub> * <sup>1</sup>	CO <sub>2</sub> emissions per unit of production	2014	▲ 14%
		Save energy	Energy consumption per unit of production	2014	▲ 10%
	Working towards a Recycling-based Society	Reduce waste	Waste discharge per unit of production	2014	▲ 10%
			Recycle ratio (Japan)* <sup>5</sup>	-	More than 99.5%
		Recycle ratio (Overseas)* <sup>5</sup>	-	More than 99.0%	
	Conserve water resources	Water consumption per unit of production	2014	▲ 10%	
	Controlling Chemical Substances	Reduce VOCs* <sup>3</sup>	VOC emissions per unit of production	2014	▲ 10%
Product	Improving Product's Environmental Performance	Expand Eco-Products	Sales ratio of Eco-Products* <sup>2</sup>	-	More than 60%
		Promote recycling	Usage ratio of recycled materials* <sup>6</sup>	-	More than 70%
		Develop vehicles compliant with gas emission regulation	Development of industrial diesel engines that comply with the latest emission regulations of Japan, the US and Europe and putting on the market of the engine-based products* <sup>7</sup>		

\*<sup>1</sup> CO<sub>2</sub> emissions include greenhouse gases from non-energy sources. We use the emissions coefficient for electricity of the base year in our calculation of CO<sub>2</sub> emissions from energy sources towards the target for 2020.

\*<sup>2</sup> Eco-Products mean the products which 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

\*<sup>3</sup> VOCs comprise the six VOCs that are most prevalent in emissions from the Kubota Group: xylene, toluene, ethylbenzene, styrene, 1, 2, 4-trimethylbenzene, and 1, 3, 5-trimethylbenzene.

\*<sup>4</sup> The figures per unit of production represent the intensity of the environmental load per unit of production money amount. The exchange rate of the base year is used when translating the production money amount of overseas sites into Japanese yen.

\*<sup>5</sup> Recycle ratio (wt%) = (Sales volume of valuable resources + External recycling volume) / (Sales volume of valuable resources + External recycling volume + Landfill disposal) × 100. Heat recovery is included in external recycling volume.

\*<sup>6</sup> Ratio of recycled materials (wt%) used in casting products and components (ductile cast iron pipes, their fittings, mechanical casting (e.g. crankcase of engine)) manufactured by the Kubota Group

\*<sup>7</sup> Tractors and combine harvesters equipped with engines which comply with EU Regulations (Euro Stage IV) and other similar regulations, shipped to Europe, North America, Japan, and Korea (output range: 56 kW≤P<560kW)

\*<sup>8</sup> ▲ is a symbol used to express "minus"

## As An "Eco-First Company"

In May 2010, the Kubota Group was certified by the Japan's Minister for Environment as an "Eco-First Company" due to its commitments to environmental conservation.

Moreover, in June 2014, the Kubota Group introduced the Eco-Fast Commitment for the purpose of achieving the following five objectives.

Based on our commitment to achieving the new Long-Term and Medium-Term Targets in 2016, we will promote these initiatives as an Eco-First Company.

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



Eco-First Mark

☞ [See here for details on Eco-First Company certification](#)

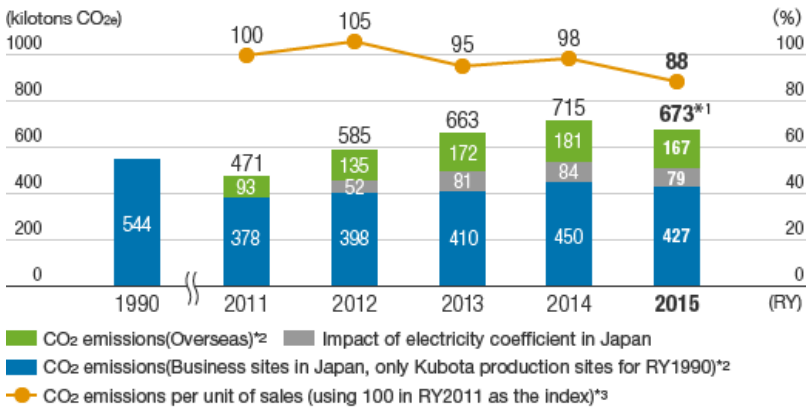
# Stopping Climate Change

The Fifth Assessment Report by the Intergovernmental Panel on Climate Change (IPCC), states that the 'warming of the climate system is unequivocal' and there is an extremely high possibility that the impact of human activities is one of the contributing factors. Additionally, the "Paris Agreement" was adopted at the COP21 held in December 2015 as part of efforts to reduce global greenhouse gases. The Kubota Group is engaged in initiatives to reduce CO<sub>2</sub>, placing a focus on energy-saving activities in order to prevent global warming.

## CO<sub>2</sub> Emissions (Scope 1 and Scope 2)

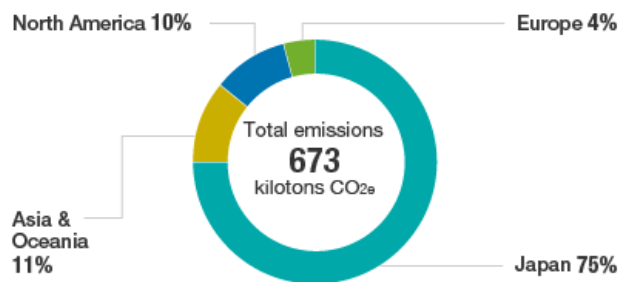
In RY2015, CO<sub>2</sub> emissions were 673 kilotons CO<sub>2</sub>e, a decrease of 5.9% compared to the previous reporting year. Additionally, CO<sub>2</sub> emissions per unit of sales improved by 9.5% compared to the previous reporting year. This is the result of implementing energy-saving measures such as replacing older equipment with highly efficient equipment and reducing production volume at cast iron production sites in Japan.

### Trends in CO<sub>2</sub> Emissions and Emissions per Unit of Sales

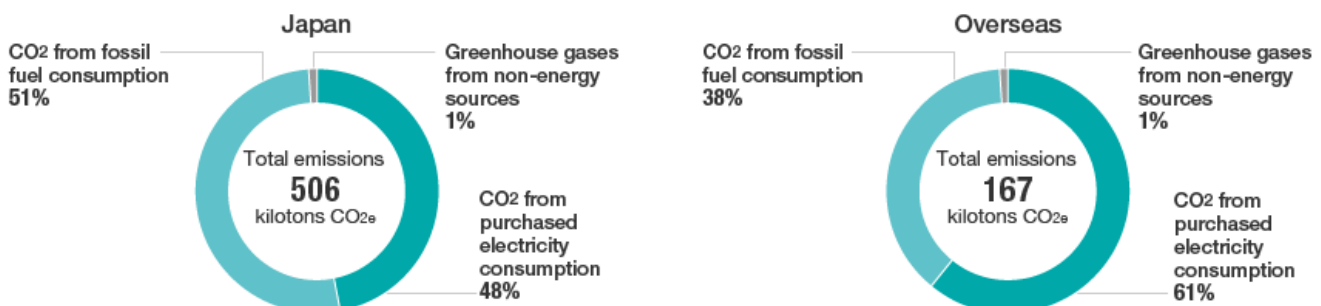


\*1 CO<sub>2</sub> emissions (673 kilotons CO<sub>2</sub>e) include portions of CO<sub>2</sub> that were not released into the atmosphere but absorbed as carbon into products such as iron pipe (29 kilotons CO<sub>2</sub>e).  
 \*2 CO<sub>2</sub> emissions after RY2011 include greenhouse gases from non-energy sources.  
 \*3 CO<sub>2</sub> emissions per unit of consolidated net sales. In RY2015, changes to the settlement period have realigned the accounting period to the nine months between April 2015 and December 2015. However, the consolidated net sales for RY2015 in the Environment Report shows the total for the period starting April 2015 and ending March 2016.

### CO<sub>2</sub> Emissions by Region (RY2015 results)

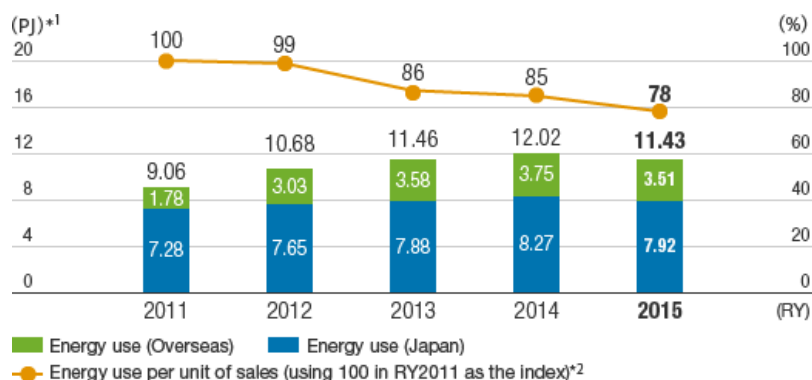


### CO<sub>2</sub> Emissions by Emission Source (RY2015 results)





### Trends in Energy Use by Business Sites



\*1 PJ = 10<sup>15</sup>J

\*2 Energy use per unit of consolidated net sales.

(Consolidated net sales for RY2015 are the total from April 2015 through March 2016)

### Voice Reducing CO2 Emissions by Introducing a Geothermal Heat Ventilation System

At Kubota Hanshin Plant (Mukogawa) a new ventilation system utilizing geothermal heat has been introduced into the product model display room as reusable energy. The geothermal heat ventilation system works by carrying outside-air into rooms through a pipe buried 7.5 meters under the ground. The outdoor-air temperature varies throughout the seasons; however, geothermal temperature is stable at around 15°C year-round. It is possible to keep rooms cool in the summer and warm in the winter utilizing this temperature difference. We expect this system will make it possible to reduce both operating cost and CO2 emissions by more than 40% per year compared to existing air-conditioning systems. Moreover, visitors, participants in plant tours and the Kubota Group's employees can see the outdoor-air temperature, geothermal temperature and room temperature in real-time on a tablet device, thereby enabling them to visually experience the effects of our energy-saving initiatives.

We will continue to engage in initiatives to further reduce CO2 and become a more environment-friendly plant.



**Kiyoyuki Kawato**  
Production Engineering Section,  
Hanshin Plant, Kubota Corporation

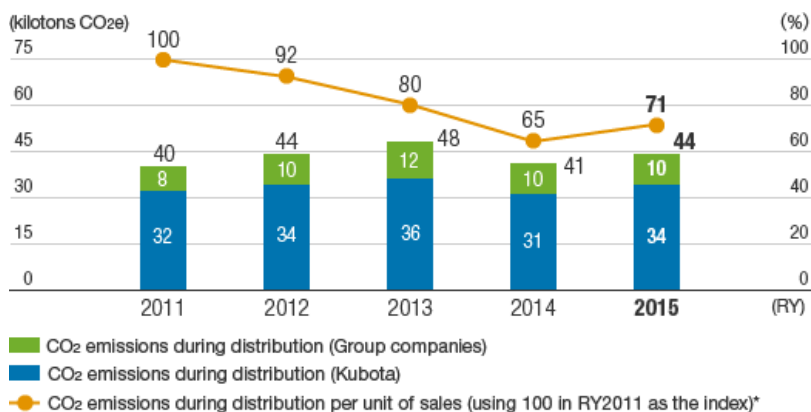


Geothermal heat ventilation system (example of summer time in Japan)

## CO<sub>2</sub> Emissions during Distribution

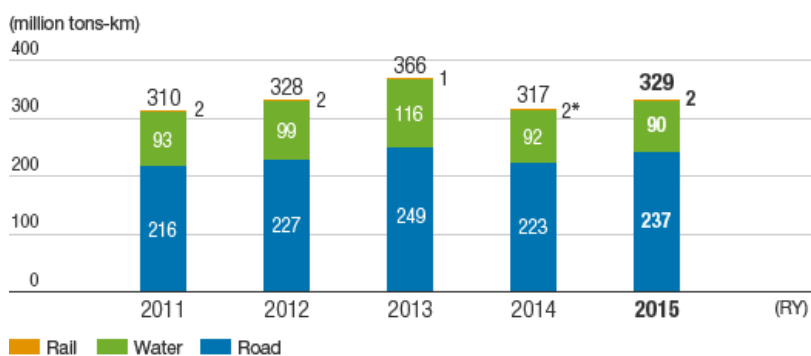
In RY2015, CO<sub>2</sub> emissions during distribution were 44 kilotons CO<sub>2</sub>e, an increase of 8.8% compared to the previous reporting year. We worked on improving loading efficiency by combining transportation and other approaches; however, the increase in volume of products transported caused an increase in emissions. Additionally, CO<sub>2</sub> emissions during distribution per unit of sales increased by 9.0% compared to the previous reporting year.

### Trends in CO<sub>2</sub> Emissions during Distribution and Emissions per Unit of Sales (Japan)



\* CO<sub>2</sub> emissions during distribution per unit of consolidated net sales.  
(Consolidated net sales for RY2015 are the total from April 2015 through March 2016)

### Trends in Freight Traffic (Japan)



\* To improve accuracy, shipment by rail in RY2014 was corrected.

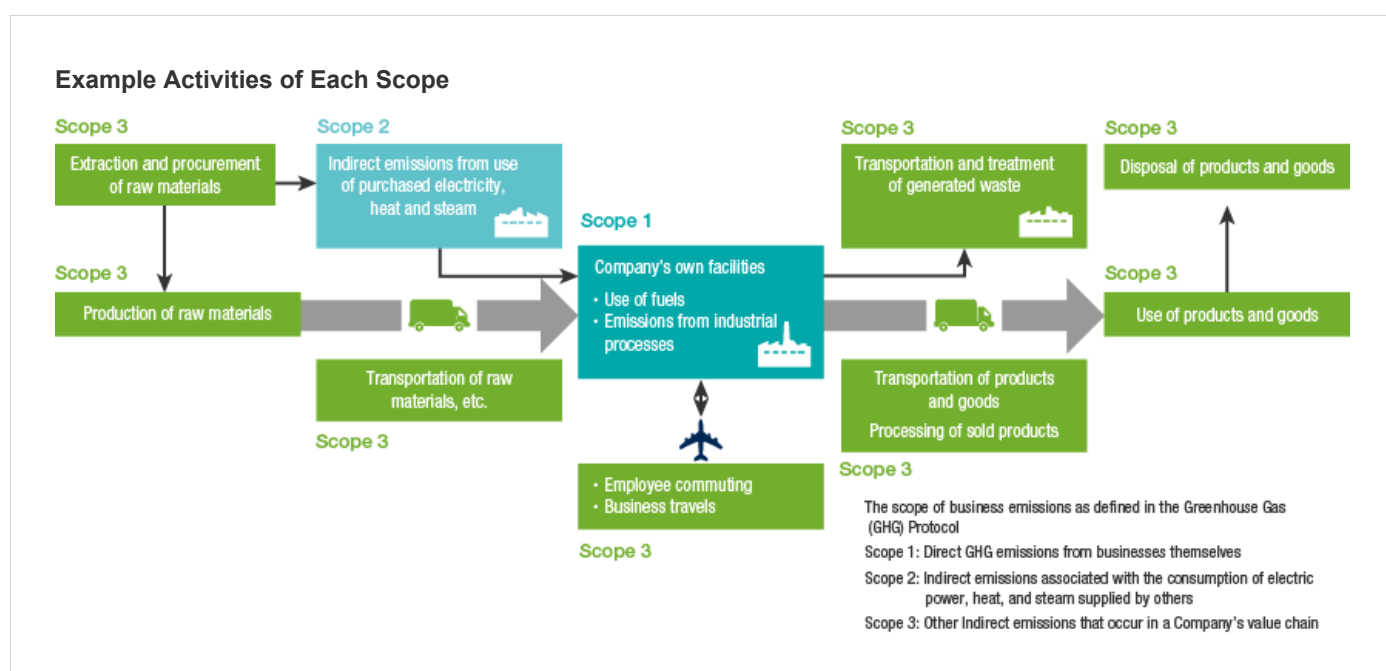
## CO2 Emissions throughout the Value Chain

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 1, Scope 2 and a part of Scope 3, and continue to expand the categories in the Scope3 of our calculation of CO2 emissions.

\* Basic guidelines for calculating greenhouse gas emissions in supply chains issued by the Japanese Ministry of the Environment and Ministry of Economy, Trade and Industry.

### CO2 Emissions in Each Stage of Value Chain (RY2015 results)

Classification		Scope of calculation	CO2 emissions (kilotons CO2e)
Emissions of the Kubota Group's business sites	Direct emissions (Scope 1)	Use of fossil fuels 🔍	322
		Non-energy-related greenhouse gas emissions 🔍	8
	Indirect emissions (Scope 2)	Purchased electricity use 🔍	343
Upstream and downstream emissions	Other indirect emissions (Scope 3)	Resource extraction, transportation and manufacturing related to purchased goods, etc.	2,119
		Extraction and production of capital goods such as equipment	162
		Extraction, production and transportation of fuels for generation of purchased electricity 🔍	25
		Disposal of wastes discharged from business sites 🔍	19
		Employee business travels 🔍	9
		Employee commuting	2
		Transportation of products and wastes 🔍	44
		Processing of sold products	69
		Use of sold products	17,617
		End-of-life transportation and treatment of sold products	38



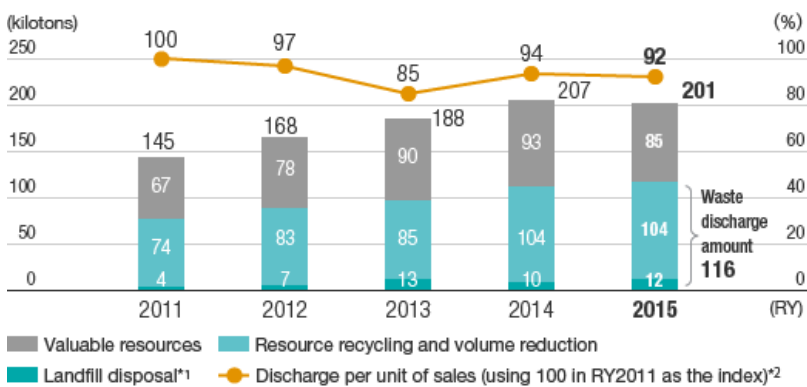
## Working towards a Recycling-based Society - The 3Rs of Waste -

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 is involved in initiatives to reduce waste and recycle resources at its business sites in Japan and implementing initiatives globally to give form to a recycling-based society.

### Waste, Etc. from Business Sites

In RY2015, the waste discharge amount was 116 kilotons, an increase of 1.7% compared to the previous reporting year. We introduced initiatives to thoroughly sort waste and recycle resources; however, the waste discharge amount increased owing to an increase in the production of casting products overseas. The waste discharge per unit of sales improved by 2.2% compared to the previous reporting year.

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



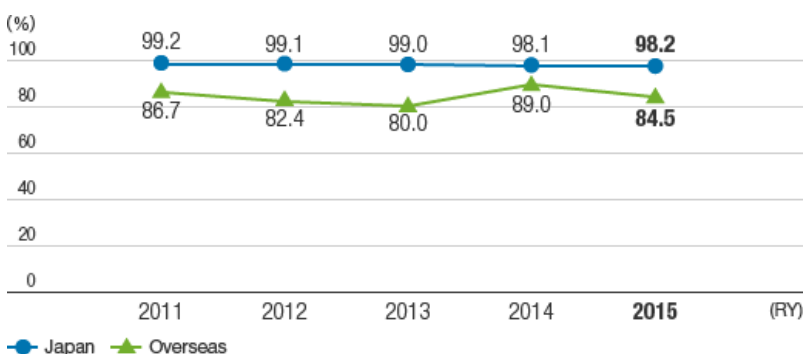
\*1 Landfill disposal = Direct landfill disposal + Final landfill disposal following intermediate treatment

\*2 Waste discharge per unit of consolidated net sales. (Consolidated net sales for RY2015 are the total from April 2015 through March 2016)

Waste discharge = Recycled resources and Volume reduction + Landfill disposal

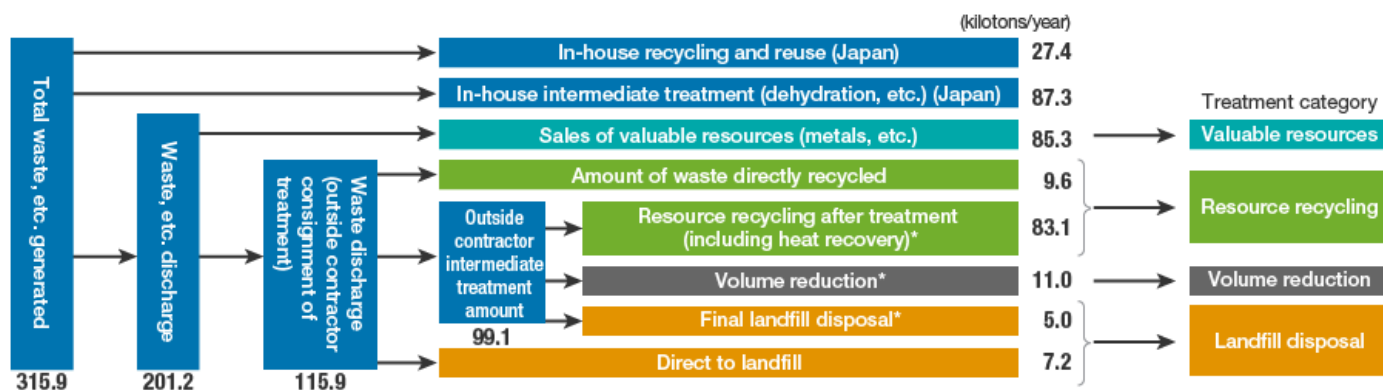
The resource recycling ratio in RY2015 was 98.2% in Japan, up 0.1 points compared to the previous reporting year. On the other hand, overseas, the increase in the amount of landfill consisting of casting dust, etc. led to deterioration of the recycling ratio by 4.5 points to 84.5%.

#### Trends in Recycling Ratio\*



\*Starting in RY2013, heat recovery has been included in external recycling volume. The resulting difference compared with the previous method that did not include heat recovery is minor.

Waste recycling and treatment flow (RY2015 results) 

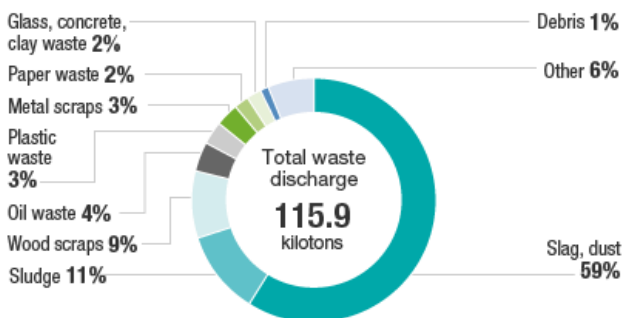


\* The amounts of resource recycling after treatment, volume reduction, and final landfill disposal were the results of surveys conducted by outside intermediate treatment companies.

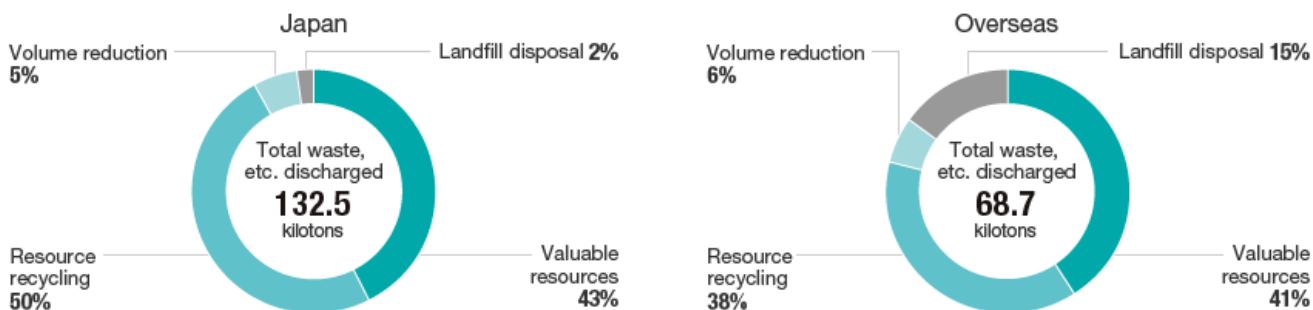
Waste Discharge by Region (RY2015 results) 



Waste Discharge by Type (RY2015 results) 



Waste, Etc. Discharge by Treatment Category (RY2015 results) 



**Voice Suppressing Waste Generation by Introducing "Eco Wrapping"**

In 2015, SIAM KUBOTA Corporation Co., Ltd. (Amata Nakorn Plant) launched a project called Eco Wrapping, where it designed parts racks as an alternative to using packaging upon delivery for some parts.

Up until now, paper, wood and plastic pallets had been used when parts were delivered; however, this generated a large volume of waste. Moreover, the bulky packaging meant more space was required for parts storage. In view of this situation, we cooperated with a parts manufacturer to design, fabricate and introduce returnable parts racks that do not require packaging. This achieved a reduction in packaging waste of approximately 60 tons per year and led to the suppression of waste generation. Furthermore, less space is now required for parts storage, leading to an improvement in transportation efficiency.

We will continue cooperating with parts manufacturers to suppress waste generation and reduce parts inventory.



**Akarapon Tinwatthanaporn**  
Logistics Section Chief,  
(Amata Nakorn Plant)  
SIAM KUBOTA Corporation Co., Ltd.



Before rack introduction



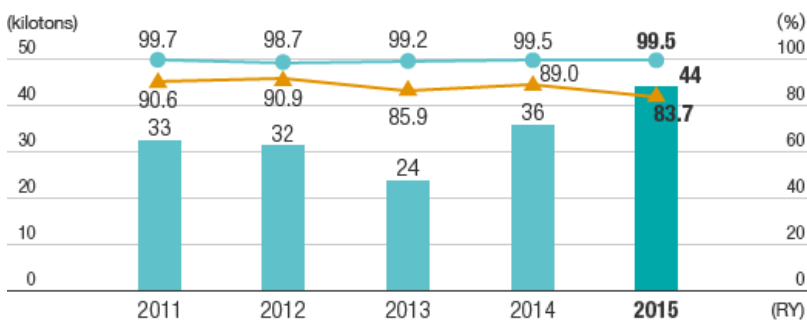
After rack introduction

## Waste, Etc. Generated from Construction Work

Waste generated from construction work depends on the type of work being done, and the discharge can differ between orders, meaning that the recycling ratio fluctuates. However, Kubota maintains a high recycling ratio for specific construction materials.

We also introduced a construction materials management system from RY2013 to RY2015, through which legal compliance related to industrial waste manifests was enforced.

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



- Amount of construction waste, etc. discharged
- Recycling ratio (Specific construction materials)\*
- ▲ Recycling ratio (Including construction waste other than specific construction materials)\*

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

## Handling and Storage of Equipment Containing PCBs (in Japan)

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Transformers, capacitors and other equipment containing polychlorinated biphenyls (PCBs) are properly delivered, stored and handled based on the Japanese Act on Special Measures concerning Promotion of Proper Treatment of PCB Wastes. Equipment containing PCBs are being disposed of steadily, being with sites for which acceptance at PCBs treatment facilities are available.

Equipment containing PCBs are locked in storage, periodically inspected, and environmentally audited as part of a thorough management system. We plan to properly process these wastes by the treatment deadline of March 2027.

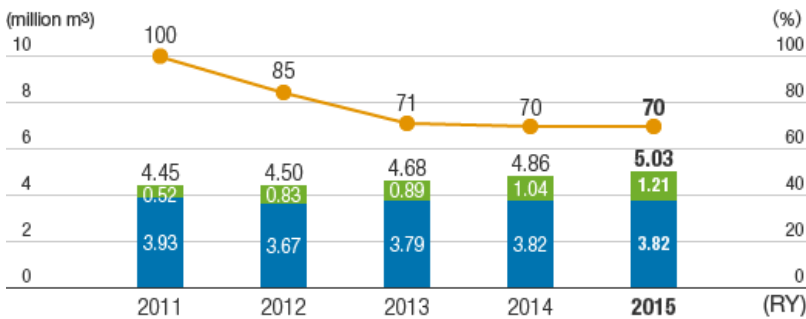
# Working towards a Recycling-based Society - The 3Rs of Water -

The Organization for Economic Co-operation and Development (OECD) has reported that over 40% of the global population is projected to be living in river basins under severe water stress by the year 2050. The Kubota Group is involved in initiatives such as the effective utilization of water resources by promoting wastewater recycling.

## Water Consumption in the Business Sites

In RY2015, water consumption was 5.03 million m<sup>3</sup>, an increase of 3.6% compared to the previous reporting year. We introduced initiatives to better utilize water resources effectively, such as recycling wastewater; however, water consumption increased due to an increase in the production of formed and fabricated materials overseas. Water consumption per unit of sales improved by 0.3% compared to the previous reporting year.

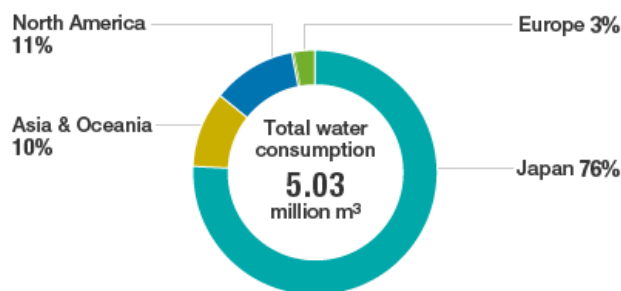
### Trends in Total Water Consumption and Consumption per Unit of Sales



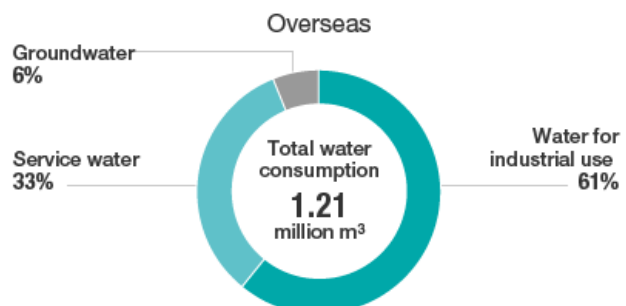
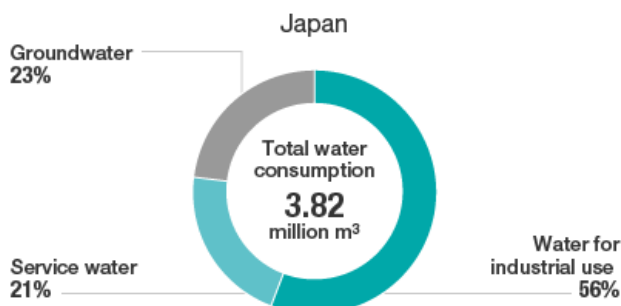
■ Water consumption (Overseas) 
 ■ Water consumption (Japan) 
 —●— Water consumption per unit of sales (using 100 in RY2011 as the index)\*

\* Water consumption per unit of consolidated net sales. (Consolidated net sales for RY2015 are the total from April 2015 through March 2016)

### Water Consumption by Region (RY2015 results)



### Water Consumption by Type (RY2015 results)





**Voice** Reducing Water Consumption through Recycling Paint Wastewater

Kubota Industrial Equipment Corporation is making a positive impact on the local environment by installing a water reclaim system called the Membrane Bio-Reactor (MBR)\*. The MBR uses super-high-efficiency filters to treat wastewater from all water sources in the L tractor/Skid steer loaders building. The purified water is re-used in the paint shop for cleaning and preparing parts for painting. In 2015, we were able to reduce demand by 53% and saved 3.4 million gallons of water from going to city water treatment. In 2016, we will continue to do our best everywhere we can to reduce our environmental impact as our business grows.

\* Membrane bio-reactor: A water treatment method that combines biological treatment using microorganisms and a solid-liquid separation process



**Kurt Mogensen**  
Paint Section Chief  
Kubota Industrial Equipment Corporation

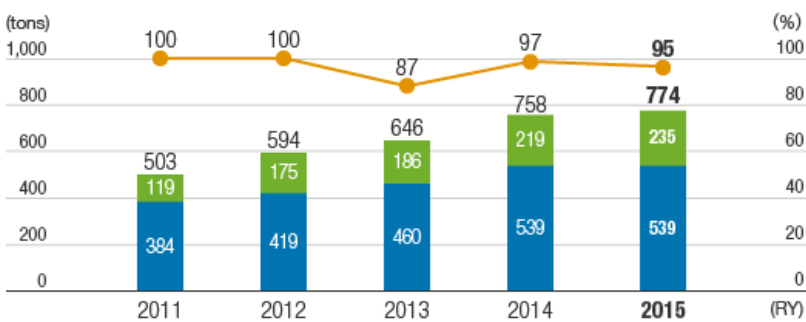
# Controlling Chemical Substances

International frameworks are being established to minimize the negative impact of chemical substances on people's health and the environment. The Kubota Group engages in ongoing activities aimed at appropriately controlling and reducing the use of chemical substances.

## VOC Emissions

In RY2015, volatile organic compound (VOC) emissions were 774 tons, an increase of 2.1% compared to the previous reporting year. We carried out initiatives to reduce VOCs, such as recycling thinners and switching to VOC-free materials. However, VOC emissions increased due to an increase in production at overseas sites. The VOC emissions per unit of sales improved by 1.8% compared to the previous reporting year.

### Trends in VOC Emissions\*1 and Emissions per Unit of Sales

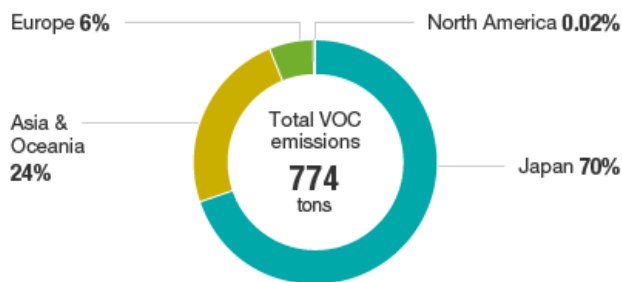


■ VOC emissions (overseas) ■ VOC emissions (Japan)  
—●— VOC emissions per unit of sales (using 100 in RY2011 as the index)\*2

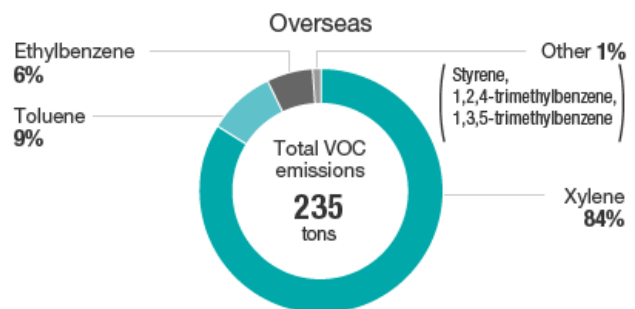
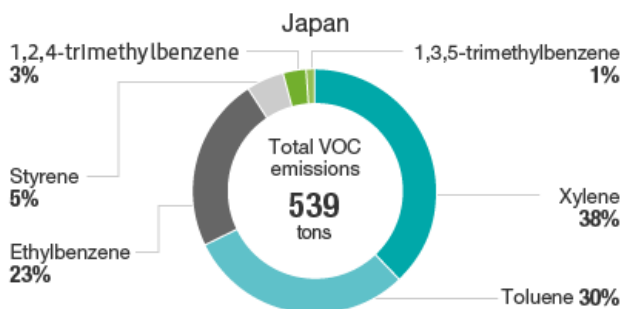
\*1 VOCs comprise the six VOCs that are most prevalent in emissions from the Kubota Group: xylene, toluene, ethylbenzene, styrene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene.

\*2 VOC emissions per unit of consolidated net sales. (Consolidated net sales for RY2015 are the total from April 2015 through March 2016)

### VOC Emissions by Region (RY2015 results)



### VOC Emissions by Substance (RY2015 results)

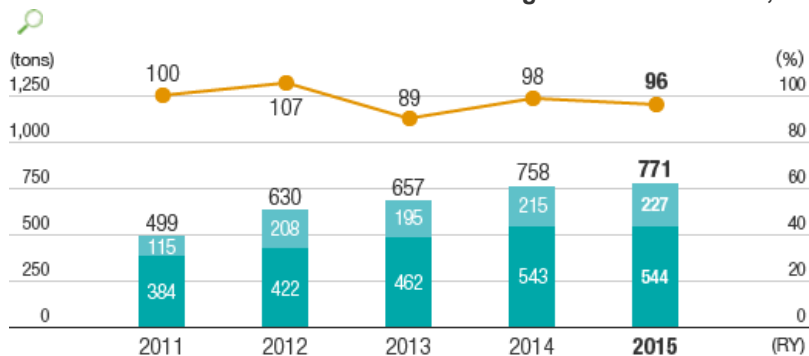


## Release and Transfer of PRTR-designated Substances

In RY2015, a total of 771 tons of substances stipulated in the PRTR Law\* were released and transferred, an increase of 1.7% compared to the previous reporting year. The release and transfer per unit of sales improved by 2.2% compared to the previous reporting year.

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

### Trend in Release and Transfer of PRTR-designated Substances\*<sup>1</sup>, and Release and Transfer per Unit of Sales (Japan)



■ Transfer ■ Release

● Release and transfer of PRTR-designated substances per unit of sales (using 100 in RY2011 as the index)\*<sup>2</sup>

\*<sup>1</sup> Total amount of declarable substances that are handled at each site (annual volume of 1 ton or more (0.5 ton for Specific Class I designations))

\*<sup>2</sup> Release and transfer of PRTR-designated substances per unit of consolidated net sales. (Consolidated net sales for RY2015 are the total from April 2015 through March 2016)

\*<sup>3</sup> To improve accuracy, amounts transferred from RY 2012 to RY2014 were corrected.

### Voice Reducing VOC Emissions by Changing the Core Curing Agent

Kubota Okajima Business Center engaged in an activity to reduce volatile organic compound (VOC) emissions generated during its manufacturing processes. Previously, the manufacturing process to make cores—the sand molds used to create the hollow in a casting—used a curing agent that included the VOCs of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene, which were included to harden the foundry sand. In light of this, we cooperated with the manufacturer to develop a core curing agent that does not contain VOCs. As a result of repeated testing on the production line, a VOC-free core curing agent capable of maintaining the quality and cost of the previous agent was developed. This resulted in eliminating the use of VOCs in the core curing agent, reducing VOCs used by approximately 12 tons per year, and decreasing the VOCs handled by our plant overall by around 98%.

We will continue to engage in activities to further reduce the use of VOCs, with an ultimate goal of achieving zero VOC emissions.



Kubota Okajima Business Center  
 Back row from left: Hiroki Fujiwara, Shinsuke Kuwano (group leader), Hideki Satake, Kazutake Kido (supervisor)  
 Front row from left: Masahiro Kondo (group leader), Hideyuki Kajitani (group leader), Kosaku Hanaki (supervisor), Hisaaki Hatta (Foreman)

## 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 (RY2015)

Business site	Substance	Measured groundwater value	Environmental standard
Tsukuba Plant	Trichloroethylene	Non-detected (less than 0.0001mg/L)	Less than 0.03mg/L
Utsunomiya Plant	Trichloroethylene	Non-detected (less than 0.001mg/L)	Less than 0.03mg/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 RY2010, 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.

\* REACH Regulations: EU Regulations for Registration, Evaluation, Authorization and Restriction of Chemical

### ■ Managing by Categorization into Three 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

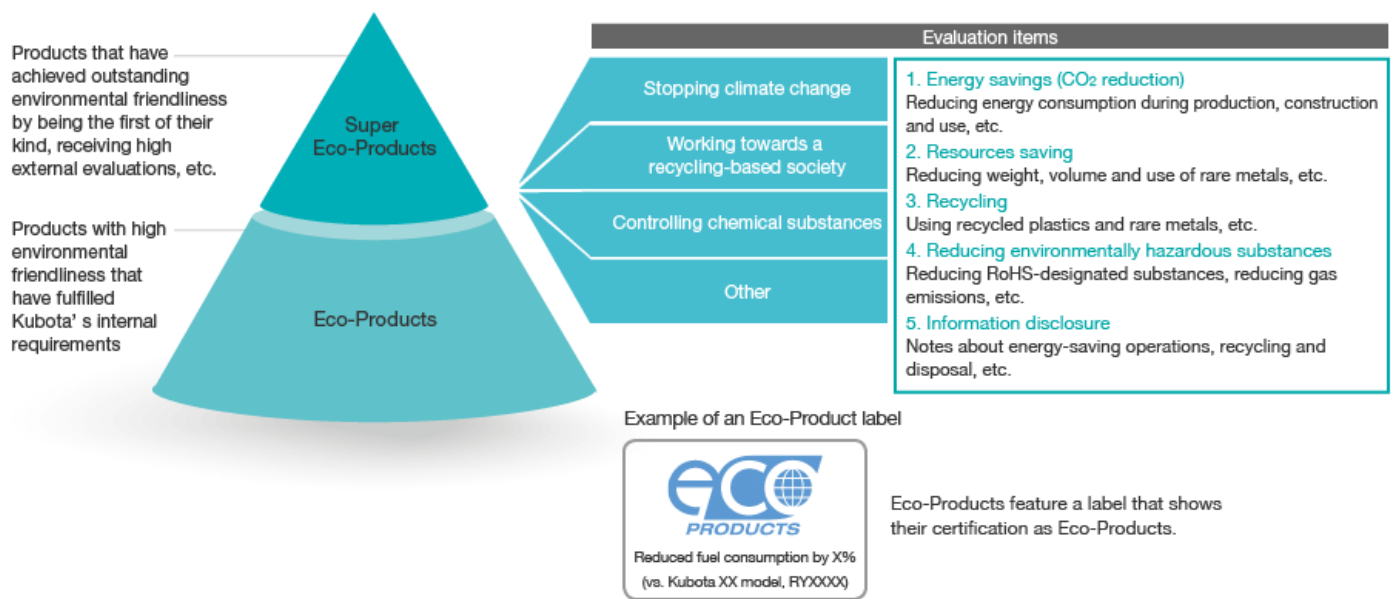
# Expanding Environment-friendly Products and Services

The Kubota Group is contributing to resolving global issues by expanding our environment-friendly products and services. We are working on initiatives that consider the entire value chain, from procurement of raw materials to product disposal.

## 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 each item stipulated in the Basic Direction of Corporate Environmental Management established by the Kubota Group; namely, "Stopping Climate Change," "Working towards a Recycling-based Society" and "Controlling Chemical Substances", and certify those products that satisfy our internal standards as Eco-Products.

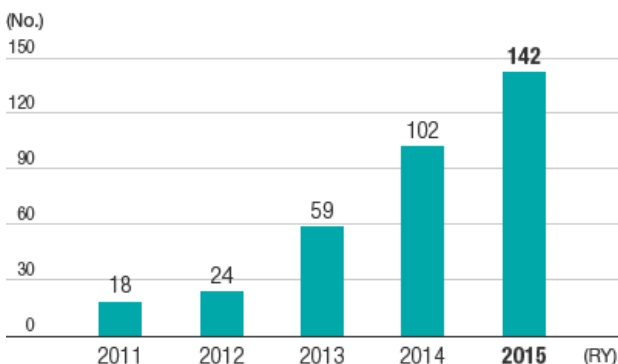


### The Pathway to Expanding Certified Eco-Products

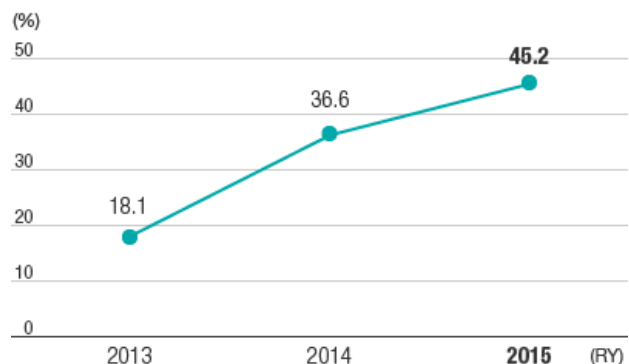
Based on the internal certification system established for Eco-Products, Kubota certified an additional 40 products in RY2015, bringing the total number of certified Eco-Products to 142. Moreover, the sales ratio of Eco-Product certified products has reached 45.2%.

Kubota will continue to carry out initiatives focusing on the development of environment-friendly products and expand its Eco-Products lineup.

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



Trend in Sales Ratio of Eco-Products



**Voice Aiming for a Fair and Easy-to-Understand Internal Certification System**

We established a preparatory committee for the Eco-Products certification system one year before the system itself was launched, and considered its operational rules and certification standards by incorporating the opinions of various entities, such as government bodies, certification institutions, and environmentally advanced corporations.

The Kubota Group manufactures products in an extremely broad variety of fields, from iron pipes to farm machinery. Accordingly, the certification standards cannot be dependent on product field only, and must fairly evaluate a product's environmental performance and be able to be explained to customers in an accurate and easy-to-understand way. These are the points we based our internal certification system on.

For Eco-Product certification, Certification Committee members are selected from individual business divisions and then discuss whether or not a product satisfies the necessary criteria until each member is convinced.

We will continue reflecting the environmental performance demanded by society into the Kubota Eco-Products Certification System and expand our lineup of environment-friendly products.



**Yasushi Wada**  
Eco-products Certification Committee Secretariat  
Environment Promotion Group,  
Environmental Protection Department,  
Kubota Corporation

**Products Certified as Eco-Products in RY2015 (excerpt)**



Tractors  
M6 Series  
M6-141 (North America)

Compliant with exhaust gas regulations



Tractors  
Slugger Series  
SL60H

Compliant with exhaust gas regulations

Saving energy



Tractors  
TLB Series  
M62 (North America)

Compliant with exhaust gas regulations



Combine Harvesters  
DYNALITE NEO  
ER448N

Compliant with exhaust gas regulations



Riding Mowers  
Zero-Turn Mower  
ZD1200 Series ZD1211  
(North America)

Compliant with exhaust gas regulations

Saving energy



Construction Equipment  
Compact Excavator  
RX-506

Compliant with exhaust gas regulations

Saving energy



Construction Equipment  
Skid Steer Loader  
SSV75 (North America)

Compliant with exhaust gas regulations



Diesel Engines  
V3 Series  
V3800-TIEF4  
(North America, Europe)

Compliant with exhaust gas regulations



Vending Machines for Cans, Plastic Bottles 2 compressor AC-type from RY2015, 36 cell, R1234yf refrigerant

Saving energy

Reducing environmentally hazardous substances



Devices for Wastewater Treatment Facilities Filter Press Dehydrator Runfil KRF-1250E

Saving energy

Conserving resources



Gravimetric Feeder NX Feeder Series NX-T-26J-MP

Conserving resources

Reducing environmentally hazardous substances



Earthquake-Resistant Ductile Iron Pipe NS-Type Nominal dia. 900

Conserving resources

Reducing environmentally hazardous substances

[Click here for details on products certified as Eco-Products](#)

## Environmental Considerations in the Product Life Cycle

For products such as farm machinery and vending machines operated by engines and motors, the majority of greenhouse gas emissions throughout the product's lifecycle occurs during operation. The Kubota Group believes that reducing environmental load when these products are in use is important.

### ■ Considering the Environment through Electrification of Mini Cultivator, etc.

Trends such as growing one's own fruit and vegetables and the impact of urbanization in recent years have led to an increase in the demand for farm machinery, such as mini cultivator, capable of being used easily near residential areas.

The Kubota Group is attempting to reduce environmental load created during operation through the electrification of farm machinery.

#### □ "New Middy Silent Series" Electric Mini Cultivator

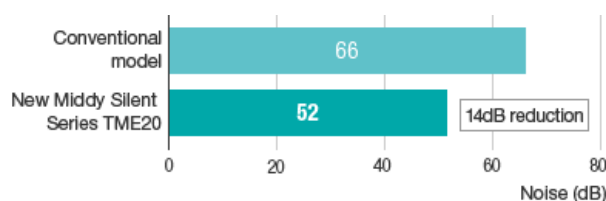
The New Middy Silent Series electric mini cultivator is the Kubota Group's first electric farm machine. It achieves zero gas emissions thanks to operation powered by electricity and contributes to reducing environmental load during cultivation work by reducing CO<sub>2</sub> emissions, minimizing noise and so on.



New Middy Silent Series TME20

#### <Environmental load reduction during cultivation work> Conventional model: TMB250 with gasoline engine

- Zero gas emissions
- Reduction in CO<sub>2</sub> emissions
- Noise reduced approx. 14dB\*



\* Noise values are compared at a distance of 7m away from where the machine is operating

[Click here for details on the New Middy Silent Series \(Only in Japanese\)](#)

#### □ "Shizukaru" Self-Propelled Electric Lawn Mower

The Kubota Group was the first in the industry to produce a self-propelled electric lawn mower\*. Named Shizukaru, it has achieved zero gas emission thanks to electrification, and contributes to reducing environmental load when cutting grass by emitting less CO<sub>2</sub>, minimizing noise and so on.

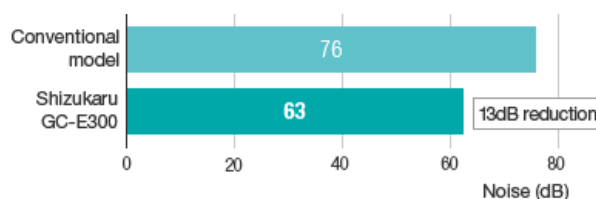
\* Self-propelled electric lawn mower: A lawn mower with reduced operational load thanks to self-propulsion.



Shizukaru GC-E300

#### <Environmental load reduction when cutting grass> Conventional model: GC-K300D with gasoline engine

- Zero gas emissions
- Reduction in CO<sub>2</sub> emissions
- Noise reduction of approx. 13dB\*



\* Noise values are compared at a distance 10m away from where the machine is operating

[Click here for details on Shizukaru \(Only in Japanese\)](#)



**❑ Battery Interchangeable between Electric Farm Machinery**

The Kubota Group's electric farm machinery adopts a cassette-type battery that can be easily charged using a household power source. The battery can be used in the mini rice cultivator, New Middy Silent Series products, and the Shizukaru GC-E300 lawn mower, helping to save resources.

Easy charging and easy mounting with the cassette-type battery, which can be easily charged using a household power source.



New Middy Silent Series (TME20)

Shizukaru GC-E300

**❑ Considering the Environment through Reducing the Power Consumption of Vending Machines**

Vending machines stocked with canned and bottled beverages are broadly accepted by Japanese society due to the convenience they offer. However, the power consumed during vending machine operation cannot be ignored. The Kubota Group is attempting to reduce environmental load created during operation by developing superior energy-saving vending machines.

**❑ S500 Series Vending Machines**

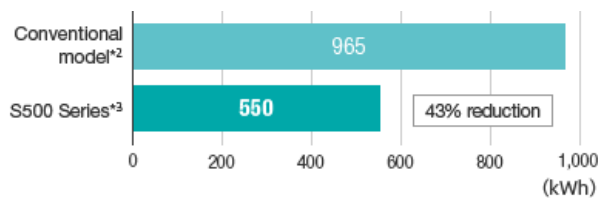
In addition to using LED lights and having higher thermal insulation, the S500 Series vending machines are equipped with a new technology, "Twin Smart System." This system helps reduce environmental load during operation by reducing power consumption.



Model: KS363A6P2BYLAP-W

**<Environmental load reduction during operation>**

- Reduced annual consumption by 43%\*1



\*1 Measured in accordance with JIS B 8561

\*2 25 Selection (KB252A5P2BHP-W) RY2010 model

\*3 25 Selection (KS253A5P2BYLAP-W)

## Twin Smart System

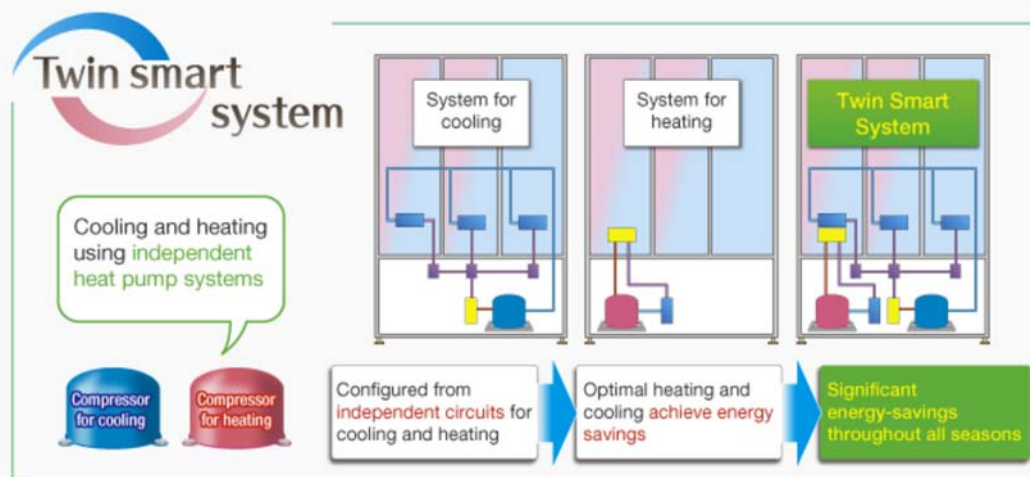
A heat pump system able to efficiently cool and heat with independent cooling and heating systems.

- **Cooling method**

Features an inverter compressor circuit and only operates to the extent necessary to cool to the set temperature, therefore minimizing power consumption.

- **Heating method**

Features a built-in heat pump that achieves efficient heating by recovering the heat created during cooling and external heat.



[Click here for details on the S500 Series \(energy-saving machine\) \(Only in Japanese\)](#)

## The Evolution of Environment-friendly Products and Services

### ■ The Evolution of Iron Pipes

In almost 120 years of history since becoming the first company in Japan to successfully manufacture cast-iron pipe in 1893, the Kubota Group has succeeded at developing several technologies, including manufacturing technologies for ductile cast-iron pipe with a perseverance equivalent to that of steel, earthquake-resistant technology for pipelines, and long-life external surface corrosion-resistant technology. Our efforts have contributed to resource conservation by reducing pipe weight, reducing the percentage of water leaked by minimizing the number of pipeline breakages, and further resource conservation through making pipelines with a long service life.

#### <History of Cast-Iron Pipes and Ductile Iron Pipes>

Year	Topics	Pipe material	Manufacturing method (casting method)	Mass per length of pipeline*
1893	Started manufacturing <b>normal</b> cast-iron pipe	Flakey graphite cast-iron	Sand mold casting process (matching molds)	1.00 (Standard)
1933	Development of <b>premium</b> cast-iron pipe		Blow-forming casting process	0.68
1954	Development of <b>ductile</b> iron pipe	Spheroidal graphite cast-iron (ductile cast-iron)	Sand mold centrifugal force casting process	0.39
1974	Development of <b>earthquake-resistant</b> ductile iron pipe		Mold centrifugal force casting process	<b>0.41</b> <b>(59% weight reduction)</b>
2010	Development of <b>long-life external surface corrosion-resistant coating</b>		Blow-forming casting process Sand resin mold centrifugal force casting process Mold centrifugal force casting process	-

\* When comparing the torso portion of straight pipe with a nominal dia. of DN500

### ■ Saving Resources by Reducing Pipe Weight

The Kubota Group succeeded in changing the material of its iron pipes from flakey graphite cast-iron to stronger spheroidal graphite cast-iron (ductile cast-iron) using an independent manufacturing method. This enabled the development of thinner pipes. Consequently, pipe weight has been reduced by 59%, which contributes to resource conservation.

### ■ Reducing the Percentage of Water Leakage by Minimizing the Number of Pipeline Breakages

Ductile cast-iron is strong against distortion and impact. Therefore its adoption has reduced the number of breakages in pipelines located under public roads and subjected to severe external load due to factors such as a dramatic increase in traffic and heavier trucks. This, in turn, contributes to reducing the percentage of water leaking from pipes.

From the period of rapid economic growth onwards

- Dramatic increase in traffic
- Heavier trucks

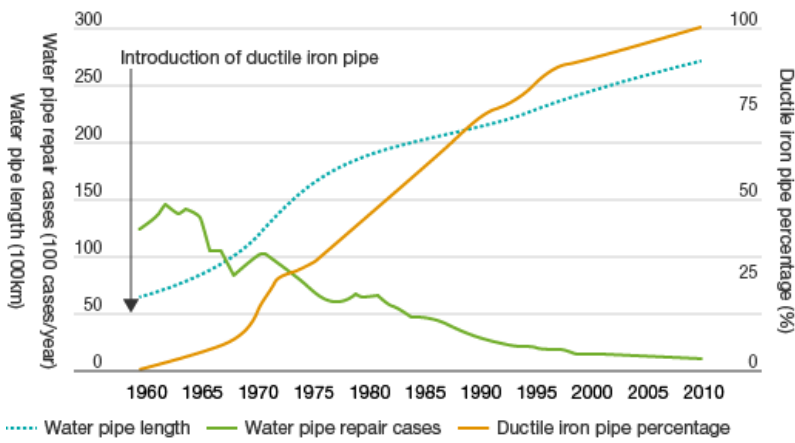


Water pipes must be able to withstand severe external load.



Source: Japan Ductile Iron Pipe Association

**Bureau of Waterworks' Water Pipe Length, Water Pipe Repair Case, and Ductile Iron Pipe Percentage**



Source: From Right, From Left, Kazunori Kawakita, former Director General of the Bureau of Waterworks.

**Creating Water Pipe Lines Strong against Earthquakes through the Development of Earthquake-Resistant Joints**

The Kubota Group has developed earthquake-resistant joints enabling entire pipelines to absorb any ground movement, thereby protecting water pipelines from earthquakes and helping to achieve a longer service life. The effectiveness of our earthquake-resistant joints has been verified at the time of many earthquakes, including the Great Hanshin-Awaji Earthquake of 1995 and the Great East Japan Earthquake of 2011.

**Pipeline Earthquake-Resistant Mechanism using Earthquake-Resistant Joints**



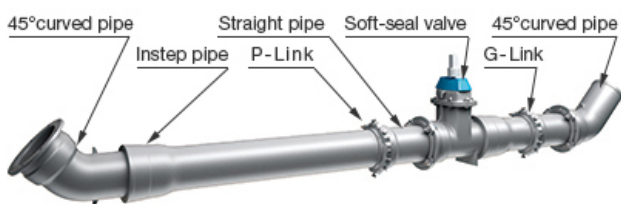
- When one joint stretches to its limit, it pulls on the adjacent pipe, and then the next joint is stretched.
- The joints stretch, shrink and bend one after the next, enabling the entire pipeline to absorb ground displacement, thus avoiding damage.



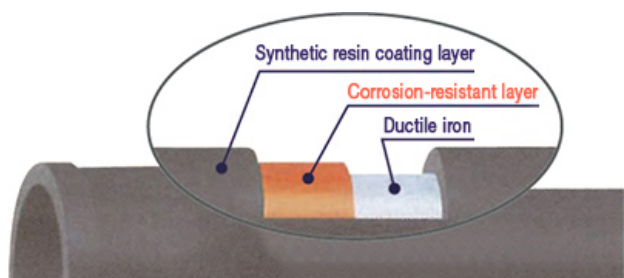
Hoisting test for a ductile iron pipe using earthquake-resistant joints

**Achieving Longer Service Life of Pipelines and Contributing to Resource Conservation through the Development of Corrosion-Resistant Iron Pipes**

In 2010, the Kubota Group developed the "C-Protect", an external corrosion-resistant coating developed to realize a longer service life, and applied it to the earthquake-resistant ductile iron pipe (GENEX). This has made the pipe strong against earthquakes and even more resistant to corrosion, thereby further contributing to resource conservation.



GENEX® (GX) pipeline example

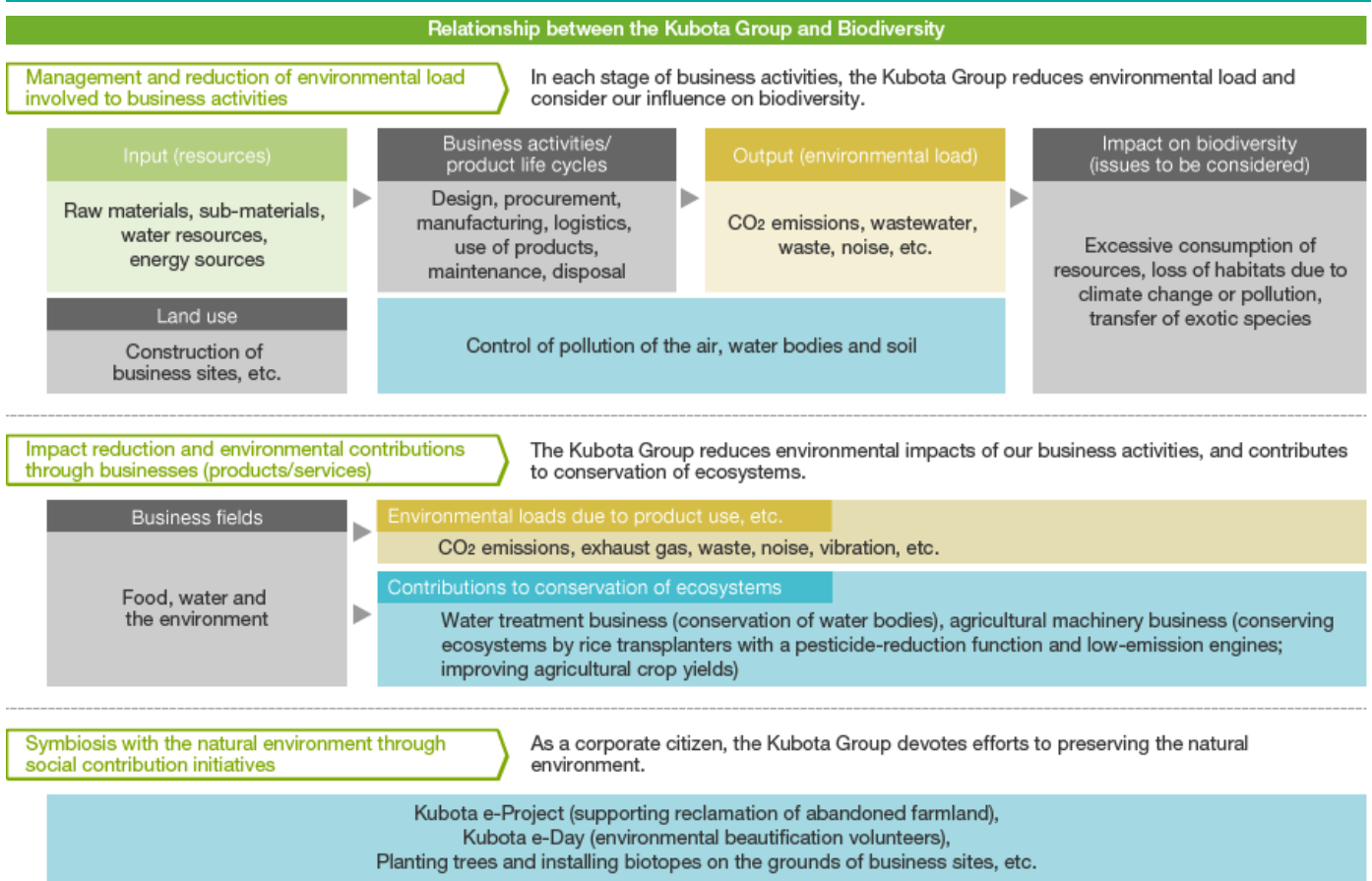


External corrosion-resistant coating C-Protect (conceptual image)

# Conservation of Biodiversity

Conservation of biodiversity is set as one of the targets for the Kubota Group's "Eco-First Commitment." In our business activities and social contribution initiatives, the Group is endeavoring to ensure that care is taken to conserve biodiversity and protect the natural environment.

## Relationship between the Kubota Group and Biodiversity



**Practice Report** **SIAM KUBOTA Corporation Co., Ltd. (Head Office)**  
**Planting Trees at National Park**

SIAM KUBOTA Corporation Co., Ltd. (Head Office) planted approximately 1,200 trees, mainly local species, in three areas including Khao Yai National Park in the suburb of Bangkok, Thailand in 2015. A total 234 employees and their family members participated in the tree-planting activity. Participation with family members provided a good opportunity for them to take a close look at environmental issues.

Other than that, we proactively participate in local environmental conservation activities including a project to plant 100,000 mangroves and tree-planting activities at elementary schools near our plant.



Tree-planting activities

## Practice Report

**SIAM KUBOTA Metal Technology Co., Ltd.  
Participates in River Stocking of Fish Fry**

SIAM KUBOTA Metal Technology Co., Ltd. participated twice in events to stock rivers with fish fry in 2015.

In the first event, approx. 10,000 fry were released into a river on the property of Chai Kwan Temple, located near the plant on September 17 which is River Day in Thailand. Approximately 200 people gathered from local factories, and government officials gave a prayer to revive the river, which had been overcome with industrial water discharge and human sewage, hoping to enliven the river with swimming fish again.

In the second event, fish fry were released into the Koh Kanun River on December 2 as part of celebrating the King's birthday on December 5.

We will continue to proactively participate in environmental conservation activities with local people in the future as well.



Fish stocking activity

## Environmental Management

Based on its internal control system, the Kubota Group is establishing environmental management systems at each site and enhancing its risk management activities. In recent years, we have engaged in activities to strengthen environmental management at our overseas sites.

### Compliance with Environmental Laws and Regulations

To ensure compliance with environmental laws, the Kubota Group has set and thoroughly manages its own control values at each of its sites for exhaust gas, wastewater, noise, vibration and other variables that are stricter than the relevant laws and regulations.

We have established a system to promptly report any non-compliances and complaints related to environmental laws and regulations to the head office. There were no major environment-related accidents or violations of environmental laws and regulations in RY2015 across the entire Kubota Group.

### Environmental Auditing

Each year, the Kubota Environmental Protection Department conducts an environmental audit that incorporates a written audit targeting all production sites, service sites, offices, and construction and maintenance management departments domestically, as well as overseas group production sites. In RY2015, we added the inspection of Category One Specified Products that use fluorine as a refrigerant in accordance with amended fluorine emissions regulations in Japan.

Moreover, in addition to the environmental audit by the Environmental Protection Department, annual internal environmental audits are conducted at production sites in an effort to further improve the level of environmental management.



Environmental audit at overseas production site  
Kubota Farm Machinery Europe S.A.S

#### RY2015 Environmental Audit Implementation Status

- Number of subject sites and departments: 224
- Number of audit items: 30 (for construction departments) up to 80 (for production sites in Japan).
- Audit details: Water and air quality management, noise and vibration management, waste discharge and chemical substances management, climate change prevention, response to abnormalities and emergencies, and environmental management system

## Environmental Risk Assessment

Each year, detailed environmental risk assessments are conducted to evaluate the use of hazardous substances and the functions of environment-related 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 risk by conducting environmental audits and environmental risk assessments—two activities with differing perspectives—in parallel.



Environmental risk assessment at an overseas production site, Kubota Baumaschinen GmbH

### RY2015 Environmental Risk Assessment Implementation Status

- Number of sites and departments subjected:  
36 (27 production sites in Japan, 9 overseas production sites).
- Number of audit items:  
247 items (145 water quality, 102 air quality).
- Assessment targets:  
Water quality-related equipment, air quality-related equipment

## Environmental Patrols

At each site, environmental patrols are carried out at least once every six months 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.

Through these environmental patrols, we are working to reduce environmental risks by detecting conditions that may become the cause of an abnormality early on.

### Practice Report

### Environmental Patrol at Kubota Utsunomiya Plant

The 3Q circle activities and cooperation system at the Kubota Utsunomiya Plant are indispensable for environmental patrols.

The aim of the Utsunomiya version of small group 3Q circle activities is to create good products, good people and good plants utilizing the synergistic power of the group and carrying out initiatives to improve environmental awareness and etiquette. Among the roles of the groups is an environmental patrol to achieve its goals, including an "energy-saving patrol" that finds and introduces measures to control energy waste in the plant, such as air leakage and useless lighting; a "sorting status patrol" that confirm and guides the sorting status of waste; and a "garbage scattering prevention patrol" that confirms the garbage scattered around the plant and implements measures to clean it up.

We will continue working to reduce environmental risk and improve environmental performance through full-participation environmental patrols from now.



An air leakage patrol



## 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.



Flow prevention drill simulating the leakage of oil and chemical substances  
Tochigi Plant, Kubota-ChemiX Co., Ltd.



Flow prevention drill simulating the leakage of oil  
Tsukuba Plant, Kanto Kubota Precision Machinery Co., Ltd.

## 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 eco-friendly suppliers.

In order to proactively promote these activities, we issue Japanese, English and Chinese versions of the Kubota Group's Green Procurement Guidelines, presenting policies on green procurement to suppliers and gaining their understanding and cooperation.

For details on the Kubota Group's Green Procurement Guidelines, [click here.](#)



The Kubota Group's Green Procurement Guidelines and Appendix (Publishing in Japanese, English and Chinese.)

### Award System for Green Procurement

The Green Supplier Award System was launched in RY2015 to award suppliers recognized as having made notable contributions in the area of environmental conservation, such as the materials and components procured by Kubota Corporation. The first award ceremony was held in January 2016.

In accordance with the Kubota Group's Green Procurement Guidelines, this award system recognizes environmental conservation activities of particularly high level engaged in by suppliers, such as saving resources and energy-saving activities in relation to good supplied to Kubota Corporation.

We will continue to utilize this system and carry out activities in the name of green procurement and promote environmental conservation initiatives hand-in-hand with our suppliers.



Scene from the awards ceremony

## Environmental Education and Enlightenment

### Results of environmental education in RY2015

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

Classification	Course title	Frequency	No. of participants	Course descriptions
Education by employee-level	Kubota Introductory course (new employees, etc.)	3	171	Global and local environmental issues and Kubota's environmental conservation activities
	Training for employees promoted to managerial positions	3	122	The Kubota Group's environmental management
	Training for newly appointed supervisors	2	48	Kubota's environmental management and efforts as supervisors
	Training for newly appointed foremen	1	24	Kubota's environmental management and efforts as foremen
	Environmental forum for executive management	1	154	Lecture by Mr. Hideki Ishida, representative of Earth Village Research Lab. LLC
Professional education	Basics of environmental management	1	22	Basic knowledge of legal systems, environmental risk, and environmental conservation
	Waste management	3	103	Waste Management and Public Cleansing Law, practical training in consignment contracts and manifests, etc.
	New waste management system training	18	80	Training on electronic information management systems
General training	Business sites in Japan Environmental education	7	93	The Kubota Group's environmental management and medium-term environmental conservation targets
Total		39	817	
Supporting to education in outside organizations	Internship program with Utsunomiya Hakuyo High School	1	6	Kubota environmental conservation activities and efforts at Utsunomiya Plant



Basic environmental management training



Environmental forum for executive management (Lecturer: Mr.Hideki Ishida)

Environment Month Report

## Posters to Raise Environmental Awareness at SIAM KUBOTA Corporation Co., Ltd (Amata Nakorn Plant)

At the Amata Nakorn Plant of SIAM KUBOTA Corporation Co., Ltd in line with the Kubota Group's Environment Month in June, original posters were displayed to promote energy savings. The posters highlighted the need to remove wasteful energy use from workplaces and notified employees about a photo contest on the topic of energy-saving activities at home. Moreover, the plant also displayed a poster in July calling for the prevention of air leaks on the production line. By promoting energy-saving activities in the workplace and at home through posters, the plant is attempting to raise its employee's awareness of environmental issues.



Posters to raise environmental awareness

Environment Month Report

## Energy-Saving Awareness Activity in the Homes of P.T. Kubota Indonesia Employees

P.T. Kubota Indonesia conducted an energy-saving awareness raising activity focusing on the homes of its employees in June 2015 with the aim of reducing energy consumption and contribute to preventing climate change. LED lightbulbs were distributed to approximately 400 employees to promote a switch from incandescent lightbulbs in their homes, and posters promoting energy-saving initiatives were distributed and employees requested to display them in their homes. In each home, the employee switched to the LED lightbulbs and put up the poster together with their families and shared photos of these scenes with the company. It was an opportunity to learn and think about energy-saving methods together with the family and company.

P.T. Kubota Indonesia will promote this activity in local elementary schools as an opportunity to learn about energy-saving by installing LED lightbulbs in classrooms.



Activity to raise energy-saving awareness at home



## Environmental Achievement Award

Every June during the Kubota Group's Environment Month, individuals and groups are awarded for making notable contributions through environmental conservation activities. In RY2015, excellent accomplishments by certain Kubota Group production sites were awarded for activities such as the reduction of chemical materials waste, saving energy, and recycling paint wastewater. In RY2016, the Kubota Group will expand the scope of these awards to also include non-production sites and activities outside of the company unrelated to work tasks that contribute to the environment.

## Environmental Communication

### Receiving Environmental Awards

#### Amata Nakorn Plant of SIAM KUBOTA Corporation Co., Ltd. Receives Thailand Energy Award

In November 2015, the Amata Nakorn Plant of SIAM KUBOTA Corporation Co., Ltd. (SKCA) received an award at the Thailand Energy Awards 2015 event hosted by the Department of Alternative Energy Development and Efficiency, Ministry of Energy, Thailand. This award was in recognition of the plant's contribution to the prevention of global warming through the reduction of CO<sub>2</sub> emissions as a result of installing technology from the Ministry of Energy (i.e., water treatment utilizing photocatalysis) and cutting costs.

The Amata Nakorn Plant was also the recipient of Carbon Footprint Certification in the industrial category from the Ministry of Natural Resources and Environment for its efforts in reducing greenhouse gases in corporate activities, the CSR-DIW Award 2015 from the Ministry of Industry for its CSR activities, and the AMATA Waste Management Award from the Amata Nakorn Industrial Park for its efforts in waste management.



Thailand Energy Awards 2015 Awards Ceremony

#### Two Thai Sites Receive the Green Industry Award

SIAM KUBOTA Metal Technology Co., Ltd. (SKMT) and SIAM KUBOTA Corporation Co., Ltd. (head office, SKCN) received the Green Industry Award in 2015 from the Thai government after being recognized as clean plants that are environmentally conscious. This award is broken down into five levels, (with Level 5 being the highest). SKMT was rewarded Level 3 for the solid operation of its environment management system, while SKCN was rewarded Level 4 in recognition of having a well-established corporate culture that carries out environmental conservation activities.



Green Industry Award Certificate of Commendation

#### SIAM KUBOTA Metal Technology Co., Ltd. Receives the Eco Industrial Town Award

In 2015, SIAM KUBOTA Metal Technology Co., Ltd. received the Eco Industrial Town award from Thailand's Ministry of Industry. For this award, officers from the Ministry of Industry visit companies and assess the management and improvement activities related to air and water quality, and then award the companies recognized as producing superior results. Five companies in Thailand's east, including SKMT, received this award in 2015.



Eco Industrial Town Award Certificate of Commendation

## ■ P.T. Kubota Indonesia Receives the BLUE PROPER Award

P.T. Kubota Indonesia (PTKI) has received its fourth BLUE PROPER Award from the Indonesian Ministry of Environment in recognition of its corporate activities over the year beginning July 2014. The Environmental Performance Rating Program (PROPER) is operated by the Indonesian Ministry of Environment and evaluates the compliance of companies with environmental regulations, as well as the implementation of environmental countermeasures. This initiative aims to raise the awareness of companies regarding environment management, as well as achieving energy savings, conserving biodiversity and community development.

This award is given to companies who fully comply with environmental regulations and operate appropriate environmental management systems. Moving forward, PTKI will continue to strengthen its initiatives in the area of environmental management and aim to continue receiving the BLUE PROPER Award.



BLUE PROPER Award Certificate of Commendation

## ■ Kubota Agricultural Machinery (Suzhou) Co., Ltd. Receives the Tinglan Home Environment Council's Leading Company Award

In January 2015, Kubota Agricultural Machinery (Suzhou) Co., Ltd. (KAMS) received the RY2014 the Tinglan Home Environment Council's Leading Company Award from the Suzhou Industrial Park Environmental Office. This award is given to companies who contribute to improvements in the environment surrounding Tinglan Home through proactive participation in Environment Council\* activities for the Suzhou Industrial Park zone, organized by the Environmental Office. KAMS received the award in recognition of the fact it has participated in various environment conservational activities since March 2014, donated books to Tinglan Home, the residential area near the plant, and invited local residents to participate in a factory tour.

KAMS will aim to further raise the standard of its environmental management through ongoing participation in the Environment Council, communication with the local community, and sharing success stories on environmental conservation with other companies.



Certification of Commendation for the RY2014 Tinglan Home Environment Council's Leading Company Award

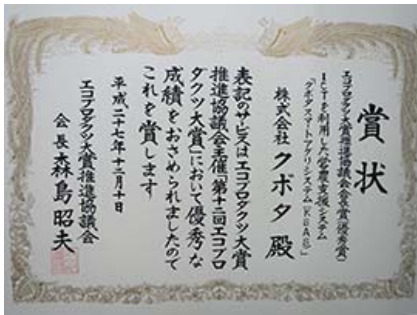
\* The Tinglan Home Environment Council's Leading Company Award: An environmental conservation organization established by the Environment Office in 2014 consisting of residents from the Tinglan Home residential area, surrounding companies, the residents committee, residential area engineers' committee and the industrial park environmental conservation department.

## ■ Farm Management Support System of Kubota Smart Agri System (KSAS) Receives Award of Excellence at 12th Eco-Products Awards of the Eco-Products Promotion Association

The Kubota Smart Agri System (KSAS) farm management support system received the Award of Excellence at the 12th Eco-Products Awards of the Eco-Products Promotion Association.

The Eco-Products Awards was established in RY2004 with the aim of further developing and increasing the popularity of eco-products by awarding superior eco-products (products and/or services contributing to reducing environmental load).

KSAS received the reward upon recognition as an outstanding eco service that simplifies the management of farmland and farm machinery, offers excellent cultivation management and enables the efficient production of crops, thereby providing the safety and reassurance sought by consumers.



Certificate of Commendation for the Eco-Products Awards (Award of Excellence)



Scene from the awards ceremony  
(Right: Mr. Morishima, Chairman of the Eco-Products Promotion Association  
Left: Satoshi Iida, Director and Senior Managing Executive Officer)

### Voice Kubota Smart Agri System (KSAS) Receives Award of Excellence at 12th Eco-Products Awards

The Kubota Group is extremely honored to have received the Award of Excellence at the 12th Eco-Products Awards from the Eco-Products Promotion Association for the Kubota Smart Agri System (KSAS), which proposes a new farm management method fusing farm machinery with information and communication technologies (ICTs).

KSAS simplifies the collection and analysis of crop/farm work information, ensures the appropriate distribution of fertilizer, helps to efficiently produce crops that offer the safety and reassurance sought by consumers, and lengthens the life of farm machinery by monitoring its operational status.

Thanks to all the support we have received, we have already installed KSAS for customers in over 1,000 locations.

We hope to continue contributing to sustainable farming that considers the environment through the widespread utilization of KSAS.



**Yoshifumi Kobayashi**  
KSAS Promotion Group  
Agri Solutions Promotion Dept.  
Kubota Corporation

## Environment Communication Report

### Practice Report Kubota Keiyo Plant (Funabashi) Exhibits at Funabashi Environment Fair

In June 2015, Kubota Keiyo Plant (Funabashi) ran a panel exhibition at the 18th Funabashi Environment Fair hosted by the Environmental Conservation Section, Funabashi City.

This event aims to raise awareness of the environment in citizens, business operators and government organizations alike, and create a healthy and bountiful environment. Each year, many environment organizations, companies, individuals and members of the local government participate. In the 17th Funabashi Environment Fair, the Keiyo Plant presented panels on CO<sub>2</sub> reduction by changing fuel, effective utilization of waste, utilization of green areas represented by the dragonfly pond and so on, responding to questions from local residents and enjoying the opportunity to obtain an understanding of the Kubota Group's environmental initiatives. In total, 45 organizations participated in the 2015 fair; however, the number of participants practically doubled from the previous year to 6,000, which really gave the impression that awareness of the environment is increasing among residents.

The Kubota Keiyo Plant will continue aiming to contribute to global and local environment conservation activities through corporate activities that consider the environment.



Scenes from the Funabashi Environment Fair

### Practice Report Environmental Education during Plant Tour at SIAM KUBOTA Corporation Co., Ltd. (Head office)

SIAM KUBOTA Corporation Co., Ltd. (head office, SKCN) invited students and customers to a plant introduction, tour and explanation of environmental conservation activities being undertaken at the plant. In June, July and December of 2015, a total of 120 people participated in tours of the plant. SKCN introduced environmental conservation activities such as the 3R initiative involving the recycling of water resources, etc., the production of products with low environmental load, and also communicated the importance of environmental conservation.

The plant will continue to be proactive in offering plant introductions and tours, and disclose information to the local community such as the results of environmental conservation activities and environmental measurement results.



Plant tour participants and staff members

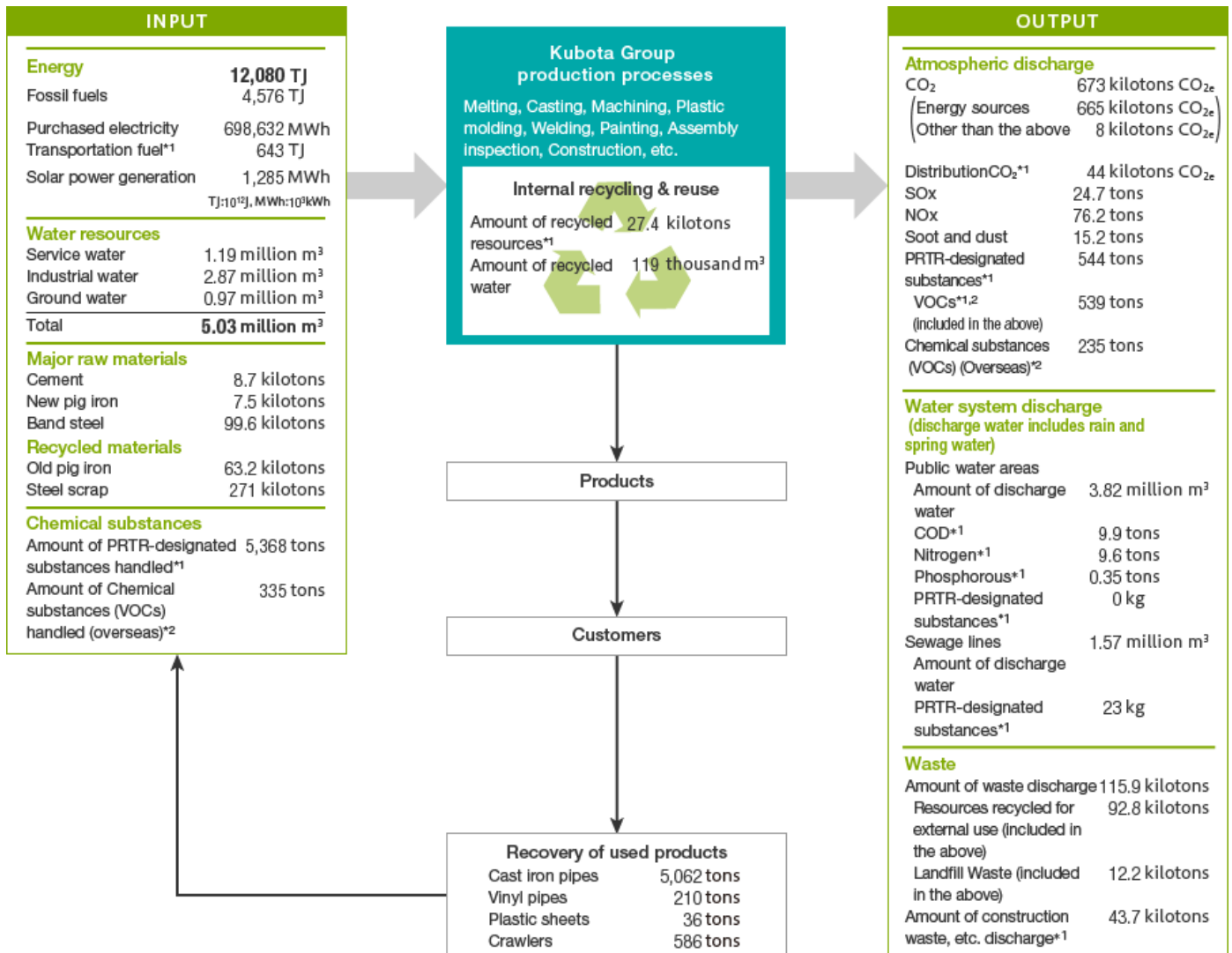


# Environmental Data

## Overview of the Kubota Group's Environmental Load

This is an overall summary of the Kubota Group's environmental load from its diverse business activities in Japan and overseas in RY2015. We will continue to assess and analyze environmental load and engage in initiatives to reduce it.

### Overview of the Kubota Group's Environmental Load



\*1 Data for Japan

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

## Trends in Major Environmental Indicators

### ■ Trends in Major Environmental Indicators in the Last Five Years Listed on "Overview of the Kubota Group's Environmental Load"

#### □ INPUT

Environmental indicators	Unit	RY2011	RY2012	RY2013	RY2014	RY2015
Total energy input	TJ	9,646	11,320	12,150	12,611	12,080
Fossil fuel	TJ	3,726	4,370	4,660	5,021	4,576
Purchased electricity	MWh	543,100	642,400	690,600	712,674	698,632
Transportation fuel (Japan)	TJ	587	641	695	591	643
Water consumption	million m <sup>3</sup>	4.45	4.50	4.68	4.86	5.03
Overseas included in the above	million m <sup>3</sup>	0.52	0.83	0.89	1.04	1.21
Service water	million m <sup>3</sup>	0.87	1.03	1.10	1.22	1.19
Water for industrial use	million m <sup>3</sup>	2.56	2.46	2.56	2.64	2.87
Groundwater	million m <sup>3</sup>	1.02	1.01	1.02	1.00	0.97
Amount of PRTR-designated substances handled (Japan) <sup>*1</sup>	tons	5,321	5,740	5,912	6,725	5,368
Amount of chemical substances (VOCs) handled (Overseas) <sup>*2</sup>	tons	-	329	354	354	335

OUTPUT

Environmental indicators		Unit	RY2011	RY2012	RY2013	RY2014	RY2015	
Atmospheric discharge	CO <sub>2</sub> emissions	kilotons CO <sub>2e</sub>	471	585	663	715	673	
	Overseas included in the above	kilotons CO <sub>2e</sub>	93	135	172	181	167	
	Energy sources	kilotons CO <sub>2e</sub>	465	579	657	707	665	
	Other than the above	kilotons CO <sub>2e</sub>	6	6	6	8	8	
	Distribution CO <sub>2</sub> (Japan)	kilotons CO <sub>2e</sub>	40	44	48	41	44	
	SO <sub>x</sub> emissions <sup>*3,4</sup>	tons	2.9	6.6	17.6	55.1	24.7	
	NO <sub>x</sub> emissions <sup>*4</sup>	tons	58.0	59.6	70.4	82.1	76.2	
	Soot and dust emissions <sup>*4</sup>	tons	5.3	4.3	9.1	11.1	15.2	
	Amount of PRTR-designated substances released (Japan)	tons	384	422	462	543	544	
	VOC (included in the above) <sup>*2</sup>	tons	384	419	460	539	539	
	Amount of chemical substances (VOCs) released (Overseas) <sup>*2</sup>	tons	119	175	186	219	235	
Water system discharge	Public water areas	Wastewater discharge	million m <sup>3</sup>	3.82	3.48	3.82	3.74	3.82
		COD <sup>*5</sup> (Japan)	tons	11.9	10.4	10.6	9.8	9.9
		Nitrogen discharge <sup>*5</sup> (Japan)	tons	10.2	9.7	8.9	9.0	9.6
		Phosphorous discharge <sup>*5</sup> (Japan)	tons	0.29	0.30	0.32	0.37	0.35
		Amount of PRTR-designated substances released (Japan)	kg	40	9.0	8.4	0	0
	Sewage lines	Wastewater discharge	million m <sup>3</sup>	1.01	1.34	1.23	1.52	1.57
		Trend in amount of PRTR-designated substances released (Japan)	kg	20	20	21	34	23
Waste	Amount of waste discharge	kilotons	78.2	89.7	98.2	114.0	115.9	
	Overseas included in the above	kilotons	14.5	25.4	32.6	38.0	40.4	
	Landfill waste	kilotons	4.1	7.2	13.1	9.8	12.2	
	Amount of construction waste, etc. discharge (Japan)	kilotons	32.7	31.8	23.8	35.8	43.7	

\*1 Data from RY2012 to RY2014 was revised to improve accuracy.

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

\*3 Previously, the sulfur contained in the slag and particulate matter was included in the calculation of SO<sub>x</sub> emissions emitted from the fuel combustion in casting plants. However, from RY2014, it has been excluded from calculations as it is not emitted into the atmosphere.

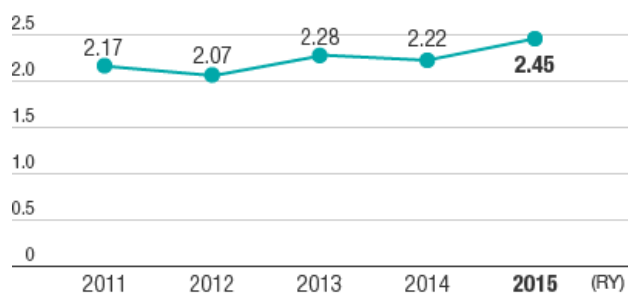
\*4 Data from RY2011 to RY2014 was revised to improve accuracy.

\*5 Data for total discharge from business sites subject to total emission control.

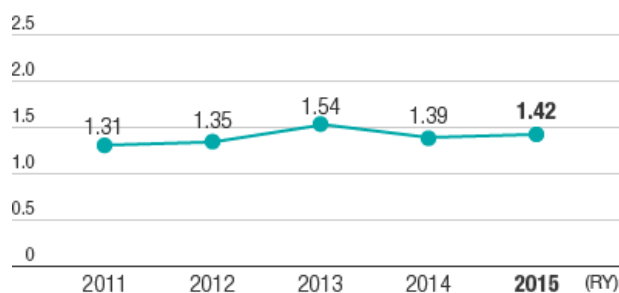
## Eco-efficiency

Eco-efficiency was improved in all four categories: CO<sub>2</sub>, waste, water and VOC. These improvements in figures mean that the sales per unit of environmental load have increased, which indicates higher eco-efficiency.

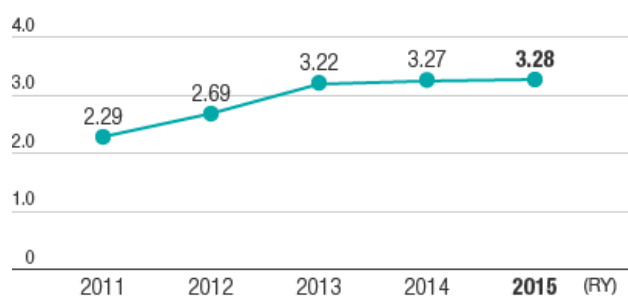
**CO<sub>2</sub> Eco-efficiency<sup>\*1</sup>**



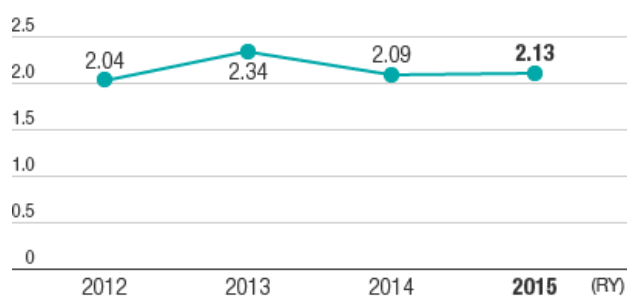
**Waste Eco-efficiency<sup>\*2</sup>**



**Water Eco-efficiency<sup>\*3</sup>**



**VOC Eco-efficiency<sup>\*4</sup>**



\*1 CO<sub>2</sub> Eco-efficiency = Consolidated net sales (million yen)/ CO<sub>2</sub> emissions (tons CO<sub>2</sub>e)

\*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<sup>3</sup>) × 10

\*4 VOC Eco-efficiency = Consolidated net sales(million yen)/ VOC emissions (kg)

\*5 RY2015 consolidated net sales is the total consolidated net sales from April 2015 to March 2016.

## Calculation Results of PRTR-Designated Substances

### RY2015 Results of PRTR reporting (Japan)

Number specified in Cabinet Order	Chemical substance	Releases				Transfers	
		Atmosphere	Public water areas	Soil	On-site landfills	Sewerage	Transfers to off-site
1	Water-soluble zinc compounds	0.0	0.0	0.0	0.0	23	995
53	Ethylbenzene	125,577	0.0	0.0	0.0	0.0	24,217
71	Ferric chloride	0.0	0.0	0.0	0.0	0.0	0.0
80	Xylene	206,753	0.0	0.0	0.0	0.0	35,513
87	Chromium and chromium (III) compounds	0.0	0.0	0.0	0.0	0.0	1,856
132	Cobalt and its compounds	0.0	0.0	0.0	0.0	0.0	3.2
185	Dichloro-pentafluoro-propane	3,004	0.0	0.0	0.0	0.0	0.0
239	Organic tin compounds	0.0	0.0	0.0	0.0	0.0	20
240	Styrene	24,859	0.0	0.0	0.0	0.0	0.0
243	Dioxins	0.032	0.0	0.0	0.0	0.0	0.011
277	Triethylamine	0.0	0.0	0.0	0.0	0.0	0.0
296	1, 2, 4-trimethylbenzene	16,631	0.0	0.0	0.0	0.0	4,031
297	1, 3, 5-trimethylbenzene	4,183	0.0	0.0	0.0	0.0	621
300	Toluene	161,113	0.0	0.0	0.0	0.0	20,133
302	Naphthalene	1,527	0.0	0.0	0.0	0.0	0.0
305	Lead compounds	8.2	0.0	0.0	0.0	0.0	8,382
308	Nickel	0.54	0.0	0.0	0.0	0.0	373
309	Nickel compounds	0.0	0.0	0.0	0.0	0.0	504
349	Phenol	0.0	0.0	0.0	0.0	0.0	0.0
352	Diallyl phthalate	109	0.0	0.0	0.0	0.0	0.0
354	Di-n-butyl phthalate	0.0	0.0	0.0	0.0	0.0	38
400	Benzene	2.7	0.0	0.0	0.0	0.0	0.0
405	Boron compounds	0.0	0.0	0.0	0.0	0.0	1,647
412	Manganese and its compounds	0.014	0.0	0.0	0.0	0.0	128,964
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
<b>Total</b>		<b>543,768</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>23</b>	<b>227,297</b>

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 (Dioxins: mg-TEQ/year)

Orange: Volatile Organic Compounds (VOCs)

Blue: Six VOCs substances targeted for reduction in Medium-Term Environmental Conservation Targets 2015

## 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.

### ■ Environmental Conservation Costs

(Yen in millions)

Classifications	Main activities	The year ended March 31, 2015		The nine months ended December 31, 2015	
		Investment	Expenses	Investment	Expenses
Within the business area cost		1,476	1,657	1,204	1,524
Local environmental conservation cost	Prevention of air and water pollution, soil contamination, noise, vibration, etc.	563	433	179	438
Global environmental conservation cost	Prevention of climate change	888	326	1,015	420
Resource recycling cost	Minimizing waste production, reducing quantity of waste, and recycling	25	898	10	666
Upstream and downstream costs	Collection of used products and commercialization of recycled products	0	25	0	25
Management activities cost	Environmental management personnel, ISO maintenance and implementation, environmental information dissemination	14	1,581	3.8	1,083
R&D cost	R&D for reducing of product environmental load and developing environment conservation equipment	282	6,598	181	4,830
Social activities cost	Local cleanup activities and membership fees and contributions to environmental groups, etc.	0	1	0	1
Environmental remediation cost	Contributions and impositions, etc.	0	88	0	74
Total		1,772	9,950	1,389	7,537
Total capital investment (including land) for the corresponding period (consolidated data)				35,300	
Total R&D costs for the corresponding period				29,600	

## Environmental Conservation Effects

Effects	Items	The year ended March 31, 2015	The nine months ended December 31, 2015
Environmental effect related to resources input into business activities	Energy consumption (Except for transportation fuel) [units of heat; in terajoules (TJ)]	8,274	5,988
	Water consumption (million m <sup>3</sup> )	3.82	2.92
Environmental effect related to waste or environmental impact originating from business activities	CO <sub>2</sub> emissions (Energy related) (kilotons CO <sub>2</sub> e)	526	380
	SO <sub>x</sub> emissions (tons)	19.8	5.4
	NO <sub>x</sub> emissions (tons)	70.0	44.8
	Soot and dust emissions (tons)	3.5	2.2
	Releases and transfers of PRTR-designated substances (tons)*	758	710
	Waste discharge (kilotons)	76.0	59.6
	Waste to landfills (kilotons)	2.5	1.8

## Economic Effects

(Yen in millions)

Classifications	Details	Annual effects of the nine months ended December 31, 2015
Energy conservation measures	Use alternative fuels for production facilities and switch to more efficient lighting and air handling systems	243
Zero-emissions measures	Reduce the amount of industrial waste; promote resource recycling; other	181
	Sales of valuable resources	480
Total		895

&lt;Environmental accounting principles&gt;

1) The year ended March 31, 2015 means from April 2014 to March 2015, and the nine months ended December 31, 2015 means April 2015 to December 2015.

2) The data of business sites in Japan are 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&amp;D costs" include personnel expenses.

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

"R&amp;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.

\* The value in the year ended March 31, 2015 was corrected to improve accuracy.

## Status of Environmental Management System Certification Acquisition

The Kubota Group has achieved ISO 14001 certification at all of its production sites in Japan. We are currently introducing activities to expand ISO 14001 certification approval at our production sites overseas. One site in Thailand received ISO 14001 certification in RY2015.

### 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	<ul style="list-style-type: none"> <li>Eastern Main Parts Center</li> <li>Eastern Technical Training Center Tsukuba Service G</li> <li>Kanto Kubota Precision Machinery Co.,Ltd.</li> </ul>	Engines, tractors, etc.	LRQA	November 28, 1997
2	Keiyo Plant	<ul style="list-style-type: none"> <li>Distribution Center</li> </ul>	Ductile iron pipe, spiral welded steel pipe	LRQA	July 16, 1998
3	Ryugasaki Plant	<ul style="list-style-type: none"> <li>KUBOTA Vending Service Co., Ltd Ryugasaki Plant</li> <li>KUBOTA Kanto Vender Center Inc. Ryugasaki Plant</li> </ul>	Vending machines	DNV	November 13, 1998
4	Hanshin Plant	<ul style="list-style-type: none"> <li>Marushima Factory</li> </ul>	Ductile iron pipe, spiral welded steel pipe, rolling-mill roll, TXAX	LRQA	March 5, 1999
5	Kyuhoji Business Center	<ul style="list-style-type: none"> <li>Kubota Environmental Service Co., Ltd</li> <li>KUBOTA Membrane Corp.</li> <li>KUBOTA Keiso Corp.</li> </ul>	Measuring instruments, measuring systems, rice-milling products, waste shredder systems, submerged membranes, and mold temperature controllers	DNV	March 19, 1999
6	Hirakata Plant		Valves, cast steel, new ceramic materials, and construction machinery	LRQA	September 17, 1999
7	Okajima Business Center		Industrial cast iron products, drainage pipes, and other cast iron products	JICQA	December 22, 1999
8	Sakai Plant/Sakai Rinkai Plant		Engines, tractors, small-size construction machinery, etc.	LRQA	March 10, 2000
9	Shiga Plant		FRP products	JUSE	May 18, 2000
10	Water Engineering & Solution Business Unit	<ul style="list-style-type: none"> <li>Shin-yodogawa Environmental Plant Center</li> </ul>	Sewage and sludge water purification, wastewater treatment facilities	ICJ	July 14, 2000
11	Pumps Business Unit	<ul style="list-style-type: none"> <li>KUBOTA Kiko Ltd.</li> </ul>	Sewage and water purification plants, pumps and pump stations	LRQA	July 14, 2000
12	Utsunomiya Plant	<ul style="list-style-type: none"> <li>Eastern Technical Training Center Utsunomiya Service G</li> </ul>	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.	<ul style="list-style-type: none"> <li>• Head office and plant, Mino Plant</li> </ul>	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.	<ul style="list-style-type: none"> <li>• Tochigi Plant</li> </ul>	Plastic pipes and couplings	JUSE	March 27, 2003 (integrated authentication in 2011)
		<ul style="list-style-type: none"> <li>• Sakai Plant</li> </ul>			
		<ul style="list-style-type: none"> <li>• Odawara Plant</li> </ul>			
		<ul style="list-style-type: none"> <li>• Kyushu KUBOTA Chemical Co., Ltd.</li> </ul>			
5	KUBOTA Air Conditioner Co., Ltd.	<ul style="list-style-type: none"> <li>• Tochigi Plant</li> </ul>	Central 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. (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	P.T.Metec Semarang (Indonesia)	Vending machines	TÜV	March 16, 2011
5	Kubota Precision Machinery (Thailand) Co., Ltd. (Thailand)	Equipment for tractors	LRQA	August 5, 2015
6	Kubota Manufacturing of America Corporation (U.S.) (including Kubota Industrial Equipment Corporation (U.S.))	Small-sized tractors, mowers, utility vehicles and tractor accessories	BSI	September 20, 2012 (integrated 2015)
7	SIAM KUBOTA Corporation Co.,Ltd. (Amata Nakorn, Thailand)	Tractors and combine harvesters	BV	September 27, 2012
8	ATEC Instrument and Chemical Co., Ltd. (Vietnam)	Chemical agents for water treatment	BSI	January 18, 2013
9	KUBOTA SANLIAN PUMP (ANHUI) Co., Ltd. (China)	Pumps	CCSCC	May 29, 2013
10	Kubota Agricultural Machinery (SUZHOU) Co., Ltd. (China)	Combine harvesters, rice transplanters and tractors	SGS	November 13, 2013
11	Kubota Construction Machinery (WUXI) Co., Ltd.	Construction machinery	CQC	December 11, 2014
12	SIAM KUBOTA Metal Technology Co., Ltd. (Thailand)	Cast iron products for engines and tractors	BV	December 19, 2014
13	Kubota Engine (WUXI) Co., Ltd (China)	Diesel engines	SGS	March 22, 2015
14	Kubota Engine (Thailand) Co., Ltd. (Thailand)	Diesel engines	LRQA	July 3, 2015

**LRQA:** Lloyd's Register Quality Assurance Limited (U.K.)  
**DNV:** DNV Certification B.V. (Netherlands)  
**JUSE:** Union of Japanese Scientists and Engineers ISO Center  
**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.)  
**CCSCC:** China Classification Society Certification Company (China)  
**CQC:** China Quality Certification Centre (China)

## ■ EMAS Certification

### ■ Kubota Group: Overseas companies

No	Name	Main Business	Inspecting/ Certifying Organization	Date of Certification
1	Kubota Baumaschinen GmbH (Germany)	Construction machinery	IHK	January 3, 2013

**IHK:** Industrie- und Handelskammer für die Pfalz (Germany)

## Calculation Standards of Environmental Performance Indicators

Until KUBOTA REPORT 2015, fiscal year 2016 (FY2016) was the period commenced in April 2015 and ended in March 2016 (overseas data: January 2015 to December 2015).

In KUBOTA REPORT 2016, we changed our fiscal year end from March to December and reported our financial results for the nine months ended December 2015. However, for the Environmental report, we reported our environmental data for the year ended March 2016. Reporting year 2015 (RY2015) is the period commenced in April 2015 and ended in March 2016 (overseas data: January 2015 to December 2015).

Period: April 2015 to March 2016 (overseas data: January 2015 to December 2015)

Organizations covered: Kubota Corporation and 51 consolidated subsidiaries in Japan and 102 overseas consolidated subsidiaries (100% coverage). In addition, 14 affiliated companies are accounted for under the equity method covered by the scope of the Kubota Group's environmental management, resulting in a total of 153 consolidated subsidiaries and 14 affiliated companies.

Companies accounted for under the equity method have been included as part of the organization since RY2014.

### ■ Calculation Standards of Environmental Performance Indicators

#### □ Energy and CO<sub>2</sub>-related

Environmental performance indicators	Unit	Calculation method
Total energy input	TJ	[Calculation formula] <ul style="list-style-type: none"> <li>Amount of purchased electricity × per-unit heat value + Σ [amount of each fuel consumed × per-unit heat value of each fuel]</li> <li>Per-unit heat value is determined in accordance with the Enforcement Regulation for the Act on the Rational Use of Energy, Japan</li> </ul>
		[Calculation scope] <ul style="list-style-type: none"> <li>Purchased electricity and fossil fuel used at business sites</li> <li>Transportation fuel used in distribution (Japan)</li> </ul>
Energy use	PJ	[Calculation formula] <ul style="list-style-type: none"> <li>Amount of purchased electricity × per-unit heat value + Σ [amount of each fuel consumed × per-unit heat value of each fuel]</li> <li>Per-unit heat value is determined in accordance with the Enforcement Regulation for the Act on the Rational Use of Energy, Japan</li> </ul>
		[Calculation scope] <ul style="list-style-type: none"> <li>Purchased electricity and fossil fuel used at business sites</li> </ul>

Environmental performance indicators	Unit	Calculation method
CO2 emissions (Scope 1 and Scope 2)	kilotons-CO2e	<p>[Calculation formula]</p> <ul style="list-style-type: none"> <li>Amount of purchased electricity × 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</li> <li>Non-energy source greenhouse gas emissions = CO2 emissions from non-energy sources + non-CO2 greenhouse gas emissions</li> <li>The method for calculating non-energy source greenhouse gas emissions is based on the Manual for Calculation and Report of Greenhouse Gas Emissions (latest version every reporting year; Japan's Ministry of the Environment and Ministry of Economy, Trade and Industry)</li> </ul> <p>[CO2 emission coefficients]</p> <p>RY1990 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)</p> <p>From RY2011 to RY2015 Fuel: Based on the Manual for Calculation and Report of Greenhouse Gas Emissions (latest version every reporting year; Japan's Ministry of the Environment and Ministry of Economy, Trade and Industry)</p> <p>Electricity: Data for Japan are effective emission coefficients published by electricity utilities (before reflecting carbon credits) Overseas data are emission coefficients of respective countries published in the Greenhouse Gas Protocol Initiative (Ver. 4.7) Effect of CO2 emission coefficients for electricity: The difference between the emitted amount of CO2 calculated using the RY2011 CO2 emission coefficients for electricity in Japan, which are based on the amounts reported by electricity utilities in RY2010, and the emitted amount of CO2 calculated using the same CO2 emission coefficients for each year</p> <p>[Calculation scope]</p> <ul style="list-style-type: none"> <li>Data are for HFC, PFC and SF6 emissions from January to December included in non-energy source greenhouse gases</li> </ul>
Freight traffic	ton-km	<p>[Calculation formula]</p> <ul style="list-style-type: none"> <li>Σ [Freight transportation amount (tons) × distance traveled (km)]</li> </ul> <p>[Calculation scope]</p> <ul style="list-style-type: none"> <li>Transportation in Japan (products and industrial waste discharge)</li> </ul>
Fuel consumption during transportation	TJ	<p>[Calculation formula]</p> <ul style="list-style-type: none"> <li>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]</li> <li>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)</li> </ul> <p>[Calculation scope]</p> <ul style="list-style-type: none"> <li>Transportation in Japan (products and industrial waste discharge)</li> </ul>
CO2 emissions during distribution	kilotons-CO2e	<p>[Calculation formula]</p> <ul style="list-style-type: none"> <li>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]</li> <li>Calculation method is based on the ton-kilometer method stipulated in the Manual for Calculation and Report of Greenhouse gas Emission (Ver.4.1) (February 2016, Japan's Ministry of the Environment and Ministry of Economy, Trade and Industry)</li> </ul> <p>[Calculation scope]</p> <ul style="list-style-type: none"> <li>Transportation in Japan (products and industrial waste discharge)</li> </ul>

Environmental performance indicators	Unit	Calculation method	
Scope 3 emissions	kilotons-CO <sub>2</sub> e	The calculation method is based on the Basic Guidelines regarding the Calculation of Greenhouse Gas Emissions throughout the Supply Chain (Ver. 2.2) and the Emissions per Unit Database for the Purpose of Calculating the Greenhouse Gas and Other Emissions of Organizations throughout the Supply Chain (Ver. 2.2) (March 2015 Japan's Ministry of the Environment and Ministry of Economy, Trade and Industry)	
		Resource extraction, transportation and manufacturing related to purchased goods, etc.	[Calculation formula] $\Sigma$ [Production volume $\times$ CO <sub>2</sub> emissions per unit] Production volume is calculated based on the number of machinery-based products and weight for materials-based products. "CO <sub>2</sub> emissions per unit" is estimated from the CO <sub>2</sub> emissions per unit of production of the representative product
			[Calculation scope] Machinery-based products: Agricultural machinery (tractors, rice transplanters, combine harvesters) and construction machinery (compact excavators, etc.) Materials-based product: Ductile iron pipe
		Extraction and production of capital goods such as equipment	[Calculation formula] $\Sigma$ [Equipment investment amount $\times$ CO <sub>2</sub> emissions per unit]
			[Calculation scope] Equipment investment (Japan and overseas)
		Extraction, production and transportation for fuels for generation of purchased electricity	[Calculation formula] Electricity consumed $\times$ CO <sub>2</sub> emissions per unit
			[Calculation scope] Purchased electricity (Japan and overseas)
		Disposal of wastes discharged from business sites	[Calculation formula] $\Sigma$ [Amount of waste discharge by type $\times$ CO <sub>2</sub> emissions per unit]
			[Calculation scope] Waste generated at business sites (Japan and overseas)
		Employee business travels	[Calculation formula] $\Sigma$ [transportation expenses paid by method of transport $\times$ CO <sub>2</sub> emissions per unit] Transportation expenses for each method of travel for a portion of the overseas subsidiaries (45 sites) are estimated 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, North America, Asia and China.
			[Calculation scope] The amount of transportation expenses paid for airline tickets and railway tickets (Japan and overseas)
		Employee commuting	[Calculation formula] $\Sigma$ [transportation expenses paid by method of transport $\times$ CO <sub>2</sub> emissions per unit]
			[Calculation scope] The amount of transportation expenses paid for Kubota employees' railway tickets and car travel (Japan and overseas)
		Processing of sold products	[Calculation formula] $\Sigma$ [Sales volume of intermediate products $\times$ CO <sub>2</sub> emissions per unit] "CO <sub>2</sub> emissions per unit" is estimated from the CO <sub>2</sub> emissions per unit at Kubota Group's processing plants
			[Calculation scope] Intermediate products (engines)
		Use of products sold	[Calculation formula] $\Sigma$ [No. of products sold $\times$ CO <sub>2</sub> emissions per unit] CO <sub>2</sub> emissions per unit is calculated as: Fuel consumption $\times$ annual hours of use $\times$ Years of service life* $\times$ per-unit heat value of each fuel $\times$ CO <sub>2</sub> emission coefficient of each fuel * Calculation assuming fuel consumption per hour, annual hours of use and years of service life per representative product
[Calculation scope] Agricultural machinery (tractors, rice transplanters, combine harvesters) and construction machinery (compact excavators, etc.)			
End-of-life transportation and treatment of sold products	[Calculation formula] CO <sub>2</sub> emissions per unit is estimated based on the CO <sub>2</sub> emissions of one representative product		
	[Calculation scope] Agricultural machinery (tractors, rice transplanters, combine harvesters) and construction machinery (compact excavators, etc.)		

## Waste-related

Environmental performance indicators	Unit	Calculation method
Amount of waste, etc. discharged	kilotons	[Calculation formula] • Sales of valuable resources + amount of waste discharge
Amount of waste discharged	kilotons	[Calculation formula] • Amount of waste recycled + volume reduction + landfill disposal • Amount of industrial waste discharged + amount of general waste discharged from business activities
Amount of landfill disposal	kilotons	[Calculation formula] • Direct landfill + final landfill following external intermediate treatment
Recycling ratio	%	[Calculation formula] • (Sales of valuable resources + external recycling volume) ÷ (Sales of valuable resources + external recycling volume + amount of landfill disposal) × 100 [External recycling volume includes heat recovery]
Amount of construction waste, etc. discharged	kilotons	[Calculation formula] • Amount of construction waste discharged (including construction waste other than specific construction materials) + sales of valuable resources (generated from construction) (covers directly contracted companies that purchase valuable materials from the Kubota Group)
		[Calculation scope] • Japan
Recycling ratio of construction waste	%	[Calculation formula] • [Sales of valuable resources + resource recycling + volume reduction (including heat recovery)] / amount of construction waste, etc. discharged (including sales of valuable resources) × 100


## Water-related

Environmental performance indicators	Unit	Calculation method
Water consumption	million m <sup>3</sup>	[Calculation formula] • Total amount of service water, industrial water and groundwater consumption
Wastewater discharge	million m <sup>3</sup>	[Calculation scope] • Wastewater discharge to public water areas and sewage lines (including rain and spring water)
Amount of COD, nitrogen and phosphorus discharge	tons	[Calculation formula] • COD, nitrogen or phosphorous concentration (mg/L) × amount of effluent discharged to public water area (m <sup>3</sup> ) × 10 <sup>-6</sup>
		[Calculation scope] • Business sites subject to total emission control in Japan
Amount of recycled water	thousand m <sup>3</sup>	[Calculation formula] • Amount of water purified in on-site effluent treatment facilities and recycled (excluding the circulating cooling water used)

■ Chemical substance-related

Environmental performance indicators	Unit	Calculation method
Amount of PRTR-designated substances handled	tons	[Calculation formula] <ul style="list-style-type: none"> <li>Total amount of chemical substances handled, 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</li> </ul>
		[Calculation scope] <ul style="list-style-type: none"> <li>Business sites in Japan (business sites subject to legal notification only)</li> <li>After RY2012 data includes designated chemical substances derived from recycled resources in accordance revisions to the Manual for PRTR Release Estimation Methods in the Steel Industry (Ver. 12 2012 use)</li> </ul>
Amount of PRTR-designated substances released and transferred	tons	[Calculation formula] <ul style="list-style-type: none"> <li>Total release and transfer amount of the chemical substances which are designated as Class I under the PRTR Law and whose annual total amount handled by each business site is one ton or more (or 0.5 ton or more in case of Specific Class I Designated Chemical Substances).</li> <li>Amount released = amount discharged to the atmosphere + amount discharged to public water areas + amount discharged to soil + amount disposed of by landfill in the premises of the business site</li> <li>Amount transferred = amount discharged to sewerage + amount transferred out of the business site as waste</li> <li>The amount of each substance released and transferred is calculated in accordance with Manual for PRTR Release Estimation Methods Ver. 4.1 (March 2011) of the Japan's Ministry of the Environment and the Ministry of Economy, Trade and Industry, and Manual for PRTR Release Estimation Methods in the Steel Industry Ver. 13 (March 2014) of the Japan Iron and Steel Federation.</li> </ul>
		[Calculation scope] <ul style="list-style-type: none"> <li>The same calculation scope as the amount of PRTR-designated substances handled</li> </ul>
Amount of chemical substances (VOC) handled	tons	[Calculation formula] <ul style="list-style-type: none"> <li>Total amount of xylene; toluene; ethylbenzene; styrene; 1, 2, 4-trimethylbenzene; 1, 3, 5-trimethylbenzene</li> </ul>
		[Calculation scope] <ul style="list-style-type: none"> <li>Overseas</li> <li>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</li> </ul>
VOC emissions	tons	[Calculation formula] <ul style="list-style-type: none"> <li>The total emissions of xylene; toluene; ethylbenzene; styrene; 1, 2, 4-trimethylbenzene; 1, 3, 5-trimethylbenzene</li> </ul>
		[Calculation scope] <ul style="list-style-type: none"> <li>Japan and overseas</li> <li>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</li> </ul>
SOx emissions	tons	[Calculation formula] <ul style="list-style-type: none"> <li>Amount of fuel consumed (kg) × sulfur content in the fuel (wt %) ÷ 100 × 64 ÷ 32 × [1 - desulphurization efficiency(%) ÷ 100] × 10<sup>-3</sup>, or amount of SOx emitted per hour (m<sup>3</sup>N/h) × annual operation hours of the relevant facility (h) × 64 ÷ 22.4 × 10<sup>-3</sup>, or SOx emission concentration (ppm) × annual exhaust gas from facilities (m<sup>3</sup>N/y) × 64 ÷ 22.4 × 10<sup>-9</sup>, or SOx emission concentration (mg/m<sup>3</sup>N) × annual exhaust gas from facilities (m<sup>3</sup>N/y) × 10<sup>-9</sup></li> </ul>
		[Calculation scope] <ul style="list-style-type: none"> <li>Smoke and soot generating facilities at business sites in Japan as defined by the Air Pollution Control Law, and facilities at overseas business sites covered in laws and regulations.</li> </ul>
NOx emissions	tons	[Calculation formula] <ul style="list-style-type: none"> <li>NOx concentration (ppm) × 10<sup>-6</sup> × amount of gas emitted per hour (m<sup>3</sup>N/h) × annual operation hours of the relevant facility (h) × 46 ÷ 22.4 × 10<sup>-3</sup></li> </ul>
		[Calculation scope] <ul style="list-style-type: none"> <li>The same calculation scope as that for SOx emissions.</li> </ul>
Soot and dust emissions	tons	[Calculation formula] <ul style="list-style-type: none"> <li>Soot and dust concentration (g/m<sup>3</sup>N) × amount of gas emitted per hour (m<sup>3</sup>N/h) × annual operation hours of the relevant facility (h) × 10<sup>-6</sup></li> </ul>
		[Calculation scope] <ul style="list-style-type: none"> <li>The same calculation scope as that for SOx emissions.</li> </ul>

## Third-party Assurance of Environmental Report

Since RY2004, the Kubota Group has received third-party assurance for the purpose of improving the reliability and comprehensiveness of its environmental data. The  symbol indicates that the information provided has been confirmed by a third party. Based on the third-party assurance obtained this reporting year, the KUBOTA REPORT 2016 Business and CSR Activities <Full Report Version> (PDF), received the Environmental Report Assurance and Registration Symbol of the Japanese Association of Assurance Organizations for Sustainability Information (J-SUS)\*. This symbol indicates that information provided has been confirmed by a third party and that the reliability of the environmental data presented in the KUBOTA REPORT 2016 Business and CSR Activities <Full Report Version> (PDF) satisfies the requirements by J-SUS.

\* <http://www.j-sus.org/english.html> 

### Environmental report assurance and registration symbol



### Factory visit



SIAM KUBOTA Metal Technology Co., Ltd.




KUBOTA Engine (Thailand) Co., Ltd.



### Independent Assurance Report

To the President and Representative Director of KUBOTA Corporation

We were engaged by KUBOTA Corporation (the "Company") to undertake a limited assurance engagement of the environmental indicators marked with "" for the period from April 1, 2015 to March 31, 2016 (the "Indicators") included in its KUBOTA REPORT 2016 Business and CSR Activities <Full Report Version> (PDF) (the "Report") for the fiscal year ended March 31, 2016, and the completeness of material environmental information in the Report.

#### The Company's Responsibility

The Company is responsible for the preparation of the Indicators in accordance with its own reporting criteria (the "Company's reporting criteria"), as described in the Report, which are derived, among others, from the Environmental Reporting Guidelines of Japan's Ministry of the Environment, and for including the material environmental information defined in the 'Environmental Reporting Assurance and Registration Criteria' of the Japanese Association of Assurance Organizations for Sustainability Information ("J-SUS") in the Report.

#### Our Responsibility

Our responsibility is to express a limited assurance conclusion on the Indicators based on the procedures we have performed. We conducted our engagement in accordance with 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information', 'ISAE 3410, Assurance Engagements on Greenhouse Gas Statements', issued by the International Auditing and Assurance Standards Board, and the 'Practical Guidelines for the Assurance of Sustainability Information' of J-SUS. The limited assurance engagement consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviewing with the Company's responsible personnel to obtain an understanding of its policy for the preparation of the Report and reviewing the Company's reporting criteria.
- Inquiring about the design of the systems and methods used to collect and process the Indicators.
- Performing analytical reviews of the Indicators.
- Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company's reporting criteria, and also recalculating the Indicators.
- Visiting to two of the Company's subsidiaries selected on the basis of a risk analysis.
- Assessing whether or not all the material environmental information defined by J-SUS is included in the Report.
- Evaluating the overall statement in which the Indicators are expressed.

#### Conclusion

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the Indicators in the Report are not prepared, in all material respects, in accordance with the Company's reporting criteria as indicated in the Report, and all the material environmental information defined by J-SUS is not included in the Report.

#### Our Independence and Quality Control

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. In accordance with International Standard on Quality Control 1, we maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

*KPMG AZSA Sustainability Co., Ltd.*

KPMG AZSA Sustainability Co., Ltd.  
Osaka, Japan  
August 8, 2016