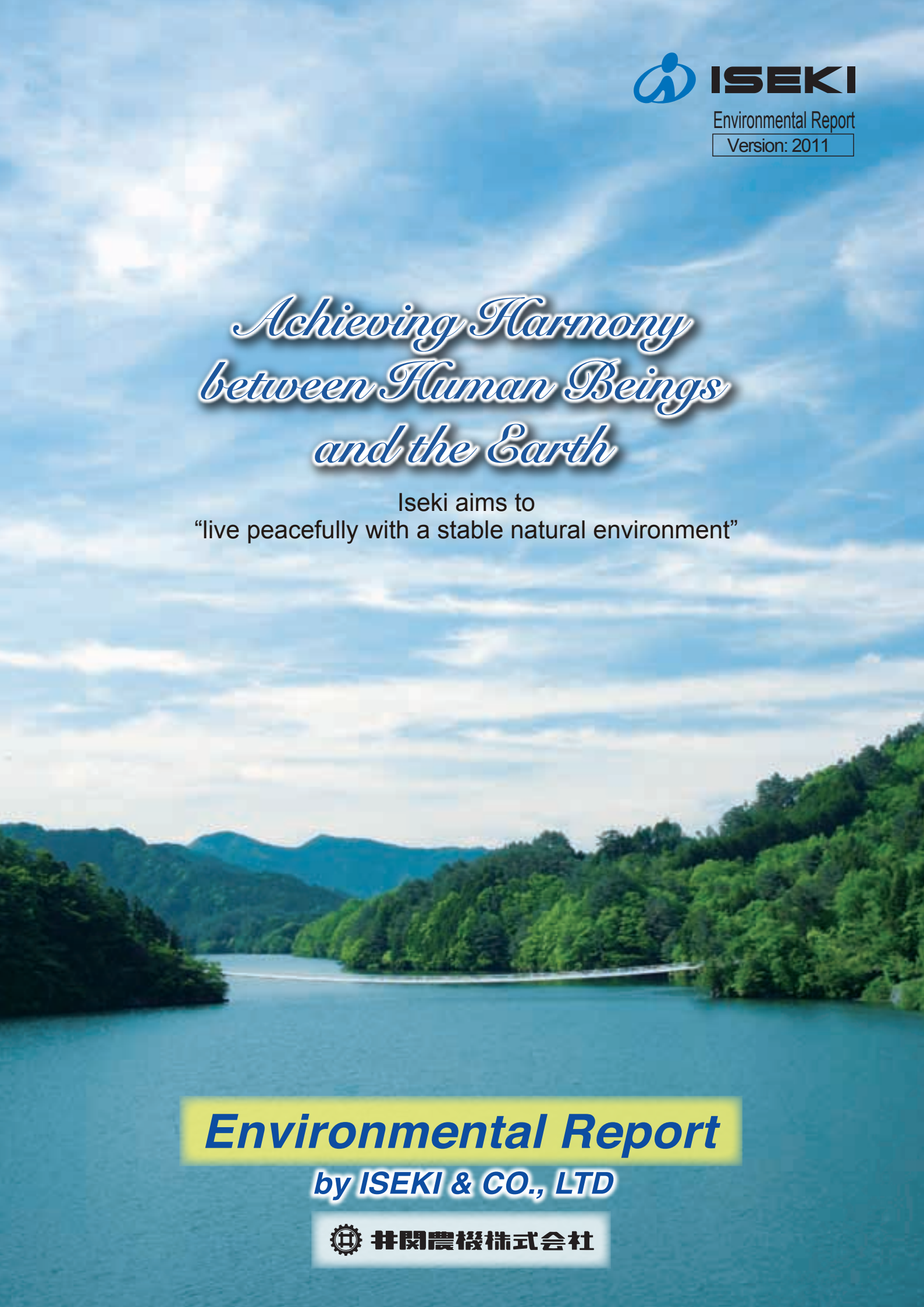
ISEKI

Environmental Report

Version: 2011

Achieving Harmony between Human Beings and the Earth

Iseki aims to
“live peacefully with a stable natural environment”



Environmental Report

by ISEKI & CO., LTD

井関農機株式会社

INDEX

The coverage of this report

Term covered: Term covered: 2010 Fiscal Year (From April, 2010 to March, 2011)

Activities covered: Domestic activities

Organization: Iseki & Co., Ltd., affiliates, domestic covered distributors and sales subsidiaries

Guideline used: Environmental Report Guideline (2007 edition) as reference and GRI Guideline

Picture taken at Kumakogen-cho, Kamiukena-gun, Ehime Prefecture

Aiming to bring about a prosperous community, constantly growing in affluence

While global warming and the depletion of energy resources have become critical global environment issues, the Great East Japan Earthquake which occurred on March 11, 2011 highlighted the importance of stable securement of clean risk-free energy, as well as the finite nature of such energy. Japan has already implemented an approach to drastically reduce greenhouse gas by proposing a plan called “Challenge 25”, investing to environmental preservation activities and living a Low-Carbon lifestyle (an ecological lifestyle). Taking the Great Earthquake as a lesson, means for achieving the goal are reconsidered. It is necessary to reduce greenhouse gas in every field and responsibilities should be imposed on every entity to improve his/her motivation and play active roles to create a Low-Carbon society.

Since its foundation over 86 years ago, Iseki has made exertions to improve the productivity through the promotion of agricultural streamlining and by reducing fatigue farming work through providing agricultural machines. An effective use of bio-mass for agriculture in which Iseki Group’s business is based allows for not only great contributions with respect to the prevention of global warming by controlling the emission of greenhouse gas and the formation of a recycle-oriented society by utilizing resources which had been normally disposed of as wastes, but also for regional revitalization and an increase in job opportunities. Iseki believes that we can serve society by tangibly improving food self sufficiency rates through the utilization of sparse planting technology that we have been developing through improvements in agriculture and agricultural machinery, provide insight regarding the expansion of consumption such as the local consumption of local products, and by providing information regarding dietary education and the future of our food strategy.

Iseki Group recognizes that it is our social responsibility to contribute to society which is in the stage to be recycle-oriented. We therefore position these as important management tasks among others. Our environment preservation activities were started primarily at our manufacturing factories and they have now spread widely throughout the entire scope of our business, from headquarters to sales subsidiaries, through the implementation of the Environmental Management System (EMS). From initial product development, manufacturing, product logistics and all the way to after-sales activities all business activities at Iseki Group are based on a tangible target and the management system so as to be an environment-conscious company. Iseki continues our efforts to be of assistance in establishing a “prosperous community, constantly growing in affluence.”

We are pleased to have an opportunity to publish this 2010 report of our approach and actions to preserve the global environment. Iseki Group carries out now and in future years, our social responsibilities to even greater improve the environmental quality through the group-wide environmental management activities. We would like to ask for your further support, assistance, and cooperation to make our activities successful.

President

蒲生誠一郎

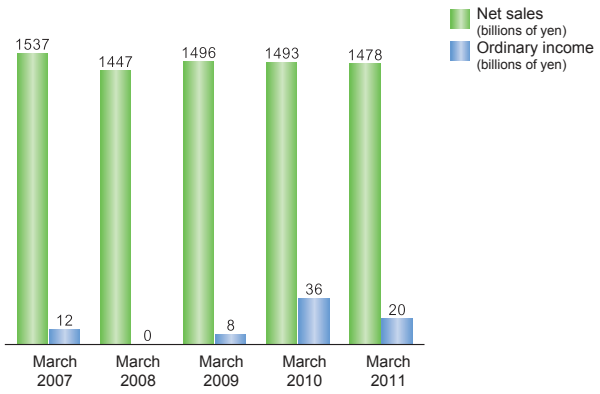
Seiichiro Gamo

Outline of our business

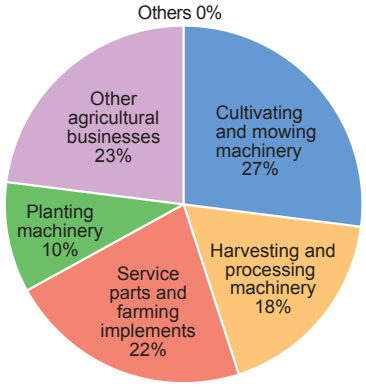
〈Company profile〉

Company name	ISEKI & CO., LTD
Headquarter	700 Umaki-cho, Matsuyama-shi, Ehime prefecture Phone: +81-89-979-6111 Fax: +81-89-978-6440
Main office	5-3-14, Nishi-Nippori, Arakawa-ku, Tokyo Phone: +81-3-5604-7602 Fax: +81-3-5604-7701
Foundation	August, 1926
Capital	JPY 23,344,000,000 (as of March 31, 2011)
Employees	Consolidated: 6,404 (as of March 31, 2011)
Business activities	Our main business activities are manufacturing and sales of following products: Cultivating machiney ····· Tractors, Cultivators, High-clearance multipurpose vehicles, Lawnmowers Planting machinery ····· Rice transplanters, Vegetable transplanters Harvesting machinery ····· Combine harvesters, Binders, Harvesters, Vegetable harvesters Processing machinery ····· Rice hullers, Dryers, Rice milling, Rice graders, Vegetable processing machinery Others ····· Farming implements, Spare parts, Agricultural facilities

〈Achievement trends (consolidated)〉



〈Sales composition by product category as of March, 2011 at the end of fiscal year〉



〈Financial statements〉

(As of March 31, 2011)

Summary of consolidated balance sheet

Account	Amount (in mil. JPY)	Account	Amount (in mil. JPY)
Cash and deposits	5,696	Notes and accounts payable-trade	41,950
Notes and accounts receivable-trade	28,688	Short-term loans payable	29,103
Inventories	40,965	Long-term loans payable	14,377
Others	3,311	Others	29,113
		Total Current Liabilities	114,551
Total Current Assets	78,665	Capital stock	23,344
		Capital surplus	13,454
Property, plant and equipment	79,890	Retained earnings	5,160
Intangible assets	948	Treasury stock	△19
Total Investments and other assets	9,663	Valuation difference on available-for-sale securities	366
		Revaluation reserve for land	10,867
		Foreign currency translation adjustment	△65
		Minority interests	1,508
Total Noncurrent Assets	90,503	Total Net Assets	54,617
Total Assets	169,168	Total Liabilities and Net Assets	169,168

Note: The amount shown is the number after rounding the fractional part.

(From April 1, 2010 to March 31, 2011)

Consolidated statement of income

Account	Amount (in mil. JPY)
Net sales	147,826
Cost of sales	101,639
Gross profit	46,187
Selling, general and administrative expenses	43,383
Operating income	2,803
Non-operating income	1,133
Non-operating expenses	1,930
Ordinary income	2,006
Extraordinary gains	68
Extraordinary losses	1,872
Income before income taxes	202
Income taxes	1,115
Minority interests in income (loss)	6
Net income	△918

Note: The amount shown is the number after rounding the fractional part.

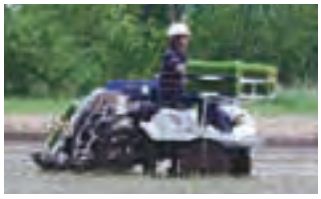
Major products

Tractors



Rice transplanters





Combine harvesters



Machines for exports



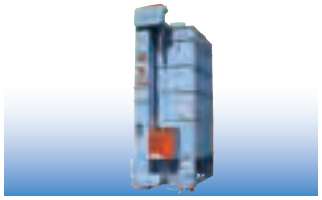
Line-up of other products


Electric mini tiller


Inside ridge processor


Onion transplanter


Binder


Dryer


Rice huller


Weighing and separating machine


Coin-operated rice milling machine


Hydroponics facility

Eco vision

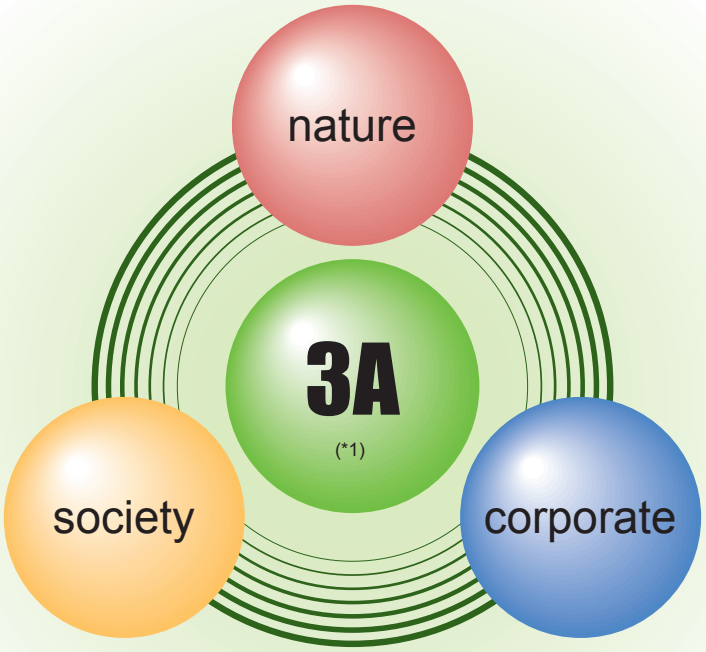
Environmental management

Iseki Group has determined the direction which can be the base of our "Eco vision: Green Cycle", and the words, "Environmental concept", "Basic environmental policy", and "Environmental conduct guidelines", best explain our principles.

[Green Circle]

*1
3A is: The management on the Axis of Agriculture and Agricultural machine (3A)

"Business Management with Agriculture and Agricultural Machinery as its key"



Iseki Group has walked together with Agriculture since its establishment. Based on our managerial creed, "Management on the Axis (3A) of Agriculture and Agricultural machines", we promote environmental preservation activities with harmony between nature and society.

[Environmental concept]

"Agriculture and Agricultural machines" are the axes of our management and we contribute to the formation of a continuously growing society through activities for harmonizing nature, society, and business entities.

[Basic environmental policy]

1. Maintain environmental management system and its functional applications
2. Reducing elements of our business activities and products which may be causing stress on the environment
3. Compliance with environmental laws, regulations, and standards
4. Environmental education and information disclosure

[Environmental conduct guidelines]

1. Development activities considering environment
   Recycling and reduction of noise, vibration, fuel consumption, emission gas, and environmental stress substances
2. Environment-friendly manufacturing activities
   Prevention of (air, water, noise, and vibration) pollution, energy-saving, resource-saving, and purchasing green
3. Office activities considering environment
   Energy-saving and resource-saving
4. Distribution and logistics considering environment
   Improvement of transportation system (promotion of modal shift), energy-saving and disposition of industrial wastes (promotion of zero emission)
5. Development of biodiversity
   Promotion of tree-planting activities of Iseki Group
6. Environmental education and information disclosure
   Environmental education to be offered to employees, participation in social activities and information disclosure

Outline of management

Environmental management

We deploy our approaches to develop the recycling-oriented and Low-Carbon society and biodiversity within all of our group companies.

〈Promotional scheme〉

Entire companies within Iseki Group promote the development of recycling-oriented and Low-Carbon society and biodiversity by using the environment management system as a tool, through involvement with R & D dept., Production dept., Logistics dept., and sales subsidiaries.

〈Environmental planning group meeting〉

The Environment Planning Group Meeting plots out tangible plans to be deployed in each district, provides strategies and advice to the Environment Committee, assists each district to deploy environmental targets and action plans, and manages the progress of such plans. At the same time, the Environmental Management Office and the Product Assessment Committee, which supports the designing of environment-friendly products, are established to assist activities to be efficient and successful.

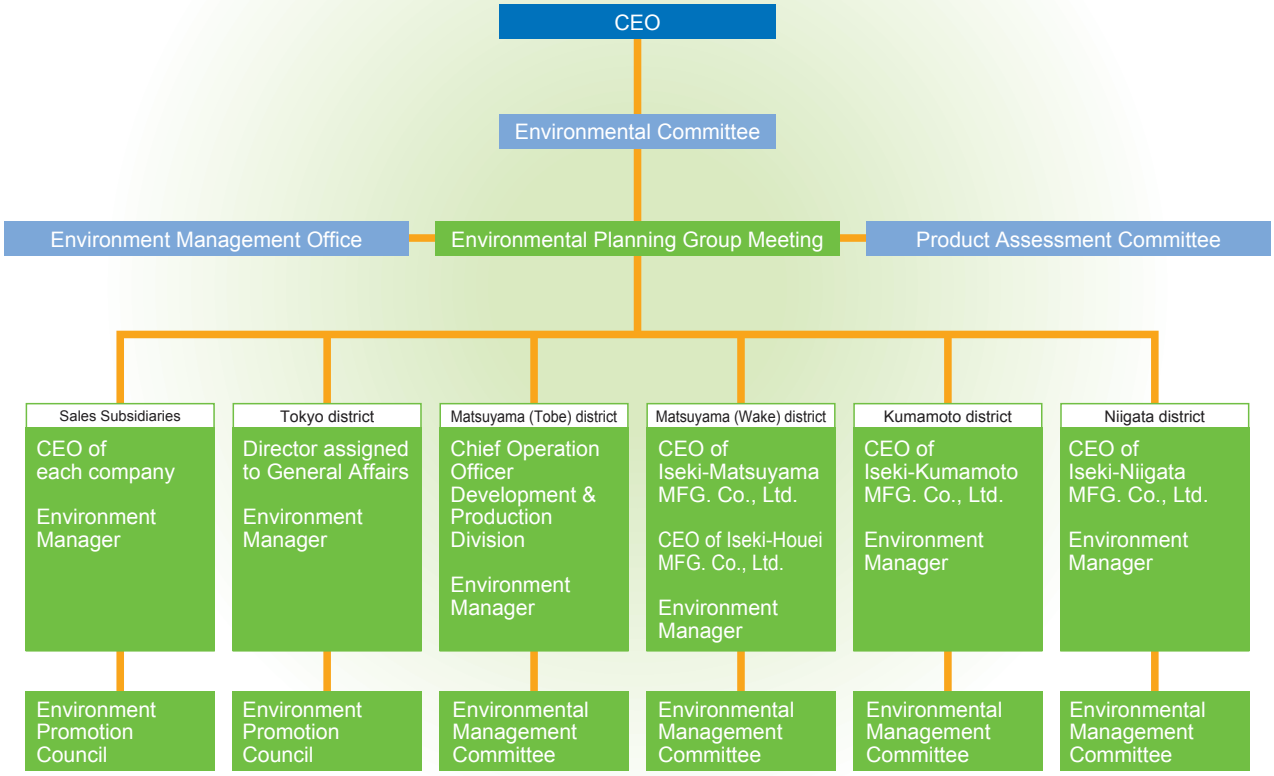
〈Environment committee〉

The Environment Committee, whose members include the president as chairman and all directors, deliberates and determines Iseki group's basic policies regarding the environment, as well as the accommodation of management targets, action plans, and corrective actions for critical environmental issues submitted by the Environment Planning Group Meeting.

〈Environment management system employed in each district〉

An Executive Officer responsible for the environmental management activities and the Environmental Manager are assigned to Tokyo, Matsuyama (Tobe), Matsuyama (Wake), Kumamoto, Niigata and sales subsidiaries in each district. These executive officers shall be responsible for the determination of policies, deployment of action plans, establishment and operation of an environment management system in each district.

[Environmental Management Organization]



Mid-term and long-term environmental targets and results of the FY2010

Environmental management

Iseki group has defined and worked on the mid-term and long-term environmental targets to be achieved by 2010.
FY2010 was the final year of the term. Hereby, we report on the results of our major activities in FY2009.

Item	Mid-term and long-term environment targets		Accomplishments in FY2010	Evaluation	Relevant pages
Eco Factory	Prevention of global warming	Reduced the volume of energy-generated CO_2 emission for the total production volume by 15% comparing to the volume in FY1997	● The total volume of CO_2 emission was reduced by 15% of the reference year. However, the volume of CO_2 for the total production volume was reduced by 3% of the reference year, falling short of the goal. We are continuously taking actions to reduce CO_2.	△	13
	Reduction of water used	Reduced the volume of water used for the total production volume by 30% or more compared to the volume in FY1997	● The volume of water used for the total production volume was reduced by 30% of the reference year. As a result of renovation of the water supply piping, conducted as mid-term plan, a steep reduction was achieved.	○	14
	Reduction of wastes	Reduced the final volume of wastes for the total production volume by 70% or more compared to the volume in FY1997	● The final volume of wastes for the total production volume was reduced by 80% of the reference year as a result of improvement of reuse and recycling rate of cast metal wastes, as well as segregation of wastes.	○	14
	Chemical substance control	Reduced the volume of controlled substances for the total production volume by 20% or more compared to the use in FY2001	● The emission of controlled chemical substances for the total production volume was 12% lower than the reference year. We will continuously strive to reduce such chemical substances by further pursuing factors which contribute to reduction including low-VOC paint and solvents.	△	14

VOC:Volatile Organic Compounds (causative substance of photochemical smog and allergy)

Item	Mid-term and long-term environment targets		Accomplishments in FY2010	Evaluation	Relevant pages
Eco Products	Approach to biodiversity	Promotion and expansion of reduction of environmental stresses at every stage of business activities	● Iseki Group promotes business activities and provides products and services in consideration of biodiversity to contribute to realizing a sustainable society co-existing with nature. ● We provide agricultural machines and facilities with decreased environmental stresses as well as agricultural machines which reduce the use of “fertilizer” and “agricultural chemicals” having harmful effects on animals and plants. Concerning development and manufacturing of diesel engines, our products continuously complied with the emission control of Japan and other countries in the world.	○	16
	Support of nature-friendly agriculture	Trend for safe, tasty and healthy food and approach to energy and resource saving by compact products	● To realize biodiversity, we develop products which contribute to reduction of environmental stresses. We will continuously develop environment-friendly products and promote environment preservation activities, fully considering the safety and reassurance of food.	○	20
	Promotion of purchasing green	Promoted purchasing green through good relationships with business partners	● The overall rate of purchasing green including office supplies in the entire company was 93%. The rate of the purchasing green for production parts and materials was 70%. Iseki will request and assist our business partners in developing the environmental management system for increasing the purchasing green rate. As in last year, Iseki obtained a green electricity certificate of solar energy of Sunshine Project promoted by Matsuyama city, which is now used for the power in the “local production for local consumption activities” corner.	○	22

Item	Mid-term and long-term environment targets		Accomplishments in FY2010	Evaluation	Relevant pages
Reinforcement of Environment Management Basis	Environmental management system	ISO14001 certificate updating / EA21 certificate updating at each manufacturing factory	● The headquarter offices and manufacturing factories promote the activities which utilize ISO14001 in most efficient ways. ● In order to promote the approaches that will realize a recycling-oriented and low carbon emission society, Iseki Group, including sales subsidiaries, implemented regular audits according to the annual plan. Our distributers promoted environment preservation activities by targeting the entire organization and all the employees, which is a major point of the “Eco Action 21 Guideline” 2009 edition and afterward.	○	7
	Entrenching of environmental accounting	Introduction of environmental accounting and up-grading	● We have introduced and deployed an environmental accounting system as an index of our environment preservation activities. We will continue to check if the environmental preservation effects are comparable for the investment in order to grasp the investment effect, prevent the global warming and promote environmental preservation activities which contribute to biodiversity.	○	9
	Environmental risk management	Strictly obey laws and regulations / Predict potential risks and strengthen the management system in order to prevent the actualization of such risks strictly	● Iseki cleared all self-directed control standards which are more stringent than the criteria of legal measurement requirements on top of the legal compliance rules. From now, we will take actions for environment preservation by management of various environmental data according to the provisions of Amended Energy-saving Law and Law Concerning the Promotion of Measures to Cope with Global Warming which specify the changes from plant basis to company basis, as well as strengthening of the management structure. ● Ise Taking the Great East Japan Earthquake as a lesson, Iseki implemented emergency training on a regular basis at each factory to be able to respond to emergency cases.	○	9

Item	Mid-term and long-term environment targets		Accomplishments in FY2010	Evaluation	Relevant pages
Collaborative Creation	Environmental education	Raising employees’ environmental consciousness / offering training to improve the environment preservation techniques	● We strived to improve the capability of internal auditors through training by external educational institutes while promoting environmental education to employee, being coupled with various education systems. ● We recommended employees to have the official qualifications needed to deal with environmental laws and regulations including Amended Waste Disposal Act. ● We trained and assigned new internal environment auditors in order to maintain the environmental management system properly.	○	23
	Environmental communication	Promotion of volunteer activities / enhancement of collaboration with community	● Our 4 local factories and offices strived to further increase the awareness about local production for local consumption activities by displaying messages, etc. At each factories, Iseki had accepted and arranged the factory tours for elementary school students and general public in order to communicate about the importance of agriculture and agricultural machinery. ● Our sales subsidiaries promoted and participated in events to let many people know about agriculture and agricultural machines.	○	24

Evaluation criteria ○: Achieved △: Nearly achieved ×: Not achieved

Second mid-term and long-term environmental targets

Environmental management

After the first plan (from 1997 to 2010), Iseki Group continues with the second mid-term and long-term plan (from 2011 to 2015) to reduce environmental stresses which includes the following targets.

1. Second mid-term and long-term targets for environmental preservation

Classification	Item to be implemented	Control index	Reference year	Mid-term and long-term targets				
				FY2011	FY2012	FY2013	FY2014	FY2015
Realization of a low-carbon emission society	Reduction of CO_2	CO_2 emission rate (t/hundred million yen)	Average result from FY2008 to FY2010 (compared to FY1997)	△2% (△9.4%)	△4% (△11.2%)	△6% (△13.1%)	△8% (△14.9%)	△10% (△16.8%)
		Total CO_2 emissions (t)	Average result from FY2008 to FY2010 (compared to FY1997)	△2% (△17.1%)	△4% (△18.8%)	△6% (△20.5%)	△8% (△22.2%)	△10% (△23.9%)
	Reduction of CO_2 in distribution	CO_2 emission rate (t/ton-km)	Average result from FY2008 to FY2010 (compared to FY2006)	△1% (△0.5%)	△2% (△1.5%)	△3% (△2.5%)	△4% (△3.5%)	△5% (△4.5%)
Formation of a recycling-oriented society	Reduction of wastes	Rate of final volume of wastes (t/hundred million yen)	Average result from FY2008 to FY2010 (compared to FY1997)	△5% (△81.1%)	△10% (△82.1%)	△15% (△83.1%)	△20% (△84.1%)	△25% (△85.1%)
		Final volume of wastes (t)	Average result from FY2008 to FY2010 (compared to FY1997)	△5% (△82.8%)	△10% (△83.7%)	△15% (△84.6%)	△20% (△85.5%)	△25% (△86.4%)
	Water resource saving	Rate of usage of water (t/hundred million yen)	Average result from FY2008 to FY2010 (compared to FY1997)	△14% (△39.9%)	△28% (△49.7%)	△42% (△59.5%)	△56% (△69.2%)	△70% (△79.0%)
		Total usage of water (t)	Average result from FY2008 to FY2010 (compared to FY1997)	△14% (△44.8%)	△28% (△53.8%)	△42% (△62.7%)	△56% (△71.7%)	△70% (△80.7%)
Restraint of toxic chemical substances	Reduction of substance subject to PRTR Law	Usage rate (t/hundred million yen)	Average result from FY2008 to FY2010 (compared to FY2001)	△4% (△16.2%)	△8% (△19.7%)	△12% (△23.2%)	△16% (△26.7%)	△20% (△30.2%)
		Total usage (t)	Average result from FY2008 to FY2010 (ompared to FY2001)	△4% (△6.7%)	△8% (△10.6%)	△12% (△14.5%)	△16% (△18.4%)	△20% (△22.3%)
Restraint of manufacturing resource	Reduction of total material input	Input rate (t/hundred million yen)	Average result from FY2008 to FY2010 (compared to FY2005)	△1% (△8.3%)	△2% (△9.2%)	△3% (△10.1%)	△4% (△11.1%)	△5% (△12.0%)
		Total input (t)	Average result from FY2008 to FY2010 (compared to FY2005)	△1% (△17.3%)	△2% (△18.2%)	△3% (△19.0%)	△4% (△19.8%)	△5% (△20.7%)

2. Mid-term and long-term targets of business activities

Classification	Item to be implemented	Mid-term and long-term targets
Environmental management	(1) Quality improvement of environmental management system	● To define targets of environmental approaches and enhance internal audits and external reviews to improve the quality of the environmental management system.
	(2) Implementation of environmental education	● To recognize the importance of environmental education activities to improve environmental preservation activities.
	(3) Environmental communication and contribution to society	● To communicate with local residents through volunteer activities and natural environment improvement activities like tree planting, aiming to become a company which can contribute to the society.
Product development and service	(1) Development of products in consideration of biodiversity	● To develop products in consideration of biodiversity and realization of a recycling-oriented society and protect agriculture and natural environment in Japan.
	(2) Development of products to reduce environmental stresses	● To improve the durability, fuel and working efficiencies in the use of products.
	(3) Prohibition, reduction and restraint of use of toxic substances included in procured parts	● To improve and expand the supply chain and strongly promote prohibition, reduction and restraint of use of toxic substances included in procured parts.
	(4) Establishment and expansion of product assessments and execution of LCA evaluation	● To establish and expand product assessments and execution of LCA evaluation, enhance and improve earth-conscious and environmentally-responsible design from manufacturing to recycling and disposal.
	(5) Provision of information contributing to environmentalpreservation	● To provide environmental information on safety, recycling and disposal on product manuals.

Environmental accounting

Environmental management

Iseki Group employed the environmental accounting system from 2004 and deals with the use of aggregated costs used for the environment preservation activities for our management decisions relevant to environment preservation, as well as for a guideline of valuation of business through information disclosures to the public. The implementation of environmental accounting started in FY2004.

The amount invested for environment preservation costs (pollution prevention, environment preservation, and resource recycling costs) in 2010 was 292,500,000 JPY. The total amount of expenses was 544,000,000 JPY that we made through some investments into diesel engine emission gas and maintenance and improvement of the environmental management system.

Environment preservation cost

Category		Major programs	Amount of investment (in mil. JPY)	Expenses (in mil. JPY)
(1)	Cost spent in the business area		115.4	77.0
Breakdown	① Pollution prevention cost	Sewage treatment	48.7	17.5
Breakdown	② Environment preservation cost	Inverter installation	66.7	1.5
Breakdown	③ Resource recycling cost	Waste treatment	0.0	58.0
(2)	Cost required at previous and later stages	Green purchasing	0.0	122.7
(3)	Control activity cost	Maintenance of environment management system	0.0	41.2
(4)	Research and development cost	Corresponding to emission gas regulation	177.1	299.5
(5)	Community activity cost	Cleaning activity in the district	0.0	3.6
(6)	Environment recovery cost		0.0	0.0
Total			292 5	544 0

Scope of aggregation : (Iseki-Matsuyama, Iseki-Kumamoto, Iseki-Niigata, and Iseki-Houei MFG. Co., Ltd. and tobe office)
Period of data : April, 2010 to March, 2011

Economic effects resulted from the environment preservation measures

Details of effect		Amount (in mil. JPY)
(1)	Reduction of volume of various resources to be consumed	8.6
(2)	Reduction of environmental stress substances	48.2
(3)	Reduction of energy consumption	4.2
Total		61.0

The economic effect resulting from the environment preservation measures, such as recycling of wastes, streamlining of painting methods, use of energy-saving machines, use of processing machines equipped with inverters and appropriate control and operation of boilers, was 61,000,000 JPY. The physical effect was the reduction of CO_2 emission by 3,487 tons, reduction of water consumption by 34,561 tons, and recycling of wastes by 4,015 tons.

Environmental risk management

Environmental management

[Actions to comply with Antipollution Laws]

〈Establishment of self-directed standards and management in the company〉

4 local factories of Iseki Group set up and applied more stringent self-directed control standards than those described in the environment-related laws and regulations. As shown in the table below, we have cleared all the self-directed control standards in FY2010, making progress toward reduction of environmental pollution.

Measured item		Units	Iseki-Matsuyama & Iseki-Houei MFG. Co., Ltd.			Iseki-Kumamoto MFG. Co., Ltd.			Iseki-Niigata MFG. Co., Ltd.		
			Regulatory standards	Self-directed control standards	Result in 2010	Regulatory standards	Self-directed control standards	Result in 2010	Regulatory standards	Self-directed control standards	Result in 2010
Water quality	Volume of suspended substances (SS)	mg/L	600 (Note 1)	80	5	200	40	7 9	90	45	4
Water quality	Volume of biochemical oxygen demand (BOD)	mg/L	600 (Note 2)	80	2	25	8	Less than 1	60	30	8 9
Water quality	n-hexane (Mineral oil)	ppm	5	4	Less than 1	5.0	2.4	Less than 0.5	5.0	5.0	Not detected
Air	Particulate	g/m3N	0.30	0.18	Less than 0.01	0.30	0.08	Less than 0.01	0.20	0.10	0.01
Air	Nitrogen oxide (NOx)	ppm	180	91	78	250	200	82	230	50	15
Air	Particulate (electric casting melt furnace)	g/m3N	0.10	0.06	0.01	–	–	–	–	–	–

–: shows standard N/A or not applicable machines
(Note 1)(Note 2): With the expanded sewerage works implemented by Matsuyama city in FY2008 and afterward, the regulated value of water discharge to the synthetic effluent treatment outfall has been raised from 160mg/L to 600mg/L, however, the self-directed control standard of Iseki-Matsuyama MFG. Co., Ltd. and Iseki-Houei MFG. Co., Ltd is 80mg/L , because industrial effluent is mixed. The measured values are as shown above.

〈Frequency of environment data measurement〉

Machine, equipment, and place	Measured item	Measuring frequency		
		Iseki-Matsuyama & Iseki-Houei MFG. Co., Ltd.	Iseki-Kumamoto MFG. Co., Ltd.	Iseki-Niigata MFG. Co., Ltd.
Industrial effluent	Water quality	Once a year	Once a year	Once a month
Casting melt furnace	Air	Twice a year	–	–
Boiler	Air	Twice a year	Twice a year	Once a year
Lot boarder line	Noise	Twice a year	Once a year	Once a year
Lot boarder line	Vibration	Twice a year	–	–

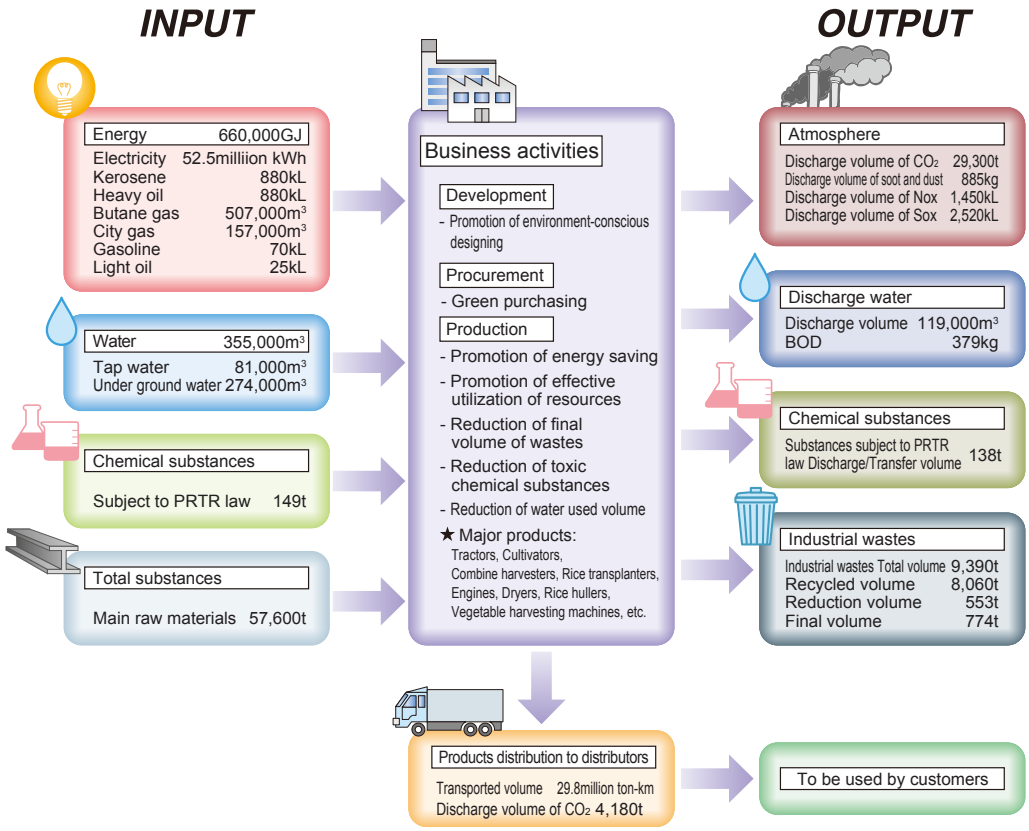
–: shows standard N/A or not applicable machines

Business activities and environmental stresses

Environmental performance

[Eco balance]

Iseki Group uses materials such as fuel, electricity, water and other raw materials in the process of production, and discharges chemical substances and industrial wastes subject to laws related to carbon dioxide (CO_2) and PRTR law.
We always check the volume of materials used for production (INPUT) and discharged volume of chemical substances and industrial wastes (OUTPUT) as an index in reducing discharge of such chemical substances and industrial wastes for realizing business activities with less environmental stresses. The following shows figures of undertakings for 2010.



[ECO-efficiency]

It is important to improve eco-efficiency to realize a sustainable society. Eco-efficiency is presented as a value calculated by subtracting environmental stresses from the value of a product or service. On the other hand, we defined “eco-efficiency = production volume ÷ environmental stresses” and evaluated eco-efficiency with the eco-efficiency index and environmental stress integrated index. This means eco-efficiency increases as the production volume increases or environmental stresses decrease.
In FY2009 and 2010, the production volume of four factories has significantly decreased compared to the reference year FY2005. We have been continuously taking actions to reduce environmental stresses and achieved improved eco-efficiency of 107 and environmental stress integrated index of 80 in FY2010 compared to the index of 100 in the reference year FY2005.

[Eco-efficiency index: the higher the more efficient]

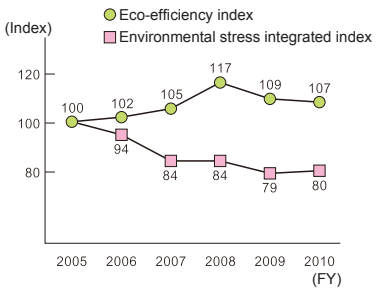
Our eco-efficiency is presented as a value calculated by subtracting the environmental stress integrated index of our four factories from the production volume of the four factories. The environmental stresses have three items integrated; volume of CO_2 emissions, volumes of non-methane VOC emissions and displacement and volume of landfilled wastes.

[Environmental stress integrated index: the lower the index is, the smaller environmental stresses are]

Based on the Panel Method of Professor Nagata at Waseda University, we adopted the average value of the integration coefficients for Japan presented by LCA experts, environmental experts and enterprise experts for integration of environmental stresses, with the value of CO_2 defined as 1.

Item	Integration coefficient	2005		2010	
		Actual value (t)	Integrated value	Actual value (t)	Integrated value
Volume of CO_2 emissions	1	34,600	34,600	29,250	29,250
Volume of non-methane VOC emissions and displacement	239	155	37,000	136	32,600
Volume of landfilled wastes	3	2,750	8,260	774	2,320
Total of environmental stress integrated values		–	79,900	–	64,100
Eco-efficiency		–	88.0	–	94.3
Environmental stress integrated index (2005 as reference year)		–	100	–	80
Eco-efficiency index (2005 as reference year)		–	100	–	107

Environmental stress integration and eco-efficiency



Trend of eco-efficient index and environmental stress integrated index (100 in FY2005)

Environmental risk management [Examples of air pollution prevention and control]

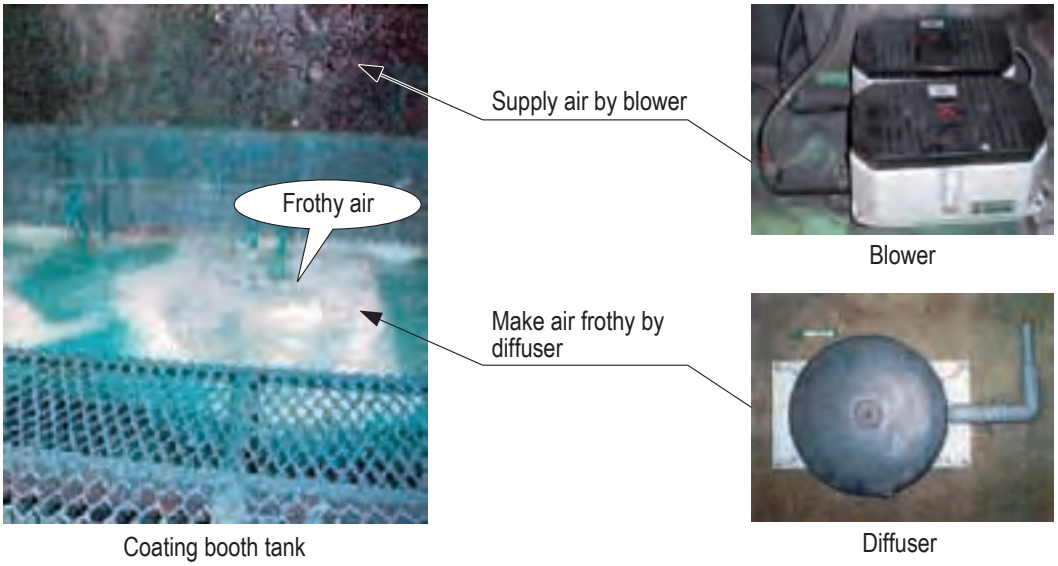
Environmental performance

[Control to inhibit the emission of GHG (Global Greenhouse Gas)]

〈 Approach to reduction of CO_2 emissions by detoxifying discarded paint 〉

Iseki-Matsuyama MFG. Co., Ltd. applies coating to prevent rust and beautify products. Paint which did not adhere to parts in the paint spraying process is washed away with water and collected so as not to be discharged to the air. The collected mixture is then separated into water and paint with chemicals and the paint is disposed by landfillng as industrial wastes. By adopting a bio booth system*1 in this improvement activity, the volume of the discarded paint was reduced. This led to a reduction in number of times of maintenance of the paint spraying area (coating booth). As a result of improvement, the volume of CO_2 emissions was reduced by 11,075kg-CO_2 with the reduction of the discarded paint of 5,700kg in a year. Maintenance time was reduced by 240 hours. In the future, we will deploy the bio booth system in other coating facilities as well to aim at zero emission, where the final disposal volume of industrial wastes is 1% or less of total emission. To summarize the contents of improvement, air is sent to the coating booth tank by blower and made frothy by diffuser to be spread since oxygen is required for activities of microorganisms.

*1 Bio booth system: Treatment to reduce the volume of paint which did not adhere to parts (discarded paint) by microorganisms.



〈 Approach to reduction of fuel use by introduction of electric forklifts〉

As an effort to reduce environmental stresses, Iseki-Kumamoto MFG. Co., Ltd. replaced engine-type forklifts to convey parts with electric forklifts to reduce fuel use, which resulted in reduction of the volume of CO_2 emissions and fuel cost.

[Reduction effect in FY2010]

- Reduction of fuel use:
  Approximately 6.2KL/year
- Reduction of CO_2 volume:
  Approximately 15t-CO_2/year
- Reduction of fuel cost:
  Approximately 750,000 yen/year

Environmental risk management [Examples of air pollution prevention and control]

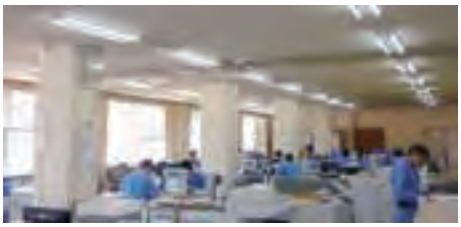
Environmental performance

[Control to inhibit the emission of GHG (Global Greenhouse Gas)]

〈 Approach to reduction of electrical usage by replacing the lights of office with LED 〉

In Iseki-Niigata MFG. Co., Ltd., the volume of CO_2 emissions can be reduced by approximately 55% and the duration of lights can be extended by 4 times or more under the condition that the lights are lit 10 hours a day by replacing the 40W straight tube fluorescent lamps of the first floor of the office with LED fluorescent lamps. It was necessary to replace the lights with 102 LED fluorescent lamps and implement construction work to replace the stabilizers with converters. In the future, we will promote replacement in places other than the first floor of the office in consideration of cost-effectiveness.

- Reduction of electrical usage : 6,854kWh/year
- Reduction of electricity charges: 103,000 yen/year
- Reduction of CO_2 volume: 3,215kg-CO_2/year



First floor of office

4 advantages of LED lights

Long life

The designed lifetime of LED is 40,000 hours. The service life is 10 years or more even if the light is used 10 hours or more a day.

Energy saving

The bulb and downlight types are approximately 80% more energy-saving than incandescent lamps, the fluorescent lamp type approximately 50% more than fluorescent and the storehouse lamps, floodlight and street light types approximately 70% more than mercury lamps.

Mercury free

Unlike fluorescent and mercury lamps, LED lights do not use mercury at all, reducing environmental stresses.
The material is polycarbonate and splinterless.

UV free

LED lights hardly emit the insect-attracting wavelength of 350 to 370mm.

〈 Approach to reduction of electrical usage by replacing downlights in welfare building with LED lights 〉

With production stoppage of halogen bulb downlights used for lights of the canteen of welfare facility and shortage of halogen bulbs to be used, Tobe Office replaced the lights with LED to reduce electrical usage and volume of CO_2 emissions. In the future, we will promote introduction of LED lights to the design management building where the lights are lit for a long time.

- Reduction of electrical usage: 8,430kWh/year
- Reduction of electricity charges: 85,000yen/year
- Reduction of CO_2 volume: 3,180kg-CO_2/year

(estimation by 4h/day × operating days of year)

Full view of welfare facility

Ceiling of welfare facility

Downlight type

Promotion of energy saving [Preventing global warming]

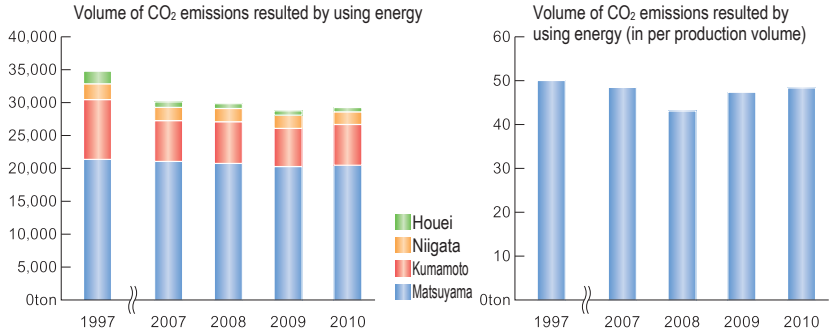
Environmental performance

[Reduction of energy use in the factories]

4 factories of Iseki Group have been striving to reduce consumption of energy such as electricity and fuel required for production activities in 4 factories, by realizing the efficient operation of all machines and facilities, and by replacing existing machines and equipment with energy-saving type ones.
In FY2010, the total volume of CO_2 emissions due to energy usage was reduced by 15% compared to the reference year FY1997 and the volume of CO_2 for the total production volume was reduced by 3%, falling short of the mid-term targets. The reason for this was because the production output in FY2010 was greatly reduced than the reference year 1997. We will continuously strive to reduce the volume of CO_2 emissions.

Volume of CO_2 emissions resulted by using energy at 4 factories

	1997	2007	2008	2009	2010
Total volume (t-CO_2)	34,500	30,000	29,800	28,600	29,300
Per production volume(t-CO_2 / 100million yen)	50.0	48.3	43.3	47.2	48.4



[Reduction of energy use in product distribution]

We grasp the environmental stresses in distribution of Iseki products and parts and take actions to reduce them. In FY2006, we became a specified shipper because the CO_2 emissions slightly exceeded 30 million ton-km. After that, the emissions have been varying under 30 million ton-km.
In FY2007 and afterward, we have promoted modal shift and contributed to reduction of the total volume of CO_2 emissions.

Volume of CO_2 emissions in product distribution

	2006	2007	2008	2009	2010
10,000ton-km	3,040	2,730	2,990	2,920	2,980
Total volume (t-CO_2)	4,370	4,200	4,740	3,920	4,180
Rate (t-CO_2/10,000ton-km)	1.44	1.54	1.59	1.34	1.40
Modal shift rate	–	35%	31%	46%	43%

Note) Modal shift rate = (railway ton-km + sea freight ton-km) ÷ total ton-km

Promotion of energy saving [Reducing total material input]

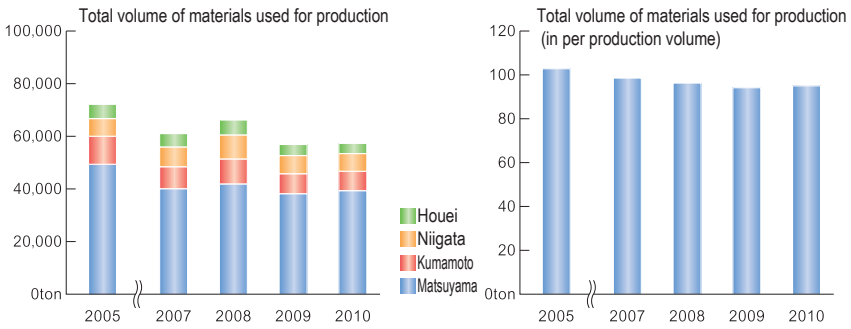
Environmental performance

[Reduction of total volume of materials used for production]

4 factories of Iseki Group use the aggregated amount of total materials such as raw materials, production supporting materials, purchasing parts, etc. as an index to reduce the total volume of materials used to promote energy saving activities. The total volume of materials used for production in FY2010 was reduced by 20% from FY2005 and the volume of materials used for production for the total production volume was reduced by 7%. We will continuously strive to reduce the total volume of materials used for production.

Materials used volume

	2005	2007	2008	2009	2010
Total volume (ton)	72,100	61,100	66,000	56,900	57,600
Per production volume(ton / 100million yen)	103	98.4	96.1	93.9	95.2



Eco factory

Promotion of energy saving [Preserving water resources]

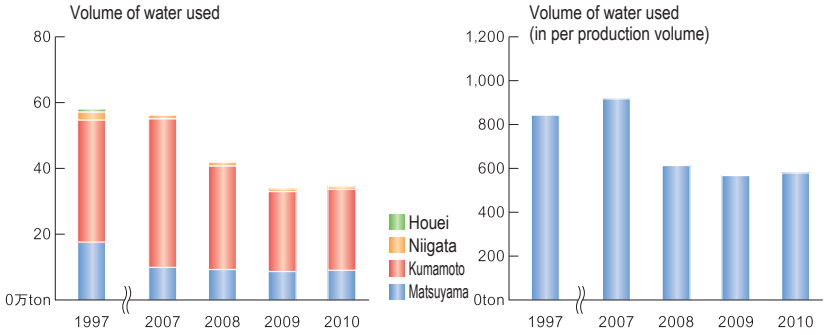
Environmental performance

[Reduction of volume of water used]

According to the installation of the water circulation facility and implementation of countermeasures for water leakage, 4 factories of Iseki Group strived to reduce the volume of water used. Because of the effect of mid-term investment for facilities, the total volume of water used in FY2010 was reduced by 39% and volume of water used per production volume was reduced by 30% compared to the reference year 1997, achieving the mid-term targets.
Water shortage is becoming more serious issue than food shortage or exhaustion of fossil fuels with the population growth expected in the future. We will continuously strive to reduce water usage.

Volume of water used

	1997	2007	2008	2009	2010
Total volume (Unit: 10,000ton)	58.2	56.7	42.4	34.2	35.5
Per production volume (ton/100 million yen)	844	913	617	565	588



Eco factory

Promotion of energy saving [Optimal control and reduction of use of chemical substances]

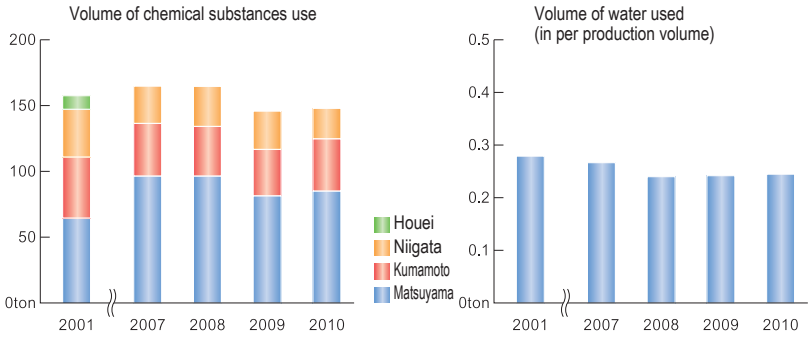
Environmental performance

[Optimal control of chemical substances]

Four factories of Iseki Group strived to reduce chemical substances subjected to PRTR law by replacing paint with one which contains less toxic chemical substances stipulated and introducing regeneration facilities of paint thinner. The total volume of use in FY2010 was reduced by 6% and the used volume per production volume was reduced by 12% compared to the reference year 2001, falling short of the mid-term targets. We will continuously strive to perform appropriate control and management of such chemical substance and reduce the volume of use and of VOC (Volatile Organic Compounds).

Volume of use of substances controlled by PRTR law

	2001	2007	2008	2009	2010
Total volume (ton)	157	164	165	145	148
Per production volume (ton/100 million yen)	0.277	0.265	0.240	0.240	0.245



[Volume of use of substances controlled by PRTR law]

(unit : ton)

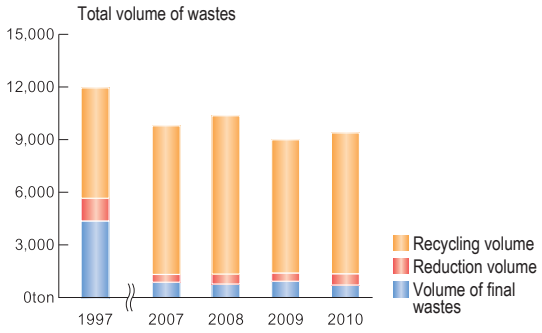
	2001					2009					2010				
	Matsuyama	Kumamoto	Niigata	Houei	Total	Matsuyama	Kumamoto	Niigata	Houei	Total	Matsuyama	Kumamoto	Niigata	Houei	Total
Xylene	20.1	26.7	13.9	6.50	67.2	31.7	18.8	13.0	0.10	63.6	32.7	19.6	9.77	0.15	62.2
Toluene	13.4	4.71	8.54	1.00	27.7	17.9	2.63	4.59	0.18	25.3	20.5	2.18	4.76	0.14	27.6
Ethyl benzene	16.8	14.7	9.09	0.00	40.6	30.4	11.2	10.5	0.02	52.2	31.3	14.1	8.29	0.05	53.7
Water-soluble zinc compound	0.00	1.21	0.00	3.20	4.41	0.26	2.34	0.20	0.00	2.80	0.28	2.48	0.20	0.00	2.96
Dichloromethane	13.0	0.00	2.42	0.00	15.4	0.04	0.00	0.01	0.00	0.05	0.09	0.00	0.00	0.00	0.09
1, 3, 5-Trimethylbenzen	0.75	0.00	1.41	0.00	2.16	1.00	0.26	0.25	0.00	1.51	1.10	0.59	0.24	0.00	1.93
Total	64.1	47.3	35.4	10.7	157	81.3	35.2	28.6	0.30	145	85.9	39.0	23.3	0.34	148

Reduction of industrial wastes [3R of production processes]

Environmental performance

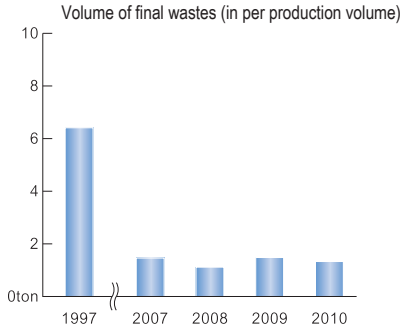
[Reduction of wastes]

To build a recycling-oriented society, four factories of Iseki Group have been contributing to an effective usage of their wastes by promoting restriction of wastes, reuse and recycling.
The total volume of wastes in FY2010 was reduced by 21% compared to the reference year 1997 and by 10% per production volume compared to the reference year 1997. The final volume of wastes disposed such as by landfilling was reduced by 82% and by 80% per production volume compared to the reference year, achieving the mid-term targets.



Volume of wastes

	1997	2007	2008	2009	2010
Total volume of wastes (t)	11,900	9,770	10,400	8,990	9,390
Per production volume (t/100 million yen)	17.3	15.7	15.1	14.8	15.5
Volume of final wastes (t)	4,390	904	754	859	774
Per production volume (t/100 million yen)	6.36	1.46	1.10	1.42	1.28
Reduction volume(t)	1,260	455	571	483	553
Recycled volume of wastes(t)	6,270	8,410	9,050	7,650	8,060
Rate of final wastes (%)	37	9.3	7.3	9.6	8.2
Rate of recycling (%)	53	86	87	85	86

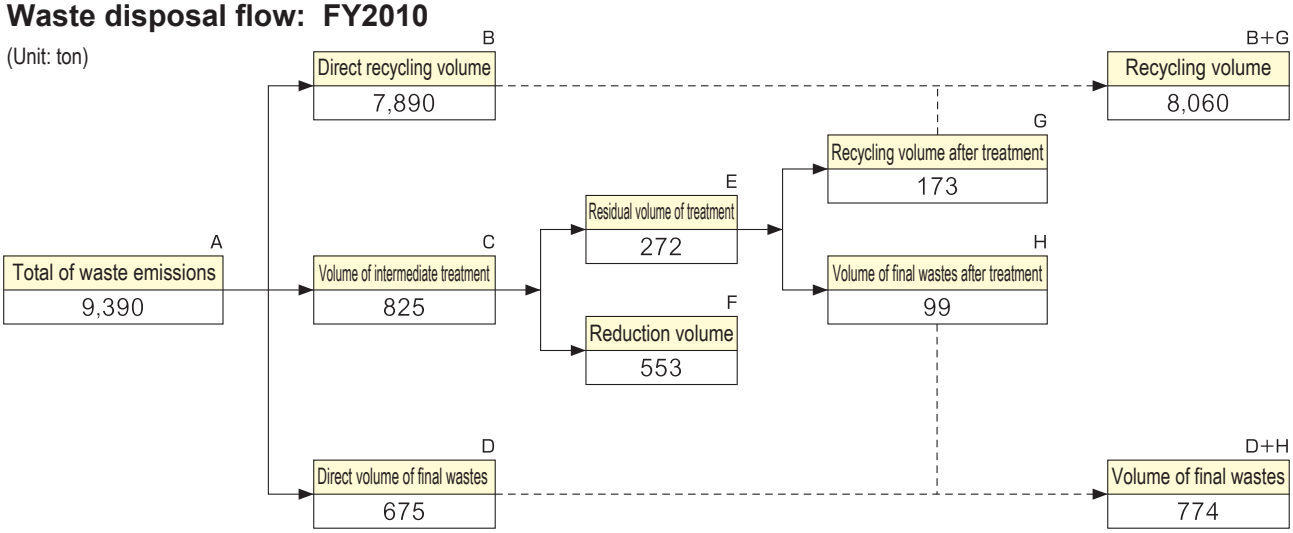


Waste disposal flow

The waste disposal flow in FY2010 is as shown below. The rate of final wastes was 8.2% and the rate of recycled volume was 86% which were greatly improved from the reference year 1997. The major factors are thorough segregation of wastes, new selection of waste disposal service for recycling and improvement that made much of the molding sand to be recycled as a base course material.
In accordance with the operations of the four factories, we will continue to promote restraint, recycling and thorough segregation of wastes to reduce the volume of final wastes and promote recycling, aiming at zero emission.

Waste disposal flow: FY2010

(Unit: ton)



Note1) The reduction volume, the recycling volume after treatment and the volume of final wastes after treatment associated with the intermediate treatment are the results of investigation to the subcontractor of waste disposal.
Note2) Rate of the volume of final wastes ＝volume of final wastes (D+H) ÷ total of waste emissions (A)
Note3) Rate of the recycling volume ＝recycling volume (B+G) ÷ total of waste emissions (A)

Approach to preserve biodiversity

Environmental performance

[Biodiversity guideline of Iseki Group]

<Basic concept of the approach>
Iseki Group is aware that we receive the benefits of blessings of nature (an ecosystem service) created by biodiversity. Regarding the approach to preserve biodiversity as an important challenge in environmental management, we promote business activities and provide products and services in consideration of biodiversity with those involved such as local communities so that we can continuously preserve and take advantage of biodiversity and contribute to realizing a sustainable society co-existing with nature.

Concrete approaches

1. We will preserve biodiversity by considering impacts on nature at every stage of business activities and reducing harmful stresses emitted from all the factories and offices to the environment.
2. We will preserve biodiversity by providing safe and easy-to-use agricultural machines and facilities in consideration of preservation of biodiversity and supporting sustainable agriculture in Japan and conservation of the natural environment such as farmland and rivers.
3. We will promote technological development learning from natural providence and traditions, and develop and spread technologies which contribute to preserve biodiversity.
4. To make the approach to preservation of biodiversity more effective, we will promote communication with those involved, such as stake holders and local communities, so that we can share the awareness of biodiversity and cooperate with each other.
5. We will provide education of natural environment to employees and raise awareness of society-wide preservation of biodiversity.

〈 Approach to reduction of fertilizer usage 〉

We provide easy-to-use, high-performance and energy-saving agricultural machines and facilities which contribute to reducing environmental stresses as well as agricultural machines which reduce and properly control the usage of “fertilizer” which is harmful to living organisms.

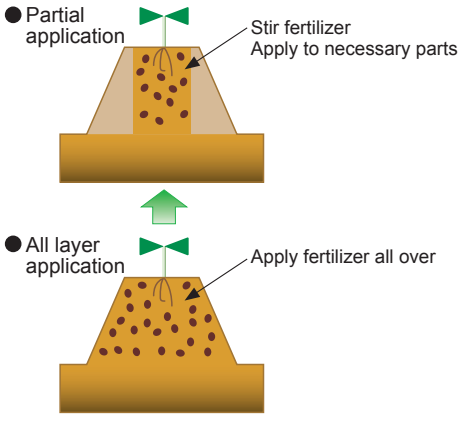
Eco-Unemaze-kun

“Eco-Unemaze-kun” cuts the management costs by reducing the usage of “fertilizer”. We added an “entire mulching type” to the traditional “3-ridge type”, “2-ridge type” and “flat-and-high-ridge type” which have been developed with National Agriculture and Food Research Organization (abbreviated as NARO) and sold on the market.

●Environmental preservation by reduction of the usage of “fertilizer”
Traditionally, “fertilizer” was applied to the entire field before cultivation and ridge making and seedling transplanting followed after that. The problems were that the growth of roots of crop plants was limited in scope and fertilizer in ditches and all layers of ridges remained unused and flowed out with discharged water, resulting in environmental pollution.
The entire mulching type of “Eco-Unemaze-kun” eliminates this waste. By applying necessary amount of fertilizer to necessary locations, it can reduce fertilizer approximately by 30% compared to all layer application.

●Improvement of efficiency of work
Fertilizer application, simultaneous ridge making, mulching and covering with soil are done in one process, which reduces working processes and improve efficiency. It also leads to reduction of fuel consumption of the machine.

Eco-Unemaze-kun



Application method of fertilizer

Approach to design for environment

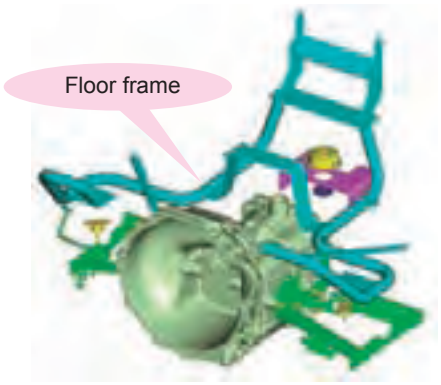
Environmental performance

〈Approach of small TQ tractor〉

Reduction of vibration and noise

The basic structure of the floor of our conventional small tractors was rigid type and only the part on which feet were put was mounted with simple rubber.
With our new TQ tractors, the right and left floor frames were combined together, rubber mount was employed on the whole floor and the 2-cylinder engine was changed to a 3-cylinder engine. Thus, the vibration of floor was greatly reduced to approximately 40% of the conventional models.
By changing the 2-cylinder engine to a 3-cylinder engine to increase engine displacement, securing the necessary horsepower at the same time, we decreased the rated speed of engine and reduced the noise around the ears of driver by 3% compared to the conventional models.

TQ15



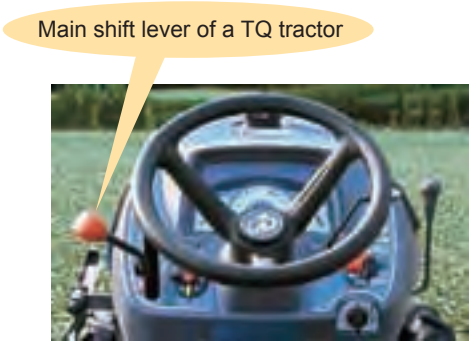
Floor structure

Reduction of number of parts

This time, we newly adopted the “super full turn “ mechanism for the TQ tractors. This is a mechanism in which the front wheels rotate approximately two times faster than usual, enabling turn in a small radius.
As introducing “super full turn”, we reviewed the structure adopted for our high-end model and changed it to “switching of motors embedded in front axle＋wet type clutch”.
With the review of the structure, we reduced the number of parts associated with our high-end model and the cost, making possible to implement the “super full turn” mechanism to these small tractors as well.

Improvement of operability and visibility

The main shift lever of the conventional models was situated on the fader beside the seat and had a direct shift structure. The operability and visibility were not good.
Our new TQ tractors have a main direct shift lever situated beside the handle which can be seen during cultivation work. Compared to the traditional model, it is easier to operate and operability and visibility improved significantly.
These are human and eco-friendly tractors which are safe and easy to use not only for the users of the conventional tractor but also for new farmers, elderly and female users, making them feel less tired even after a long time of work.



Approach to design for environment

Environmental performance

〈 Approach of 4-row type HFC combine harvester 〉

Improvement of threshing ability and operating efficiency

The new model combine harvester HFC433 has the following three new mechanisms to improve threshing ability.

(1) **Twin flapper** : A mechanism to control the direction and volume of the air of fanning mill selection according to the processed volume.

(2) **Sieve scraper** : A mechanism to clean dust off the surface of sieve by mobile cleaning device.

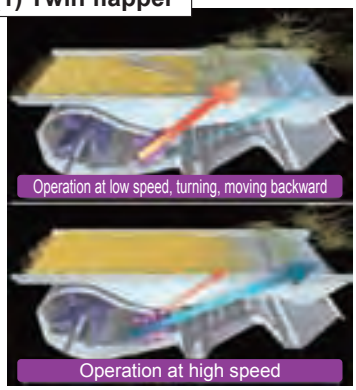
(3) **Stuck paddy collection room** : The threshing cylinder is extended backward. A mechanism to collect stuck paddy at the rear of the joint which leads to the dust exhaust cylinder.

With the above mechanisms, operation efficiency was doubled compared to the basic model HV220 and improved by 16% compared to the conventional 4-row combine harvester HFG433.

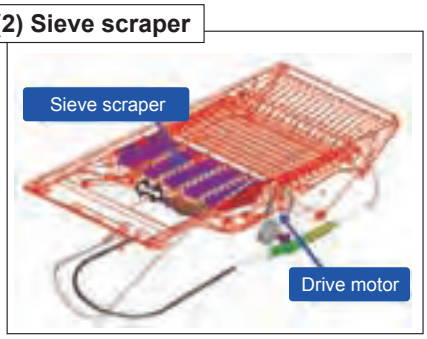
HFC433

new mechanisms contributing to threshing ability

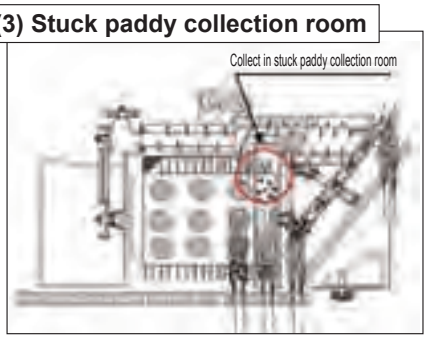
(1) Twin flapper



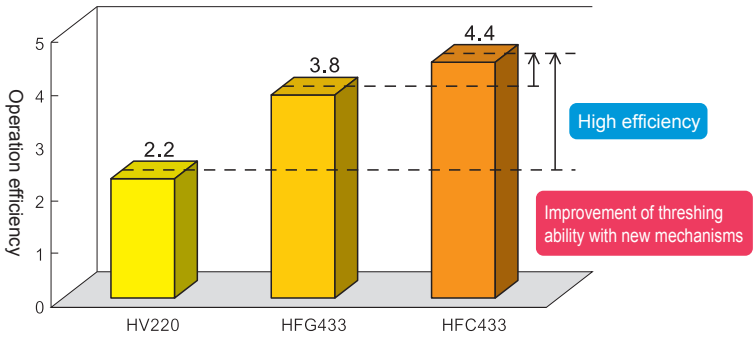
(2) Sieve scraper



(3) Stuck paddy collection room



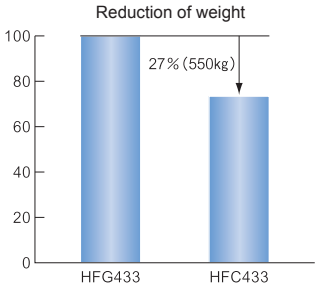
Operation efficiency Operation efficiency [= Number of reaped rows (row) x operation speed (m/s)]



Reduction of weight

The weight of the machine was reduced by 27% (550kg) compared to the conventional model HFG433.

To improve the operation environment, we adopted a portal structure for reaping section which has a reaping visor adjustable to 3 stages; visor folded, visor opened and upper cover opened. This blocks rice hulls and dirt which fly and come when rice straws are pulled up and prevent dust from flying to improve the environment of operators.



Presented in index with the value of HFG433 as 100.

Approach to design for environment

Environmental performance

〈Approach of rice transplanting vehicle〉

Electronically-controlled DFI engine mounted

We installed an electronically-controlled DFI engine to rice transplanting vehicle PZ63 and 73 (model HG).
The number of rotations of engine is strictly controlled by the electronically-controlled engine. The range of lever operation read by HST lever sensor is calculated by engine ECU (computer) and the number of rotations of engine is controlled in each output mode.

PZ63

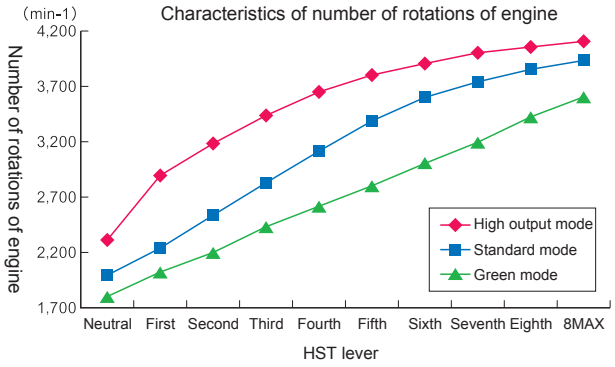
What is DFI (Digital fuel injection)?

This means to apply pressure to gasoline by pump to inject it by nozzle (injector), while a carburetor makes air-fuel mixture of gasoline and air in traditional principle of vaporizer. This method is widely applied to utility vehicles because of improved output and torque as well as improved fuel efficiency. Since amount of fuel supply is adjustable electrically, it is always possible to obtain the optimal combustion state.

FD501D-DFI Engine displacement : 437cc Maximum output : 19PS
Fuel supply : injection method

Operation mode

We adopted a method in which output characteristics of 3 modes (green mode, standard mode, high output mode) can be selected according to operation conditions. By selecting a mode according to the operation conditions, it is possible to carry out energy-saving and environment-friendly operation with high fuel efficiency. By selecting the green mode (fuel-efficient mode), fuel consumption in light load operation can be reduced by approximately 15%.



<Green mode>
A mode recommended when high efficiency and high load are not required. Even with traditional HST operation, the number of rotations is kept low, allowing energy-saving operation in restraint of wasteful fuel consumption.

<Standard mode>
A mode optimal for general operation. As with the conventional model, the vehicle speed accelerates as you turn down the HST lever and the number of rotations of engine increases proportionally.

<High output mode>
A mode optimal for high load operation. The number of rotations of engine is increased from relatively low speed, allowing the machine to forcefully start and run even in agricultural fields with high running stress such as wet paddy.

Switch of 3 engine modes

Support to promote environment-friendly agriculture

Environmental performance

〈Approach of compact type coin-operated rice milling machines〉

The number of general consumers who are attached to safety and taste of food and health is increasing. We have developed compact type coin-operated rice milling machines (CPM3 series) which can be installed from suburbs to cities where many general consumers live.

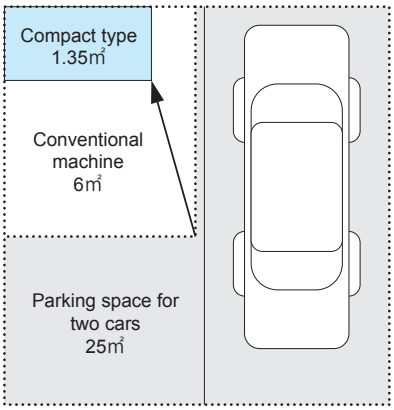
●Approach to reduction of space

The installation space is 1/5 of that of the conventional house-typed coin-operated rice milling machines (6㎡→1.35㎡), which allows rice to be milled in a space as large as a vending machine.
The results of evaluation with lifecycle assessment (LCA) (compared to our standard) showed that lifetime CO_2 emissions were reduced by 15% compared to the conventional house-type machines.

●Approach to reduction of environmental stresses

We reduced the noise during rice milling to 70dB so that the machines can be also installed indoors. For the light of the sign, we adopted an LED light to reduce the power consumption by 51% compared to the conventional fluorescent lamp. We also added a no-wash rice function to the rice milling mode so that the volume of water used to rinse rice can be reduced.

Compact type coin-operated rice milling machine



〈Approach to reduction of usage of lead-containing paint〉

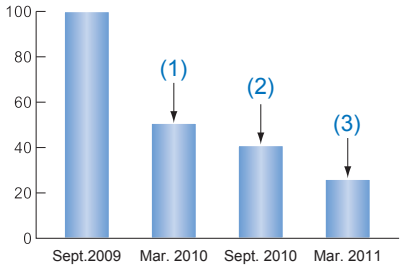
At present, use of toxic metals is regulated by environment-related regulations such as Soil Pollution Control Act and Waste Disposal and Public Cleansing Law which promote prohibition and reduction of their use. Since some of the agricultural machines manufactured by Iseki also use lead-containing paint, we are striving to use lead-free paint.
We started to take approaches in 2009 and reduced the use of lead by 75% at the end of FY2010 compared to FY2009 by changing the color to that of lead-free paint at the time of model change of products. (The usage rate of lead-containing paint at the end of March, 2011 is 2% of all paint.)

Major reduction

(1) The red color of OEM tractors for overseas was changed to the same type of color of lead-free paint (applied to all the models of MF brand tractors).
(2) Orange tractors were discontinued because of integration of OEM brands for overseas (AGCO brand tractors were discontinued).
(3) The color was changed to that of lead-free paint at the time of model change of products (for new model tractor TQ series).

TQ tractor remodeled with lead-free paint (neo blue)

Usage rate of lead-containing paint with index of Sept.2009 defined as 100



Support to promote environment-friendly agriculture

Environmental performance

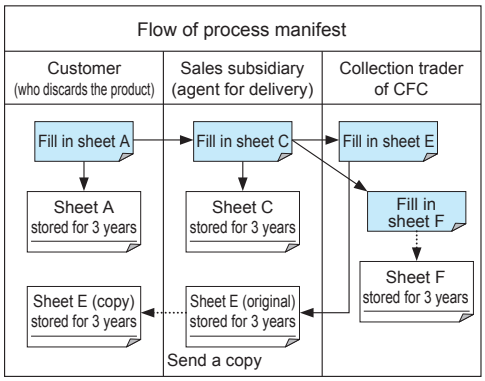
〈 Approach to collection of CFC of farm stockers 〉

In the operation of “recycling system for discarded products” implemented and promoted by sales subsidiaries of Iseki Group from FY2007, we added CFC used for farm stockers (refrigerators for agricultural products) to the subjects of collection from February, 2011.
Thus, on behalf of customers who have a farm stocker to be renewed 20 years after the release, it is now possible to entrust recycle services to collect and dispose CFC at the time of disposal of products at a flat rate nationwide. By taking approaches to collection of CFC, not only the manufacturer but also customers, sales subsidiaries and recycle services will carry out their duty and take part in environment maintenance activities.

●Management of collection of CFC in writing

In 2007, “Amended CFC Recovery and Destruction Law” came into effect which stipulated us to issue documents (process control sheets) when we request collection and disposal of Class-1 Specified Equipment such as air conditioning and refrigeration equipment for business use.
CFC is proved to be duly processed from pickup to final disposal with documents issued and referred to by each of the customer, the sales subsidiary and the collection trader.

Farm stocker



〈 Approach to improvement of efficiency of vegetable transplanter 〉

In the vegetable farming market where safety/reassurance of food and local production for local consumption are attracting attention, we developed semiautomatic vegetable transplanter PVH1 which supports low-cost agriculture by saving energy to meet requests for “increased efficiency” and “ease of use”.

●Realization of higher efficiency

By changing the seedling feeding section from the intermittent rotation type to continuous rotation type, the planting ability was increased by 20 to 30%(*1) compared to the conventional models.

(*1) PVH1-60JGX : Increased by 20% compared to PVH1-60J
PVH1-90JLLGX : Increased by 20% compared to PVH1-90JL
PVH1-70LGX : Increased by 30% compared to PVH1-80

Semiautomatic vegetable transplanter
PVH1-60JGX
PVH1-90JLLGX

●Reduction of operation noise

By changing the seedling feeding section from the intermittent rotation type to continuous rotation type, the operation noise of the seedling feeding table and opening and closing noise of the hopper were reduced. The vibration of the machine was also reduced, allowing more comfortable operation.

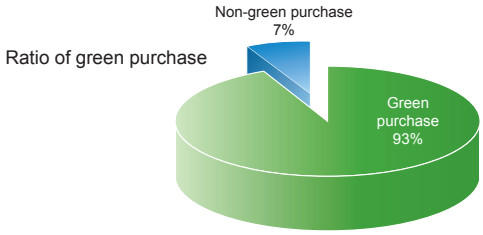
Semiautomatic vegetable transplanter
PVH1-70LGX

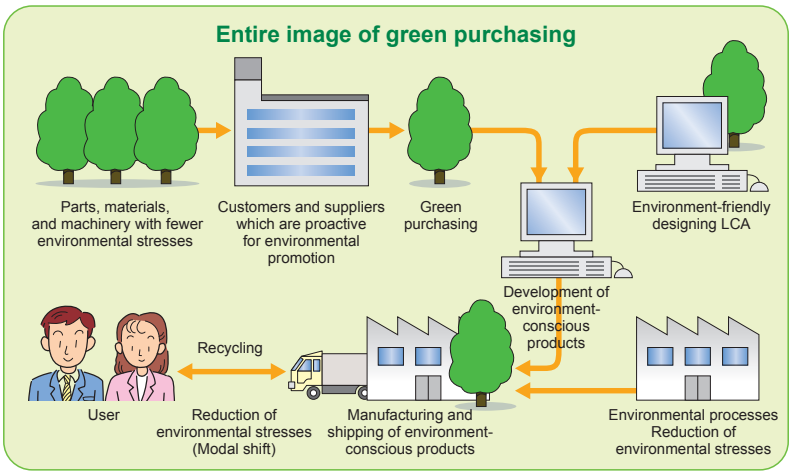
Green purchase

Environmental performance

〈 Green purchase of office suppliers 〉

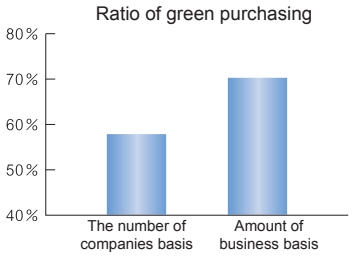
We have established the green standards for paper and 14 other categories of commercialized commodities such as office suppliers and electric and electronic devices. In order to follow these standards, Iseki promoted the purchase of products with environmental labels such as eco marks and GPN standard products on a priority basis. The total amount of green purchase of entire Iseki Group was 93% of the total purchase in FY2010.





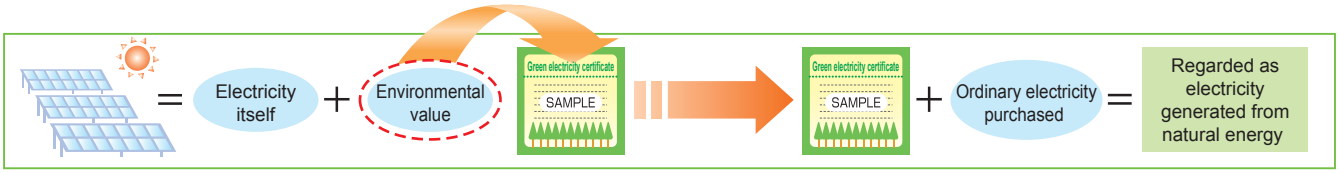
〈 Level of environmental awareness of our suppliers and vendors 〉

The Green Purchase ratios of our suppliers and vendors based on the environmental management system (EMS), evaluated and acknowledged by ISO14001, Eco Action 21 (EA-21), others (KES, Eco Stage etc.) and green purchase standard of ISEKI & CO., LTD., were 58% of the total number of vendors and suppliers and the amount of purchase from these suppliers and vendors was 70% of our total purchase. Iseki will strive to encourage such suppliers and vendors to implement the EMS in the future so as to improve the supply chain by increasing the ratio of our Green Purchasing.



〈 Purchase of green electricity certificate 〉

Green electricity certificate… Electrical power generated from sunlight has an environmental value because it does not emit CO_2 when generated, which is environment-friendly. This certificate allows this environmental value to be traded. By purchasing a green electricity certificate in addition to ordinary electricity, Iseki is regarded as a user of electricity generated from natural energy.

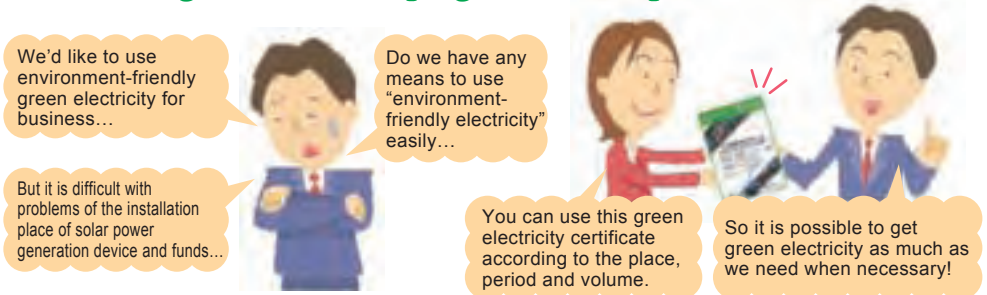


Outline of this business…

In this model business, the green electricity certificate is issued by Matsuyama city. They sell the environmental value of solar power given from the public facility etc. (for captive use) to companies in the form of the certificate. Matsuyama city uses the earnings to employ solar systems for further expanding the business.

◀ Mascot of "Matsuyama Sunshine Project"

Eco-friendly business deployment is required in the future

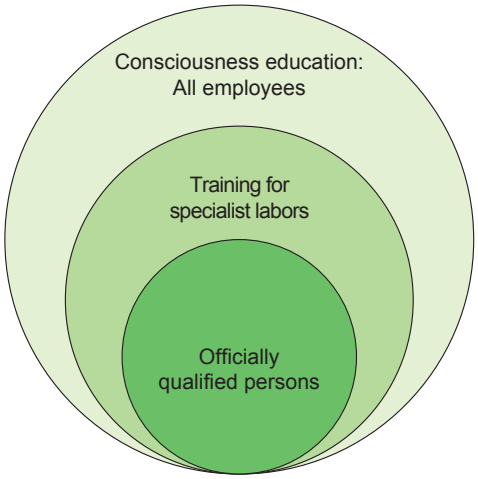


Education and training for environment / Qualified persons

Collaborative creation together with our stakeholders

〈Approach to systematic environmental education and training〉

The principle to develop the recycle-oriented society and realize the Low- Carbon emission society is to promote the reduction of environmental stresses and thus it is necessary for each employee to enhance their own consciousness and competency of the environment.
For this, taking the Great East Japan Earthquake as a lesson, Iseki Group aims to improve environmental consciousness by providing all employees with the education and training called environmental program in three major steps according to the level of environmental stresses: subjective training for every employee, training for special jobs and education for employees who engage with jobs which require certain official qualification.



System for education and training for environment / Qualified persons

〈Strict compliance to environment-related laws and legal qualification and promotion of licenses related to environment〉

As we acknowledge that conformance to environment-related laws and legislation is the basis of environmental preservation activities, we therefore encourage all of our employees to observe safety and hygiene rules strictly.
At the same time, we offer our employees the opportunities to participate in seminars held by external institutes for managers in charge of pollution supervisor, chief electrical engineer, and boiler engineers to have the official qualifications needed for the promotion of developing recycling-oriented society. The number of employees qualified for official environmental qualification as of the end of March, 2011 is shown in the following table.

Name of qualification		Number of employees
Pollution supervisor	Air	16
	Water quality	15
	Noise	16
	Vibration	17
Energy control engineer		8
Energy controller		3
Chief electrical engineer		13
Boiler engineer		89
High pressure gas production safety supervisor		12
Industrial waste treatment facility engineer		4
Specific chemical substances chief operator		19
Hazardous material handler		173

The number of officially qualified persons for environment

〈Environmental education〉

Iseki Group promotes the environmental preservation not only in their workshops but also in their home and community such as energy saving in their home and eco-driving.
In addition to education about prevention of global warming, we disseminate the contents of the target adopted in the 10th Conference of the Parties to the Convention on Biological Diversity (COP10) last year in daily operations and raise the awareness of the environment through the environmental training of new employees and issuance of Iseki Group newsletters.

Lecture for environment

〈Training for internal environment auditors〉

Iseki promotes appropriate improvements and continuous activities through the environmental education based on the environmental management system and yearly regular audits by external certification institutes, as well as internal system application audits.
Iseki Group trains internal auditors in a planned and regular way to enhance internal environment audit. We have been offering our employees in-house education and unified and systematic training and education by third-party institutions as we think it is important to up-grade the skills and capabilities of our employee in order to spiral up in PDCA of the environmental management system.

〈Environmental training〉

It is required to complete training and educations to a certain level for any employees assigned to particular jobs such as casting, heat treatment and painting before performing actual jobs. This training and education is offered on a regular basis in accordance with various standards describing the impacts of such particular jobs to the environment, daily management procedures, and emergency procedures with due considerations of respective regulatory changes.

Environmental communication

Collaborative creation together with our stakeholders

To exercise our responsibility as a company having a very close contact with the community, Iseki supports various activities in each community. Contribution to the development of community is a priority mission of Iseki group.
Iseki is promoting the "FOOD ACTION NIPPON" project and the activities for the improvement of the self-sufficiency ratio through local production for local consumption activities in each region of Iseki Group companies.

〈 Acceptance of plant tour 〉

As a part of communication with people from outside, Iseki-Matsuyama MFG Co., Ltd., at the location of birthplace of Iseki, and other Iseki's manufacturing factories, including Iseki-Kumamoto, Iseki-Niigata and Iseki-Houei, accept elementary school students, local residents, and people from other countries for plant tours.



〈 Product exhibition corner 〉

In the Exhibition Pavilion in Matsuyama, the base of advertisement and public relations of Iseki Group, there are exhibitions including major products like tractors, the "SANAE-chan Farm" for home gardening, "FOOD ACTION NIPPON" and local production for local consumption corners.

Website of Iseki http://www.iseki.co.jp



〈 Execution of "clean activity" 〉

As part of "Contribution to society and community", which Iseki Group presents as our environmental policies for each district, our employees participate in cleaning activities in their district.


Iseki-Matsuyama MFG. Co., Ltd.


Iseki-Kumamoto MFG. Co., Ltd.


Iseki-Niigata MFG. Co., Ltd.


Iseki-Houei MFG. Co., Ltd.


Tobe Office

Environmental communication

Collaborative creation together with our stakeholders

As a company engaged in agriculture, ISEKI & CO., LTD. participated in “Farmers & Kids Festa” which was held as a bridge between agriculture and children to let them, bearers of the future, experience agriculture and foods. The total number of visitors reached as much as 58,000 in two days and many of them visited Iseki booth as well. The annual “SANAE Nationwide Children’s Picture Contest” marked its 15th anniversary in 2010 and the awarding ceremony was held in the event.

Farmers & Kids Festa 2010

< For children in the future >

Outline

- ●Date :November 20 (Sat.) to 21 (Sun), 2010
- ●Place :Hibiya Park
- ●Organizer :Executive Committee for the 1st Food and Agriculture Festa
- ●Co-organizers:Japan Agricultural Corporations Association
  Japan Professional Agriculture Total Support Organization
  Japan Brand Agricultural Corporation

Awarding ceremony of SANAE Picture Contest

Events in the Iseki booth

- ●Home gardening with ERENA
- ●Riding a combine harvester
- ●Taking a commemorative photo with a tractor
- ●Demonstration of rice milling machine
- ●Awarding ceremony of SANAE Picture Contest etc.

Taking a commemorative photo with award winners

Operating ERENA

Taking a commemorative photo in front of a tractor

Riding on a combine harvester

Besides the above events, the exhibition corners of tractors, combine harvesters and rice transplanters and the demonstration ride corner of a large-sized tractor attracted a lot of children. We believe they remained with them as a wonderful memory which “leads to the future”. We also believe we could play a part in “a bridge between children and agriculture” which was the purpose of this event. In addition, we could let general public other than farmers know about “ISEKI & CO., LTD.” in the wake of this event.

Environmental communication

Collaborative creation together with our stakeholders

〈 Tree-planting ceremony for ”town development with forests” 〉

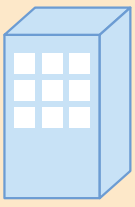
We enjoy many essential benefits of forests in the world which cover 1/3 of the land of the earth. They absorb CO_2 in the air, supply oxygen, control soil erosion, contribute to preventing floods and cultivate water-bearing layers and serve as places of biodiversity. At present, 12 companies in Ehime Prefecture including ISEKI & CO., LTD. join in with “town development with forests” promoted by Iyo Bank and each company implements tree-planting. On November 13 (Sat.) 2010, approximately 240 people (including both children and adults) participated in tree-planting in the area of Iseki-Matsuyama MFG. Co., Ltd. They planted 24 kinds of trees such as Quercus myrsinifolia , Quercus glauca and Castanopsis sieboldii, 1,000 in total, in Miyawaki method*1 under the instruction of Professor Ninomiya of Faculty of Agriculture, Ehime University.

∗1 Miyawaki method
A tree-planting method which Akira Miyawaki, a professor emeritus at Yokohama National University, presides over. The basic idea is to plant “a real tree” which is suitable to the land. He insists that because the conventional individual measures against generation source to prevent global warming have arisen from a negative mindset and are not enough, it is necessary to take a future-oriented positive measure, that is, to plant trees. Until now, he has instructed tree-planting in “Miyawaki method” in more than 1,600 places both in Japan and abroad, wearing a straw hat and boots.

Members who participated in tree-planting at Iseki-Matsuyama MFG. Co., Ltd.

〈 Highest of environmental rating of Development Bank of Japan (DBJ) 5 times in a row 〉

In March, 2011, ISEKI & CO., LTD. earned the highest rating (environmental consciousness notably progressive) of “DBJ Environmental Rating” of Development Bank of Japan (hereafter called “DBJ”) 5 times in a row.
“DBJ Environmental Rating” evaluates index of sustainable management of companies by a screening system developed by DBJ. It is the first loan menu in the world which offers advantageous interest rate according to the point. Evaluation and rating are made based on not only information such as environmental reports but also on the results of questions to which companies reply by themselves. The questions include approximately 120 items concerning the general management, business activities, performance of companies and vary according to categories of business. More than 10 sheets for different categories are prepared. ISEKI & CO., LTD. is evaluated with a sheet for “Manufacturer (material, manufacturing and assembly)”.
In screening, marks are awarded out of 250 based on replies from companies. Major companies can fulfill the loan condition and obtain ”DBJ Environmental Rating” if they have gained 100 or more. Companies which scored 140 to 159 are ranked as B and companies which scored 160 or more are ranked as A (notably progressive), to which advantageous interest rates are offered respectively.



Company

Environmental screening

Approximately 120 items, out of 250

Rating	Major company	Small and medium-sized company	Interest rate
A	160 or more		Special interest rate II
B	140 to 159		Special interest rate I
C	100 to 139	80 to 139	General interest rate
D (Engagement)	80 to 99	50 to 79	General interest rate
Without rating	Less than 80	Less than 50	Not passe

Certificate

Iseki-Matsuyama MFG. Co., Ltd.

Environmental data

〈 Company profile 〉

Address	700 Umaki-cho, Matsuyama-shi, Ehime prefecture
Number of employees	630 (As of March 31, 2011)
Area	151,000m^2
Major products	Tractors, Medium and Small combine harvesters, Dryers, Engines

〈 Basic principles on environment 〉

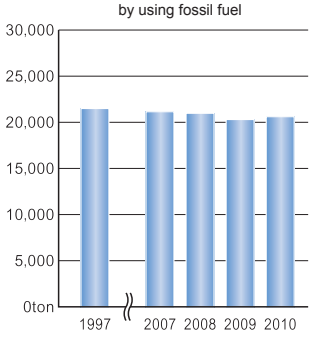
The Seto Inland Sea, a beautiful landscape which is incomparable in the world. Sea dotted with green islands under a blue clear sky. Iseki-Matsuyama MFG. Co., Ltd. determines action guidelines and promotes any business activities which harmonize with the environment for preserving this blessed natural environment.

〈 Action policy 〉

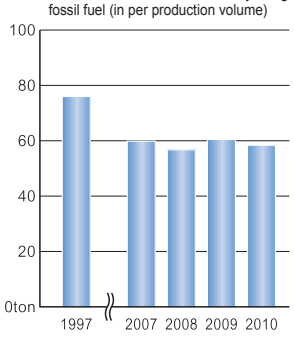
1. Continuous improvement
   Continuously improve the environmental management system and environmental performance by observing the environmental management system based on ISO14001.
2. Observation of laws and regulations concerning environment
   Observe environment-related legislation, local government regulations, and agreements concluded by the company.
3. Mitigation of negative impacts on environment and prevention of contamination
   1) Minimize volume of CO_2 generated as a result of production and electric energy use
   2) Segregate wastes for collection and recycling
   3) Control chemical substance optimally
   4) Product design to consider the environment
   These purposes and targets shall be set up within a technically and economically possible range, reviewed on a regular basis in order to deploy them into business activities, and aim to improve the company profit on top of the reduction of environmental stresses and the prevention of pollution.
4. Contribution to community
   1) Save water and use water efficiently as a corporate citizen in order to contribute to the severe water issues that our community has.
   2) Proactive participation in the environmental preservation activities of community.
5. Familiarization of information to all employees
   Familiarize all the information of environmental policy to all employees in the company and deal with the environment issues together through a publicity using company news and environmental education.
6. Disclosure of environmental policies
   Disclose the environmental policies upon request of outsiders.

〈 Environmental data 〉

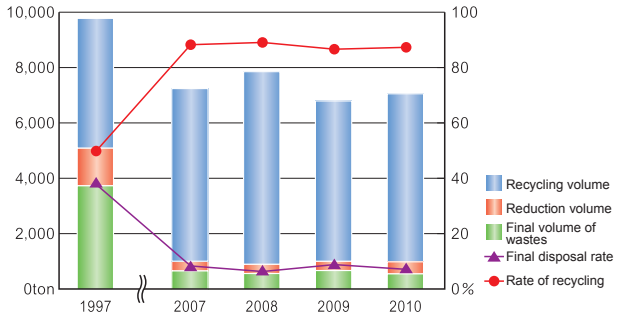
Volume of CO_2 emissions resulted by using fossil fuel



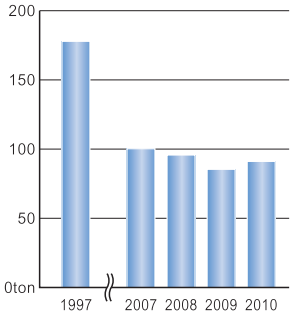
Volume of CO_2 emissions resulted by using fossil fuel (in per production volume)



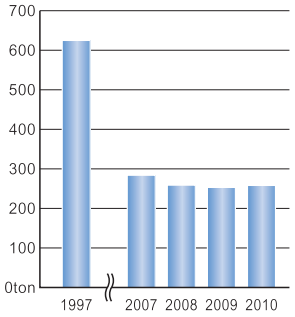
Wastes and recycling



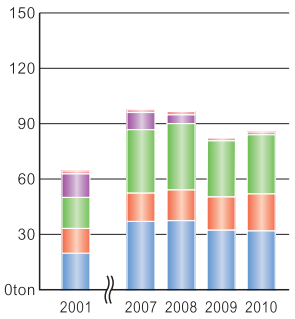
(Unit : 1,000ton) Volume of water use



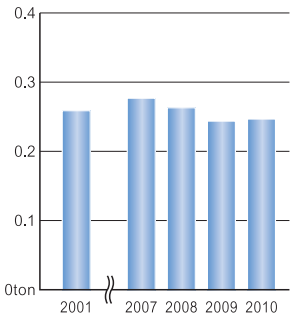
Volume of water use (in per production volume)

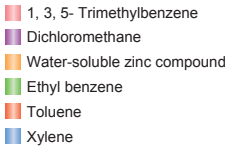


Volume of chemical substances use



Volume of chemical substances use (in per production volume)





Iseki-Kumamoto MFG. Co., Ltd.

Environmental data

〈 Company profile 〉

Address	1400 Yasunaga, Mashiki-cho, Kamimashiki-gun, Kumamoto prefecture
Number of employees	297 (As of March 31, 2011)
Area	217,000m^2
Major products	Large combine harvesters, Multi-crop combine harvesters, Carrot harvesters

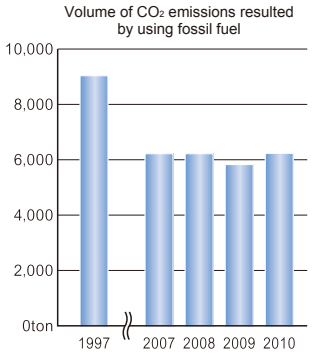
〈 Basic principles on environment 〉

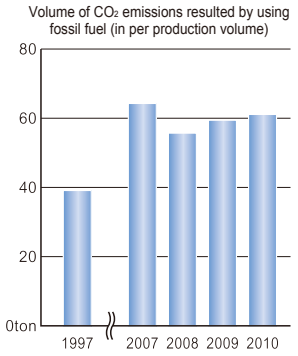
Iseki-Kumamoto MFG. Co., Ltd. calls the importance of environment into account through a supply of agricultural machines; therefore, we strive to preserve these wonderful environmental resources, such as nature, a rural paradise, and water, in Kumamoto.

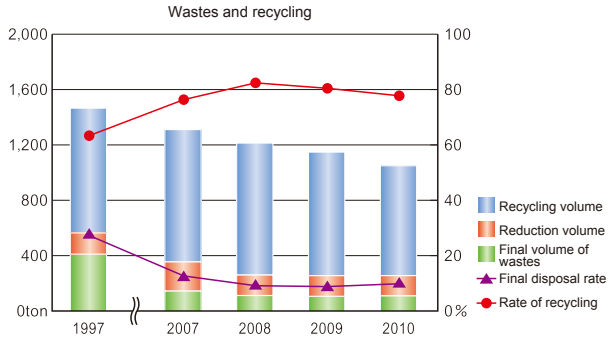
〈 Action policy 〉

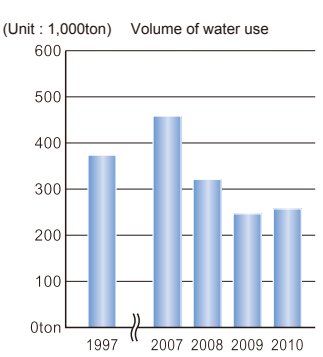
1. Continuous improvement
   Continuously improve the environmental management system and environmental performance by observing the environmental management system based on ISO14001.
2. Observation of laws and regulations concerning environment
   Observe environment-related legislation, local government regulations, and agreements concluded by the company.
3. Mitigation of negative impacts on environment and prevention of contamination
   1) Promote energy-saving and resource-saving
   2) Promote reduction of industrial wastes
   3) Accelerate recycling approach
      Set up targets to the extent technically and economically possible to carry out. Execute and review the targets on a regular basis so as to mitigate negative impacts and prevent contamination.
4. Contribution to community
   Open company welfare facilities up to public and contribute to the environmental preservation through cleanup activities.
5. Familiarization of information to all employees
   Familiarize all the information of environmental policy to all employees and constituent members in the company and deal with the environment issues together through a publicity using company news and environmental education.
6. Disclosure of environmental policies
   Disclose the environmental policies upon request of outsiders.

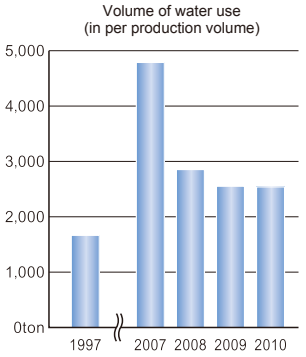
〈 Environmental data 〉

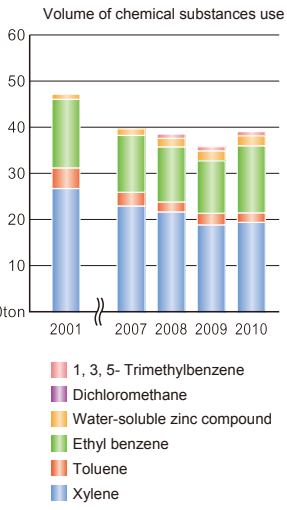


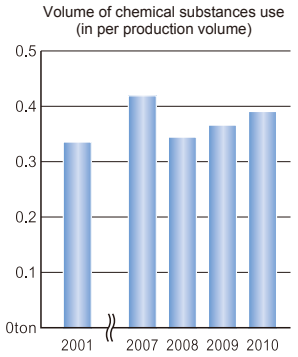












Iseki-Niigata MFG. Co., Ltd.

Environmental data

〈 Company profile 〉

Address	3-12-23 Nishiohsaki, Sanjo-shi, Niigata prefecture
Number of employees	274 (As of March 31, 2011)
Area	29,000m^2
Major products	Rice transplanters, Rice hullers, Vegetable transplanters, Binders

〈 Basic principles on environment 〉

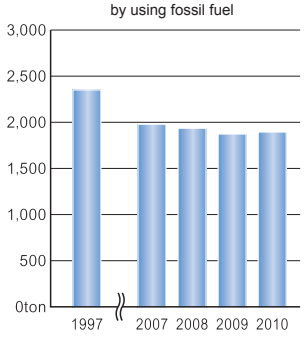
Clear water from Igarashi river, a feeder stream of great Shinano river, natural environment surrounded by mountains of Echigo, and the Echigo Plain known as an area which boasts of abundant rice production. Iseki promotes this business in harmony with the natural environment through a supply of agricultural machines to preserve this blessed environment.

〈 Action policy 〉

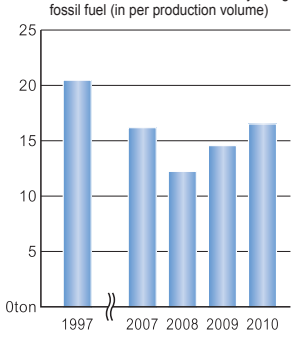
1. Continuous improvement
   Continuously improve the environmental management system and environmental performance by observing the environmental management system based on ISO14001.
2. Continuous improvement and prevention of contamination
   Set up the environmental target and practice to achieve the target while reviewing the target on a regular basis in order to improve the environmental performance continuously.
   1) Improve energy use
   2) Improve use of natural resources
   3) Reduce waste and recycle
   4) Control chemical substances properly
3. Familiarization of information to all employees and contribution to community
   Distribute publicity to every employee through corporate environmental activities and education, as well as having close communication with people in the community, in order to promote environment preservation activities.
   We will disclose our environmental policies to the public upon request so that the people in the community will know our policies.

〈 Environmental data 〉

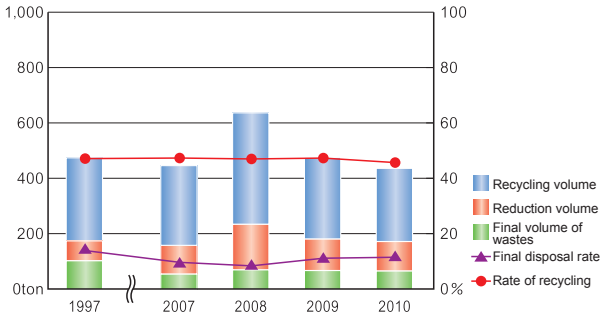
Volume of CO_2 emissions resulted by using fossil fuel



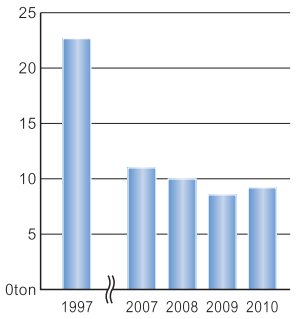
Volume of CO_2 emissions resulted by using fossil fuel (in per production volume)



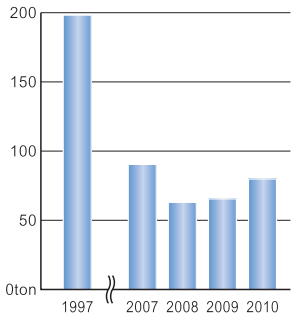
Wastes and recycling



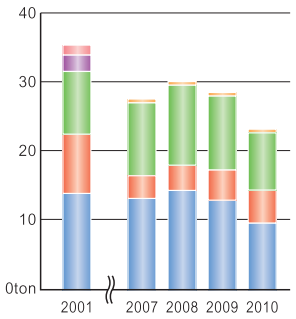
(Unit : 1,000ton) Volume of water use



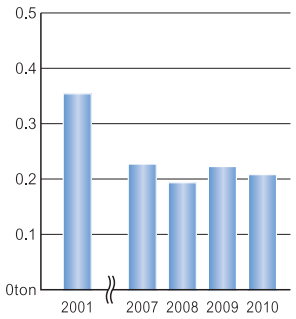
Volume of water use (in per production volume)

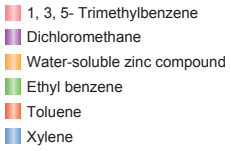


Volume of chemical substances use



Volume of chemical substances use (in per production volume)





Iseki-Houei MFG. Co., Ltd.

Environmental data

〈 Company profile 〉

Address	878-1 Umaki-cho, Matsuyama-shi, Ehime prefecture
Number of employees	277 (As of March 31, 2011)
Area	8,959m²
Major products	Cultivators, Tillers, Walk behind mower, System rice cooker

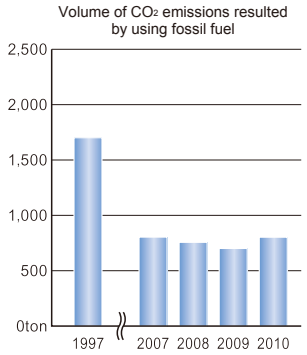
〈 Basic principles on environment 〉

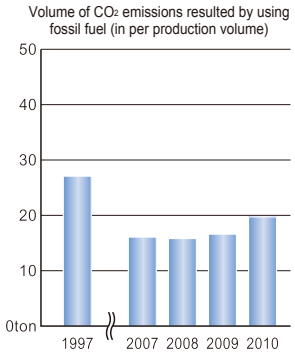
The community adjacent to the Seto Inland Sea National Park. Iseki-Housei MFG. Co., Ltd. promotes the preservation of this blessed community and the creation of a people-friendly working environment for our employees.

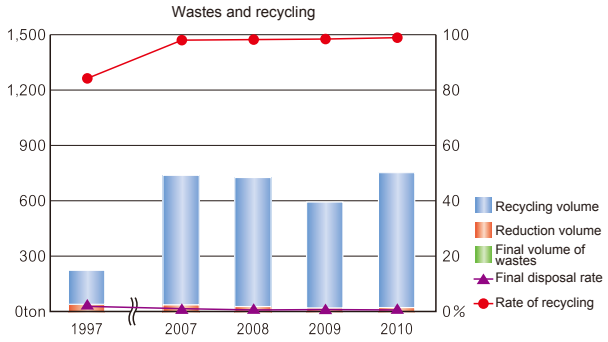
〈 Action policy 〉

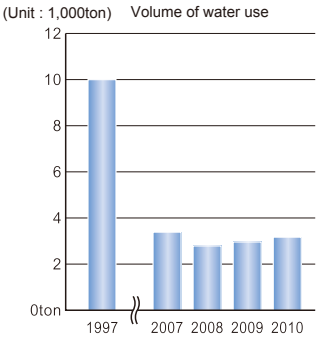
1. Continuous improvement
   Continuously improve the environmental management system and environmental performance by observing the environmental management system based on ISO14001.
2. Observation of laws and regulations concerning environment
   Observe environment-related legislation, local government regulations, and agreements concluded by the company.
3. Mitigation of negative impacts on environment and prevention of contamination
   1) Reduce volume of electric energy use
   2) Reduce volume of water use
   3) Segregate wastes for collection and recycle
4. Contribution to community
   1) Save water and use water efficiently as a corporate citizen in order to contribute to the severe water issues that our community has.
   2) Participate in the environmental preservation activities in our community proactively
5. Familiarization of information to all employees
   Familiarize all the information of environmental policy to all employees and constituent members in the company and deal with the environment issues together through a publicity using company news and environmental education.

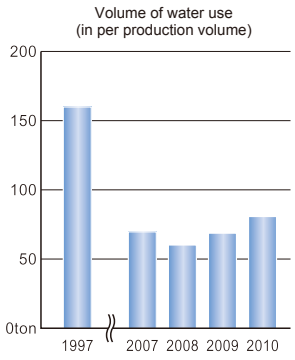
〈 Environmental data 〉











Achieving Harmony between Human Beings and the Earth

ISEKI

Contact about this report

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