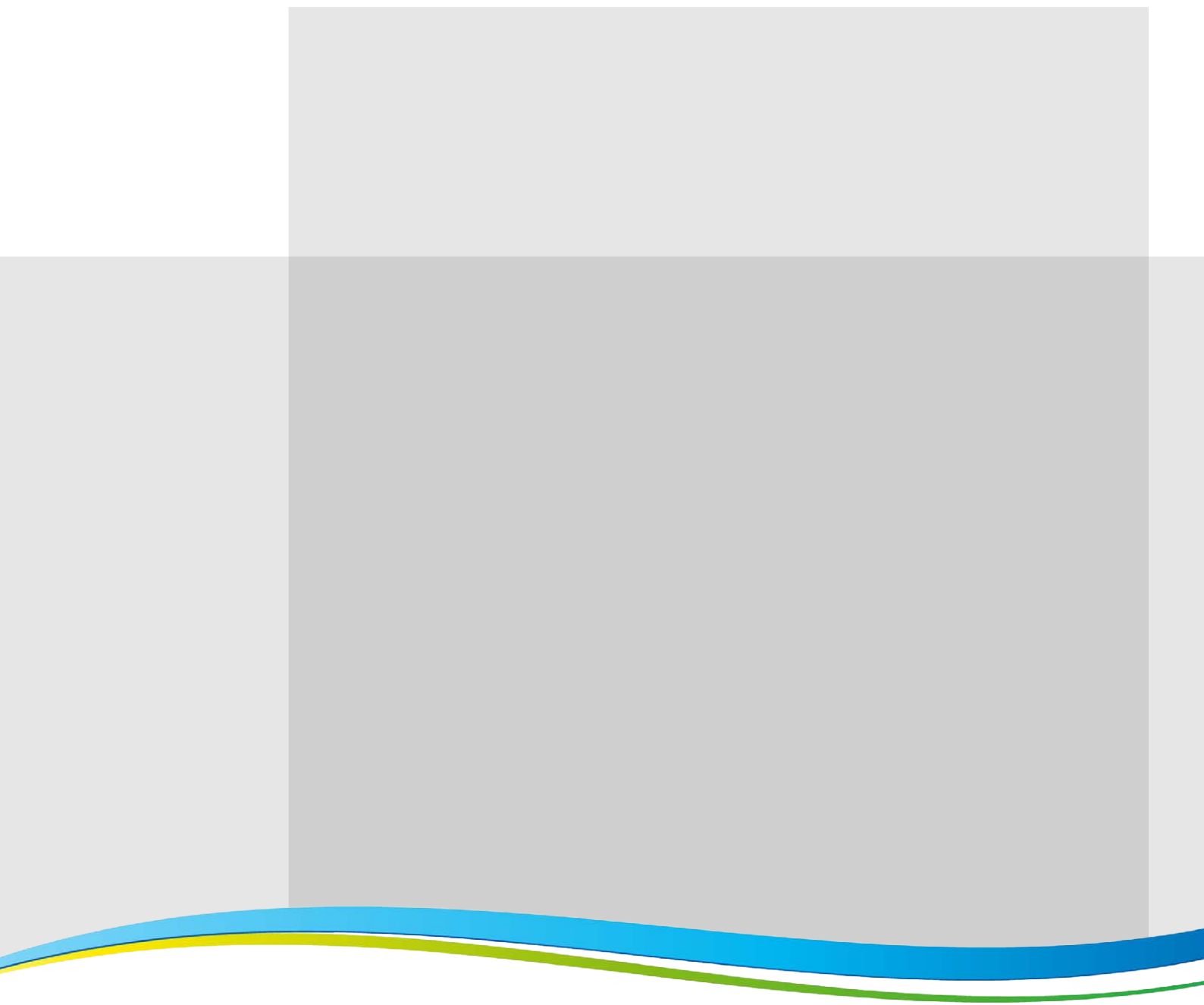




# Daiichi Sankyo Group Environmental Data Book 2015



## Position of this book

The information of this book complements Daiichi Sankyo Group Value Report 2015 and the environmental data on our website. Please see them in addition.

\*The contents in this data book are based on information and data available as of the end of August 2015.

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### Basic Environmental Management Policy

Safeguarding the environment is the bedrock of all Group operational management. We pursue environmental management that contributes to a sustainable society and enhances our good corporate citizenship.

We implement the respective items listed below.

1. Confirm the environmental impacts of each business process, from R&D to production, distribution, usage and consumption, and disposal, and reduce environmental loads.
2. Comply strictly with environmental laws and ordinances, regional covenants, and voluntary standards.
3. Construct and operate an environmental management system.
4. Use resources and energy efficiently, reduce carbon dioxide emissions, and recycle and reduce waste.
5. Protect the environment and respect biodiversity by helping preserve the ecosystem.
6. Address environmental risks.
7. Communicate with internal and external stakeholders about environmental issues.

# 1 Environmental Management System

## 1-1 Our Stance on Environment Management

Recognizing that caring for the environment is one of its key social responsibilities, the Daiichi Sankyo Group not only complies with the law, but has also stipulated in the Daiichi Sankyo Group Corporate Charter: “We responsibly manage the environment impact of our operations as environmental issues are common challenges for mankind and such concerns are integral to our corporate activities and our very survival.”

The Group has also formulated rules for conducting environmental management and established its Basic Environment Management Policy based on these rules.

## 1-2 Promoting Environmental Management

Based on the results of the analysis and assessment on the environmental impact of our corporate operations, we focus on major environmental issues, such as countermeasures for climate change, effective usage of natural resources, proper management of chemical substances, and biodiversity consideration.

We address these issues by establishing, operating, and improving environmental management systems and communicating with stakeholders.

The concept “Responsible Corporate Activities for Sustainable Society” was defined in the CSR activities on the Third Medium-term Management Plan commenced in fiscal 2013; based on this concept, we established the Third Medium-term Environmental Management Policy.

### Third Mid-term Environmental Management Targets (Fiscal 2013–2017) (Group in Japan/Entire Group)

Policy	Targets for FY2017	
Use energy efficiently and reduce carbon dioxide emissions in all operations to help prevent global warming	Group in Japan	<ul style="list-style-type: none"> <li>• CO<sub>2</sub> emissions: 12% reduction compared to fiscal 2007</li> <li>• CO<sub>2</sub> emissions per basic unit of net sales: 5% improvement from fiscal 2012</li> <li>• Promote the recognition of supply chain's CO<sub>2</sub> emission volume</li> </ul>
	Entire group	<ul style="list-style-type: none"> <li>• CO<sub>2</sub> emissions per basic unit of net sales: maintenance of the level in fiscal 2012</li> <li>• CO<sub>2</sub> emissions: controlled less than 25.0% increment compared to fiscal 2007</li> </ul>
Leverage the 3Rs (reduce, reuse, and recycle) to save energy and reduce waste reduction, helping to build a recycling-oriented society	Group in Japan	<ul style="list-style-type: none"> <li>• Maintenance of zero emissions (annual final disposal rate: less than 1%)</li> <li>• Amount of office paper consumed: 30% reduction compared to fiscal 2007</li> <li>• Office paper consumed per basic unit of net sales: 20% improvement from fiscal 2012</li> </ul>
	Entire group	<ul style="list-style-type: none"> <li>• Waste generated per basic unit of net sales: 5% or more improvement from fiscal 2012</li> <li>• Promote waste reduction and recycling</li> </ul>
Lower environmental risks by complying strictly with environmental regulations, preventing pollution, and properly managing chemical substances, thus helping to decrease environmental risks	Group in Japan	<ul style="list-style-type: none"> <li>• PRTR substances discharged to air and water per basic unit of net sales: 5% improvement from fiscal 2012</li> </ul>
	Entire group	<ul style="list-style-type: none"> <li>• Thorough compliance with the law through self-assessment such as environmental audit, the recognition and evaluation of environmental risks and the implementation of countermeasures against such risks</li> <li>• Thorough monitoring through the visualization of emission volume and basic units</li> </ul>
Undertake operations and green procurement that reflects a commitment to biodiversity and ecosystem services, therefore contributing to social sustainability	Entire group	<ul style="list-style-type: none"> <li>• Promote environmentally-friendly material procurement and intensive environment conservation activities created in cooperation with our business partners</li> <li>• Promote social contribution measures which contribute to biodiversity conservation</li> <li>• Promote biodiversity-conscious business activities based on the basic biodiversity principles and action guidelines</li> <li>• Water use per basic unit of net sales: 5% improvement from fiscal 2012</li> </ul>
Continue to improve our environmental management systems and engage in environmental communications with stakeholders	Entire group	<ul style="list-style-type: none"> <li>• Maintain and improve the number of employees who participate in environmental awareness-raising activities and environmental education courses</li> <li>• Strengthen communication and collaboration with business partners, regional communities, and private nonprofit organizations</li> </ul>

## Targets and Results for Fiscal 2014/Targets for Fiscal 2015

Policy	Index		Unit	Targets for FY2014	Results for FY2014	Targets for FY2015
Use energy efficiently and reduce carbon dioxide emissions in all operations to help prevent global warming	Group in Japan	CO <sub>2</sub> emissions	t-CO <sub>2</sub>	174,000	160,009	159,000
		CO <sub>2</sub> emissions per basic unit of net sales	t-CO <sub>2</sub> / million yen	0.306	0.291	0.297
		Promote the recognition of supply chain's CO <sub>2</sub> emission volume	t-CO <sub>2</sub>	679,000	672,664	672,000
	Entire group	CO <sub>2</sub> emissions	t-CO <sub>2</sub>	425,000	456,795	–
		Excluding the Ranbaxy Group	t-CO <sub>2</sub>		230,602	232,000
		CO <sub>2</sub> emissions per basic unit of net sales <sup>(1)</sup>	t-CO <sub>2</sub> / million yen	0.523	0.251	0.252
Leverage the 3Rs (reduce, reuse, and recycle) to save energy and reduce waste reduction, helping to build a recycling-oriented society	Group in Japan	Zero emissions (annual final disposal rate: less than 1%)	%	Maintenance of less than 1%	0.59	Maintenance of less than 1%
		Amount of office paper consumed	10,000 pieces	6,600	5,950	5,850
		Office paper consumed per basic unit of net sales	10,000 pieces / billion yen	11.9	10.8	10.9
	Entire group	Waste generated per basic unit of net sales	t / million yen	0.390	0.020	0.020
Lower environmental risks by complying strictly with environmental regulations, preventing pollution, and properly managing chemical substances, thus helping to decrease environmental risks	Group in Japan	PRTR substances discharged to air and water per basic unit of net sales	t / billion yen	0.202	0.074	0.200
Undertake operations and green procurement that reflects a commitment to biodiversity and ecosystem services, therefore contributing to social sustainability	Group in Japan	Water used	1,000 m <sup>3</sup>	13,460	13,454	13,450
		Water use per basic unit of net sales	1,000 m <sup>3</sup> / billion yen	24.1	24.5	25.1
	Entire group	Water used	1,000 m <sup>3</sup>	14,828	15,817	–
		Excluding the Ranbaxy Group	1,000 m <sup>3</sup>		13,970	13,970
		Water use per basic unit of net sales	1,000 m <sup>3</sup> / billion yen	16.1	15.2	15.2

(1) The Ranbaxy Group is excluded from the results for fiscal 2014.

### 1-3 Environmental Management Promotion System

The vice president of the CSR Department oversees the Group's environmental management. As for the Group's environmental management promotion system, we have set up environmental management units based on the business units comprised of the corporations and internal companies that manage regions and businesses. The officials of environmental management units oversee the offices and other bases that make up their environmental management units.

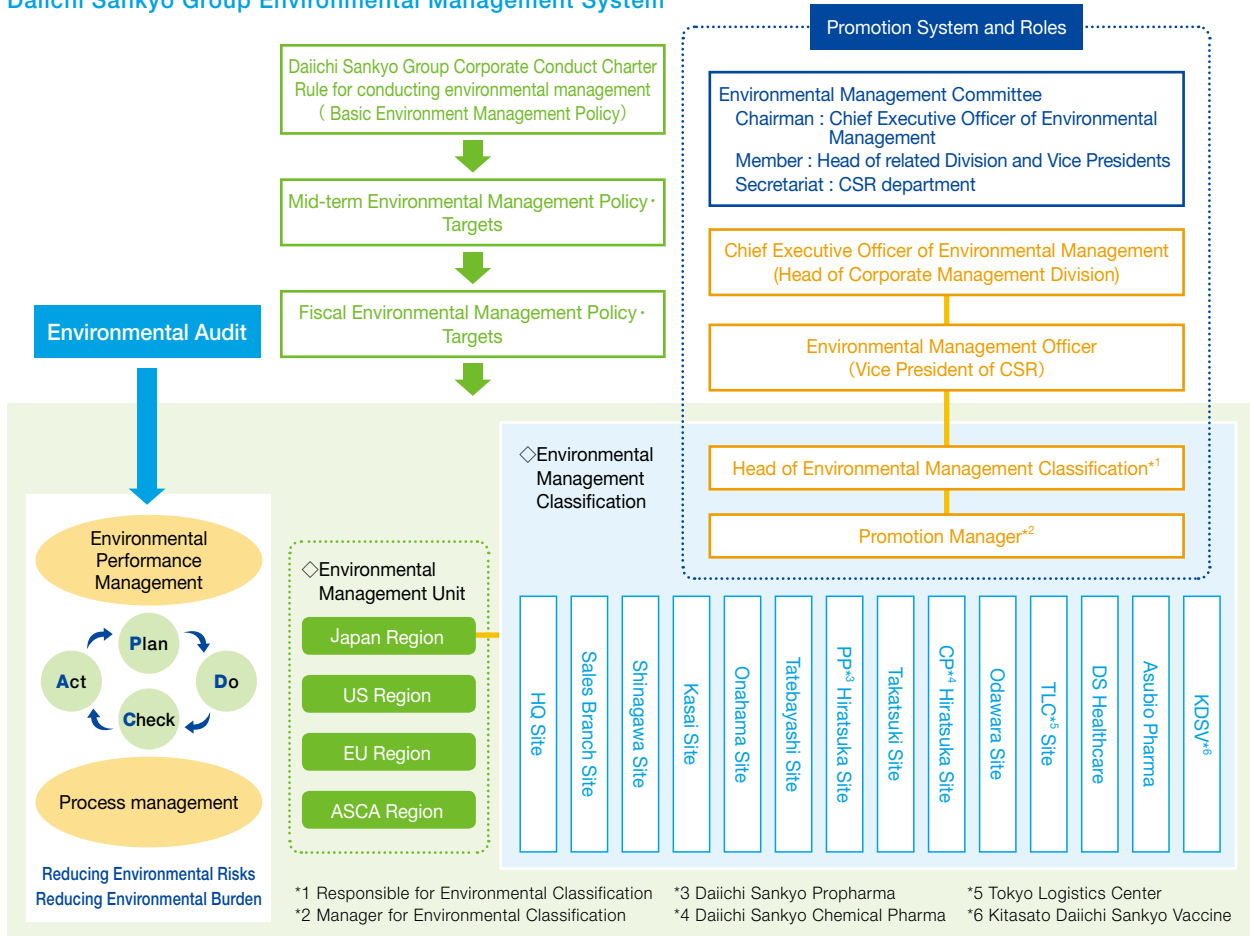
For example, an environmental management unit has been established for Japan, comprised of Daiichi Sankyo and domestic Group companies. The head of the Corporate Management Division of Daiichi Sankyo, who takes responsibility for this environmental management unit, has been designated as the chief executive officer of environmental management.

This chief executive officer chairs the Environmental Management Committee which discusses important issues related to the environment. Moreover, this officer advances environmental management by overseeing environmental management classifications that are arranged around individual offices. The directors of these classifications take responsibility for these environmental managements and operate environmental management systems through ISO 14001 and other standards.

Furthermore, the same type of environmental management practiced in Japan is also promoted in the United States, Europe, Asia, and South and Central America.

# 1 Environmental Management System

## Daiichi Sankyo Group Environmental Management System



## 1-4 ISO 14001 Certification

The Daiichi Sankyo Group is proactively working to acquire ISO 14001 certification in the recognition that offices with production function such as plants have a substantial environmental impact. The Group in Japan has already acquired the certifications in six of seven offices, and is under preparation to acquire the certification for the resting one office (as of the end of August 2015). There was no significant improvement finding in evaluation in fiscal 2014 performed in certified offices.

Furthermore, we conduct environmental management in research centers using a system in accordance with ISO14001.

### List of ISO 14001 Certified Plants (As of the End of August 2015)

Company	Site
Daiichi Sankyo Propharma Co., Ltd. *1 Includes Daiichi Sankyo, Daiichi Sankyo Happiness Co., Ltd and Daiichi Sankyo Chemical Pharma Co., Ltd.	• Hiratsuka Plant <sup>*1</sup> • Takatsuki Plant
Daiichi Sankyo Chemical Pharma Co., Ltd *2 Includes Daiichi Sankyo	• Onahama Plant • Tatebayashi Plant <sup>*2</sup> • Hiratsuka Plant • Odawara Plant
Daiichi Sankyo Brasil Farmacêutica	• Alphaville Plant

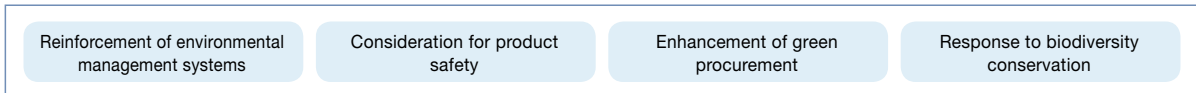
## 1-5 Environmental Supply Chain Management

### 1 CSR procurement

We ask our business partners to operate in accordance with the CSR procurement standards of our group, which works with them to make improvements in this regard.

The environment-related items in the CSR procurement standards are shown below:

#### Consideration for Environment



We are conducting periodical assessment of abilities of domestic business partners to deal with quality, stable supply, and so on in the procurement of raw materials aiming at further promotion of CSR procurement.

In fiscal 2014, we consulted with our key business partners, who had conducted a CSR self-examination\* to make improvements in CSR procurement. As a result, these partners gained higher ratings in a subsequent review. They represent a good example of how our efforts, with the concept of “CSR procurement activities walking together with our partners (suppliers)”, produced positive outcomes. In addition to high quality, cost, and stable supply, we will promote CSR procurement as part of our corporate activities, considering sustainability.

\*This examination is designed to make a self-evaluation of CSR efforts using a checklist. The criteria include items relating to human rights and labor, ethics, the environment, stable supply, and information security.

### 2 Collaboration with other partners in the value chain

We also ask our contractors responsible for logistics to conduct similar activities. They agree to our request to reduce greenhouse gas emissions and engage in such activities as sharing data on the weights and distances they transport our products, reducing idling within distribution centers, and eco-driving.

### 3 Implementation of environmental auditing

We ask the contractors responsible for storing and shipping our products and promotional materials to conduct environmental auditing in relation to environmental laws and regulations, particularly with regard to solid waste management.

## 1-6 Environmental Auditing

The Group’s auditing system for environmental management comprises three complementary approaches that are implemented in accordance with the situation in each environmental management classification (organization and site). The three approaches comprise internal audits implemented by environmental management classification, evaluations by ISO audit organizations, and environmental audits performed by the environmental management department (CSR Department).

The Group conducts environmental audits on all of the environmental management classifications with a focus on compliance with environmental laws. In fiscal 2014, we conducted environmental audits for six environmental management classifications: Shinagawa site, Kasai site, Akita site, Takatsuki site, DSCP Odawara site, and Alphaville plant. It showed that the company was in compliance and there was no improvement findings associated with major environmental risks.

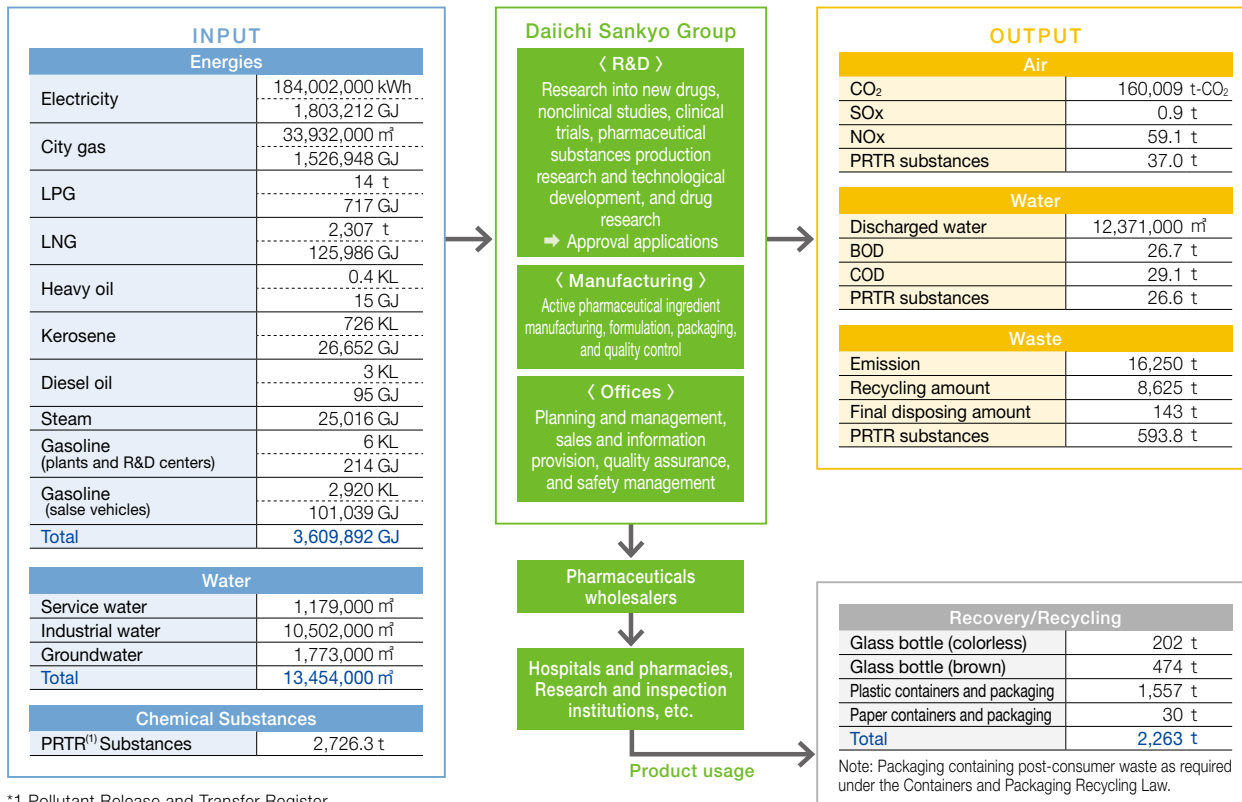


## 1-7 Response to Accidents and Other Emergencies

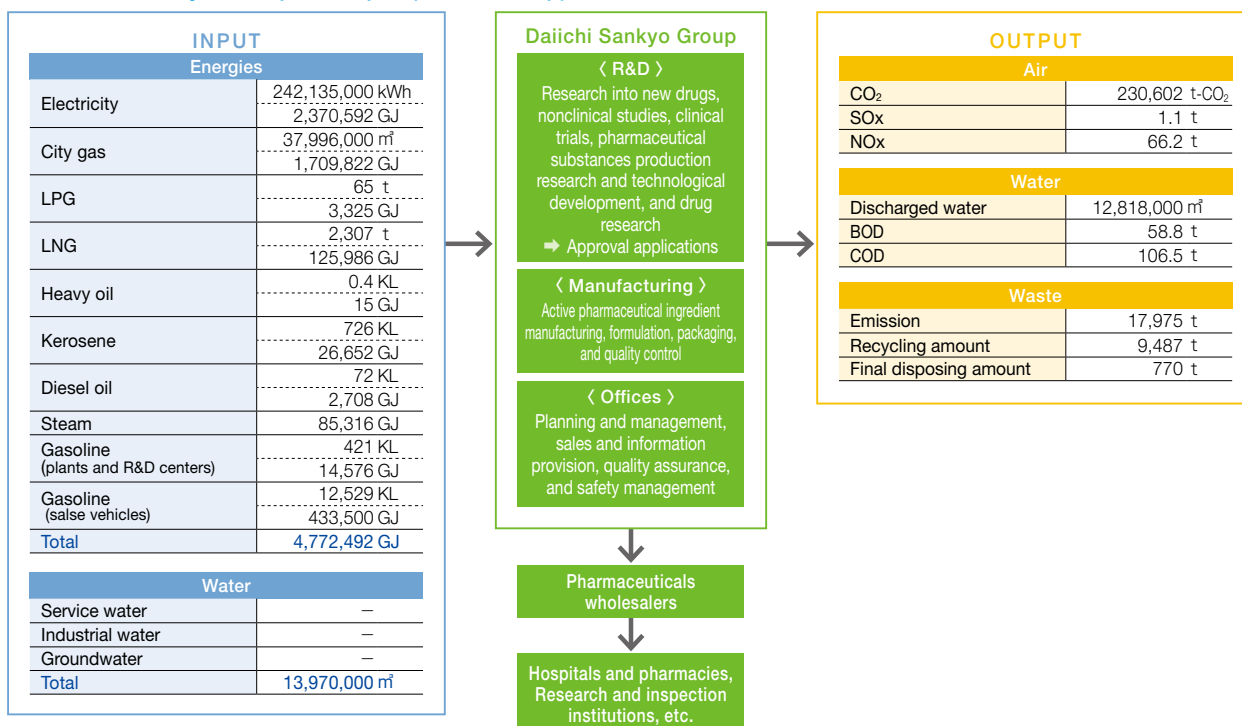
Each office has procedures in place for preparing for and coping with emergencies that are designed to prevent or at least mitigate environmental pollution. With such procedures, each site provides regular training and keeps the related facilities in order.

## 1-8 Business Activity and Environmental Performance

### Business Activity and Input/Output (Group in Japan)



### Business Activity and Input/Output (Entire Group)





## 1-9 Environmental Accounting

### Environment Conservation Cost (Group in Japan)

Unit: million yen

Environmental Item	FY2013		FY2014	
	Investment	Cost	Investment	Cost
Pollution Prevention Cost	235	451	63	144
Global Environmental Conservation Cost	453	230	2,366	468
Resource Circulation Cost	0	621	0	598
Upstream / Downstream Costs	0	49	0	65
Administration Cost	2	729	5	939
R&D Cost	0	31	0	33
Social Activity Cost	0	4	0	3
Environmental Remediation Cost	0	359	0	63
<b>Total</b>	<b>690</b>	<b>2,474</b>	<b>2,434</b>	<b>2,313</b>

Not includes depreciation

### Economic Benefit (Group in Japan)

Unit: million yen

	FY2013	FY2014
Value of sales of valuables	33	26

### Environmental Conservation Benefit (Group in Japan)

	Unit	FY2013	FY2014	Increase/Decrease Compared to the Previous Year	Increase/Decrease Rate Compared to the Previous Year
Total volume of energy consumed	GJ	3,805,502	3,609,892	△ 195,610	△ 5.1
Water used	1,000m <sup>3</sup>	13,460	13,454	△ 6	△ 0.0
PRTR substances used	t	6,248.8	2,726.3	△ 3,522.5	△ 56.4
CO <sub>2</sub> emission	t-CO <sub>2</sub>	171,554	160,009	△ 11,545	△ 6.7
Total volume of waste	t	35,925	24,120	△ 11,805	△ 32.9
Waste emissions (= outsourced treating volume)	t	23,412	16,250	△ 7,162	△ 30.6
Volume of recycled waste	t	12,324	8,625	△ 3,699	△ 30.0
Final disposing amount of waste	t	165	143	△ 22	△ 13.3
Recycling rate	%	52.6	53.1	0.5	1.0
Recovered or recycled volume of containers and packages	t	2,222	2,263	41	1.8
BOD	t	31	26.7	△ 4.3	△ 13.9
SOx emissions	t	1.1	0.9	△ 0.2	△ 18.2
NOx emissions	t	43	59.1	16.1	37.4

## 1-10 Environmental Efficiency (Group in Japan)

Environmental Efficiency Index	Index Definition	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014
CO <sub>2</sub>	Sales/CO <sub>2</sub> emissions	100	91	97	107	107	112	113	119
Waste	Sales/Total waste emissions	100	87	93	109	90	97	112	166
Water	Sales/Water consumption	100	91	89	100	93	99	105	104
SO <sub>x</sub>	Sales/SO <sub>x</sub> emissions	100	222	204	229	851	1,376	788	988
NO <sub>x</sub>	Sales/NO <sub>x</sub> emissions	100	339	403	415	361	512	437	315
BOD	Sales/BOD	100	65	67	69	79	81	115	132
COD	Sales/COD	100	83	90	119	161	166	182	136

\*The figures as of fiscal 2007 have been set to 100. Higher index shows higher level of efficiency.

# 2 Initiatives to Prevent Global Warming

## 2-1 Our Basic Stance

As part of mitigation measures for climate change and global warming, the Daiichi Sankyo Group is striving to use resources/energy efficiently and reduce CO<sub>2</sub> in all of its business activities based on the Third-term Environmental Management Policy; “Use energy efficiently and reduce carbon dioxide emissions in all operations to help prevent global warming” Moreover, we believe it is necessary for the Daiichi Sankyo Group to pay attention to the climate change–related risks on our business strategy and profit, such as the emission regulations based on the international agreement on greenhouse gases or physical impacts induced by natural environment change. We also recognize it is important to appropriately manage the apparent risks.

Furthermore, assuming the frequent occurrence of abnormal weather as a result of climate change and the influence on the health of people due to the change of disease structure, the review of these is necessary for life science-oriented companies.

## 2-2 Climate Change Risks That Have the Potential to Affect Our Business

Risk Driver		Description	Potential Impact
Risks driven by changes in regulation	Cap and trade schemes	Large offices in Tokyo are required the reduction of total emission of greenhouse gases under the Tokyo Cap and Trade Program. In the case of unachievement, it may cause the use of emission credits outside the Tokyo area, or the use of Green Electricity Certificates.	Increased operational cost
	Emission reporting obligations	The requirements for the status reports Green Housing Gas Emissions and mid-term plan may be increased by the revision of laws relevant to global warming prevention.	Increased operational cost
	International agreements	We may be obligated to local regulations accompanied with the international framework of reduction after 2020.	Increased operational cost
Risks that are driven by change in physical climate parameters	Change in temperature extremes	It may affect the thermal management of our research and productive facilities.	Increased operational cost
	Tropical cyclones (hurricanes and typhoons)	Increasing occurrence of localized torrential rainfall and large-scale typhoons may affect our facilities and equipment directly. It may also interrupt our supply chains.	Increased operational cost
Risks that are driven by changes in other climate-related developments	Reputation	Our reputation may be affected in rankings, etc. by corporate responsiveness to climate change.	Reduced stock price (market valuation)
	Increasing humanitarian demands	We implement humanitarian supports, such as improving an access to medicine in India and Africa. There is the risk of increasing the expense accompanying quantitative and qualitative alterations.	Increased operational cost

### 2-3 Climate Change Opportunities that Have the Potential to Affect Our Business

Opportunity Driver		Description	Potential Impact
Opportunities that are driven by changes in regulation	Emission reporting obligations	The hedge of energy risk and the cost reduction are expected by implementing various measures for CO <sub>2</sub> and energy reduction.	Reduced operational costs
	Cap and trade schemes	The increase of allowances is expected by the adequate correspondences to Cap and trade schemes. We also expect to avoid purchasing emission credits by the achievement of the obligated reduction target.	Reduced operational costs
Opportunity that are driven by changes in physical climate parameters	Induced changes in natural resources	In the case of increasing tropical diseases, we expect the sales increase by the development and sales of the drugs for such diseases.	New products/ business services
Opportunity that are driven by changes in other climate-related developments	Reputation	Since the action for improvement of climate change is evaluated by the stakeholder, our reputation may be affected in rating of responsiveness to climate change and so on.	Increased stock price (market valuation)

### 2-4 Total CO<sub>2</sub> Emissions

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

(t-CO<sub>2</sub>)

Region	Scope 1	Scope 2	Total
Group in Japan	90,795	69,214	160,009
Group outside of Japan	33,139	37,453	70,593
United States of America	21,243	17,985	39,228
Europe	9,014	744	9,759
Asia	1,555	18,054	19,609
Latin America	1,327	670	1,997
<b>Entire Group</b>	<b>123,934</b>	<b>106,667</b>	<b>230,602</b>

\*The figures are calculated with the amount of CO<sub>2</sub> emissions only from continuing operations, as the Ranbaxy Group discontinued its operations in fiscal 2014.

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

(t-CO<sub>2</sub>)

Activity	Scope 1	Scope 2	Total
Plants and R&D centers	92,118	96,959	189,077
Offices	1,181	9,708	10,889
Sales vehicles	30,635	0	30,635
<b>Total</b>	<b>123,934</b>	<b>106,667</b>	<b>230,602</b>

\*The figures are calculated with the amount of CO<sub>2</sub> emissions only from continuing operations, as the Ranbaxy Group discontinued its operations in fiscal 2014.

## 2-5 CO<sub>2</sub> Reduction Targets and Achievements

CO<sub>2</sub> emission of the Group in Japan for fiscal 2014 was 160,009 metric tons, which was lower than the target level of 174,000 metric tons. Compared to fiscal 2013 data, there was a 6.7% decrease.

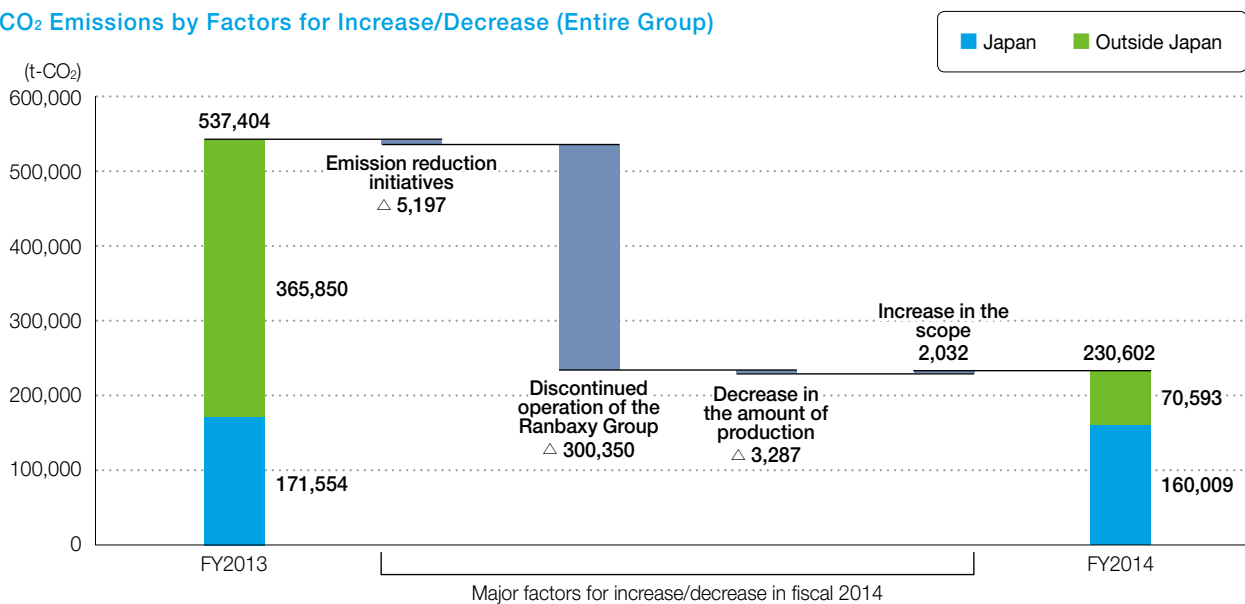
CO<sub>2</sub> emission of entire group was 230,602 metric tons due to discontinued operation of Ranbaxy Group, a 57.1% decrease compared to fiscal 2013 data. CO<sub>2</sub> emission of Ranbaxy Group was 226,193 metric tons.

By Scope categories, the results of entire group for Scope 1 and Scope 2 for fiscal 2014 were 123,934 and 106,667 metric tons, which were a 41.1% decrease and a 67.4% decrease, respectively, compared to fiscal 2013 data. The results of Ranbaxy Group for Scope 1 and Scope 2 were 48,698 and 177,495 metric tons, respectively.

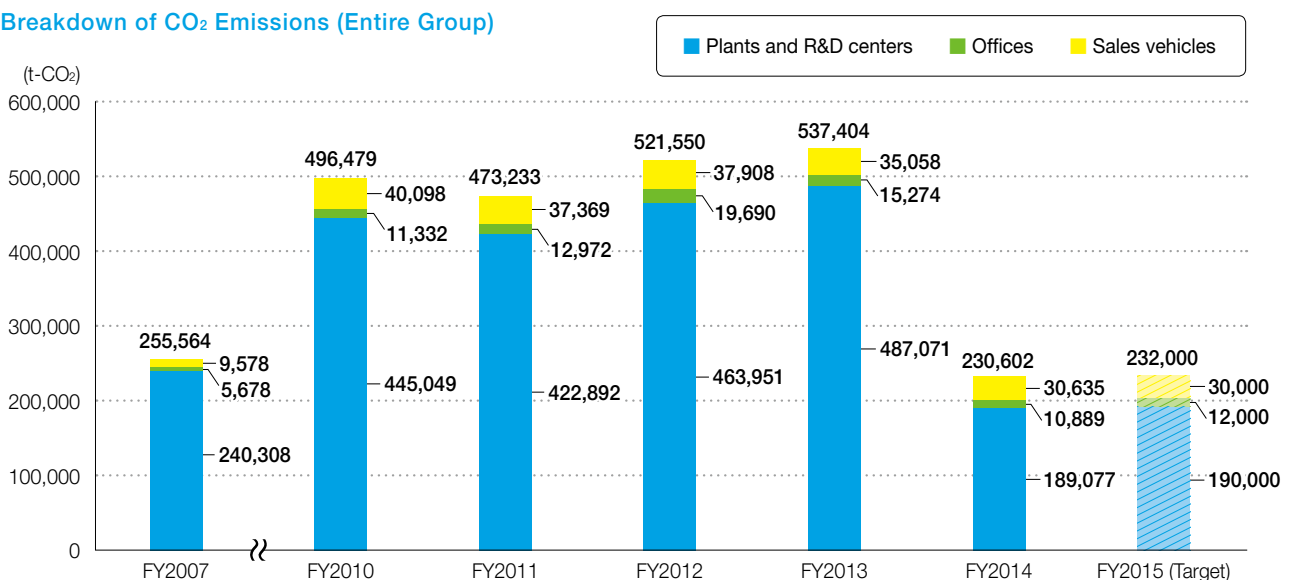
As to Scope 3, we have calculated CO<sub>2</sub> emission of the Group in Japan since fiscal 2012. CO<sub>2</sub> emission for fiscal 2014 was 672,664 metric tons. This means a 0.9% decrease, compared to fiscal 2013 data.

Further, CO<sub>2</sub> emissions per basic unit of net sales for the Group in Japan and entire group were 0.291 and 0.251 (t-CO<sub>2</sub>/million yen), which means a 5.8% and a 47.8% improvement, respectively, compared to fiscal 2013 data.

CO<sub>2</sub> Emissions by Factors for Increase/Decrease (Entire Group)



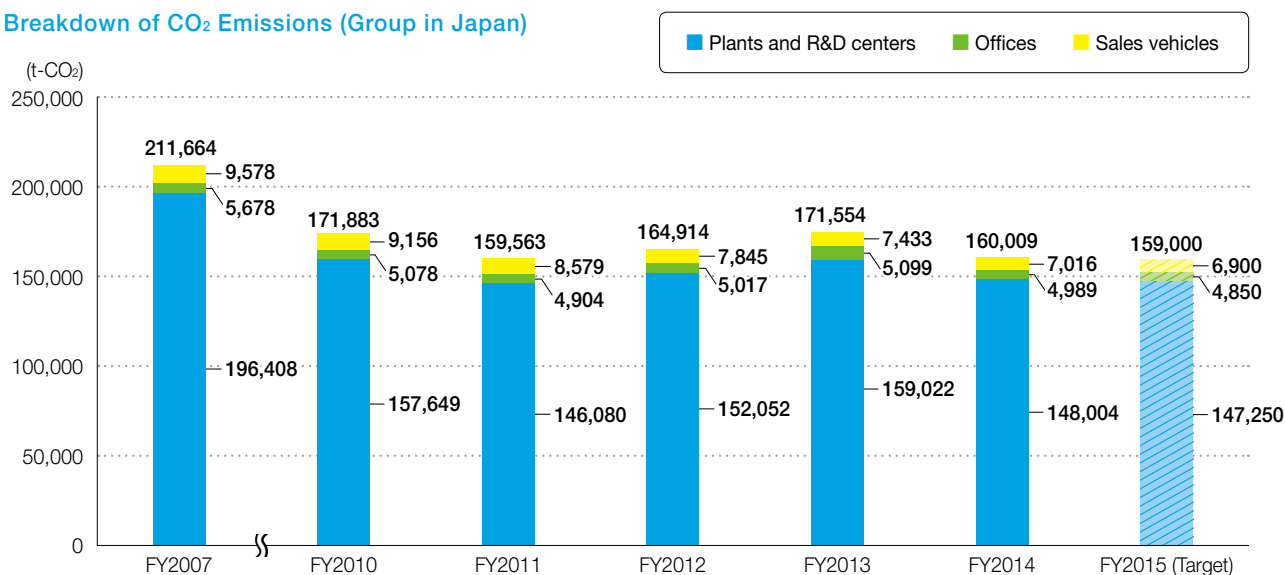
Breakdown of CO<sub>2</sub> Emissions (Entire Group)



\*Includes Ranbaxy Laboratories Limited from fiscal 2010-2013

## 2 Initiatives to Prevent Global Warming

### Breakdown of CO<sub>2</sub> Emissions (Group in Japan)



### CO<sub>2</sub> Reduction Mid-term Targets and Achievements of fiscal 2014

	Base Year	Base Year Emissions	Rate of FY2017 from Base Year	Achievements of FY2014	Change from Base Year
Group in Japan	FY2007	211,664	△ 12.0%	160,009 t	△ 24.4%
Entire group <sup>(1)</sup>	FY2012	521,550	25.0%	230,602 t	△ 56.8%

(1) The figures are calculated with the sales amount and the amount of CO<sub>2</sub> emissions only from continuing operations, as the Ranbaxy Group discounted its operations in fiscal 2014.

### (Reference) CO<sub>2</sub> Emissions by Scopes in Base year

	Base Year	Scope 1	Scope 2
Group in Japan	FY2007	128,949	82,715
Entire group	FY2012	217,257	304,293

### CO<sub>2</sub> Intensity Mid-term Target and Achievements of fiscal 2014

	Base Year	Base Year Intensity	Rate of FY2017 from Base Year	Achievements of FY2014	Change from Base Year
Group in Japan	FY2012	0.312	△ 5.0%	0.291	△ 6.7%
Entire group <sup>(1)</sup>	FY2012	0.523	0%	0.251	△ 52.0%

Definition: CO<sub>2</sub> emissions per net sales (t-CO<sub>2</sub>/mil. JPY)

(1) The figures are calculated with the sales amount and the amount of CO<sub>2</sub> emissions only from continuing operations, as the Ranbaxy Group discounted its operations in fiscal 2014.

### Other CO<sub>2</sub> Intensity Achievements of fiscal 2014 (Entire Group)

		Achievements of FY2014	Increase/Decrease Rate Compared to the Previous Year
CO <sub>2</sub> emissions per sales <sup>(1)</sup>	t-CO <sub>2</sub> /mil. JPY	0.251	△ 47.8%
CO <sub>2</sub> emissions per employee <sup>(1)</sup>	t-CO <sub>2</sub> /person	14.0	△ 14.6%

(1) The figures are calculated with the sales amount and the amount of CO<sub>2</sub> emissions only from continuing operations, as the Ranbaxy Group discounted its operations in fiscal 2014.

### (Reference) Usage of hybrid cars (Group in Japan)

	FY2011	FY2012	FY2013	FY2014
Number of hybrid cars	1,588	1,800	1,926	1,862
Introduction rate (%)	59.7	69.6	74.5	73.5

### 2-6 Efforts to Reduce CO<sub>2</sub> Emissions

#### ① Efforts taken in plants and research centers

Both groups in and outside of Japan addressed to reduce CO<sub>2</sub> emissions by introducing highly energy-saving, high-efficient refrigerator and boiler, heat insulation work of steam piping, more efficient operation of air conditioning, and more use of sunlight with a day lighting system. Furthermore, we also continue to introduce cogeneration facilities and solar energy facilities.

The Shinagawa R&D Center was certified by the Governor of Tokyo as a “top-level facility” that has made outstanding progress in implementing measures against climate change. The center was the first research laboratory to be certified as such. Likewise, the Kasai R&D Center was certified as a “near-top-level facility” in fiscal 2010. Our efforts to mitigate climate change are an ongoing process.

#### ② Efforts in offices

We promote to save energy in office buildings. For example, at the Daiichi Sankyo Headquarters Building A and Nihonbashi Building, we adopt LED illumination in the whole buildings and human sensors, and at the Daiichi Sankyo Headquarters Building B, we are replacing current illumination with LED.

In addition, we are actively promoting energy reduction in the office with continued efforts, including all-year casual wearing, thorough switching-off of the illumination and air conditioning in unused meeting rooms, and recommendation to leave work on time by appropriately managing schedule.

With respect to traveling between offices by employees, we are taking efforts to reduce business trips in Japan and to foreign countries by enhancing and more utilizing the TV conference system.

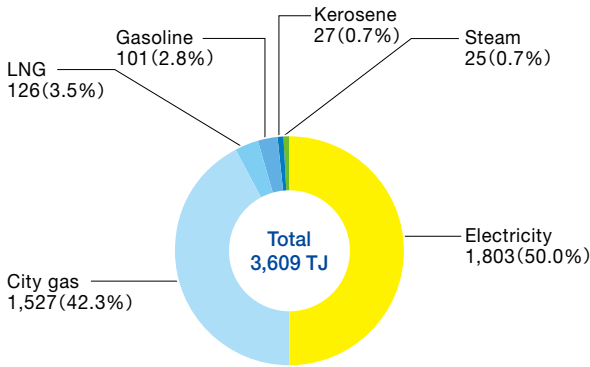
#### ③ Efforts in business operation

We are replacing vehicles used for marketing activities with low-emission, fuel-efficient vehicles (including hybrid vehicles). As a result, the rate of hybrid vehicles at the end of fiscal 2014 was 73.5%. Corresponding rate was 99% if 4WD vehicles, used in a cold district where the replacement is not required, are eliminated. We also started a pilot introduction of electric cars in such district. Furthermore, we continue to perform activities leading to improvement of fuel efficiency, including promotion of eco-drive, keeping tire pressure appropriate, and eliminating unnecessary things from the vehicle.

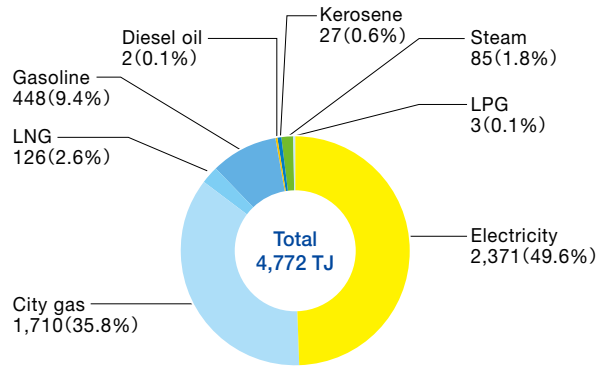
CO<sub>2</sub> emission from vehicles used in marketing activities in the Group in Japan for fiscal 2014 was 7,016 metric tons, with a 5.6% reduction compared to fiscal 2013. We also adopt fuel-efficient vehicles in the group outside of Japan and address to reduce CO<sub>2</sub> emission.

## 2-7 Breakdown of Energy Use

Breakdown of Energy Use (Group in Japan)



Breakdown of Energy Use (Entire Group)



## 2-8 Using Renewable Energy

Solar energy generation panels and solar heat collecting panels are being installed in the Shinagawa R&D Center and our learning center (NEXUS HAYAMA) to actively promote the use of renewable energy. In addition, every year, the Shinagawa R&D Center in Japan purchases 1,000,000 kWh of green power generated in a bagasse biomass power plant.

Outside Japan, Daiichi Sankyo Europe GmbH and the Pfaffenhofen Plant, both in Germany, as well as Daiichi Sankyo Altkirch Sarl in France purchased green electricity in an amount equivalent to their power usage.

The Pfaffenhofen Plant also introduced a heat supply generated with biochips.

### Renewable Energy Usage and Breakdown

Type of Renewable Energy	Power Supply (MWh)	Remarks
Solar power	36	Represents power supply from photovoltaic facilities installed at our plants and R&D centers. Not counted as part of energy consumption.
Hydroelectric power	8,483	Represents power supply purchased by our group companies in Germany.
Biomass	3,997	Represents power and heat supply purchased by our group companies in Japan and Europe.



### 2-9 Emissions Trading

The Shinagawa R&D Center and the Kasai R&D Center are among the facilities subject to the mandatory emission reduction scheme and the emissions trading system, Tokyo Cap and Trade Program, under the Tokyo Metropolitan Ordinance on Environmental Preservation. Both centers achieved the target under the mandatory emission reduction scheme during the first emission reduction period, fiscal 2010–2014. In fact, the Kasai R&D Center was certified as a “near-top-level facility” in fiscal 2010. In fiscal 2014, the Shinagawa R&D Center was certified as a “top-level facility,” the first research facility to achieve this status. As facilities that have made outstanding progress in implementing measures against climate change, these two centers have been granted two privileges: a lower rate of mandatory emission reduction and the right to carry credits for surplus emission reductions over to the second emission reduction period, fiscal 2015–2019.

In fiscal 2014, CO<sub>2</sub> emissions that were generated from business trips associated with environmental auditing and environmental meetings in Japan and abroad, and the environmental managers workshop, among environmental management activities, were offset by carbon credits that we purchased.

#### Carbon Offset

Offset Amount	Project Type	Project ID	Certification Standards
30 t-CO <sub>2</sub>	Biomass energy	Project reference No. 0168: BK Energia Itacoatiara Project	Gold Standard

## 2-10 Supply Chain GHG Emission (Scope 3) (Group in Japan)

(t-CO<sub>2</sub>)

Sources	FY2013	FY2014	Increase/Decrease Rate Compared to the Previous Year (%)	Emissions Calculation Methodology	Explanation
Purchased goods and services	532,469	511,949	△ 3.9	It computed based on the purchased amount of raw materials, packaging, products and CO <sub>2</sub> emission coefficients of the guidelines* issued by Ministry of Environment and Ministry of Economy, Trade and Industry.	Geographic scope is Japan.
Capital goods	88,807	85,705	△ 3.5	It computed based on the amount of money for acquisition of the fixed assets and CO <sub>2</sub> emission coefficients of the guidelines* issued by Ministry of Environment and Ministry of Economy, Trade and Industry.	Geographic scope is Japan.
Fuel-and-energy-related activities (not included in Scope 1 or 2)	7,117	6,937	△ 2.5	It computed based on the usage of electricity and steam and CO <sub>2</sub> emission coefficients of the guidelines* issued by Ministry of Environment and Ministry of Economy, Trade and Industry.	Geographic scope is Japan.
Upstream transportation and distribution	11,687	11,013	△ 5.8	It computed based on the freight ton-km or distance of transportation from the distribution centres to medical-supplies wholesalers and CO <sub>2</sub> emission coefficients of the guidelines* issued by Ministry of Environment and Ministry of Economy, Trade and Industry.	Geographic scope is Japan.
Waste generated in operations	11,213	10,764	△ 4.0	It computed based on the weight of each waste discharged from the plants and R&D center and CO <sub>2</sub> emission coefficients of the guidelines* issued by Ministry of Environment and Ministry of Economy, Trade and Industry.	Geographic scope is Japan.
Business travel	17,077	17,410	1.9	It computed based on the travel and accommodation expenses and CO <sub>2</sub> emission coefficients of the guidelines* issued by Ministry of Environment and Ministry of Economy, Trade and Industry. For travel expenses, CO <sub>2</sub> emission coefficients for aircraft were adopted.	Geographic scope is Japan. The emissions of the business trip for sales vehicles are counted in Scope 1.
Employee commuting	3,094	2,867	△ 7.3	It computed based on the commuting expense of public transportation which employees use and CO <sub>2</sub> emission coefficients of the guidelines* issued by Ministry of Environment and Ministry of Economy, Trade and Industry	Geographic scope is Japan.
Upstream leased assets	Not calculated		—	—	It is irrelevant because all emissions from the leased assets are counted in Scopes 1 and 2.
Downstream transportation and distribution	13,920	15,574	11.9	The emission intensity unit of this industry was guessed from the sales and CO <sub>2</sub> emissions indicated in the CSR reports of the main medical-supplies wholesalers in Japan. It computed based on the sales percentage of our company and the sales of the whole medical-supplies wholesale.	Geographic scope is Japan.
Processing of sold products	Not calculated		—	—	—
Use of sold products	Not calculated		—	—	There is no energy use for product use, because of the characteristic of medical supplies. Therefore, it is estimated irrelevant.
End of life treatment of sold products	2,853	3,207	12.4	It computed based on the weight of each materials for the containers of the sold product and CO <sub>2</sub> emission coefficients of the guidelines* issued by Ministry of Environment and Ministry of Economy, Trade and Industry.	Geographic scope is Japan.
Downstream leased assets	7,098	7,238	2.0	It computed based on the floor area according to the purpose of using the rented assets and CO <sub>2</sub> emission coefficients of the guidelines* issued by Ministry of Environment and Ministry of Economy, Trade and Industry.	It is measured for the leased assets in Japan.
Franchises	Not calculated		—	—	Since we have no franchise, it is irrelevant.
Investments	Not calculated		—	—	—

\*Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain (Ver. 2), Policy on Emissions Unit Values for Accounting of Greenhouse Gas Emissions, etc., by Organizations Throughout the Supply Chain (Ver. 2), and the Emissions Unit Value Database (Ver. 2.2)

## 2-11 Supplementary Notes

### ① Conversion factors and their sources

The conversion factors used in this data book are as follows:

Conversion factors of the Accounting and Reporting System under the Act on Promotion of Global Warming Countermeasures (the Global Warming Countermeasures Act) are used for the CO<sub>2</sub> conversion factor and the energy conversion factor, except for electric power.

For the CO<sub>2</sub> conversion factor for electric power, a fixed factor of 0.368 kg-CO<sub>2</sub>/kWh is used. This figure is based on two emission factors: (i) the emission factor of Tokyo Electric Power Company, specified in a press release on the announcement of the emission factor for each electric power company for fiscal 2005 that the Ministry of the Environment issued on March 23, 2007, in relation to the Global Warming Countermeasures Act; and (ii) the power-receiving end factor before adjustment, or real emission factor, for fiscal 2006 that was specified by the Federation of Electric Power Companies based on a notice issued by the Environment and Safety Committee of the Japan Pharmaceuticals Manufacturers Association.

Regarding the countries outside Japan, the factors commonly used in such countries or the factors based on GHG protocol are used in this data book.

#### List of conversion factors in Japan

Energy Source		Conversion Factor			
		Conversion Factor		CO <sub>2</sub> Emission	
Electricity	General electricity utility (day time)	9.97	GJ/1,000 kWh	0.368	t-CO <sub>2</sub> /1,000 kWh
	General electricity utility (night time)	9.28	GJ/1,000 kWh	0.368	t-CO <sub>2</sub> /1,000 kWh
	Other	9.76	GJ/1,000 kWh	0.368	t-CO <sub>2</sub> /1,000 kWh
A-type heavy oil		39.1	GJ/kL	2.71	t-CO <sub>2</sub> /kL
Diesel oil		37.7	GJ/kL	2.58	t-CO <sub>2</sub> /kL
Kerosene		36.7	GJ/kL	2.49	t-CO <sub>2</sub> /kL
LPG		50.8	GJ/t	3.00	t-CO <sub>2</sub> /t
City gas (13A)		44.8	GJ/1,000 m <sup>3</sup>	2.277	t-CO <sub>2</sub> /1,000 m <sup>3</sup>
LNG		54.6	GJ/t	2.70	t-CO <sub>2</sub> /t
Gasoline		34.6	GJ/kL	2.32	t-CO <sub>2</sub> /kL
Steam for industry		1.00	GJ/GJ	0.060	t-CO <sub>2</sub> /GJ

The following is CO<sub>2</sub> emissions of the Group in Japan in fiscal 2014 based on the adjusted CO<sub>2</sub> conversion factors of each general electricity utility.

(Note) CO<sub>2</sub> emissions of group in Japan in fiscal 2014 (based on the adjusted CO<sub>2</sub> conversion factors of each general electricity utility published by Ministry of the Environment on December 19, 2013) (t-CO<sub>2</sub>)

Activity	Scope 1	Scope 2	Total
Plants and R&D centers	83,547	87,197	170,744
Offices	232	7,077	7,309
Sales vehicles	7,016	0	7,016
<b>Total</b>	<b>90,795</b>	<b>94,274</b>	<b>185,069</b>

## 2 Emissions not subject to accounting

The emission data does not include emissions in Scope 1 or Scope 2 from small offices outside Japan or those from the incineration of waste generated from business activities. Also, it does not include emissions of GHGs other than CO<sub>2</sub>, as they are small in quantity.

## 3 GHG emissions from sold products

Any use of sold products will not help reduce GHS emissions.

## 4 Third party verification and guarantee

The Shinagawa R&D Center, the Kasai R&D Center, and Kitasato Daiichi Sankyo Vaccine Co. Ltd. are subject to third-party verification as far as Scopes 1 and 2. Emissions subject to verification account for 36% of total emissions from the Group in Japan. For Scopes 1 and 2, the entire Daiichi Sankyo Group is subject to third-party review.<sup>(1)</sup> For Categories 5, 6, 7, and 12 in Scope 3, the Group in Japan is subject to third-party verification.<sup>(2)</sup>

### (1) Review by third-party organizations

Environmental Performance Data  
Independent Review Report

To: Daiichi Sankyo Co., Ltd.

August 31, 2015

Bureau Veritas Japan Co., Ltd.  
System Certification Services Headquarters

Bureau Veritas Japan Co., Ltd. (Bureau Veritas) has been engaged by Daiichi Sankyo Co., Ltd. (Daiichi Sankyo) to conduct an independent review of its environmental performance data selected by Daiichi Sankyo for inclusion in the Daiichi Sankyo Group Value Report 2015 (the Report) and the Daiichi Sankyo Group Environmental Data Book 2015 (the Data Book) issued under the responsibility of Daiichi Sankyo.

The aim of the review work is to evaluate the reliability and accuracy of the environmental performance data within the Report and the Data Book based on objective evidence and to provide a review opinion in the form of an independent statement.

1. Review outline

Review of environmental performance data related to business operations of Daiichi Sankyo Group in FY2014

Data reviewed	Site visited	Review methodology
CO <sub>2</sub> emissions from energy consumption through business operations of the Daiichi Sankyo Group's 15 sites/corporations within Japan and 33 sites/corporations outside Japan.	Daiichi Sankyo Head Office	- Review of documentary evidence produced by Daiichi Sankyo Head Office - Interviews with relevant personnel of Daiichi Sankyo Head Office - Comparison between the reported data and the supporting documentary evidence
Water consumption through business operations of the Daiichi Sankyo Group's 11 sites/corporations within Japan and 26 sites/corporations outside Japan		

The review was conducted using the procedures and guidelines for external review of environmental data reporting established by Bureau Veritas.

2. Findings

Review of environmental performance data related to business operations of Daiichi Sankyo Group in FY2014

On the basis of our methodology and the activities described above, nothing has come to our attention to indicate that the environmental performance data reviewed are not materially correct or are not reported in accordance with the criteria established and implemented by Daiichi Sankyo.

### (2) Verification by third-party organizations

GREENHOUSE GAS EMISSIONS VERIFICATION STATEMENT

To: DAIICHI SANKYO COMPANY, LIMITED

June 29, 2015

Bureau Veritas Japan Co., Ltd.  
System Certification Services Headquarters

Bureau Veritas Japan Co., Ltd. (Bureau Veritas) was engaged by DAIICHI SANKYO COMPANY, LIMITED (DAIICHI SANKYO) to conduct independent verification of the greenhouse gas (GHG) emissions reported in the DAIICHI SANKYO Group Environmental Data Book 2015 for the period of April 1, 2014 through March 31, 2015.

1. Scope of Verification

DAIICHI SANKYO requested Bureau Veritas to verify, to a limited level of assurance, the accuracy of the following GHG information:

Category 5, 6, 7 and 12 of Scope 3 GHG emissions accounted and reported in line with the GHG Protocol's 'Corporate Value Chain (Scope 3) Accounting and Reporting Standard' within the boundaries defined by DAIICHI SANKYO for each category.

2. Methodology

Bureau Veritas conducted the verification in accordance with the requirements of the international standard ISO 14064-3(2006): Greenhouse gases - Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions.

As part of Bureau Veritas' assurance, the following activities were undertaken:

- Interviews with relevant personnel of DAIICHI SANKYO Group responsible for the identification and calculation of GHG emissions;
- Review of DAIICHI SANKYO Group's information systems and methodology for collection, aggregation, analysis and review of information used to determine GHG emissions; and
- Audit of a sample of source data to check accuracy of quantified GHG emissions.

3. Conclusion

Based on the verification work and processes followed, there is no evidence to suggest that the GHG emissions assertions shown below:

- are not materially correct and are not a fair representation of the GHG emissions, as per the scope of work;
- are not prepared in accordance with the methodology for calculating GHG emissions established and implemented by DAIICHI SANKYO Group.

Verified greenhouse gas emissions

Scope 3  
34,248 t-CO<sub>2</sub>e

The breakdown of Scope 3 emissions are as follows.

Category 5: 10,784 t-CO<sub>2</sub>e | Category 6: 17,410 t-CO<sub>2</sub>e | Category 7: 2,867 t-CO<sub>2</sub>e  
Category 12: 3,207 t-CO<sub>2</sub>e

[Statement of independence, impartiality and competence]

Bureau Veritas is an independent professional services company that specializes in Quality, Health, Safety, Social and Environmental management with over 150 years' history in providing independent assurance services. No member of the verification team has a business relationship with DAIICHI SANKYO, its Directors or Managers beyond that required of this assignment. We conducted this verification independently and to our knowledge there has been no conflict of interest. Bureau Veritas has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day-to-day business activities. The verification team has extensive experience in conducting assurance over environmental, social, ethical and health and safety information, systems and processes.

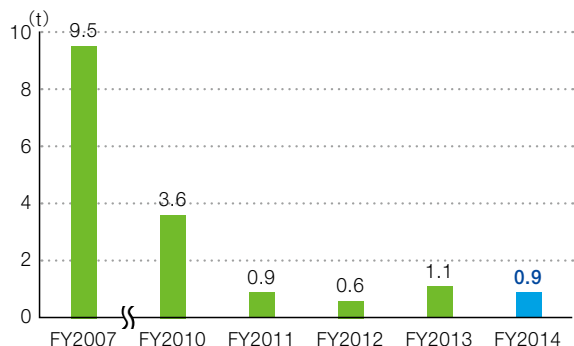
# 3 Reduction of Environmental Risks

## 3-1 Preventing Air and Water Pollution

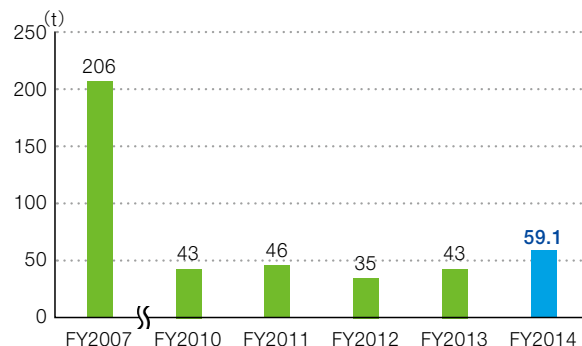
To prevent air and water pollution, the Daiichi Sankyo Group has established voluntary control standards that are stricter than legal requirements and properly monitor the emissions at plants and R&D centers in the Group in Japan. Similarly, the Group company plants outside Japan, including Daiichi Sankyo Pharmaceutical (Beijing), Daiichi Sankyo Pharmaceutical (Shanghai) Daiichi Sankyo Europe GmbH in Germany and Daiichi Sankyo Brasil Farmacêutica, also regularly monitor the emissions to ensure compliance with the laws and regulations of each country and region.

In addition, the Group in Japan invited an external lecturer to its environmental managers workshop to share information on how to cope with the revised CFS emissions control act.

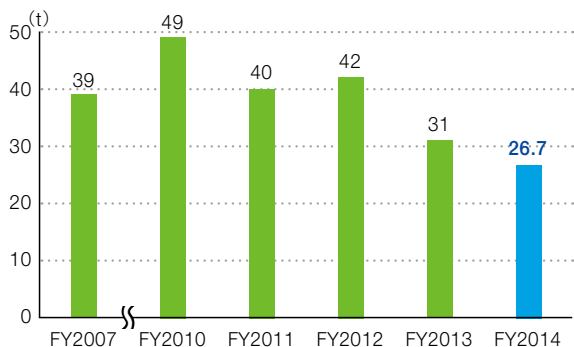
SOx Emissions (Group in Japan)



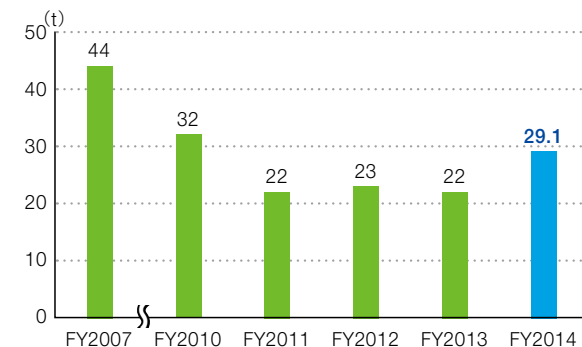
NOx Emissions (Group in Japan)



BOD (Group in Japan)



COD (Group in Japan)



Emissions of Entire Group

	SOx	NOx	BOD	COD
FY2011	598	53	68	83
FY2012	198	354	101	164
FY2013	388	232	89	182
FY2014 <sup>(1)</sup>	1.1	66.2	58.8	106.5

(1)The figures are calculated with continuing operations only, as the Ranbaxy Group discounted its operations in fiscal 2014.

## 3-2 Preventing Soil and Groundwater Contamination and its Countermeasures

Plants and research centers take efforts to prevent soil and groundwater contamination. When the obliged investigation is required based on the Soil Contamination Countermeasures Act and related prefectural ordinance, we conduct the appropriate investigation according to the laws and regulations on discussion with the governmental offices.

Furthermore, we similarly also conduct the investigation according to the laws and regulations even in the cases where mandatory regulations do not apply, such as closing the offices and change of using purpose.

If contamination occurs, we report it to the related government offices and actively disclose information the neighbors, and take appropriate measures (such as prevention of diffusion and purification) according to the extent of contamination. The offices that had already taken measures, such as purification, continue to monitor and report the result of analysis to governmental offices and neighbors.

### Progress of Measures for Soil Purification

Office	Overview
Shinagawa R&D Center (Shinagawa-ku, Tokyo)	We performed a soil investigation associated with the construction of new research facilities according to Tokyo municipal ordinance. As a result, contamination was found in a part of soil. Thus we performed purification work appropriately on discussion with the governmental offices.
Takatsuki Plant Daiichi Sankyo Propharma Co., Ltd. (Takatsuki, Osaka)	We continue to perform groundwater monitoring and to take countermeasures after purification work of soil contaminated with VOC <sup>(1)</sup> and arsenic in 2004.
Former site of the Yasugawa Plant (Yasu, Shiga)	We continue to perform groundwater monitoring after completing environmental improvement work in 2006.

(1) Volatile Organic Compounds

## 3-3 Prevention of Noise, Vibration, and Offensive Odor

We conduct appropriate measures and continuous monitoring to comply with the laws and regulations related to noise, vibration, and offensive odor.

## 3-4 Usage Reduction and Emission/Transfer Control of Chemical Substances

We appropriately manage chemical substances, which may inversely affect human health or ecosystem, based on PRTR\* system provided in the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof. The handling amount of chemical substances targeted in PRTR system for fiscal 2014 was 2,725 metric tons, a 3,524 metric tons decrease compared to fiscal 2013. In addition, emission to air and water was 40.8 metric tons, a 72.2 metric tons decrease compared to fiscal 2013.

We will continue to address the reduction of chemical substance use and control of emission into environment using appropriate management of chemical substances.

\* PRTR: Pollutant Release and Transfer Register

### 3 Reduction of Environmental Risks

#### Emission/Transfer of PRTR Substances (Group in Japan)

(Unit: metric ton; mg-TEQ for dioxins)

Substance (annual handling amount of 1 or more metric tons)	Handling Amount	Emission (except for emission into soil)		Transfer Amount		
		Air	Public Water	Sewage	Out of Offices (Recycling)	Out of Offices (Other)
Sodium azide	22.6	0.0	0.0	0.0	0.0	10.6
Acetonitrile	783.5	6.2	0.0	22.5	0.0	412.1
Ethylenediamine	36.9	0.0	0.0	0.0	0.0	0.0
Ferric chloride	22.3	0.0	0.0	0.0	0.0	0.0
Xylene	7.4	0.1	0.0	0.0	0.0	3.0
Chloroform	49.8	2.2	0.0	0.0	0.0	47.6
Chloromethane	40.8	0.9	0.0	0.0	0.0	0.2
Dichloromethane	21.3	4.8	0.0	0.0	0.0	16.5
N,N-Dimethylacetamide	151.0	0.0	0.0	0.0	0.0	5.9
Dimethylamine	2.7	0.0	0.0	0.0	0.0	2.5
N,N-Dimethylformamide	255.2	0.0	0.0	0.0	0.0	14.2
Triethylamine	19.4	0.1	0.0	0.0	0.0	18.6
1,2,4-Trimethylbenzene	5.0	0.0	0.0	0.0	0.0	0.0
Toluene	1,264.6	17.2	0.0	0.3	0.0	40.7
N-hexane	27.7	5.5	0.0	0.0	0.0	21.9
Boron compounds	4.0	0.0	3.8	0.0	0.0	0.0
Formaldehyde	11.9	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	<b>2,726.3</b>	<b>37.0</b>	<b>3.8</b>	<b>22.8</b>	<b>0.0</b>	<b>593.8</b>
Dioxins	—	0.051	0.089	0.014	0.000	0.003

### 3-5 Storage and usage of PCB contaminants

#### Storage

Types of PCBs	Quantity		
	Heavy PCB	Light PCB	Total
Transformers	—	7 units	7 units
Capacitors	376 units	—	376 units
Fluorescent lamp ballasts, etc.	4,734 units	—	4,734 units
PCB-containing oil	—	2,200 liters	2,200 liters
PCB-adhering materials	—	2 kg	2 kg
Other electrical equipment	—	3 units	3 units
Other polluted products	4 units	46 units	50 units

#### Usage

Types of PCBs	Quantity
Capacitors	3 units
Fluorescent lamp ballasts, etc.	67 units

### 3-6 Evaluation for the Environmental Impact of Pharmaceutical Products

The Daiichi Sankyo Group realizes that one of the sustainability risks associated with its business activities is the possible negative impacts of pharmaceutical manufacturing and its by-products on the environment.

The Daiichi Sankyo Group complies with environmental impact regulations and requirements by conducting the necessary environmental impact assessments for its drugs based on the guidelines of relevant countries.

There have been incidents in the past in which pharmaceutical manufacturing by-products have been detected in rivers and other natural environments. The Group is well aware that social concern is rising with regard to this issue as well as its possible environmental repercussions. To address this concern, we believe we need to coordinate with governments, industry organizations, and research institutions to realize more appropriate risk evaluations and risk management.

In fiscal 2014, Whole Effluent Toxicity (WET)\* test was conducted at the Tatebayashi Biopharmaceuticals Center to evaluate water expelled from the plant. It was confirmed that this discharged water did not pose a threat to ecosystems. In fiscal 2015, we plan to conduct WET tests at all plants and research facilities in Japan to assess the impacts of discharged water on the environment. (See "Voice" and photo to the right.)

\* A testing method that utilizes the biological responses of fish, Daphnia, and seaweed to determine the whole toxicity of discharged water

#### External Voice

##### WET tests, an evaluation technique for discharged water management



Although the amounts are miniscule, a certain amount of unregulated chemical substances can be found in discharged water from plants, and the impact of these substances on aquatic environments is difficult to discern. It is for this reason that WET tests are used in countries around the world, particularly in Europe and the United States. This testing method utilizes aquatic organisms to evaluate discharged water, and it has been found to be an effective means of assessing the potential damage that could be caused to aquatic environments.

The WET testing method is employed mainly by municipal governments and major companies. However, the Ministry of the Environment is examining the possibility of instituting regulatory systems

for promoting the use of this testing method as a discharged water management procedure. Looking ahead, we anticipate that this testing method will become a well-established means of assessing environmental impact in Japan, stimulating the further development of this method.

In fiscal 2014, LSI Medience Corporation conducted WET test at Daiichi Sankyo's Tatebayashi Biopharmaceuticals Center. This test found that the risk of discharged water from this center causing chronic damage to aquatic life is incredibly low. This test was requested by Daiichi Sankyo on a voluntary basis to confirm that the discharged water from the Tatebayashi Biopharmaceuticals Center was safe for aquatic life as well as for local communities and the environment as a whole. I highly respect how the Daiichi Sankyo Group is fulfilling its social responsibility through a proactive and sophisticated Groupwide approach brimming with care for the environment.

Tatsuhiro Niino, Ph.D.  
Team Leader, Ecosystem Impact Assessment Team  
Environmental Impact Assessment Group,  
Environmental Risk Assessment Center  
LSI Medience Corporation



### 3-7 Environmental Impact Assessment of the Manufacturing Process

As the changes in manufacturing process for pharmaceutical products are regulated by pharmaceutical-related laws and regulations, it requires considerable time and effort. Accordingly, it is important to discuss and evaluate not only from a view of quality and cost, but also from a wide range of perspectives including impact on environment at the stage of research and development of manufacturing process. The Daiichi Sankyo Group determines the manufacturing process for all developing products after the assessment of environmental impact using its own evaluation indicators\*. At the initial stage of process research, we aim to develop processes without producing waste from a view of green chemistry. Moreover, at the late stage of process research, if the developed process produces waste, we discuss and evaluate a method in which the waste is collected and reused or a treatment method with high safety and low environmental burden.

The result of this research leads to a great reduction of the environmental burden of the final manufacturing process (industrialized manufacturing method) compared with the burden when this research had begun.

\* Indicators established by scoring the items such as safety/toxicity, operating condition, and waste volume, etc. of solvents or reagents.

# 4 Effective Use of Resources

## 4-1 Waste Reduction Targets and Achievements

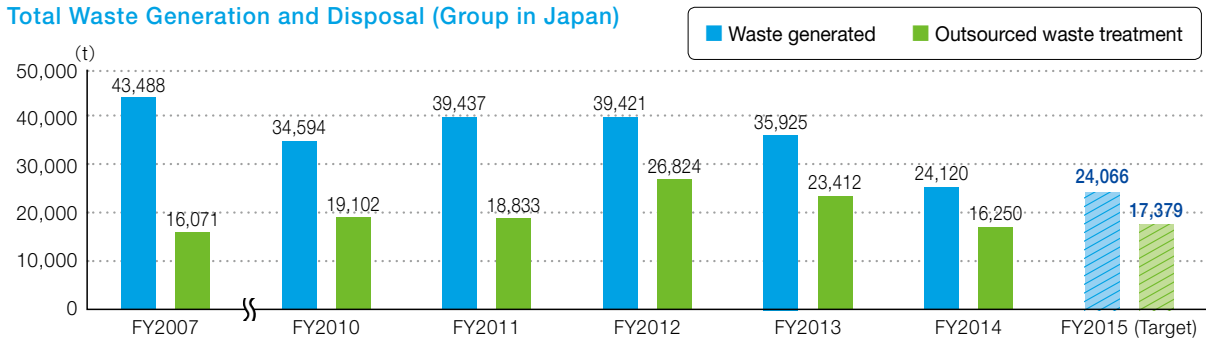
The Daiichi Sankyo Group defines zero emissions as final disposal rate representing less than 1% of total amount of waste.

The Group in Japan made achieving zero emissions by fiscal 2009, one of the goals in its First Mid-term Environmental Management Targets and has maintained zero emissions since attaining the target in fiscal 2008, a year ahead of the schedule.

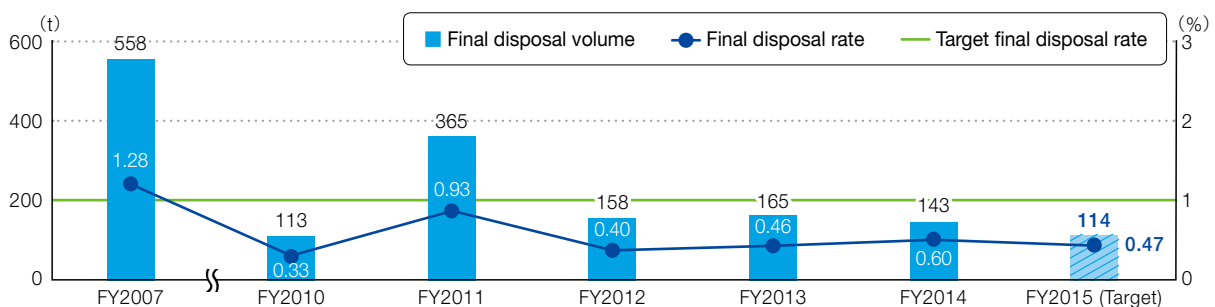
At our plants and research centers, the Group established reduction waste and more efficient use of resources as important issues. Consequently, it is pursuing resource savings through efforts such as the streamlining of resources used in manufacturing and packaging processes, comprehensive separation of unnecessary and waste materials, reduction of total unnecessary and waste material volume, and resource recycling. Whenever possible, the Group chooses waste disposal firms that recycle thoroughly. We continued to promote our resource recycling policy in fiscal 2014, and the recycling rate (the percentage of the amount recycled in total waste generation) increased from 52.6% to 53.1%. Each office emphasizes the thorough separation of trash and promotes two-side printing of office paper.

The total waste generation and the final disposal volume in fiscal 2014 decreased by 11,805 tons and 22 tons compared to fiscal 2013, respectively. As a result, the Group maintained the final disposal rate of 0.6% and zero emission.

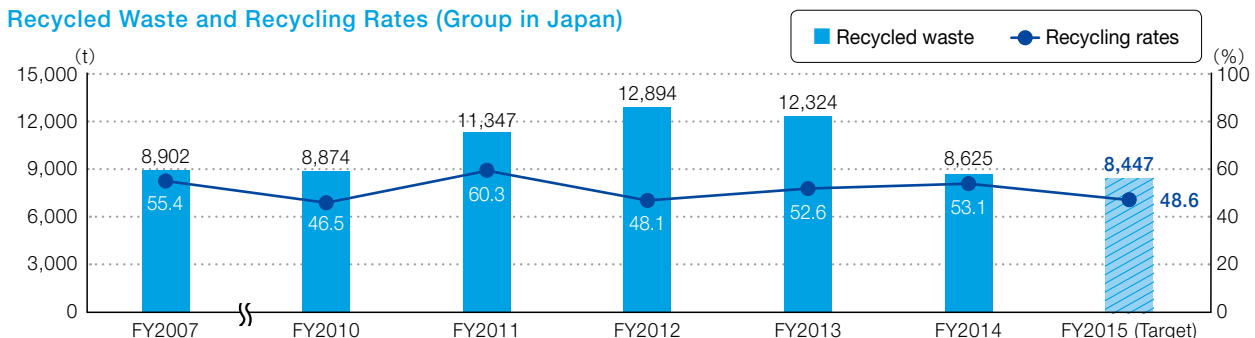
Total Waste Generation and Disposal (Group in Japan)



Final Disposal Volume and Rate (Group in Japan)



Recycled Waste and Recycling Rates (Group in Japan)



## Waste Generated, Recycled Waste, and Final Disposal Volume (Entire Group)

(t)

	Waste Generated	Recycled Waste	Final Disposal Volume
FY2012	648,221	453,644	180,805
FY2013	676,562	440,615	222,358
FY2014 <sup>(1)</sup>	17,975	9,487	770

(1)The figures are calculated with continuing operations only, as the Ranbaxy Group discounted its operations in fiscal 2014.

### 4-2 Promotion of Compliance Relating to Waste

As part of our efforts to promote compliance with respect to waste disposal, our environmental auditing at environmental management units—plants, R&D centers, offices, and other sites—focuses on verifying compliance with the Waste Disposal Act. Each site draws up and implements plans for on-site inspections at waste management contractors and waste treatment facilities in order to regularly check their compliance with applicable laws and regulations, contract implementation, and permits and licenses, as well as their facilities and equipment. We are also phasing in electronic manifests to reduce risks associated with manifest management and streamline related work.

### 4-3 Efforts to Reduce Waste

#### ① Reduction of office paper use

Owing to our efforts of recommendation of two-side printing and N-up printing, reducing handouts distributions (utilizing personal computers and projectors), putting up posters for enlightening of reduction of printings, introducing measures to prevent misprinting by using certification of IC card, etc., the use of office paper was 59.5 million pieces for fiscal 2014, with a 12% reduction compared to fiscal 2013. This means a 36% reduction compared to the data of fiscal 2007 when we started those efforts, and also contributes toward cost saving of office paper and printing.

#### ② Promotion of 3Rs (Reduce, Reuse, and Recycle)

##### ● Promotion of reuse within the office

The Shinagawa R&D Center and the Kasai R&D Center recover not only stationaries but also reusable devices and equipment, and display them in “Offering Room of Reuse Goods” to promote reusing. Furthermore, considering the convenience, we started to operate them mutually by both research centers in addition to actively announcing changes in displays. The results of reuse for fiscal 2014 were 2,062 cases with 10,528 items in the Shinagawa R&D Center and 508 cases with 3,347 items in the Kasai R&D Center. We also promote reuse of stationaries in our head office area by setting trays to recover stationaries.

##### ● Reuse of recovered organic solvents

In Odawara plant of Daiichi Sankyo Chemical Pharma Co., Ltd., we reuse recovered organic solvent in manufacturing process after purifying out of the company.

##### ● Promotion of recycling

In Hiratsuka plant of Daiichi Sankyo Chemical Pharma Co., Ltd., we perform material recycling of working clothes and latex gloves used in the pharmaceuticals manufacturing process.

# 5 Water Risk and Appropriate Use of Water Resources

## 5-1 Water Risk

We believe that ample availability of good-quality fresh water is essential both for all the production/business sites of our group and for the overall value chains in which our group is involved.

Water risks, which may include physical, regulatory, and reputational risks, are attracting global attention. The Daiichi Sankyo Group needs to take careful note of these risks in maintaining and continuing its operations.

We made a comprehensive assessment of water risks based both on the findings of our analyses of information on specific local water risks using the WRI Aqueduct and WWF-DEG Water Risk Filter and on the findings of studies on water risks conducted by our plants and R&D centers.

The assessment found that two plants in China and one plant in Brazil face the highest water risks among the production/business sites of our group. It identified stricter regulatory measures, such as water withdraw restrictions associated with water stress, as major risk drivers. These plants are watching regulatory developments and seeking more reasonable water consumption.

### Volume of Water Used at the Offices at the Highest Water Risk in Group

(1,000m)

	Volume of Water Used (withdrawn)	Volume of Water Discharged	Volume of Water Actual Used
FY2014	234	164	70

## 5-2 Appropriate Use of Water Resources

Water is an important resource which is essential for the production of pharmaceuticals, and we recognize that it is one of ecosystem service that should be sustainably used. In addition to understanding the risks and challenges associated with water usage and the status of water resources in countries and regions where our offices are located, we conducted countermeasures, including reasonable and efficient usage, promotion of reuse with purification equipment, and reduction in the amounts used.

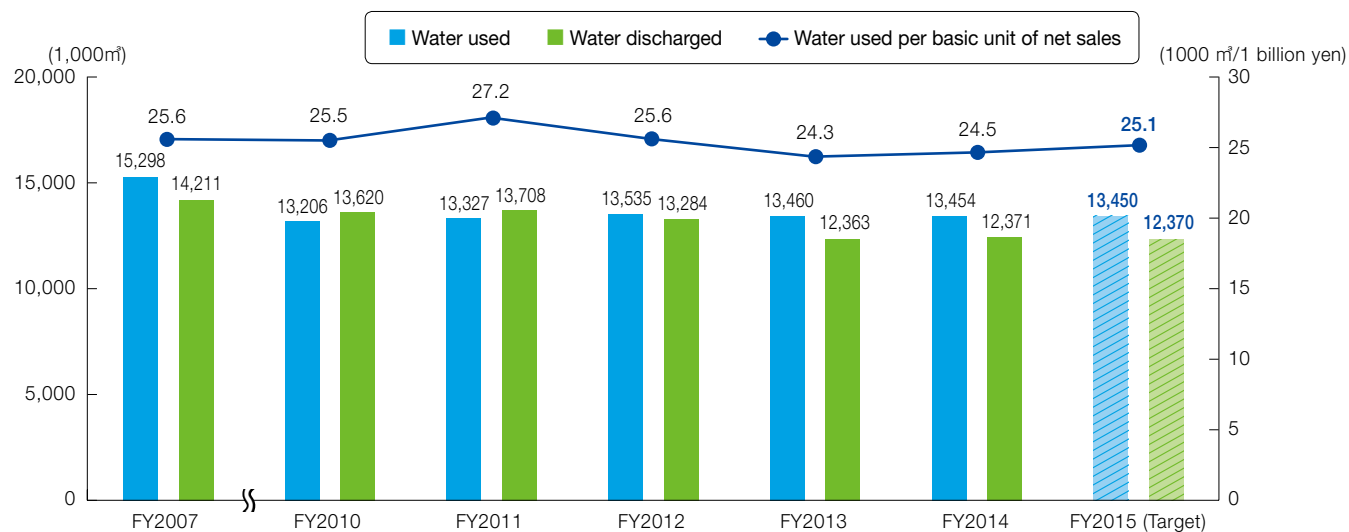
The volume of water used by the entire group companies in Japan in fiscal 2014 totaled 13.454 million m<sup>3</sup>, down 0.04% compared to fiscal 2013.

Moreover, the volume of water used by the entire group companies in fiscal 2014 totaled 13.977 million m<sup>3</sup>, up 0.5% compared to fiscal 2013. We have set a target of reducing water usage below the previous fiscal year's levels in fiscal 2015 as well, and will promote appropriate management of the volume of water used and wastewater.

Water use per basic unit of net sales of the Group in Japan and entire group were 24.5 and 15.2 (1,000m<sup>3</sup>/billion yen), with a 4.3% and a 6.2% improvement compared to fiscal 2012, respectively.

## 5 Water Risk and Appropriate Use of Water Resources

### Volume of Water Used and Discharged (Group in Japan)



\*includes Kitasato Daiichi Sankyo Vaccine from fiscal 2011

### Volume of Water Used and Discharged (Entire Group)

	Volume of Water Used (withdrawn) (1,000 m³)	Volume of Water Discharged (1,000 m³)	Volume of Water Actual Used (1,000 m³)	Water Used per Net Sales (1,000 m³/billion JPY)
FY2011	15,561	14,072	1,489	16.7
FY2012	16,199	14,386	1,813	16.2
FY2013	15,617	13,521	2,096	14.5
FY2014 <sup>(1)</sup>	13,970	12,818	1,152	15.2

(1)The figures are calculated with continuing operations only, as the Ranbaxy Group discounted its operations in fiscal 2014.

# 6 Initiatives for Biodiversity Conservation

## 6-1 Our Basic Stance

The Group's Basic Environmental Management Policy and the Third Mid-term Environmental Management Policy stipulate that its business activities must consider biodiversity and ecosystem service. The Group has established the Basic Biodiversity Principles and Action Guidelines based on these policies. Moreover, when this was established, the Group surveyed its initiatives on biodiversity, the use of natural resources, and status of efforts to comply with the Cartagena Protocol both in and outside Japan. In addition, the Group assessed the relationship between its business activities and biodiversity and identified issues through an analysis of the Group's risks and opportunities (Please refer to the diagram "Map of corporate activities and biodiversity" below).

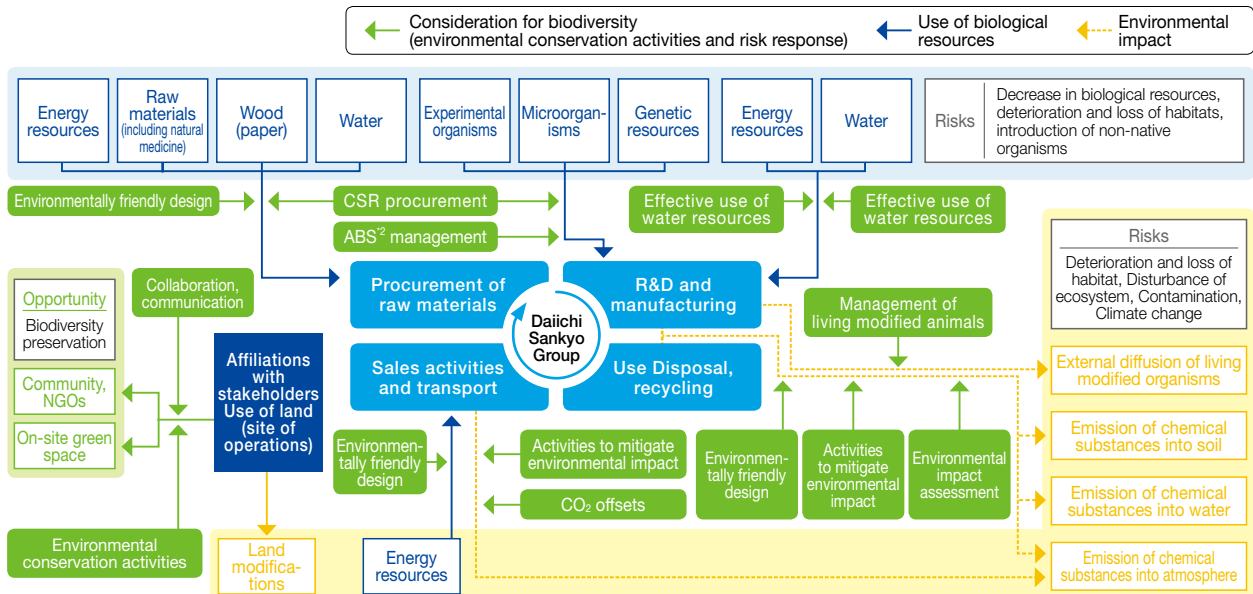
The Daiichi Sankyo Group believes that biodiversity conservation and sustainable use of ecosystem service are essential to perform business. We promote to raise awareness and understanding of employees, as well as to strengthen environment conservation activity in collaboration with the business partner and private groups, to procure materials with less environmental burden, and to socially contribute for biodiversity conservation.

### Basic Biodiversity Principles and Action Guidelines

Basic Policy	
<ul style="list-style-type: none"> <li>Our Basic Environmental Management Policy states that, "Safeguarding the environment is the bedrock of all Group operational management." We have therefore acted to prevent pollution and global warming and contribute to recycling. Through our initiatives, we have used biological resources properly to minimize the impacts of our operations on biodiversity and have sustainably reduced chemical and other discharges.</li> <li>We will continue striving to preserve biodiversity and respect the principles of the Convention on Biological Diversity by adhering to the following Biodiversity Action Guidelines, thereby enhancing social sustainability.</li> </ul>	
Action Guidance	
1. Actively promote to address biodiversity conservation in all business activity	<ul style="list-style-type: none"> <li>Under take ongoing endeavors to avoid or reduce operational impacts on biodiversity, devoting particular attention to lowering the environmental burdens of air and water emissions and wastes.</li> </ul>
2. Identify the biodiversity impacts of ecosystem services, using those services sustainably	<ul style="list-style-type: none"> <li>Recognize the operational importance of ecosystem services while understanding and minimizing their impacts on biodiversity, using those services sustainably.</li> </ul>
3. Use genetically modified organisms responsibly	<ul style="list-style-type: none"> <li>Maintain biosafety by continuing to responsibly use genetically modified organisms in drug discovery and production in keeping with the Cartagena Protocol on Biosafety and national laws and ordinances.</li> </ul>
4. Equitably obtain and use profits arising from the utilization of genetic resources and share their benefits fairly	<ul style="list-style-type: none"> <li>In line with the Convention on Biological Diversity, the Bonn Guidelines and other related national laws and ordinances, equitably obtain, use and share profits from the utilization of genetic resources. Additionally, take into account the Nagoya Protocol.</li> </ul>
5. Communicate with stakeholders and improve in-house awareness	<ul style="list-style-type: none"> <li>Foster biodiversity preservation by communicating and liaising better with public and private entities.</li> <li>Educate employees to better understand how operations affect biodiversity and encourage internal and external efforts to safeguard biodiversity.</li> </ul>

# 6 Initiatives for Biodiversity Conservation

## Map of Corporate Activities and Biodiversity<sup>\*1</sup>



<sup>\*1</sup> Prepared with reference to the "Map of Corporate Activities and Biodiversity" developed by the Japan Business Initiative for Conservation and Sustainable Use of Biodiversity (JBIB)

<sup>\*2</sup> Access to genetic resources and benefit sharing

## 6-2 Initiatives for Biodiversity Conservation

### ● Conservation for rare species of plants

For conserving the golden orchid (designated as critically endangered Type II in the Japanese Ministry of the Environment's Red Data Book) and the silver orchid, we have prohibited entry into a part of the property at the Tatebayashi Biopharmaceuticals Center where the plant naturally grows.

### ● Implementation of WET testing

In fiscal 2014, the Tatebayashi Biopharmaceuticals Center conducted an assessment using WET testing to assess the impact of the discharged water from our plants on the ecosystems. The assessment found that the impact is insignificant. In fiscal 2015, we plan to conduct WET testing at all of our plants and R&D centers across Japan to assess the environmental impact of discharged water from these sites.



# 7 Environmental Communication

## 7-1 Our Basic Stance

Our group proactively promotes environmental communication with our stakeholders to prevent and resolve environmental problems by sharing information and fostering stakeholder dialogue about the environment. In the rare event of an environmental accident, the Group will carefully consider the possible impact on the surrounding community and make every effort to periodically share information and exchange ideas with local residents around its plants and R&D centers and conduct disaster prevention countermeasures in collaboration with them.

## 7-2 Selected Initiatives

### ● Environmental managers workshop

We hold ensemble learning targeting environmental managers of the group companies in Japan every year. In fiscal 2014, we held a workshop on how to cope with the revised CFS Emissions Control Act, which takes effect in April 2015, and how to ensure environmental compliance, with 35 attendees.

An external lecturer gave a presentation titled “On the Revised CFS Emissions Control Act: With Focus on the Background to and Reasons for the Revision and Major Criteria for Managers.” The lecture was followed by an exchange of views on the specifics of how to handle the new act. The participants were provided with information on the latest developments in WET testing, which is designed to assess the impact of plant discharged water on ecosystems.

### ● Environmental e-learning

We provide environmental e-learning targeting all employees in the Group in Japan. The theme for fiscal 2014 was “Promotion of the 3Rs, proper management of solid waste, and actions taken by the Daiichi Sankyo Group to address them.” A participation rate was 97.1% of 9,839 targeted employees. We also provided supplemental e-learning (“Basics of global environmental issues and actions taken by the Daiichi Sankyo Group”) targeting employees who had not participated in the previous fiscal year, such as new employees, with a participation rate of 93.8% of 368 targeted employees.

We also provided this supplemental e-learning to employees who had already participated. As a result, 7,828 employees with positive attitude toward improvement of environmental awareness participated in the learning.

### ● Environmental Art Contest

Environmental communication measures are conducted to improve employees’ environmental awareness. Every year in June, which is designated as “Environment Month” by the Group, a contest is held for artworks that give the viewer an impression of the environment. Artworks are solicited from Group employees and their families globally.

For the 2014 contest, we received a total of 363 entries in the image category—166 works from our group companies in Japan and 197 works from those outside Japan, representing an increase from 325 entries in the previous contest. In addition, we also received 555 entries in the *senryu* category, humorous or ironic haiku, for our group companies in Japan. This number represented a significant increase from the previous contest, which received 254 entries. We selected the grand prize/prize winners and held the awards ceremony at each regional or group company.





● Raising the awareness of the need to combat global warming

The three-month period from December to February is designated as a period for raising the awareness of the need to combat global warming. Every year, we create a poster using the award-winning works from the Environmental Art Contest to raise environmental awareness. Copies of the poster are exhibited at our group companies in Japan and abroad as well as at their production/business sites.

**7-3 “Daiichi Sankyo Group eco-action program” in Japan**

We carried out an eco-action program to raise the environmental awareness of each employee and encourage them to practice eco-friendly activities not only in their workplaces but also in their homes.

**Column What is “Daiichi Sankyo Group eco-action program?”**

The Daiichi Sankyo Group eco-action program is a program containing the following “eco-action check,” for confirming the practice of environment-friendly activities, and “environmental housekeeping book in my home” for entering usage and fee of electricity, water, etc. in home.

It aims to promote further environment-friendly activities by entering the status of activities into specified website and looking back to the implementation of daily eco-actions and the usage status of energies.

The system gives points to users according to their implementation status, and they can select either exchange to eco-goods or donation to



environmental conservation groups. In fiscal 2014, we provided the program for two months from July to August, with 925 participants.

## 7-4 Environmental Outreach

### ● Coastal Forest Restoration Project in the aftermath of the Great East Japan Earthquake

As part of efforts to support reconstruction in the aftermath of the Great East Japan Earthquake, we support the Coastal Forest Restoration Project in Natori City, Miyagi Prefecture. The tsunami triggered by the 3/11 earthquake devastated the forests along the Pacific coast of Tohoku Region. These coastal forests not only played an important role in protecting the local environment for people as disaster-prevention forests but also constituted ecosystems that supported local biodiversity.

The Coastal Forest Restoration Project is an ongoing process aimed at restoring the lost coastal forests. This idea is not only to restore the local environment for people and ecosystems but also to help revitalize the local economy with affected local people nursing seedlings.

In April 2014, full-fledged planting of black pine was launched. Work is now underway to maintain the fledging forests and nurse seedlings for planting the next year. In fiscal 2014, in addition to economic assistance, seven employees from the Daiichi Sankyo Group volunteered to participate in the planting management activities at the No. 1 Nursery of the local volunteer group called Natori-shi Kaigan-rin Saisei no Kai and in coastal forest planting areas. They reported their volunteer activities on the in-house intranet. They stressed the need to continue the volunteer activities and called for others to participate.



## 7-5 Environment-related commendations

Shinagawa R&D Center	a "top-level facility" certified by the Governor of Tokyo as having made outstanding progress in implementing measures against climate change
Shinagawa R&D Center No. 800 Building	a Certified Fire Safety Building, certified by the Tokyo Fire Department
Asubio Pharma Co. Ltd	Commended by Kobe City as having made distinguished contributions to disaster prevention in fiscal 2014
Daiichi Sankyo RD Novare Co. Ltd	Commended by the health and safety chief in fiscal 2014

# 8 Site Data

## Business Activity and Input/Output in fiscal 2014 (Group in Japan: Plants and R&D Centers)

INPUT		Unit	Shinagawa	Kasai	PP Akita <sup>(1)</sup>	PP Onahama <sup>(1)</sup>	PP Tatebayashi <sup>(1)</sup>
Energies	Electricity	1,000 kWh	27,384	17,280	7,274	13,183	3,082
		GJ	265,393	168,653	72,214	128,670	30,085
	City gas	1,000m <sup>3</sup>	2,416	4,532	-	-	2,557
		GJ	108,711	203,938	-	-	115,052
	LPG	t	-	-	4	3	-
		GJ	-	-	226	177	-
	LNG	t	-	-	-	2,307	-
		GJ	-	-	-	125,986	-
	Heavy oil	KL	-	-	-	-	0.4
		GJ	-	-	-	-	15
	Kerosene	KL	-	-	417	-	-
		GJ	-	-	15,311	-	-
	Diesel oil	KL	-	-	-	-	-
		GJ	-	-	-	-	-
Steam	GJ	-	-	25,016	-	-	
Gasoline	KL	-	-	-	0.3	-	
	GJ	-	-	-	10	-	
<b>Total</b>	<b>GJ</b>	<b>374,104</b>	<b>372,590</b>	<b>112,768</b>	<b>254,843</b>	<b>145,151</b>	
Water	Service water	1,000m <sup>3</sup>	130	155	30	108	34
	Industrial water	1,000m <sup>3</sup>	0	0	1,801	7,642	55
	Groundwater	1,000m <sup>3</sup>	44	0	0	0	0
	<b>Total</b>	<b>1,000m<sup>3</sup></b>	<b>174</b>	<b>155</b>	<b>1,831</b>	<b>7,750</b>	<b>90</b>
Chemical substances	PRTR substances (amounts handled)	t	34.7	27.7	209.7	10.1	3.9

OUTPUT		Unit	Shinagawa	Kasai	PP Akita <sup>(1)</sup>	PP Onahama <sup>(1)</sup>	PP Tatebayashi <sup>(1)</sup>
Air pollution	CO <sub>2</sub>	t-CO <sub>2</sub>	15,465	16,465	5,230	11,093	6,837
	NO <sub>x</sub>	t	5.5	5.3	1.0	3.1	14.2
	SO <sub>x</sub>	t	-	-	0.13	0.01	0.47
	PRTR substances	t	10.0	2.2	0.1	0.0	0.2
Water pollution	BOD	t	6.8	1.6	0.0	7.0	0.1
	COD	t	-	-	5.6	16.7	250.3
	PRTR substances	t	0.0	0.0	3.8	0.0	0.0
Waste	Emission	t	706	331	839	817	236
	Recycling amount	t	689	294	827	729	219
	Final disposing amount	t	0.5	1.1	2.4	7.1	0.1
	PRTR substances	t	24.3	25.5	132.0	9.9	3.6

(1) PP: Daiichi Sankyo Propharma

### Business Activity and Input/Output in fiscal 2014 (Group in Japan: Plants and R&D Centers)

INPUT		Unit	PP Hiratsuka <sup>(1)</sup>	PP Takatsuki <sup>(1)</sup>	CP Hiratsuka <sup>(2)</sup>	CP Odawara <sup>(2)</sup>	ASB <sup>(3)</sup>	KDSV <sup>(4)</sup>
Energies	Electricity	1,000 kWh	36,990	17,489	3,214	10,874	6,561	27,742
		GJ	368,790	170,265	31,318	107,350	63,529	269,007
	City gas	1,000 m <sup>3</sup>	9,889	4,951	303	1,743	1,167	6,272
		GJ	444,986	222,810	13,622	78,425	52,503	282,225
	LPG	t	0.1	0.2	1	5	-	-
		GJ	7	10	45	251	-	-
	LNG	t	-	-	-	-	-	-
		GJ	-	-	-	-	-	-
	Heavy oil	KL	-	-	-	-	-	-
		GJ	-	-	-	-	-	-
	Kerosene	KL	-	-	-	-	-	309
		GJ	-	-	-	-	-	11,340
	Diesel oil	KL	-	0.1	0.1	2.3	-	-
		GJ	-	5	5	85	-	-
Steam	GJ	-	-	-	-	-	-	
Gasoline	KL	3.1	2.2	0.0	0.6	-	-	
	GJ	107	75	1	21	-	-	
<b>Total</b>	<b>GJ</b>	<b>813,890</b>	<b>393,165</b>	<b>44,991</b>	<b>186,132</b>	<b>116,032</b>	<b>562,573</b>	
Water	Service water	1,000 m <sup>3</sup>	368	35	27	28	30	234
	Industrial water	1,000 m <sup>3</sup>	0	1,004	0	0	0	0
	Groundwater	1,000 m <sup>3</sup>	1	0	110	1,618	0	0
	<b>Total</b>	<b>1,000 m<sup>3</sup></b>	<b>369</b>	<b>1,039</b>	<b>138</b>	<b>1,646</b>	<b>30</b>	<b>234</b>
Chemical substances	PRTR substances (amounts handled)	t	67.4	0.5	674.9	1,668.9	6.3	22.3

OUTPUT		Unit	PP Hiratsuka <sup>(1)</sup>	PP Takatsuki <sup>(1)</sup>	CP Hiratsuka <sup>(2)</sup>	CP Odawara <sup>(2)</sup>	ASB <sup>(3)</sup>	KDSV <sup>(4)</sup>
Air pollution	CO <sub>2</sub>	t-CO <sub>2</sub>	35,678	17,484	1,861	7,910	5,016	24,964
	NO <sub>x</sub>	t	15.5	6.0	0.6	3.3	-	4.7
	SO <sub>x</sub>	t	-	-	-	0.01	-	0.24
	PRTR substances	t	0.6	0.0	20.8	2.3	0.6	0.0
Water pollution	BOD	t	3.2	1.5	1.0	5.2	0.0	0.4
	COD	t	-	4.6	-	0.9	0.3	0.9
	PRTR substances	t	0.0	0.0	22.8	0.0	0.0	0.0
Waste	Emission	t	3,892	392	2,112	5,791	84	1,051
	Recycling amount	t	619	388	1,401	3,038	84	336
	Final disposing amount	t	0.6	0.4	8.9	120.8	0.0	0.9
	PRTR substances	t	66.3	0.5	32.1	294.1	5.7	0.0

- (1) PP: Daiichi Sankyo Propharma  
(2) CP: Daiichi Sankyo Chemical Pharma  
(3) ASB: Asubio Pharma  
(4) KDSV: Kitasato Daiichi Sankyo Vaccine

# ESG Data (Environment)

Goal Reference	Classification	Breakdown	Scope	Unit	FY2011	FY2012	FY2013	FY2014
CO <sub>2</sub>	Breakdown of CO <sub>2</sub> emissions	Sales vehicles* <sup>1</sup>	Outside Japan	t-CO <sub>2</sub>	28,790	30,063	27,625	23,619
			In Japan	t-CO <sub>2</sub>	8,579	7,845	7,433	7,016
			Global	t-CO <sub>2</sub>	37,369	37,908	35,058	30,635
		Offices	Outside Japan	t-CO <sub>2</sub>	8,068	14,673	10,175	5,900
			In Japan	t-CO <sub>2</sub>	4,904	5,017	5,099	4,989
			Global	t-CO <sub>2</sub>	12,972	19,690	15,274	10,889
		Plants and R&D centers	Outside Japan	t-CO <sub>2</sub>	276,812	311,899	328,049	41,074
			In Japan	t-CO <sub>2</sub>	146,080	152,052	159,022	148,004
			Global	t-CO <sub>2</sub>	422,892	463,951	487,071	189,077
		Total	Outside Japan	t-CO <sub>2</sub>	313,670	356,636	365,850	70,593
			In Japan	t-CO <sub>2</sub>	159,563	164,914	171,554	160,009
			Global	t-CO <sub>2</sub>	473,233	521,550	537,404	230,602
	CO <sub>2</sub> emissions by Greenhouse Gas Protocol	Scope 1	Outside Japan	t-CO <sub>2</sub>	97,360	123,065	110,158	33,139
			In Japan	t-CO <sub>2</sub>	85,159	94,192	100,166	90,795
			Global	t-CO <sub>2</sub>	182,519	217,257	210,324	123,934
		Scope 2	Outside Japan	t-CO <sub>2</sub>	216,311	233,571	255,691	37,453
			In Japan	t-CO <sub>2</sub>	74,404	70,722	71,388	69,214
			Global	t-CO <sub>2</sub>	290,715	304,293	327,079	106,667
	Site data	Shinagawa	In Japan	t-CO <sub>2</sub>	13,052	15,121	14,424	15,465
		Kasai	In Japan	t-CO <sub>2</sub>	15,153	16,510	17,529	16,465
		Fukuroi * <sup>2</sup>	In Japan	t-CO <sub>2</sub>	4,492	4,400	1,316	-
		Shizuoka	In Japan	t-CO <sub>2</sub>	1,353	-	-	-
		Daiichi Sankyo Propharma (Akita)	In Japan	t-CO <sub>2</sub>	5,075	5,894	5,544	5,230
		Daiichi Sankyo Propharma (Onahama)	In Japan	t-CO <sub>2</sub>	11,283	13,443	10,704	11,093
		Daiichi Sankyo Propharma (Tatebayashi)* <sup>3</sup>	In Japan	t-CO <sub>2</sub>	5,686	6,232	6,304	6,837
		Daiichi Sankyo Propharma (Hiratsuka)* <sup>4</sup>	In Japan	t-CO <sub>2</sub>	38,982	39,054	37,930	35,678
		Daiichi Sankyo Propharma (Odawara)* <sup>5</sup>	In Japan	t-CO <sub>2</sub>	8,605	4,874	-	-
Daiichi Sankyo Propharma (Takatsuki)* <sup>6</sup>		In Japan	t-CO <sub>2</sub>	13,102	16,211	17,084	17,484	
Asubio Pharma (Kobe)		In Japan	t-CO <sub>2</sub>	5,405	5,191	5,077	5,016	
Daiichi Sankyo Chemical Pharma (Hiratsuka)		In Japan	t-CO <sub>2</sub>	4,072	4,446	3,855	1,861	
Daiichi Sankyo Chemical Pharma (Odawara)		In Japan	t-CO <sub>2</sub>	2,820	3,040	9,044	7,910	
Kitasato Daiichi Sankyo Vaccine		In Japan	t-CO <sub>2</sub>	17,000	17,635	30,210	24,964	
Energy	Breakdown of energy use	Electricity	In Japan	1,000 kWh	184,441	187,561	188,971	184,002
		Electricity	In Japan	GJ	1,800,000	1,836,188	1,850,214	1,803,212
		City gas	In Japan	1,000m <sup>3</sup>	30,790	32,217	36,660	33,932
		City gas	In Japan	GJ	1,339,000	1,443,316	1,642,373	1,526,948
		LPG	In Japan	t	21	21	18	14
		LPG	In Japan	GJ	1,072	1,052	889	717
		LNG	In Japan	t	2,366	2,944	2,357	2,307
		LNG	In Japan	GJ	129,210	160,748	128,709	125,986
		Heavy oil	In Japan	KL	889	870	224	0.4
		Heavy oil	In Japan	GJ	34,749	34,012	8,756	15
		Kerosene	In Japan	KL	926	1,040	886	726
		Kerosene	In Japan	GJ	33,998	38,161	32,520	26,652
		Diesel oil	In Japan	KL	41	5	5	3
		Diesel oil	In Japan	GJ	1,631	197	196	95
		Steam	In Japan	GJ	31,054	28,326	30,772	25,016
		Gasoline (Plants and R&D centers)	In Japan	KL	8	8	6	6
		Gasoline (Plants and R&D centers)	In Japan	GJ	257	267	220	214
		Gasoline (Sales vehicles)	In Japan	KL	3,697	3,382	3,204	2,920
		Gasoline (Sales vehicles)	In Japan	GJ	127,934	117,002	110,855	101,039
		Total	In Japan	GJ	3,498,905	3,659,268	3,805,502	3,609,892
	Breakdown of energy use	Electricity	Global	GJ	4,400,000	4,678,174	4,936,839	2,370,592
		City gas	Global	GJ	1,468,000	1,571,307	1,827,114	1,709,822
		LNG	Global	GJ	545,000	766,265	685,711	125,986
		Gasoline	Global	GJ	556,000	563,820	405,820	448,076
		Heavy oil	Global	GJ	582,000	418,679	508,408	15
		Diesel oil	Global	GJ	315,000	547,014	414,682	2,708
		Others	Global	GJ	69,000	70,385	68,671	115,293
		Total	Global	GJ	7,935,000	8,615,643	8,847,243	4,772,492

Goal Reference	Classification	Breakdown	Scope	Unit	FY2011	FY2012	FY2013	FY2014
Water resources	Water used		Outside Japan	1,000 m <sup>3</sup>	2,324	2,664	2,157	516
			In Japan	1,000 m <sup>3</sup>	13,327	13,535	13,460	13,454
			Global	1,000 m <sup>3</sup>	15,651	16,199	15,617	13,970
	Water discharged		Outside Japan	1,000 m <sup>3</sup>	364	1,102	1,158	447
			In Japan	1,000 m <sup>3</sup>	13,708	13,284	12,363	12,371
			Global	1,000 m <sup>3</sup>	14,072	14,386	13,521	12,818
Water pollution	BOD		In Japan	t	40	42	31	26.7
	COD		In Japan	t	22	23	22	29.1
Waste	Waste generated		In Japan	t	39,437	39,421	35,925	24,120
	Outsourced waste treatment		In Japan	t	18,833	26,824	23,412	16,250
	Recycled waste		In Japan	t	11,347	12,894	12,324	8,625
	Recycling rates		In Japan	%	60.3	48.1	52.6	53.1
	Final disposal volume		In Japan	t	365	158	165	143
	Final disposal rate		In Japan	%	0.93	0.40	0.46	0.6
	Amount of office paper consumed		In Japan	10,000 pieces	7,078	6,970	6,759	5,950
Air pollution	SOx		Outside Japan	t	597	197	387	0.3
			In Japan	t	0.9	0.6	1.1	0.9
			Global	t	598	198	388	1.1
	NOx		Outside Japan	t	7	319	189	7.1
			In Japan	t	46	35	43	59.1
			Global	t	53	354	232	66.2
PRTR substances	Amounts handled		In Japan	t	5,704.0	6,087.1	6,248.8	2,726.3
	Amounts discharged and transferred (air)		In Japan	t	121.7	112.8	108.5	37.0
	Amounts discharged and transferred (water)		In Japan	t	3.6	3.3	4.4	3.8
	Amounts discharged and transferred (sewer)		In Japan	t	43.9	47.7	47.7	22.8
	Amounts discharged and transferred (waste)		In Japan	t	3,237.7	2,495.2	1,958.0	593.8
Containers	Containers and packaging recovery/recycling	Glass bottle (colorless)	In Japan	t	171	188	207	202
		Glass bottle (brown)	In Japan	t	484	454	567	474
		Plastic containers and packaging	In Japan	t	1,601	1,678	1,419	1,557
		Paper containers and packaging	In Japan	t	65	60	30	30
		Group In Japan	Total	t	2,321	2,380	2,222	2,263
Management	ISO 14001-certified sites		Outside Japan	Sites	6	6	8	1
			In Japan	Sites	7	8	7	7
			Global	Sites	13	14	15	8

\*1: Carbon of offset-type sales vehicles were leased so that CO<sub>2</sub> emissions from sales vehicles were entirely offset from FY 2008 to FY 2012.

\*2: Includes the data by the end of September, 2013

\*3: Includes Daiichi Sankyo Research Center

\*4: Includes Daiichi Sankyo Research Center and Daiichi Sankyo Happiness Co., Ltd.

\*5: The data of Daiichi Sankyo Propharma (Odawara) is integrated into the data of Daiichi Sankyo Chemical Pharma (Odawara).

\*6: Includes Daiichi Sankyo Logistics Co., Ltd.



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