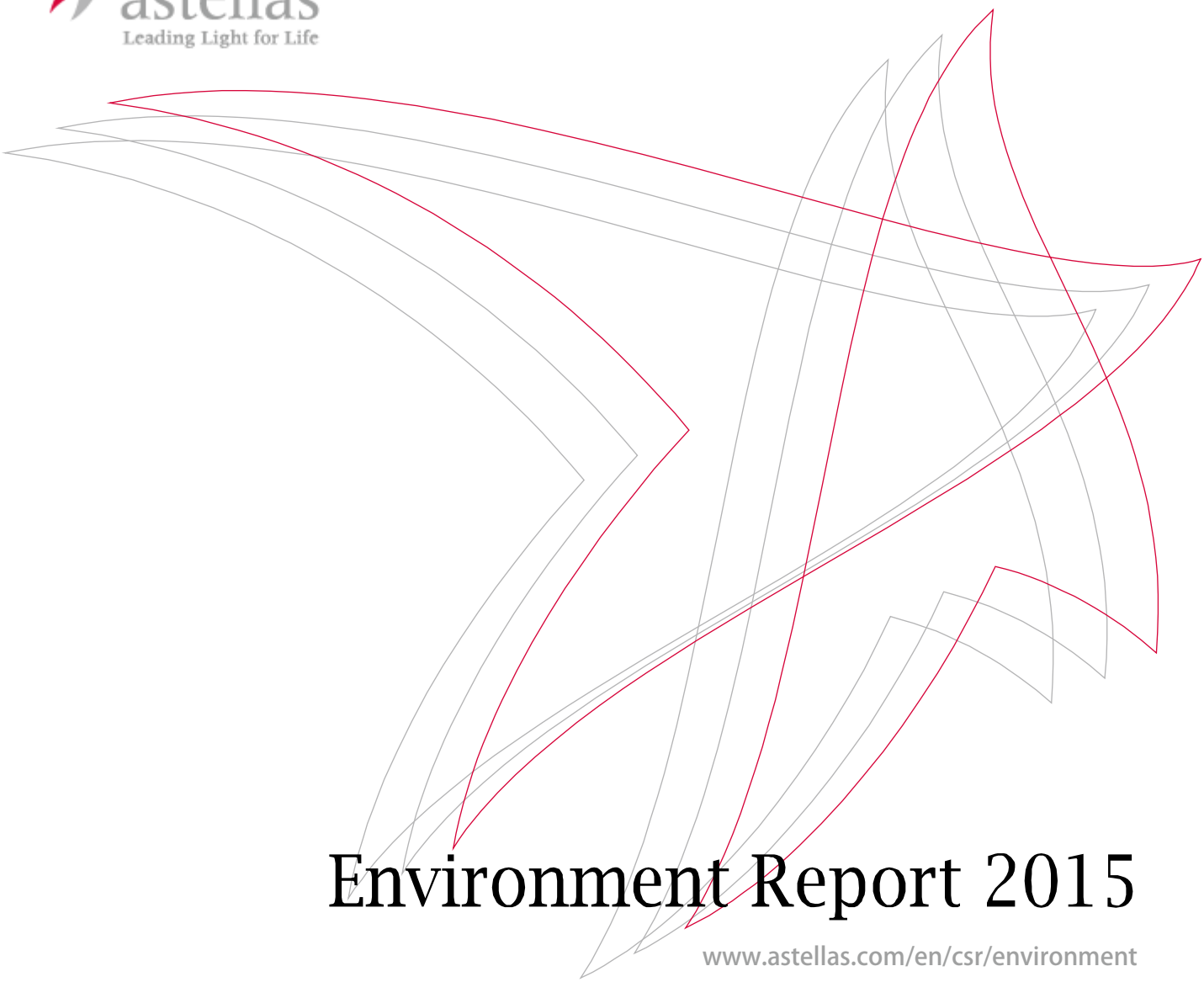
astellas
Leading Light for Life



Environment Report 2015

www.astellas.com/en/csr/environment

Astellas Pharma Inc.

Wind turbine system at Kerry Plant, Ireland
Photo: Gina Halliday (Snr. Health & Safety Officer)

1. Editorial Policy

In publishing this "Astellas Environmental Report 2015," Astellas Pharma Inc. has worked to provide a more detailed account of its activities in an easy-to-understand manner to all those who are affected by its environmental initiatives and the various stakeholders who have an invested interest. The environment is one of the CSR fields in which Astellas actively tackles issues, sets targets, and undertakes initiatives. When preparing this Report, every effort was made to include easy-to-understand explanations using specific examples, numerical data, and graphs and charts. Readers are asked to take note of the fact that due to the rounding up of figures used in numerical environmental performance data, there may be cases where the total figure given does not tally precisely with the aggregated value.

An overall picture of CSR-based management at Astellas and activities in the five fields of compliance, employees, the economy, society, and the environment is contained in the Astellas Annual Report 2015, a printed publication that is scheduled for release in September 2015. Accordingly, excerpts from the Astellas Environmental Report 2015 can be found in the Environment Section of the Annual Report 2015.

1.1. Reporting Period

As a general rule, this Report covers the activities of facilities in Japan from April 1, 2014 to March 31, 2015, and the activities of overseas facilities from January 1, 2014 to December 31, 2014. (Certain sections of this Report contain details of activities and initiatives both prior to and after these identified reporting periods.)

1.2. Reporting Coverage

This Report covers the operations of all the production facilities of Astellas group worldwide and non-production sites in Japan included in the Company's consolidated financial statements. However, the scope covered may differ depending on the item. Accordingly, details of the scope covered are identified on an individual basis in instances where a discrepancy arises.

In addition, certain environmental data includes the results of activities of subcontractors because the environment and society is affected not only by the Company's own activities but also via the supply chain.

1.3. Important Changes in Organization during the Reporting Period

Because of the succession to another company of the business done at the former Fuji Plant on April 1, 2014, we have changed the boundary of reporting from fiscal 2014. In this report, we have deducted all the past data corresponding to the environmental burden of the former Fuji Plant, but have included the former Fuji Plant in calculating the Company's biodiversity index because we cannot deduct the former Fuji Plant's contribution to net sales from the total. To confirm the accumulated data up to fiscal 2013 that includes the performance of the former Fuji Plant, please refer to the past environmental reports available on the Astellas website. (https://www.astellas.com/en/csr/environment/e_report.html)

1.4. Guidelines

The Astellas Environmental Report 2013 has been prepared with reference to the Environmental Reporting Guidelines (2012 edition) issued by Japan's Ministry of the Environment.

1.5. Notational System of Numerical Results

Total and tallies of shares may not always match due to the effect of rounding.

Information regarding publication:

Date of issue	: June 2015 (available on the Company's website)
Next scheduled issue	: June 2016 Copy to be posted on the Company's website

Please note there is no printed version of the Astellas Environment Report 2015.

2. Abbreviation List

Abbreviation	Explanation
GHG	Greenhouse gases. There are six categories of greenhouse gases: carbon dioxide, methane, nitrous oxide, hydro fluorocarbons, per fluorocarbons and sulfur hexafluoride. Carbon dioxide itself can be divided into energy source and non-energy source types. Greenhouse gases other than energy-source carbon dioxide are known in Japan as the 5.5 gases. At Astellas, non-energy source CO_2 was discharged from waste fluids from our incinerators before, but only energy-source CO_2 is emitted now. In this report, GHG is used for all types of gas.
CO_2	Abbreviation for carbon dioxide. In the Environmental Plan of Action, it is referred to as carbon dioxide.
Scope1	Volume of GHGs emitted directly from Company premises as a result of the burning of fuels (city gas, fuel oil, kerosene, diesel oil, gasoline, LPG, LNG)
Scope2	Volume of GHGs emitted indirectly in the use of electric power or heat supplied to the Company from outside
Scope3	GHGs emitted indirectly at some point on the Company's value chain (production, transportation, business trips, commuting, etc.)
SOx	Sulfur oxides – emitted by the burning of fossil fuels containing sulfur
NOx	Nitrogen oxides – formed through the combination of nitrogen and oxygen in the atmosphere during the combustion of substances
BOD	Biochemical oxygen demand. Used as a benchmark for indicating extent of water pollution by organic matter in rivers.
COD	Chemical oxygen demand – indicates the amount of water pollution due to the presence of organic compounds in seas or lakes
VOC	Volatile organic compounds – organic chemical compounds that are volatile in the atmosphere at standard ambient temperatures and pressures

3. Environmental Initiatives

Astellas recognizes that maintaining a healthy global environment is important both for building a sustainable society and engaging in business activities on an ongoing basis.

At the same time, the Company is cognizant of the growing gravity of threats to the ecosystem and such environmental issues as greenhouse gas (GHG) emissions attributable to the mass consumption of fossil fuels and deterioration of the natural environment due to the excessive extraction of resources. Other issues that impact the regional environment include air and water pollution, soil contamination, the emission of chemical substances, and industrial waste.

In order to ensure sustainable growth, Astellas is conscious of the need to adhere strictly to all statutory and regulatory requirements as they relate to wide-ranging environmental issues. At the same time, the Company recognizes the critical importance of fulfilling its corporate responsibilities toward society with the understanding that any failure to do so will lead to a deterioration of its standing in society and ultimately corporate value. Because of the inherent risk that expenditure will directly impact the Company's operations, consideration must also be given to increases in energy and raw material costs reflecting the sharp rise in resource prices, as well as expenses incurred in responding to new environment-related regulations including taxes.

Accounting for each of the aforementioned, positive steps toward the effective use of energy and resources will not only reduce environmental load, but also bolster business operations.

Moving forward, Astellas will accordingly engage in activities that are in harmony with the global environment. We will put in place an ideal image of the Company from a long-term and global perspective while continuously implementing initiatives that address issues in the regional community with an eye toward tomorrow's generation.

Main Environmental Targets Achieved in Fiscal 2014 (Summary)

Environmental Action Plan Numerical Targets	Fiscal 2014 Performance
[Fiscal 2005 as the base year] 1. Measures to Address Global Warming 1) Reduce GHG emissions by 35% or more compared with fiscal 2005 levels by fiscal 2020 (Global) ・ Japan : Reduce by 30% or more ・ Overseas production facilities : Reduce by 45% or more 2) Reduce CO_2 emissions generated through sales activities by 30% or more from fiscal 2005 levels by the end of fiscal 2015 (Japan) 3) Reduce electricity usage at offices to the levels of 80% or less than fiscal 2005 by fiscal 2015 (Japan)	1. 1) Ratio to FY2005 level : -30.2% Japan : -27.9% Overseas : -371% 2) Ratio to FY2005 level : -29.2% 3) Ratio to FY2005 level : 86.7%
[Fiscal 2005 as the base year] 2. Reduce water withdrawal to the levels of 80% or less than fiscal 2005 by fiscal 2015 (Global)	2. Ratio to FY2005 level : 77.2%
3. Final volume of waste for disposal in landfill (Japan) Reduce the final volume of waste for disposal to less than 2% of volume discharged	3. Ratio to total volume of waste discharged : 0.6%
[Fiscal 2006 as the base year] 4. Reduce the amount of volatile organic compounds (VOCs) discharged by 25% or more compared with fiscal 2006 levels by fiscal 2015 (Japan)	4. Ratio to FY2006 level : -32.5%
[Fiscal 2005 as the base year] 5. Double the biodiversity index from the fiscal 2005 level by fiscal 2020 (Global)	5. Ratio to FY2005 level : 2.68 times

* VOC : Volatile Organic Compounds

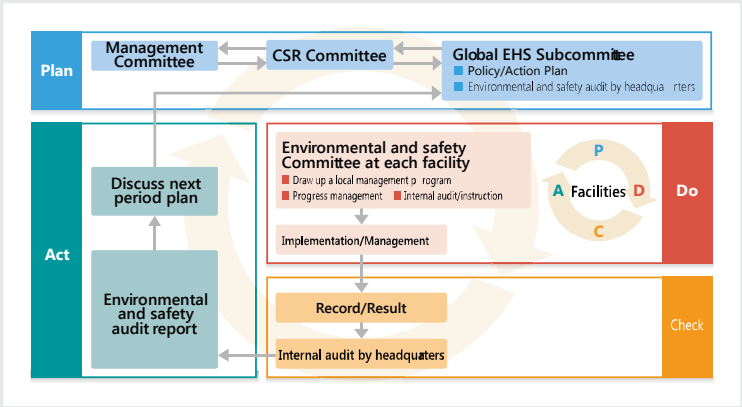
4. Environmental Management

In accordance with its Charter of Corporate Conduct, Astellas' basic stance toward the environment as well as the health and safety of its employees is outlined under its Environmental and Safety Policy. The goals to which the Company aspires at fiscal 2015 are also presented in its Environmental and Safety Guidelines. Both on a continuous and organizational basis, Astellas is engaging in activities that are designed to fulfill its obligations in each area.

4.1. Environmental and Safety Guidelines

Our Environmental and Safety Guidelines provide unified standards to be upheld in our implementation of environmental and safety measures. These guidelines indicate the stance Astellas should aim for in the future.

These guidelines describe that Astellas' envisioned status at fiscal 2015 in qualitative terms. The period for realizing numerical targets and the actual numerical targets are set out separately in our short- and medium-term action plans, updated annually.



4.2. Environmental and Safety Management System

Fundamental policies and action plans relating to environmental and safety matters are positioned as an important issue in CSR management, and are discussed and determined by the CSR Committee. Measures for the implementation of these decisions in specific form are then examined by the Global Environment, Health and Safety Subcommittee, which is a subordinate organization under the CSR Committee. Moreover, a director in charge of business management (currently, the Executive Vice-President) directly receives reports about risk management related to the Environment, Health and Safety (EHS), and issues any necessary instructions. In addition, cases such as investment in global warming prevention measures and risk response related to the EHS, are discussed and decisions are made by the "Executive Committee*" or a meeting of the Board of Directors.

Astellas has acquired ISO 14001 certification covering all its production sites in Japan and overseas. From fiscal 2014, the five production plants in Japan were made to be audited under the Multi-site ISO 14001 Certification scheme.

*An advisory body that discusses important matters related to management of the entire Astellas Group, and makes decisions.

4.3. Environmental and Safety Audits

To ascertain the status of overall environment and safety activities at Astellas as well as the issues confronted by facilities, a Companywide audit of environmental and safety activities is conducted in accordance with Environmental and Safety Guidelines. A written follow-up evaluation on the status of implementation is then conducted focusing on those issues uncovered, with audit confirmation undertaken the next fiscal year. Individual facilities and the headquarter departments responsible for EHS issues share views on social needs and frontline issues. In this context, audits fulfill the critical role of ensuring that Astellas' direction and goals remain consistent.

4.4. Environmental and Safety Assessment System

The total environmental load resulting from the production, sale, distribution and disposal of products can usually be approximated at the research and development stages. With regard to the production and sales of pharmaceutical products, it is necessary to obtain government approval for each product. Since government approval also covers production methods and packaging specifications, when there are changes in either approved production methods or packaging, new approval must be obtained even if the changes are related to work safety or reducing the environmental impact. This entails substantial time and

costs.

Therefore, Astellas has introduced an environmental and safety assessment system as a tool that requires efforts to minimize the environmental load at all stages, including research and development, production, distribution, and disposal. Under this assessment system, we examine issues such as the reduction of air pollutant emissions and the excessive use of packaging and various safety measures prior to the commencement of commercial-scale production.

4.5. Operation of the environmental and safety assessment system

An assessment team conducts environmental and safety assessments in stages for the development of products. The results determine whether development of the product can move on to the next stage.

Specifically, the assessment must identify raw materials or processes that might have a negative impact on the environment and/or employee health and safety. The progress on remedial measures must be assessed, and action plans evaluated. Countermeasures being considered are evaluated in the subsequent stages of the assessment.

4.6. Education and Training

In addition to complying with statutory and regulatory requirements, Astellas recognizes the importance of autonomous initiatives that address the needs of society. In order to promote further improvements in its EHS activities, the Company acknowledges the critical need to ensure that all employees have a correct understanding of their own roles and responsibilities. To this end, we are working to improve our skill base through a wide variety of training programs, including specialized education for employees engaged in roles requiring specialist knowledge and skills in areas such as environmental conservation or hazardous operations, and the development of employees professionally qualified in EHS matters.

We also explain our policies and site rules to construction workers at our plants, raw materials suppliers and waste disposal contractors, and request for cooperation on our EHS programs.

4.7. Response to Accidents and Emergencies

Being prepared for emergency situations caused by an accident or natural disaster can help to prevent an environmental catastrophe and minimize damage. Accordingly, we develop specific measures and procedures, conduct regular education sessions and training drills, and reconfirm and test the validity of our procedures, communication networks and the division of roles focusing particularly on risks that are recognized as a high priority. In this manner, we continue to work diligently to reduce environmental risk.

The discharge of harmful substances could lead to the pollution of rivers and seas as well as cause problems at sewage treatment plants. This in turn could have a grave impact on regional communities. In preparation for accidents and emergency situations, we are therefore systematically implementing measures for the prevention of environmental pollution, including the installation of backup equipment, while working to reduce the risk of pollution. In addition, we are bolstering efforts to monitor operations and to measure the quality of water draining out of our plants to confirm compliance with relevant effluent standards.

4.8. Compliance with Environmental Laws and Regulations

In fiscal 2014, there were no infractions of laws or regulations related to environmental issues that were identified at our business sites in Japan or overseas.

Over the past five years, Astellas' facilities exceeded effluent standards on three occasions in fiscal 2009 and fiscal 2010, and two occasions in fiscal 2011. In each instance, however, our response proved effective. Moreover, there have been no lawsuits or fines related to environmental issues over the past five years.

4.9. Environment-Related Accidents and Complaints

No environment-related accidents at places of business in Japan or overseas occurred in fiscal 2013. Astellas has not recorded an environment-related accident over the past five years.

However, there were seven complaints regarding the impact on the environment in connection with activities at our facilities. As a result of the construction of a new plant building at the Yaizu Facilities, we received two complaints about interference with television signals and four complaints about noise from equipment in operation at night. In all cases, we resolved the problems by adjusting antennas and other relevant equipment. At our Kiyosu Research Office, there was a complaint concerning a cloud of dust caused by construction work, but we resolved the matter by taking corrective measures on the same day.

Moving forward, we will work to prevent the occurrence of incidents arising from noise, foul odors, and vibrations. We also intend to maintain appropriate levels of communication with local communities even when there is no violation of regulations.

4.10. Soil Contamination Assessments

Under the Soil Contamination Countermeasures Act of Japan and prefectural ordinances, soil contamination assessments are mandatory where projects for building or demolishing facilities exceeding a certain scale are undertaken and collectively there is a change in the characteristics of the land. To date, Astellas has undertaken soil contamination assessments based on relevant laws and ordinances as well as related voluntary evaluation to determine the existence or otherwise of contamination. In the event contamination is identified, the Company has taken purification and other remedial measures.

In fiscal 2014, there was no contamination detected. Drawing on the results of soil contamination assessments completed over the past five years, the following instances of contamination were detected.

① Soil contamination survey upon the closure and demolition of the former Tokyo Research Center (Fiscal 2009 and 2010)

Due to contamination caused by total mercury (leachate, content), lead (content), and fluorine, the site was designated a contaminated site. The contaminated soil was excavated and removed, and by May 2011 all designations at the site had been rescinded.

② Soil contamination survey at the Kashima R&D Center (Fiscal 2010)

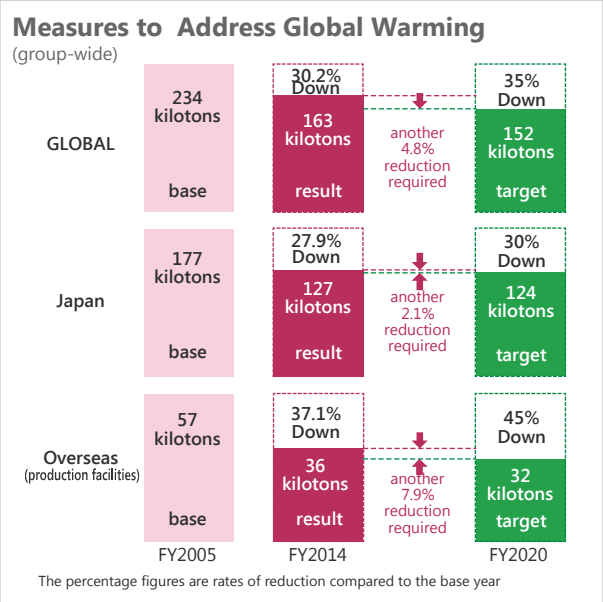
As a result of contamination caused by arsenic, fluorine, and boron and their chemical compounds, the site of the R&D building was designated a contaminated site. However, because a new staff building covered the contaminated site and there were no contaminants on the soil surface, no remedial action such as excavation or removal was undertaken.

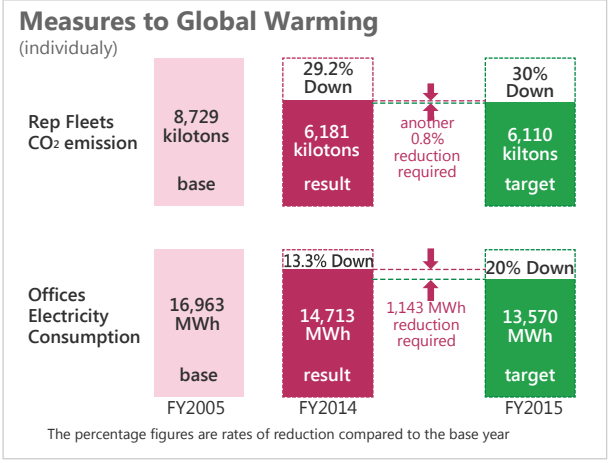
5. Environmental Action Plan

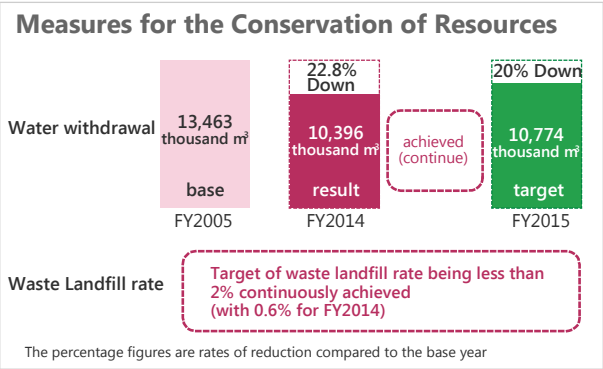
Our Environmental Action Plan sets out short-term and medium-term targets for our activities. We renew our action plans on a rolling basis, by reviewing progress and conditions during the previous year and incorporating our findings into our action plan for the following year. We are always working to achieve the targets set out in our Environmental Action Plan, which are also reflected in individual action plans drawn up by Japanese and overseas group companies.

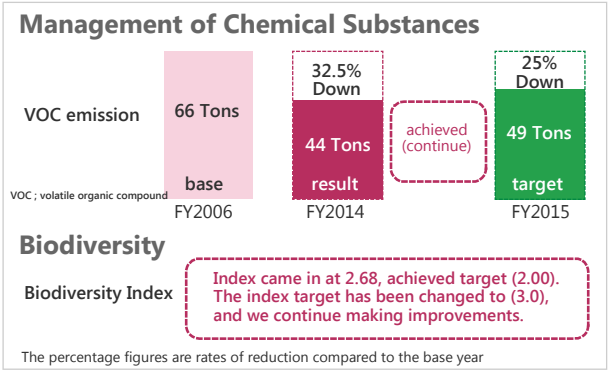
Currently, the activities of all the production facilities of the Astellas group worldwide and non-production sites in Japan fall within the scope of the Environmental Action Plan. At the same time, the activities of overseas R&D centers, offices, and other bases of operation continue to increase in line with the Group's efforts to further expand and develop its business globally. As a result, steps are being taken to keep track of the performance of overseas facilities and bases that fall outside the scope of the Environmental Action Plan, focusing particularly on energy consumption.

The results of the Environmental Action Plan for fiscal 2014 are below. To evaluate the Environmental Plan of Action, we have used a coefficient of 0.330kg-CO_2/kWh to calculate CO_2 from electricity use in Japan in fiscal 2013. Please note that these figures differ from those used in calculation of actual emissions.









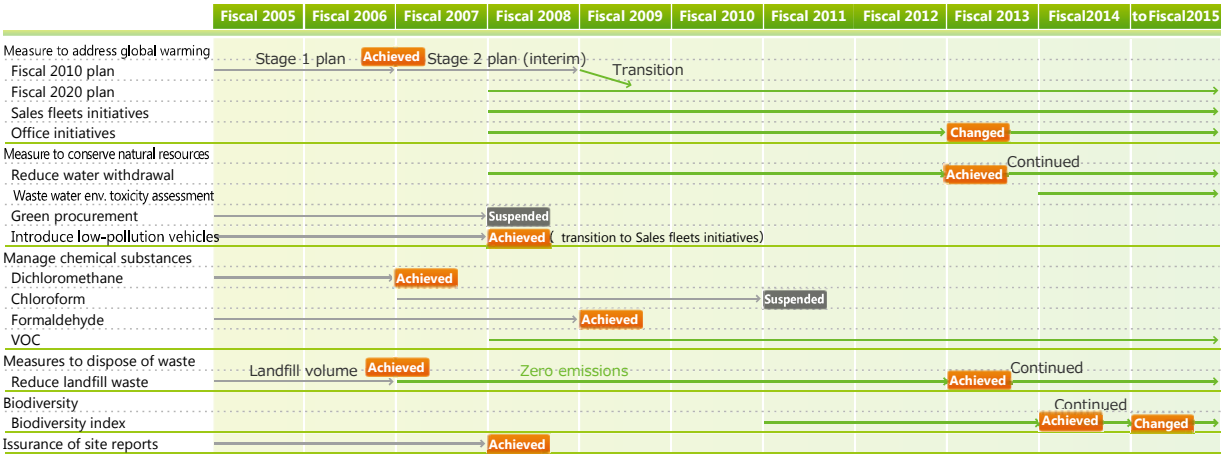
5.1. Review of the Environmental Action Plan

As a result of a review of the Environmental Action Plan in light of figures for fiscal 2014, the numerical target for improving the biodiversity index was changed from double to triple the base level in fiscal 2005 by fiscal 2015, and was incorporated in the action plan for fiscal 2015.

Environmental Action Plan	
1. Measures to Address Global Warming	**[Fiscal 2005 as the base year]**
1) Reduce GHG emissions by 35% or more by fiscal 2020	(Global)
・ Japan : Reduce by 30% or more	
・ Overseas production facilities : Reduce by 45% or more	
2) Reduce CO_2 emissions generated through sales activities by 30% or more by fiscal 2015	(Japan)
3) Reduce electricity usage at offices to the levels of 80% or less by fiscal 2015	(Japan)
2. Measures for the Conservation of Natural Resources	**[Fiscal 2005 as the base year]**
1) Reduce water withdrawal to the levels of 80% or less by fiscal 2015.	(Global)
2) To conduct waste water environmental toxicity assessment up to end of fiscal 2015	(Japan)
3. Management of Chemical Substances	**[Fiscal 2006 as the base year]**
Reduce the amount of volatile organic compounds (VOCs) discharged by 25% or more by fiscal 2015	(Japan)
4. Waste Management	
Reduce the final volume of waste for disposal to less than 2% of the total discharged	(Japan)
5. Biodiversity	**[Fiscal 2005 as the base year]**
Raise the biodiversity index to triple the fiscal 2005 level by fiscal 2020	(Global)

In drawing up our action plan, we determined what kind of corporate group we wished to be from a long-term perspective, and laid down targets for individual business years as well as medium-term targets on our way to that ultimate goal. Based on progress made in previous years and changes in social conditions, among other factors, we review the plan each year and set additional items for achievement or higher targets as appropriate.

The background and history of each review of the Environmental Action Plan is presented briefly as follows



6. Interaction Between Astellas and the Environment

Japan (all business premises, Sales fleets)

INPUT			OUTPUT		
Energy	Electricity	191,923 MWh	GHGs (Scope1, 2)	Facilities	167,297 tons
	City gas	19,951 thousand m^3		Sales fleets	6,181 tons
	LPG	2,249 tons	Pollutants (atmosphere)	SOx	0 ton
	LNG	2,326 tons		NOx	28 tons
	Fuel oil	0 kiloliter		VOC	44 tons
	Kerosene	1 kiloliter	Pollutants (water body)	BOD	12 tons
	Diesel oil	11 kiloliters		COD	31 tons
	Gasoline	2,680 kiloliters		Water discharge (Drainage into rivers)	7,948 thousand m^3
	Purchased heat energy	2,048 GJ		Water discharge (Drainage into sewerage system)	360 thousand m^3
Resources	Water	10,109 thousand m^3	Waste material	Waste generated	14,753 tons
	Raw materials (by weight)	4,960 kiloliters		Waste discharged	14,723 tons
	(byvolume)	604 kiloliters		Landfill volume	84 tons
	Copier paper	224 tons			

Overseas (all production facilities)

INPUT			OUTPUT		
Energy	Electricity	49,113 MWh	GHGs (Scope1, 2)	Facilities	36,052 tons
	City gas	4,905 thousand m^3			
	LPG	3 tons	Pollutants (atmosphere)	SOx	0.1 tons
	Diesel oil	68 kiloliters		NOx	11 tons
	Gasoline	13 kiloliters		VOC	4 tons
	Purchased heat energy (steam)	17,914 GJ	Pollutants (water body)	BOD	16 tons
Resource	Water	287 thousand m^3	Water discharge	(into rivers)	287 thousand m^3
			Waste material	Volume of waste generated	2,803 tons
				Landfill volume	674 tons

Overseas (principal office buildings, R&D centers, sales offices and sales fleets of Astellas affiliates outside Japan)

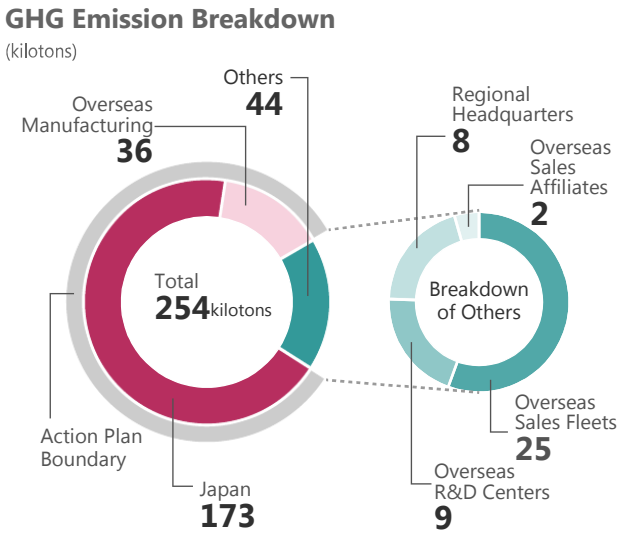
INPUT			INPUT		
Energy	Electricity	34,256 MWh	GHGs (Scope1, 2)	Facilities	19,144 tons
	City gas	1,253 thousand m^3		Sales fleets	24,997 tons
	Diesel oil	3,886 kiloliters			
	Gasoline	6,456 kiloliters			
	Bioethanol	179 kiloliters			

Indirect GHGs (Scope 3)

Category	Upstream GHGs	Category	Downstream GHGs
1 Purchased products & services	91,964 tons	9 Transportation and distribution (Downstream)	Not relevant
2 Capital goods	86,598 tons	10 Processing of sold products	Not relevant
3 Fuel and energy related activities (not included in scope 1 and scope 2)	28,899 tons	11 Usage of sold products	5,431 tons
4 Transportation and distribution	3,843 tons	12 End-of-life treatment of sold products	890 tons
Truck transportation of raw materials	(225 tons)	13 Lease assets	Not relevant
Plant → warehouse	(259 tons)	14 Franchise	Not relevant
Warehouse	(1,116 tons)	15 Investment	Not relevant
Warehouse → wholesalers	(2,243 tons)		
5 Waste generated in operation	3,501 tons		
6 Business trips (By airplane)	36,998 tons		
7 Employee commuting	3,301 tons		
8 Lease assets	Not relevant		

Understanding GHG Emissions

GHG emissions as a result of the business activities of Astellas amount to 254 thousand tons globally. Among these, about 80% fall within the scope of the Environmental Action Plan. (Other than "Other" in the graph below).



The above breakdown of energy consumption is based on below table. The NOT covered by Environmental Action Plan expressed as "Other" contains the principal office buildings, R&D centers and Sales fleets of Astellas affiliates outside Japan.

Breakdown of Energy consumption at facilities covered and NOT covered by Environmental Action Plan

Covered: **Japan: all business locations and sales fleets, overseas: all production facilities**
Not Covered: **principal office buildings, R&D centers and Sales fleets of Astellas affiliates outside Japan**

(Unit: terajoule)

Action Plan	Total	Liquid fuel		Gaseous fuel		Heat purchase	Electricity		Renewable energy			
		Fuel oil	Petrol etc.	City gas	LPG LNG		Total	Wind power source	Total	Wind power source	Wood chip source	Photovoltaic panes
Covered	3,923	0	96	1,118	241	21	2,403	195	43	6	37	0.3
NOT covered	866	0	374	56	0	0	342	0	0	0	0	0

7. Measures to Address Global Warming

Global warming is regarded as one of the environmental problems that could threaten the very survival of the human race. Mitigating and adapting to the threat posed by global warming requires active involvement on all levels including national governments, local governments, corporations and citizens. Astellas understands that global warming could become a major constraint on the continuation of corporate activity, and considers it one of management's most important problems to address.

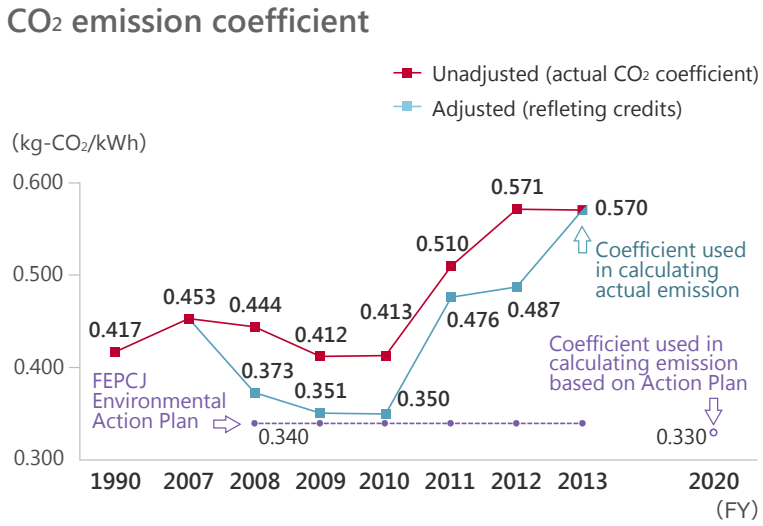
Tackling the problem of global warming will require a prolonged and sustained effort. The international community has agreed that industrialized countries should target a reduction in GHGs of at least 80% compared with current levels by the year 2050. As stepping stones toward achieving these targets, the Astellas group has set medium-term targets for the reduction of GHGs in its Environmental Action Plan. Under the plan, existing facilities are to reduce CO_2 emissions generated through energy consumption by 1% or more compared with the previous fiscal year and to achieve a reduction of 5 kilotons of GHGs on a fiscal year basis through strategic investments.

Regarding the CO_2 emission coefficient accompanying the end-use electricity

Regarding the CO_2 emission coefficient accompanying the end-use electricity, we are employing the two types of coefficient shown below in calculating GHG emissions by the group in Japan.

1. We adopt the fixed coefficient of 0.330kg-CO_2/kWh in calculating the trend of GHG emissions to evaluate the progress under the Environmental Action Plan, and to make investment decisions to effectively achieve the target.
2. In calculating the GHG emissions of each fiscal year, we employ the latest CO_2 emission coefficient (CO_2 emissions per unit of end-use electricity for the previous fiscal year) provided by the Federation of Electric Power Companies of Japan (FEPCJ).

For the CO2 emissions coefficients accompanying the end-use electricity in Astellas' overseas operations, we are employing those listed in "CO2 EMISSIONS FROM FUEL COMBUSTION 2014 EDITION" published by the International Energy Agency ("IEA").



Source: Environmental Action Plan by the Japanese Electric Utility Industry (2008-2012 Edition) issued by the Federation of Electric Power Companies of Japan.

7.1. Reducing GHGs emissions

Environmental Action Plan

Reduce GHG emissions by 35% or more compared with fiscal 2005 levels by the end of fiscal 2020 (Global)

- Reduce GHG emissions in Japan by 30% or more compared with fiscal 2005 levels by the end of fiscal 2020.
- Reduce GHG emissions at overseas production facilities by 45% or more compared with fiscal 2005 levels by the end of fiscal 2020.

Progress in Implementation of Environmental Action Plan

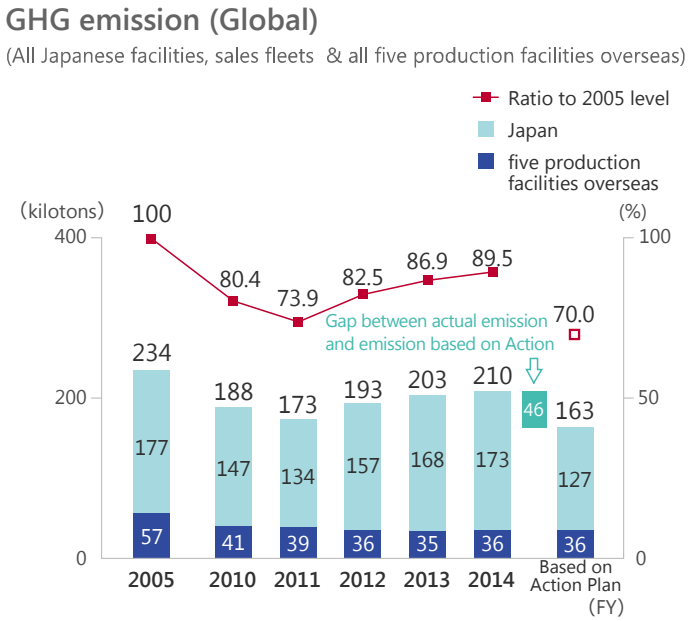
The GHG emissions volume for fiscal 2014, used in evaluating the action plan, came to 163 kilotons globally, for a decrease of 70 kilotons (30.2%) from the base year. A further reduction of 11 kilotons is required to reach the target.

◆ **GHG emissions in Japan : 127 kilotons** — Down 49 kilotons (27.9%) from base year; Further reduction of 4 kilotons needed to reach target

◆ **GHG emissions overseas : 36 kilotons** — Down 21 kilotons (37.1%) from base year; Further reduction of 5 kilotons needed to reach target

Trend of actual emissions (below figures indicate actual emissions trends)

The actual emissions of GHGs globally in fiscal 2014 came to 210 kilotons, down 25 kilotons (10.5%) from fiscal 2005, but up 7 kilotons over fiscal 2013.



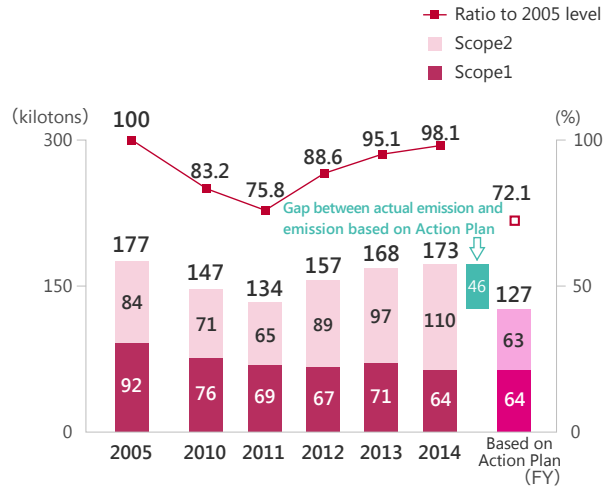
* The difference between the actual emissions volume and the emissions volume assessed by the Action Plan is calculated by using the difference of two CO_2 emission coefficients accompanying the end-use electricity in Japan (0.570-0.330=0.240 kg-CO_2/kWh)

◆ **GHG emissions in Japan : 173 kilotons**

Down 3 kilotons (1.9%) from base year
But up 5 kilotons over fiscal 2013

GHG emission (Japan)

(All facilities, sales fleets)



Turning to a breakdown of emissions by Scope, Scope 1* emissions decreased 7 kilotons from fiscal 2013, but Scope 2* emissions increased 12 kilotons from fiscal 2013. A 16-kilotons of the increase in Scope 2 is attributed to the deteriorating CO_2 emissions coefficient accompanying the end-use electricity compared to the previous year, whereas a 4-kilotons of decrease achieved by the efforts against global warming and a drop in business activities. In comparison with fiscal 2005, Scope 1 is down 29 kilotons (30.8%) and Scope 2 is up 25 kilotons (29.9%). Looking ahead, current plans for the startup of new facilities at the Tsukuba Research Center and at production plants will constitute factors behind increased emissions in the near future, while minus factors will include the planned closure of the Kashima R&D Center in 2016. We intend to continue taking effective steps to combat global warming while keeping a close watch on the balance between positive and negative factors.

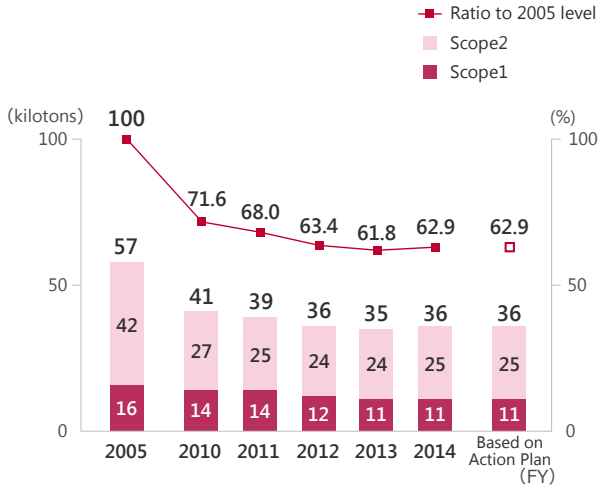
* Scope 1: Volume of GHG directly emitted as a result of the burning of fuels
Scope 2: Volume of GHG emitted in the use of electric power or heat supplied from outside
* The difference between the actual emissions volume and the emissions volume assessed by the Action Plan is calculated by using the difference of two CO2 emission coefficients accompanying the end-use electricity in Japan (0.570-0.330=0.240 kg-CO_2=/kWh)

◆ **GHG emissions overseas : 36 kilotons**

Down 21 kilotons (37.1%) from base year
Also down by 1kiloton over fiscal 2013

GHG emission (Overseas)

(All five production facilities overseas)



Turning to a breakdown of emissions by Scope, Scope 1 emissions were roughly the same as the previous fiscal year, but Scope 2 emissions increased one kiloton from the previous fiscal year. In comparison with fiscal 2005, Scope 1 is down 4 kilotons (28.1%) and Scope 2 is down 17 kilotons (40.4%). The GHG emissions volume of overseas production bases is roughly the same as the previous fiscal year. In fiscal 2015, global warming prevention measures are scheduled for the Norman Plant in the United States, and are expected to generate benefits during the fiscal year.

* In calculating overseas greenhouse gas emissions, the actual emissions volume and the emissions volume assessed by the Action Plan have the same value because the same electric power emissions coefficient is used for the actual emissions volume and the emissions volume assessed by the Action Plan.

7.2. Breakdown of Scope 1 and Scope 2 for GHG Emissions

Details regarding Scope 1 - volume of greenhouse gases (GHG) directly emitted from Company premises as a result of the burning of fuels (city gas, fuel oil, kerosene, diesel oil, gasoline, LPG, LNG) - and Scope 2 - volume of GHGs emitted in the use of electricity or heat energy supplied to the Company from outside - are shown below.

GHG emission volumes from the use of electricity were calculated using the adjusted emission coefficients of FEPCJ.

GHG emission volumes (global / Japan: all business locations and sales fleets; overseas: all production facilities) (Unit: kilotons)

Fiscal	Totaled emission volume	Scope 1 (direct emission)			Scope 2 (indirect emission)	
		Emission volume	Breakdown		Emission volume	Emission from use of renewable energy source
			Energy source	Non-energy related source		
2005	234	108	101	7	126	0
2010	188	91	88	3	97	0
2011	173	83	82	0	90	11
2012	193	79	79	0	114	10
2013	203	82	82	0	121	10
2014	210	75	75	0	134	9

GHG emission volumes (Japan: all business locations and sales fleets) (Unit: kilotons)

Fiscal	Totaled emission volume	Scope 1 (direct emission)			Scope 2 (indirect emission)	
		Emission volume	Breakdown		Emission volume	Emission from use of renewable energy source
			Energy source	Non-energy related source		
2005	177	92	85	7	84	0
2010	147	76	73	3	71	0
2011	134	69	68	0	65	0
2012	157	67	67	0	89	0
2013	168	71	71	0	97	0
2014	173	64	64	0	110	0

This corresponds to CO_2 from non-energy-related source emitted by waste liquid incinerators at our Takaoka Plant and Takahagi Facilities.

GHG emission volumes (overseas: all production facilities) (Unit: kilotons)

Fiscal	Totaled emission volume	Scope 1 (direct emission)			Scope 2 (indirect emission)	
		Emission volume	Breakdown		Emission volume	Emission from use of renewable energy source
			Energy source	Non-energy related source		
2005	57	16	16	0	42	0
2010	41	14	14	0	27	0
2011	39	14	14	0	25	11
2012	36	12	12	0	24	10
2013	35	11	11	0	24	10
2014	36	11	11	0	25	9

This corresponds to GHG emissions from the use of renewable energy sources, i.e., the purchase by Norman plant, Oklahoma in the U.S., of electricity generator by wind turbines.

7.3. GHG emissions from facilities not covered by the Environmental Action Plan

Although the current Environmental Action Plan covers only all facilities and sales fleets in Japan and all production facilities overseas, we are also working to keep track of energy usage at the group's principal office buildings and research facilities overseas, which are not currently within the scope of the plan.

If GHGs emitted by these facilities and associated Sales fleets are included, total emissions globally by the Astellas Group in fiscal 2014 amounted to 254 kilotons, of which the current Environmental Action Plan accounts for 82.6% (210 kilotons out of a total of 254 kilotons.)

From here onward, we intend to examine options for setting new targets, depending on the amount of environmental impact of these facilities.

Energy usage and GHG emissions by principal office buildings and R&D Centers of outside Japan

Facilities	Energy consumed (GJ)		GHG emissions (GJ)	
	Electricity	City gas	Scope 1	Scope 2
Astellas US LLC	125,211	2,311	122	6,041
Astellas Pharma Europe Ltd.	24,999	9,733	485	1,201
Astellas Pharma Europe B.V.	32,310	6,013	299	1,429
Agensys Inc.	103,843	34,963	1,740	5,010
Astellas Research Institute of America LLC	6,989	0	0	337
Total	293,352	53,020	2,647	14,018

Energy usage and GHG emissions by sales affiliate office buildings of outside Japan

Facilities	Energy consumed (GJ)		GHG emissions (GJ)	
	Electricity	City gas	Scope 1	Scope 2
Americas	5,937	0	0	143
EMEA *	26,229	3,372	168	1,038
Asia/Oceania	16,011	0	0	1,129
Total	48,177	3,372	168	2,311

*EMEA: Europe (including NIS countries), the Middle East and Africa

Breakdown by region of number of Sales fleets, amount of fuel consumed, and GHG emissions

Region	Petrol cars	Diesel cars	Flex fuel cars **	Petrol consumed (kiloliters)	Diesel oil consumed (kiloliters)	Bioethanol consumed (kiloliters)	GHG emissions (tons)
Americas	1,252	0	68	5,427	0	179	12,590
EMEA *	860	1,456	0	1,029	3,883	0	12,407
Total	2,112	1,456	68	6,456	3,883	179	24,997

*EMEA: Europe (including NIS countries), the Middle East and Africa

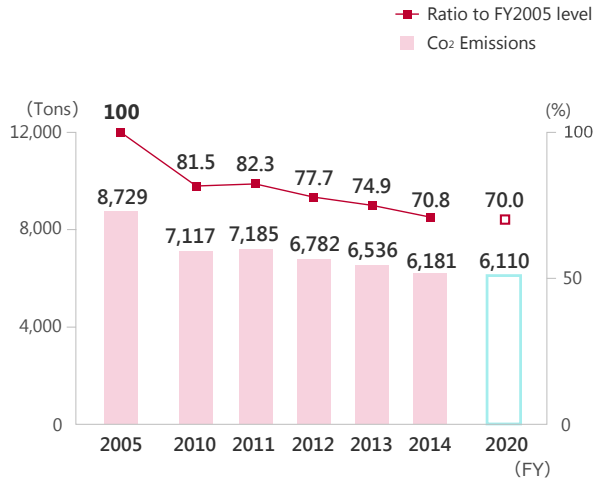
** Vehicles that can run on gasoline or a mix of gasoline and methanol/ethanol. Flex fuel vehicles are used by a sales affiliate in Brazil. Because the fuel is 100% bioethanol, the GHG emissions volume is zero.

7.4. Reduction of CO_2 Emission from Sales Activities and Offices

Environmental Action Plan

- Reduce CO_2 emissions generated through sales activities by 30% or more compared with fiscal 2005 levels by the end of fiscal 2015 (Japan)
- Reduce electricity usage to the levels of 80% or less than fiscal 2005 by fiscal 2015 (Japan)

CO_2 Emissions from Sales Fleets (JPN)

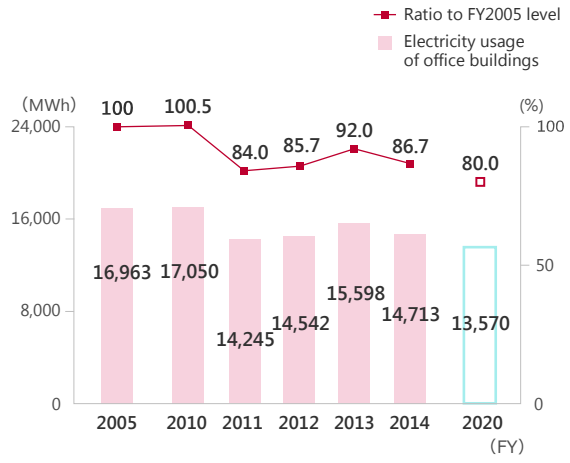


At Astellas, we have been progressively changing our leased fleets to hybrid since fiscal 2008. As of the end of fiscal 2014, some 1,886 vehicles, or 76.5%, of our 2,465 fleets were hybrid. Compared with the previous fiscal year, the fleet was reduced by 157 vehicles, including 133 hybrid vehicles. As a result, the percentage of hybrid vehicles among all sales fleets has dropped 0.5 points from the previous fiscal year.

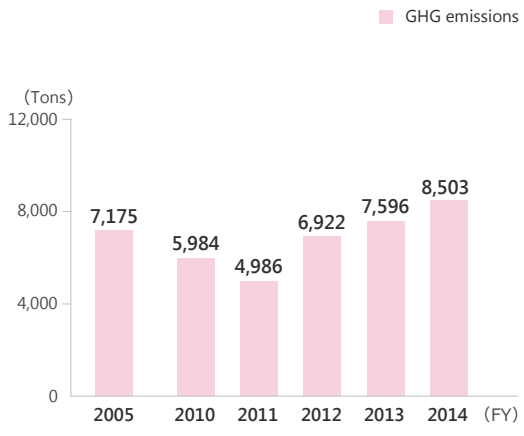
In fiscal 2014, CO_2 emissions from gasoline consumed in our sales fleets amounted to 6,181 tons. This was a 29.2% decrease compared with the base level in fiscal 2005. To reach our numerical target, we need to reduce CO_2 emissions by a further 0.8% compared with the base level in Fiscal 2005. Looking ahead, we believe this will be achievable by continuing the conversion to hybrid vehicles in line.

The electricity consumption of the group's office buildings in Japan, including Astellas head office and all branch offices and sales offices, amounted to 14,713 MWh for the reporting period, for a decrease of 885 MWh over the previous fiscal year and 86.7% of the base year's level (down 2,250 MWh). The main decrease factors in fiscal 2014 were the closure of Hasune Office, and the integration of offices in the Nihonbashi Office area, other than the head office.

Electricity Usage of Office buildings (JPN)



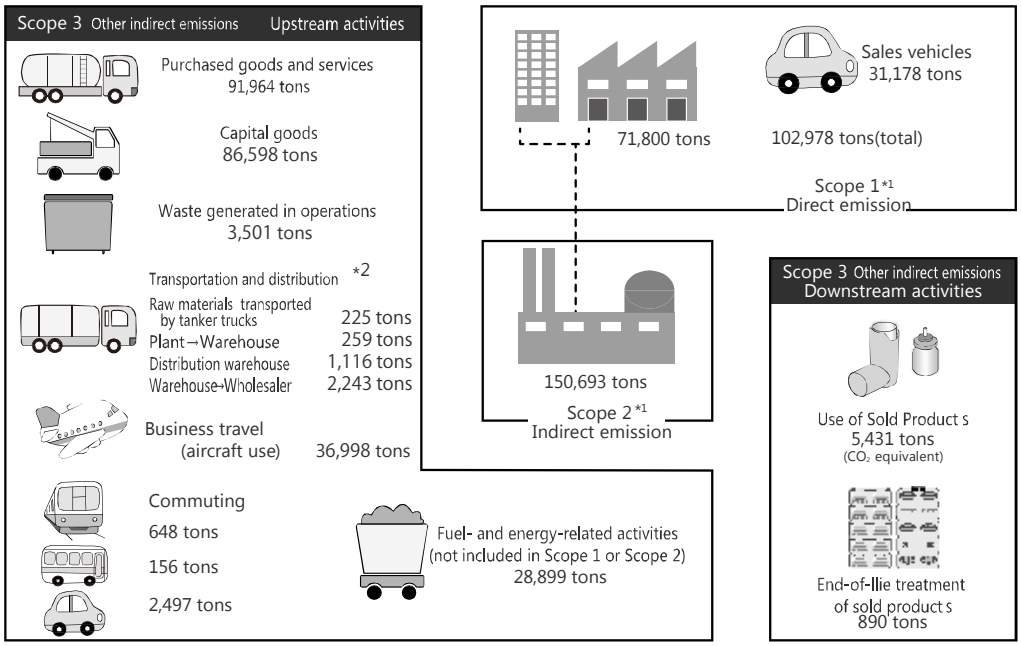
GHG emissions from Office Electricity Consumption (JPN)



7.5. GHG Emissions Resulting from Supply Chain Activities

The Environmental Action Plan contains targets that have been set to address the issue of global warming. It focuses on GHG emissions generated by the group's facilities and CO_2 emissions from energy sources through the use of electricity and heat supplied from outside sources.

In addition to knowing and publicizing their own GHG emissions, in recent years there has been more and more emphasis on emissions produced along the entire supply chain - including raw materials procurement, product distribution, employee commuting and business trips, and waste treatment. Following this trend, standards are being reviewed and developed to reflect this broader Scope, including the Greenhouse Gas Protocols, ISO standards, and guidance issued by Japan's Ministry of the Environment.



*1 Global basis (Japan: all business premises, Sales fleets / Overseas: all production facilities, sales fleets, principal offices, R&D centers and Sales affiliates)
*2 Product shipments are handled by outside contractors

Recognizing these social implications, we included some supply chain GHG emissions for the first time when ascertaining our environmental performance in fiscal 2011. We intend to continue taking effective steps to expand the reporting boundary.

Assumptions used to estimate Scope 3 GHG emissions

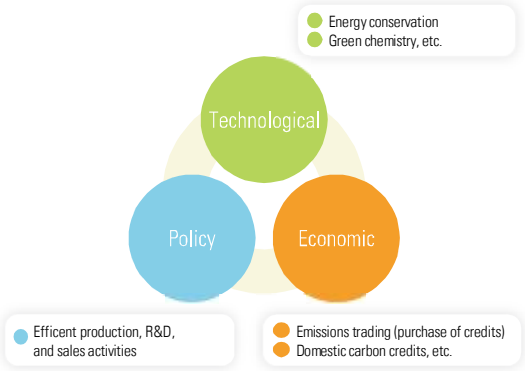
Category		Assumption used to estimate GHG emissions	
1	Purchased products & services	Purchase monetary amount	(Million yen)
2	Capital goods	Facility investment amount	(Million yen)
3	Fuel and energy related activities (not included in scope 1 and scope 2)	Usage amount of purchased energy sources	(GJ)
4	Transportation and distribution		
	Truck transportation of raw materials	Fuel consumption	(kiloliters)
	Plant → warehouse	Fuel consumption	(kiloliters)
	Warehouse	Energy consumption	(MWh)
	Warehouse → wholesalers	Fuel consumption	(kiloliters)
5	Waste generated in operation	Shipment weight x distance	(tons-km)
6	Business trips (By airplane)	Travel distance	(thousand passenger-km)
7	Employee commuting	Travel distance	(thousand passenger-km)
11	Usage of sold products	Volumes shipped (Shipments x HFC content/unit)	(tons-HFC)
12	End-of-life treatment of sold products	Weight of package (paper, glass, plastic)	(tons)

7.6. Global Warming Prevention Framework and Initiatives

Astellas believes that it will not be possible to achieve the level of GHG emission reductions demanded of private enterprises by simply continuing with existing energy conservation measures implemented independently by each facility. Consequently, in fiscal 2009, Astellas established the Global Warming Prevention Committee as a special task force under the CSR Committee, which is chaired by a member of top management.

Astellas is pursuing measures to achieve medium to long-term numerical targets set in accordance with a group-wide strategy formulated by the Global Warming Prevention Committee. In addition to considering technological means to lower energy consumption, the Committee is also tasked with examining policy measures, such as efficient production and research systems, and utilizing economic measures, including emissions trading and a carbon credit system.

To develop our environmental protection measures on a more global scale, including countermeasures against global warming, from fiscal 2014 onward, we have set up the Global EHS Sub-Committee as a specialist subordinate unit under the CSR Committee.



Investment Plan for Preventing Global Warming

Measures for preventing global warming have been positioned as a key management priority under the new Mid-Term Management Plan that covers the period from fiscal 2010 through the end of fiscal 2014. Accordingly, it was decided that the Global Warming Prevention Committee would be responsible for formulating medium to long-term action plans and investment plans for the entire Astellas group, and advancing strategic measures driven by Astellas' Tokyo headquarters.

In fiscal 2014, separately from our energy conservation measures at each facility, the Global Warming Prevention Committee took the decision to invest roughly ¥400 million in introducing more efficient facility operation and advanced technologies. However, owing mainly to changes in the bases integration plan and the production plan, certain measures had to be cancelled, and thus the actual investment came to only ¥223 million, and the reduction of GHG emissions worked out to be potentially only 804 tons.

In fiscal 2015, we are planning to invest approximately ¥170 million, which is expected to yield a reduction in GHG emissions of about 1,340 tons.

Item	Fiscal 2014		Fiscal 2015	
	Investment Amount (¥ million)	Reduction (projection) (tons of CO_2)	Amount of fixed investment (¥ million)	Reduction (projection) (tons of CO_2)
Introduction of advanced technologies, including heat pumps and LEDs	183	260	25	10
Introduction of energy monitoring systems	3	-	34	-
Investment in improved operational efficiency	37	544	108	1,242
Applying economic measures such as a carbon credit system	5	-	-	-
Total	228	804	167	1,342

Participation in the Federation of Economic Organizations' Commitment to a Low-carbon Society

Astellas is participating in the commitment to a low-carbon society* formulated by the Federation of Pharmaceutical Manufacturers' Associations of Japan, which is based on requests from the Federation of Economic Organizations.

*** To reduce the amount of carbon dioxide emissions from pharmaceutical manufacturers in fiscal 2020 by 23% based on the amount of emissions in fiscal 2005.**

7.7. Our Efforts to Reduce GHG Emissions

Astellas' manufacturing plants, research centers, and offices are implementing a variety of initiatives with the aim of reducing GHG emissions.

Efforts to improve facilities, which include the introduction of high-efficiency equipment and the conversion to alternative fuels, are expected to make a significant contribution to reducing the level of GHG emissions generated by energy sources. Employees' participation in energy saving through improvements of daily work is also important. To this end, each facility adopts a two-pronged approach, comprising measures related to equipment and energy-saving activities.

Fuel Conversion

Different fuel (e.g. fuel oil, city gas, LPG) used in steam boilers and other combustion equipment emit different amount of GHG per unit of heating value. Therefore, switching to a fuel that generates less GHG helps prevent global warming.

Because fuel oil and kerosene generally produce more GHG than city gas, Astellas has been actively converting its steam boilers so that they run on city gas, LPG, and LNG instead of fuel oil and kerosene. This conversion of steam boilers at research and production bases was completed by fiscal 2011. These fuel conversions contribute the GHG emission reduction but also reducing SOx emissions that is one of the air pollutant substances.

Installation of Heat Pump Devices

Astellas has actively introduced heat pump technology that makes effective use of heat in the air when upgrading existing air conditioning equipment or installing new equipment. Going forward, we will pursue the introduction of heat pump technology after securing a stable supply of electricity.

Introduction of Energy Monitoring Systems

Knowing exactly how much energy we use does not directly lead to lower energy consumption. However, the ability to confirm the status of energy usage can assist the elimination of wasteful practices and the formulation of new strategies.

For these reasons, we have instituted a program to introduce energy monitoring systems at our facilities.

Using Renewable Energy

The direct use of renewable energy sources, such as the solar energy and wind, is the most effective method of addressing the issue of global warming. Accordingly, Astellas hopes to actively introduce renewable energy technology where feasible.

The Group's Kerry Plant in Ireland brought online a wind turbine power generation station with a maximum output of 800 kW and a wood chip biomass boiler system with a maximum output of 1.8 MW from March 2012. In fiscal 2014, the full amount of 1,687 MWh produced by the wind turbine power generation station was used to power the facility. In addition, the wood chip biomass boiler also used 36,807 GJ of heat. Through these means, the total amount of GHG emission reduction came to 3,290 tons.

In Japan, the Tsukuba Research Center and Kashima R&D Center have installed photovoltaic generation systems. In fiscal 2014, the full amount of 84 MWh generated was use to power each facility. Thanks to these initiatives, the amount of GHG emission reduction came to 48 tons.

The Norman Plant in the United States purchases electricity generated by wind turbine power generation farms in Oklahoma. In fiscal 2013, electricity generated by wind turbines accounted for 19,583 MWh of the plant's overall electricity purchased, which totaled 19,834 MWh.

7.8. Breakdown of Energy Consumption

Global energy usage in fiscal 2014 by the Astellas group amounted to 3,880 terajoules (TJ), for a decrease of 217 TJ (5.2%) over the previous year. This breaks down to energy usage in Japan amounting to 3,149 TJ, for a year-on-year decrease of 209 TJ (6.1%), and 732 TJ for overseas operations, down 4 TJ (0.4%) year on year.

In Japan, the start of operations of new facilities at Kiyosu Research Office and Yaizu Facilities was partly responsible for the increase in energy consumption. The proportion of total energy usage occupied by electricity is gradually increasing, having risen from 57.9% in fiscal 2005 to 60.8% in fiscal 2014. Use of renewable energy sources includes electricity generation from photovoltaic panels at the Tsukuba Research Center and the Kashima R&D Center, amounting to 302 GJ (84 MWh), all of which was used in business operations at each facility. A co-generation system generated 7,744 MWh of electricity, which was not counted toward electricity usage volume, but the pipelined city gas consumed as fuel in the system was counted as energy consumption.

Overseas, our plant at Kilorglin in County Kerry in the Republic of Ireland used 37 TJ of heat produced by a woodchip boiler, and 6 TJ (1,687 MWh) was generated by wind turbine system. The combined power generated by these two forms of renewable energy rose by 1 TJ over the previous year. At our plant in Norman, Oklahoma in the United States, power generated by wind turbines is purchased from outside, and in fiscal 2014 accounted for 19,583 MWh out of the total amount of electricity purchased of 19,834 MWh. The percentage of total energy accounted for by electricity decreased from 64.9% in fiscal 2005 to 64.0% in fiscal 2014.

Breakdown of Energy consumption

(global / Japan: all business locations and sales fleets; overseas: all production facilities) (Unit: terajoule)

Fiscal	Total	Liquid fuel		Gaseous fuel		Heat purchase	Electricity		Renewable energy			
		Fuel oil	Petrol etc.	City gas	LPG LNG		Total	Wind power source	Total	Wind power source	Wood chip source	Photovoltaic panes
2005	4,447	350	228	942	226	55	2,648	0	0	0	0	0
2010	4,159	161	158	1,194	108	19	2,519	0	0	0	0	0
2011	3,948	33	155	1,189	193	20	2,359	228	0	0	0	0
2012	3,950	2	112	1,178	240	22	2,359	203	38	5	32	0.3
2013	4,127	1	103	1,230	259	21	2,472	196	42	6	35	0.3
2014	3,923	0	96	1,118	241	21	2,403	195	43	6	37	0.3

Note) Wind power source of Electricity purchase in Norman Plant was generated by wind turbines

Breakdown of Energy consumption (Japan: all business locations and sales fleets)

(Unit: terajoule)

Fiscal	Total	Liquid fuel		Gaseous fuel		Heat purchase	Electricity		Renewable energy			
		Fuel oil	Petrol etc.	City gas	LPG LNG		Total	Wind power source	Total	Wind power source	Wood chip source	Photovoltaic panes
2005	3,425	350	225	639	226	2	1,984	0	0	0	0	0
2010	3,346	161	131	942	107	2	2,002	0	0	0	0	0
2011	3,159	33	124	950	193	2	1,857	0	0	0	0	0
2012	3,170	2	104	951	240	2	1,870	0	0.3	0	0	0.3
2013	3,358	1	99	1,011	259	2	1,985	0	0.3	0	0	0.3
2014	3,149	0	93	898	241	3	1,913	0	0.3	0	0	0.3

Breakdown of Energy consumption (overseas: all production facilities)

(Unit: terajoule)

Fiscal	Total	Liquid fuel		Gaseous fuel		Heat purchase	Electricity		Renewable energy			
		Fuel oil	Petrol etc.	City gas	LPG LNG		Total	Wind power source	Total	Wind power source	Wood chip source	Photovoltaic panes
2005	1,022	0	3	303	0.0	52	663	0	0	0	0	0
2010	813	0	27	252	0.2	17	517	0	0	0	0	0
2011	790	0	31	239	0.1	17	502	228	0	0	0	0
2012	781	0	7	227	0.1	20	489	203	37	5	32	0
2013	769	0	4	218	0.2	18	486	196	41	6	35	0
2014	775	0	3	221	0.1	18	490	195	43	6	37	0

8. Sustainable Biodiversity Initiatives

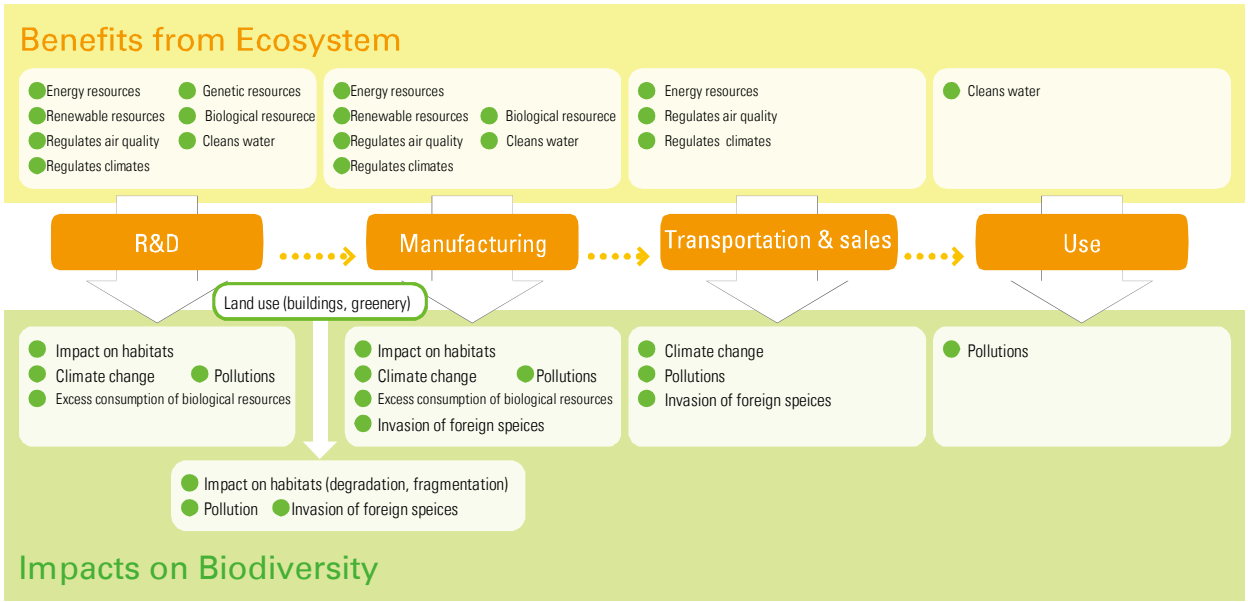
Astellas has always focused on the importance of biodiversity and has promoted the preserving activities positively.

For our business benefit from the blessing of Nature, biodiversity conservation is a very important issue. Through the efforts to deal with the biodiversity issues, Astellas makes contributions to tomorrow's Nature.

8.1. Basic Policy on Biodiversity

Astellas is thankful for the benefits brought about by biological diversity, and understands its business activities in all fields have an impact on ecosystems. We will make a positive contribution to the preservation of biodiversity by working to lessen that impact. Furthermore, we will actively contribute to the creation of a society that coexists with the natural world, enabling the preservation of biodiversity and the sustainable use of the benefits of healthy ecosystems.

- We will endeavor to lessen our overall environmental impact on biodiversity by working to prevent global warming, minimize pollution, and promote resource recycling.
- We will endeavor to develop technologies that lessen the impact on ecosystems by lowering the burden we place on the environment and using as few natural resources as possible.
- We will endeavor to handle genetic resources in accordance with international standards and the regulations of producing nations.
- We will endeavor to broaden our efforts to preserve biodiversity with the aim of creating a sustainable society that coexists in harmony with nature. To this end, we will promote discussion within society and among affected parties, while reaching across national and geographical borders.
- We will endeavor to foster a corporate culture that will always act with respect for biodiversity and in a manner that is harmonious with our business activities, grateful for the benefits obtained from healthy ecosystems.



8.2. Biodiversity Index

The government's National Biodiversity Strategy of Japan 2010 identified the challenges the country faces due to four crises affecting biodiversity. They are (1) species and habitat degeneration due to excessive human activities and development; (2) degradation of satochi-satoyama natural rural areas due to insufficient management; (3) ecosystem disturbances caused by the introduction of alien species by human activity and chemical contamination; and (4) global warming.

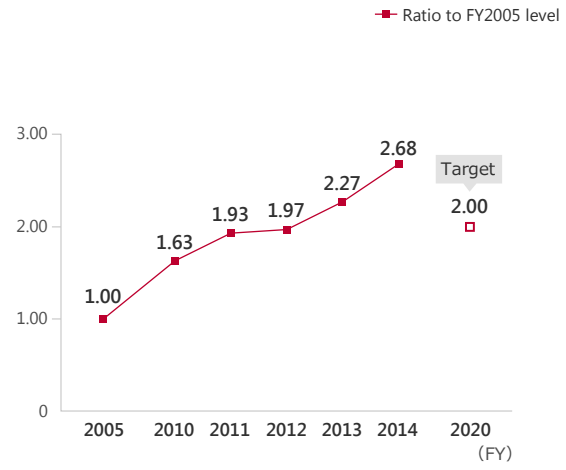
We believe that it is difficult for Astellas to participate directly in the prevention of satochi-satoyama degradation in the course of its business activities. Accordingly, we have excluded this crisis from the scope of our biodiversity strategy. We have created an index by reclassifying the main factors responsible for the other three crises into the categories of environmental pollution, resource consumption, and global warming.

Environmental Action Plan

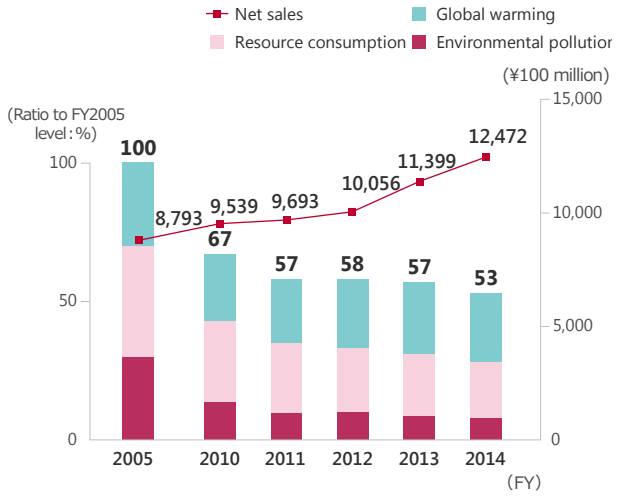
Raise the biodiversity index to double the fiscal 2005 level by fiscal 2020. (Global)

In fiscal 2013 and 2014 we continuously achieved the goal of our Environmental Action Plan with respect to biodiversity, with the latest biodiversity index come in at 2.68 times the figure recorded in fiscal 2005. While the denominator components as GHG emissions, pollution load and resource consumption declined, at the same time, the numerator of net sales increased for fiscal 2014. As a result, the overall biodiversity index improved 0.41 points from the previous year. To continue to improve the overall biodiversity index, we will revise the Action Plan, change the numerical targets of improving the biodiversity index from double to triple the base level in fiscal 2005 by fiscal 2015.

Biodiversity Index



Biodiversity Burden Index and Sales



Note: Consolidated sales figures were used for computing the biodiversity index, but from fiscal 2013, consolidated sales computations are based on International Financial Reporting Standards (IFRS).

(Biodiversity Index Calculation Method)

The environmental load for each sub-category in the assessment fiscal year is divided by the corresponding burden in the base year and then multiplied by the weight to derive the "biodiversity burden index." The "biodiversity index" is calculated by dividing Astellas' consolidated sales in the assessment fiscal year by the total of all the biodiversity burden index figures. Improvement can be determined by comparing this index to the base year.

$$\text{Biodiversity Index} = \frac{\text{Consolidated sales in assessment fiscal year}}{\sum\left(\frac{\text{Burden in assessment fiscal year}}{\text{Burden in the base year}} \times \text{Weight}\right)}$$

Categories	Sub-Categories	Weight (%)
Environmental pollution	NOx, SOx emissions	10
	Chemical substances emissions	10
	BOD load	10
	(subtotal)	(30)
Resource consumption	Water withdrawal (global)	20
	Biological raw material usage	10
	Landfill waste volume	10
	(subtotal)	(40)
Global warming	GHG emissions (global)	30
	(subtotal)	(30)
Total		100

8.3. Sustainable Biodiversity Initiatives through Social Contribution Activities

Among the principal factors responsible for the deterioration of biodiversity, degradation of satochi-satoyama natural rural area is said to be caused by the loss of human intervention coupled with modernization. Astellas recognizes the difficulty in direct involvement with this issue in the course of our business activities. Despite this difficulty, we are keen to pursue initiatives through our social contribution activities in cooperation with external organizations.

In fiscal 2014, we held our third event of tree planting on the slopes of Mount Tsukuba. More than 100 participants, including Astellas employees together with their family members on a volunteer basis, planted around 600 seedlings on Mount Tsukuba. Of these, roughly 100 had been grown from acorns collected by members of staff of the Tsukuba Research Center within the center's grounds.

8.4. Ecosystem Survey of Our Forest

Astellas' Nishine Plant is located in the abundant nature of a hillside forest forming a kind of bridge from Mount Iwate to Mount Himegami. Over half the site area (about 345,000 m^2) comprises unspoiled natural forest in which wild Japanese deer and squirrels have been spotted. In fiscal 2014, an ecosystem survey was carried out by an independent third party to ascertain the value of this forest ecosystem.

Inside the site, trees including chestnuts, Japanese oak and Japanese pines are well looked after, and the existence of wild animals living in the forest has been confirmed. Moreover, some of these plants have been identified as rare species in danger of extinction, in addition to animals that is important to protect, including grey buntings and copper pheasants. It was also estimated that the forest absorbs about 260 tons of CO_2 per year.

We plan to examine our nature preservation policy on the basis of the results of the survey.

9. Initiatives for Resources Recycling

Resolving the serious global issues of climate change and biodiversity requires changing the existing style of economic development. Namely, the whole of society must pursue a sustainable society and economy while reducing the volume of resources it consumes. Astellas too recognizes that since the use of sustainable resources is essential for continuing its business activities, it must play an active role toward the creation of a recycling-oriented society.

Astellas is moving forward with steps to effectively use water resources and recycle waste materials (reuse, recycling, and use of all thermal energy) as initiatives contributing to a recycling-oriented society.

9.1. Effective Use of Water Resources

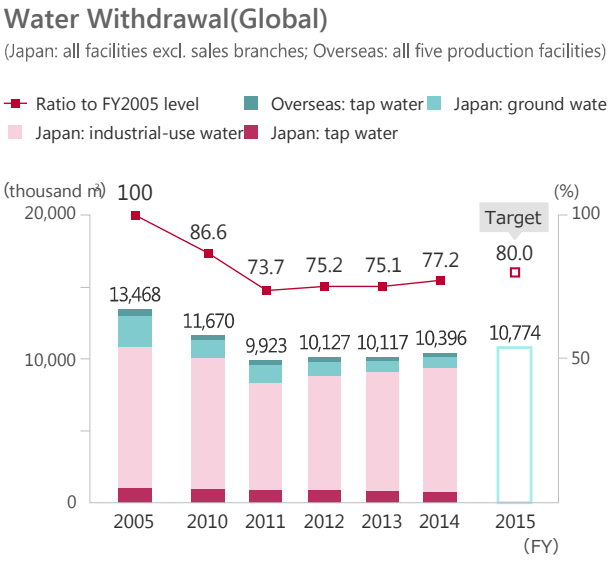
Environmental Action Plan (Water resources)

Reduce water withdrawal to the levels of 80% or less than fiscal 2005 by fiscal 2015 (Global)

Since the effective use of water resources serves as a useful indicator for gauging society's impact on biodiversity, Astellas has set numerical targets for reducing water withdrawal.

Water resources used by the group on a global basis in fiscal 2014 amounted to 10,396 thousand m³, equivalent to 77.2% of usage in the base year and a year-on-year deterioration of 2.1 percentage points. This represents continuation of reaching our target since fiscal 2011.

The Astellas Group global basis does not currently draw water from river systems in areas where depletion of water resources is a concern, but as water shortages may become a problem in the future, owing to climate change, we are taking steps to minimize our dependence on such resources, and also regard this as an effective means of ensuring business continuity. In Japan, 82.6% of the water withdrawal is from industrial-use supply, and all of this water is obtained from rivers. We are seeking to reduce water withdrawal to adapt to environmental changes in the future, for example by reduction of contract volume of industrial-use water.



9.2. Waste Management

Environmental Action Plan

Reduce the final volume of waste for disposal to less than 2% of the total discharged. (Japan)

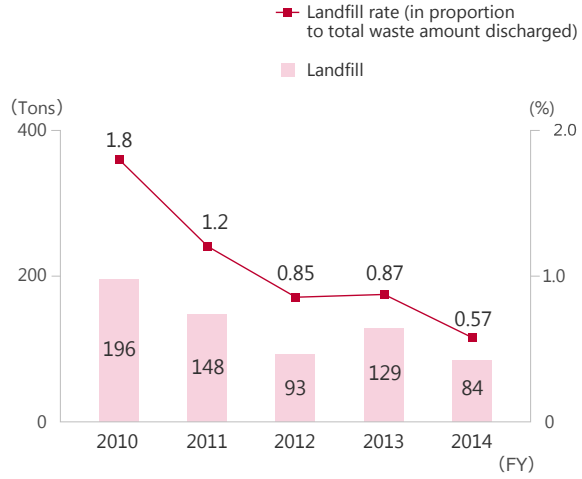
Astellas believes that efforts to reduce waste landfill volume to as close to zero as possible will encourage the recycling and reuse of waste materials. To realize this goal, we set targets for the zero emission of waste at our business facilities in Japan.

In waste management, it is also important to prevent the illegal disposal of waste and environmental pollution caused by hazardous waste generated by research centers and plants. To prevent this from happening, we first examine appropriate methods of waste disposal, and check regularly that the waste disposers selected use appropriate waste disposal methods.

The volume of waste for final disposal at landfill sites in fiscal 2014 decreased over the previous year. The volume of landfill waste came to only 0.6% of total waste generated, and the group has thus continued since fiscal 2008 to fulfill its zero emission targets.

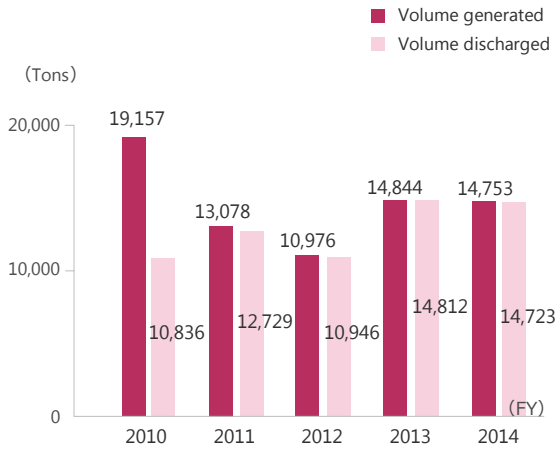
Landfill rate and landfill volume

(All Japanese facilities excl. sales branches)



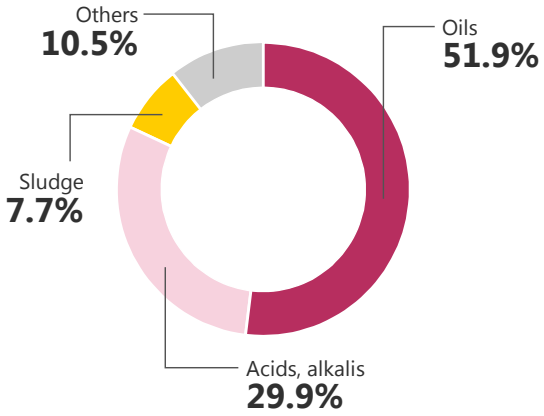
Volume of Waste Generated and Discharged

(All Japanese facilities excl. sales branches)



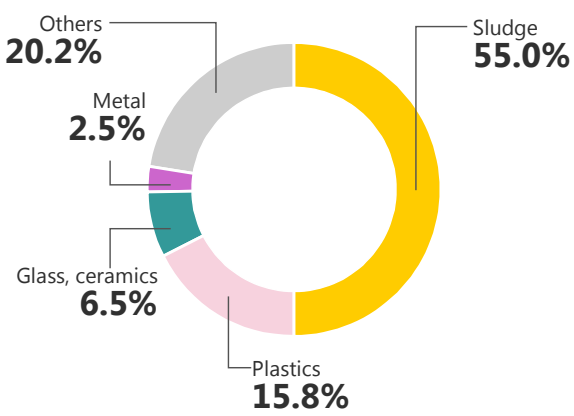
Breakdown of waste generated

(All Japanese facilities excl. sales branches)

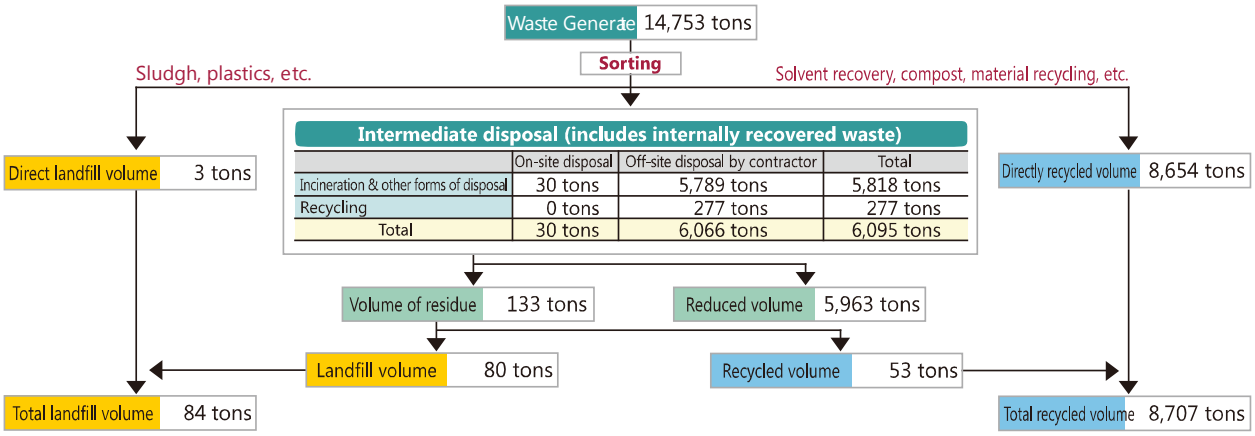


Breakdown of landfill waste

(All Japanese facilities excl. sales branches)



Waste Processing Flow Chart



9.3. State of PCB-contaminated Waste Storage

We have been systematically conducting detoxification of any equipment that is contaminated with PCBs stored by Astellas.

In fiscal 2014, we completed the disposal of equipment (17 units) containing trace amounts of PCB that were stored at the Takahagi Facilities, the Yaizu Facilities, the Kiyosu Research Office, the Takaoka Plant, and the Kashima R&D Center.

In fiscal 2014, we proactively disposed of various equipment that contained low-concentrations of PCBs. As a result, we detoxified 13 high-voltage transformers, 1 electric current breaker, and 17 condensers. Moreover, to confirm that there were no traces of PCBs in the electrical ballasts for fluorescent lamps that we were storing, we selected one business site and confirmed that 1,836 units were uncontaminated with PCBs. Going forward, we plan to dispose of other fluorescent lamp ballasts and waste matter containing low-concentration PCBs.

Status	Category	Number/Volume
Stored	Capacitors	169 units
	Fluorescent lamp ballasts	4,539 unit
	PCB-containing oil	16 liters
	PCB incrustation	85 kg

10. Initiatives for Preventing Pollution

Among environmental initiatives, the prevention of environmental pollution in local communities is just as important as global environmental issues. The system for managing typical pollution problems in Japan has begun to fail, as illustrated by an increase in accidents involving water contamination in the past few years. Consequently, relevant laws and regulations have become increasingly severe, including the strengthening of measures to prevent the escalation of harm in the event of an accident. Meanwhile, the international community has reached an agreement on minimizing the adverse effects that the production and use of chemical substances have on human health and the environment by the year 2020. Each country is, therefore, implementing its own initiatives on the control of chemical substances.

Astellas sets its own levels which are stricter than legal standards and pollution control agreements for the major environmental management indicators used to measure air quality and water quality. In addition to reducing the discharge of contaminants, we also set voluntary targets for lowering the discharge of chemical substances into the atmosphere.

10.1. Air Pollution

Environmental Action Plan

Reduce the amount of VOCs discharged by 25% or more compared with fiscal 2006 levels by fiscal 2015. (Japan)

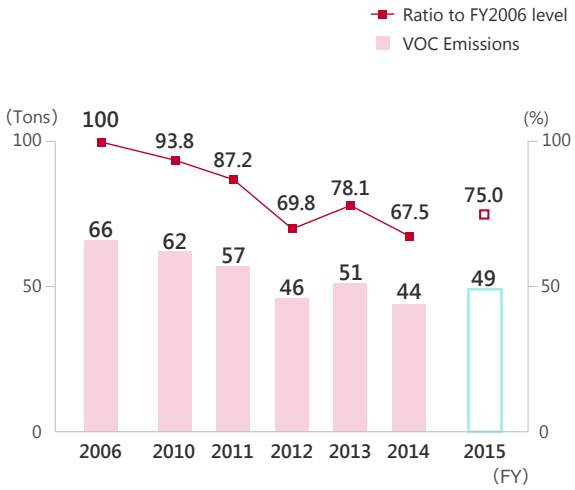
Astellas sets voluntary numerical targets for reducing the amount of volatile organic compounds (VOCs) it discharges accompanying the use of solvents in production and research activities, and is implementing measures to achieve these reduction targets.

In emissions of VOCs into the atmosphere, we reached our target in fiscal 2014. Emissions totaled 44 tons, down by 32.5% (21 tons) from the base year. In fiscal 2015, we will continue our reduction efforts without changing the numerical targets. In addition to reducing atmospheric pollution, we will take other steps to minimize the impact of our business operations on our employees, the regional communities in which we work, and the global environment. Such steps will include measures to prevent environmental pollution by chemical substances as well as workplace accidents and health hazards, and will take the form of adopting new production methods that do not employ high-risk chemicals.

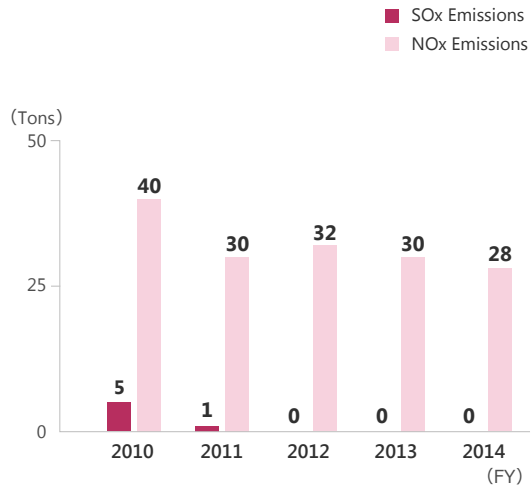
We have not set any numerical targets for atmospheric emissions of SOx and NOx from the operation of steam boilers and incinerators, but we are striving to reduce such emissions though the adoption of low-NOx-type boilers and by ceasing operations of waste liquid incinerators.

As a result of the shut-down of all waste liquid incinerators in Japan, the group's emissions of SOx fell sharply from fiscal 2012. From fiscal 2014, Astellas has no longer been using the office building in Tokyo's Nihonbashi district, which had been using fuel oil for heating, and thus SOx emissions were zero. NOx emissions are also decrease by 2 tons from the previous fiscal year, to 28 tons.

VOC emissions
(All Japanese production facilities and R&D centers)

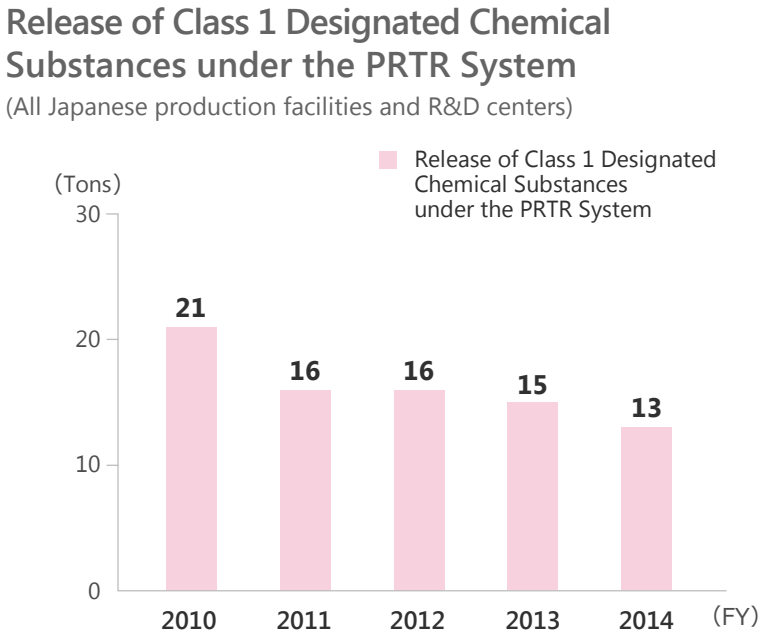


Air pollutants
(All Japanese facilities excl. sales branches)



10.2. Emission of PRTR* Chemical Substances

Japan's PRTR Act designate substances harmful to human beings and recognized to widely exist in the environment. The main aim of these laws is to confirm the nature of the emissions and movement-generated materials of a company, and to result in the company's independent assessment and improvement of its management of chemical substances. The table below shows the release and transfer of PRTR-designated substances that we identified and reported on in fiscal 2014. Our total amount of release into the environment of designated chemical substances in fiscal 2014 was 13 tons.



*) PRTR Refers to chemical substances designated under Japan's "Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof" (Pollutant Release and Transfer Register Law)

Releases and transfers of PRTR chemical substances in fiscal 2014 (unit: tons)

Substance name	Volume handled	Volume Released			Volume Transferred	
		Air	Water	Soil	Waste	Sewerage
Acetonitrile	26.382	0.493	0.000	0.000	13.708	0.000
Toluene	9.041	0.082	0.000	0.000	8.960	0.000
N.N-dimethylformamide	11.482	0.037	0.001	0.000	5.023	0.000
Chloroform	27.422	6.717	0.000	0.000	20.706	0.000
n-Hexane	10.540	1.705	0.000	0.000	8.835	0.000
Dichloromethane (also known as methylene chloride)	38.414	3.541	0.000	0.000	0.092	0.000

10.3. Water Pollution

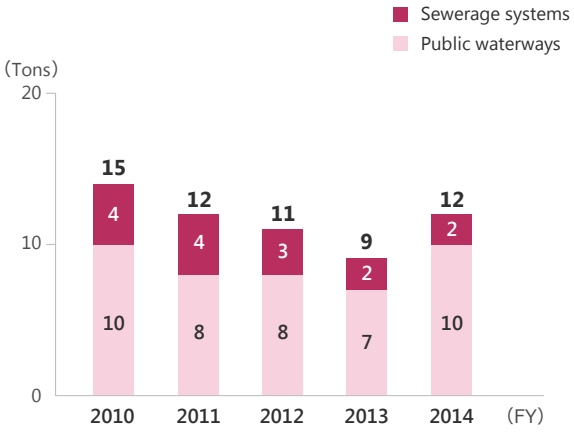
Astellas measures the extent of its impact on aquatic environments by adopting the biochemical oxygen demand (BOD) load as an index, and makes the data available to the public.

In Japan, the BOD load in fiscal 2014 was 12 tons, down from the previous fiscal year. Outside Japan, the BOD in fiscal 2014 was 6 tons (excluding Meppel Plant), also down from the previous year.

Since the discharge into water of chemical substances used in manufacturing processes can have a negative impact on ecosystems, we are examining ways of reducing such discharges as much as possible at all stages from R&D onward. With respect to future drug candidate substances, we are examining the impact pharmaceuticals would have on ecosystems through the evaluation of their biodegradability in the natural environment, and will take action as appropriate.

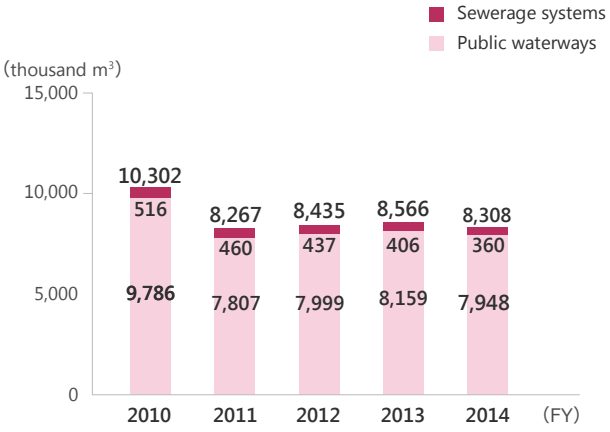
BOD Load (Japan)

(All Japanese production facilities and R&D centers)



Drainage volume (Japan)

(All Japanese facilities excl. sales branches)



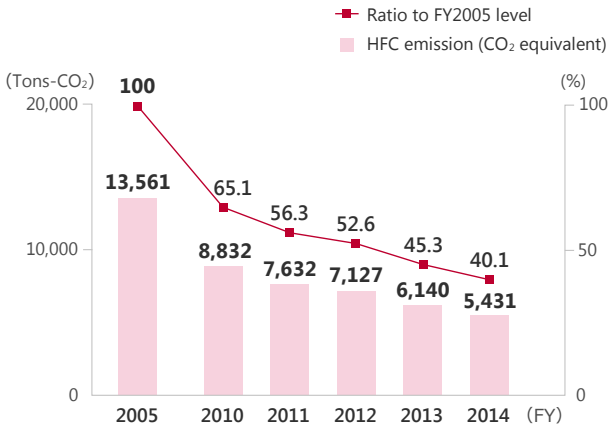
11. Environmental Impact of Products and Countermeasures

11.1. Greenhouse Gases

Astellas manufactures and sells only one pharmaceutical product that uses hydrofluorocarbons (HFCs) as a filler agent, for which it has acquired official manufacturing approval. While the use of HFCs enhances the product's quantitative performance and makes it easier to inhale the drug, the HFCs emitted contribute to global warming, and this is an issue that remains to be addressed.

For this reason, the Company introduced new technology that allowed the development and marketing of a new product in which a fixed quantity of medication can be administered in fine powder form using a special inhaler. This new product ameliorates environmental impact by reducing the amount of GHG emissions.

GHG emissions from product use



Atmospheric emissions of HFCs as a result of product use had fallen to 2 tons in fiscal 2014 compared with 5 tons in fiscal 2005. Converted to CO_2-equivalents, this is a decline from 13,561 tons to 5,431 tons.

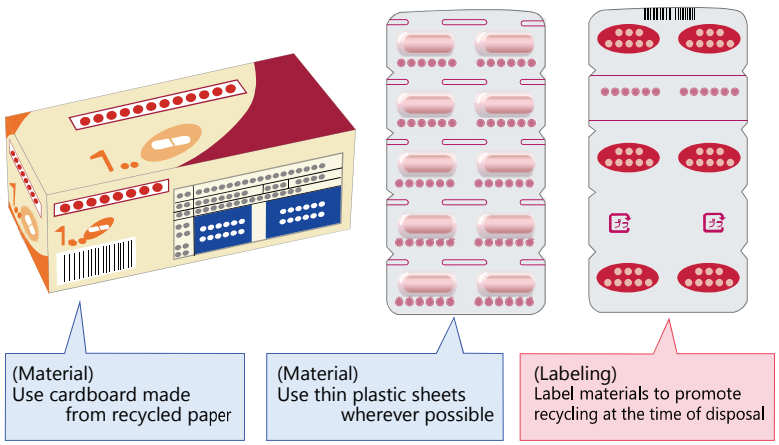
From fiscal 2015, Astellas does not sell any products that emit GHG during use phase because at the end of March 2015 we ceased selling such products in line with our sales strategy concerning related products.

11.2. Containers and Packaging Recycling

The products manufactured and marketed by the Company are administered to patients through medical institutions. After their use, packaging materials are disposed of by hospitals, pharmacies, and general households. The waste discarded by general households is mainly comprised of PTP (plastic) packaging used for tablets and capsules. Hospitals and pharmacies discard PTP packaging as well as various types of plastics including bottles and tubes, metals, glass materials used in injectable solutions products, and such paper items as individual packaging and cardboard boxes.

In the case of pharmaceutical packaging, certain functions remain essential to ensure the safe storage of products as well as compliance with the provisions stipulated under the Pharmaceutical Affairs Act of Japan. In addition to these functions and requirements, Astellas selects environmentally friendly materials for use in its packaging while engaging in a variety of initiatives including the labeling of materials to promote recycling at the time of disposal.

To encourage the recycling of containers and packaging for household use in Japan, in accordance with the Containers and Packaging Recycling Law (which mandates the sorted collection of containers and packaging, and promotes their reuse in commercial products) sellers of products are responsible for defraying the costs of recycling of such waste products. The estimated total amount of plastic and paper containers and packaging used in Astellas products in fiscal 2014 is 594 tons, and the Company was requested to pay ¥19.05 million in recycling costs.



12. Environmental Accounting

Astellas calculates the costs of investment and expenses related to environmental conservation for its facilities in Japan and their outcomes based on the Ministry of the Environment's "Environmental Accounting Guidelines."

Environmental conservation costs in fiscal 2014 comprised ¥387 million in investments and ¥2,150 million in expenses (including depreciation costs), both figures representing year-on-year declines. The main investments for preventing pollution were in the construction and maintenance of waste water treatment plants and the surveying and repair of underground water-supply pipelines. Among investments in global environmental protection decided at the Global Warming Prevention Committee, we implemented those involving improved operating and management efficiency of existing equipment, but some plans were ceased mainly to change our bases integration plan and production plan. The economic benefits generated through environmental protection activities amounted to ¥135 million, which includes lower costs owing to energy savings, the sale of waste organic solvents and waste metals, lower costs of treating waste materials, and the purchase of regenerated organic solvents. The cost in fiscal 2014 of carrying out the disposal of equipment found to contain trace amounts of PCBs was ¥105 million. The allowance for PCB treatment was increased and amounted to ¥225 million.

Total environmental conservation costs in fiscal 2014

(¥ million)

Category			Environmental Conservation Costs			
			Investment	Costs		
				Total	Expense	Depreciation
Business Area Cost			359	1,361	878	483
Breakdown	Pollution Prevention	Prevention of atmospheric pollution	2	139	111	28
		Prevention of water pollution	127	273	181	92
		Prevention of soil contamination	17	17	4	13
		Prevention of noise, bad odors and vibrations	0	4	2	2
		Other	0	16	4	12
		Subtotal	146	449	303	146
	Global Environmental Conservation	Prevention of atmospheric pollution	194	322	74	248
		Prevention of Ozone layer depletion	12	1	0	1
		Management of chemical substances	0	44	37	7
		Other	0	70	2	69
		Subtotal	206	437	113	324
	Resource Circulation	Efficient use of wastes	0	124	124	0
		Conservation of water	0	0	0	0
		Treatment of wastes	8	321	311	11
		Other	0	30	27	3
		Subtotal	8	475	462	13
Upstream/Downstream costs			0	53	53	0
Administration costs			28	295	295	0
R&D costs			0	73	63	10
Social activity costs			0	6	6	0
Environmental remediation costs			0	363	363	0
Total			387	2,150	1,657	493
Total environmental conservation costs, excluding environmental remediation costs			387	1,788	1,294	493

Environmental Conservation Effect

(¥ million)

Measures taken	Economic Effect Related to Environmental Conservation *
Cost reductions through energy conservation	23
Sludge drying, reduction in amount of waste liquid disposal contracted out (through increased disposal in-house)	0
Conservation of resources through reuse of solvents, and reduction in fuel purchases through conversion of solvents to fuel	1
Sale of waste solvents	5
Total	29

*) Quantifiable items only included in calculations

Environmental-related Investments and Expenses

(¥ million)

Category	FY2010		FY2011		FY2012		FY2013		FY2014	
	Investment	Expenses	Investment	Expenses	Investment	Expenses	Investment	Expenses	Investment	Expenses
Upstream/Downstream costs	177	687	225	489	239	479	91	438	146	303
Administration costs	403	287	730	413	465	413	289	422	206	113
R&D costs	6	344	0	432	21	441	31	465	8	462
Social activity costs	0	67	0	65	0	66	0	53	0	53
Environmental remediation costs	18	364	0	331	0	304	0	277	28	295
Upstream/Downstream costs	13	37	7	36	29	13	5	37	0	63
Administration costs	0	3	0	2	0	2	0	4	0	6
R&D costs	0	76	0	255	0	224	0	363	0	363
Total	616	1,865	963	2,023	753	1,943	416	2,059	387	1,657

13. Methods for Calculating Performance Data

13.1. Methods for Calculating Energy Consumption and GHGs

Astellas' overseas facilities use the CO_2 emission coefficients in the Conversion Coefficients table below except for electricity and steam use of the overseas plants shown in the second table.

Type	Conversion Coefficients	
	Calorific value	CO_2 emissions
Electricity	9.97 GJ/MWh	0.570 tons/MWh *1
Fuel oil	39.1 GJ/kiloliter	2.71 tons/kiloliter
Kerosene	36.7 GJ/kiloliter	2.49 tons/kiloliter
LPG	50.8 GJ/tons	3.00 tons/ton
LNG	54.6 GJ/tons	2.70 tons/ton
City gas	45.0 GJ/thousand m^3N	2.24 tons/thousand m^3N
Diesel oil	37.7 GJ/kiloliter	2.58 tons/kiloliter
Gasoline	34.6 GJ/kiloliter	2.32 tons/kiloliter
Purchased thermal energy	1.36 GJ/GJ	0.057 tons/GJ

	Electricity *2	Steam
Norman Plant	0.481 tons/MWh	-
Dublin Plant Kerry Plant	0.457 tons/MWh	-
Meppel Plant	0.441 tons/MWh	-
Shenyang Plant	0.734 tons/MWh	0.091 tons/GJ

*1 For CO_2 emissions calculations in fiscal 2014, we have used the coefficient for fiscal 2013, because at the time of the release (June 2014) of our Japanese Environmental Report, FEPC's latest CO_2 emission coefficient was unavailable.

*2 See the CO_2 emission coefficient accompanying the end-use electricity under Measures to Address Global Warming.

*3 In converting the amount of power generated by renewable energy sources such as solar and wind into energy value in Joule, we have used a conversion rate of 3.6 MJ per 1 kWh.

13.2. Scope3 Calculation Method

Category	Calculation method	Emission source unit
1 Purchased goods and services	Purchase monetary amount of raw material x emission source unit of each raw material	Target: Production bases in Japan Emission source unit: ● Source: The Ministry of the Environment's database*5; emission source units based on the industry-related table Emission source unit on monetary basis of each raw material (purchaser price basis) Example: Starch 9.07 t-CO_2 equivalent/¥million
2 Capital goods	Facility investment amount (consolidated) x emission source unit per price of capital goods	Target: Global Emission source unit: ● Source: The Ministry of the Environment's database*6; emission source units per price of capital goods (Secretariat) Pharmaceutical products 2.83 t-CO_2 equivalent/¥million
3 Fuel and energy related activities (not included in Scope 1 and Scope 2)	Usage amount of purchased fuel, electricity, heat, etc. x emission source units per usage amount for each energy type	Target: Global Emission source unit: ● Source: The Ministry of the Environment's database*7; emission source units per usage amount of electricity and heat (Secretariat) Electricity: 0.0354 t-CO_2/MWh Steam: 0.0139 t-CO_2/GJ ● Source: Carbon footprint communication program: Basic database Ver.1.01 Fuel oil : 0.214 t-CO_2/kiloliter LPG : 0.537 t-CO_2/ton Kerosene: 0.121 t-CO_2/kiloliter LNG : 0.554 t-CO_2/ton Diesel oil : 0.152 t-CO_2/kiloliter City gas: 0.484 t-CO_2/thousands Nm^3 Gasoline: 0.343 t-CO_2/kiloliter
4 Transportation and distribution	CO_2 emissions during transportation: Calculation method for CO_2 emissions from energy sources related to cargo transportation by transportation carrier stipulated by Act on the Rational Use of Energy CO_2 emissions at distribution warehouses: Electricity usage amount x emission source unit	Target: Transportation in Japan Emission source unit during transportation: ● Source: Calculation of greenhouse gas emissions: reporting manual (Ver.4.0) Emission source unit of electricity: ● The Federation of Electric Power Companies of Japan (FEPC)'s actual end-use emissions in fiscal 2013, 0.5707 t-CO_2/MWh
5 Waste generated in operation	CO_2 emissions generated during industrial waste transportation: Calculation method for CO_2 emissions from energy sources related to cargo transportation by transportation carrier stipulated by Act on the Rational Use of Energy	Target: Production bases in Japan Emission source unit during industrial waste transportation ● Source: Calculation of greenhouse gas emissions: reporting manual (Ver.4.0)
	CO_2 emissions generated during industrial waste treatment: Amounts of recycled industrial waste, incineration processing, and direct landfill processing x waster type/emission source unit by processing method	Emission source unit during industrial waste transportation ● Source: The Ministry of the Environment's database*8; emission source units by waste type (Secretariat) (excluding waste transportation stage) Example: Sludge (incineration) 0.1731 t-CO_2/t
6 Business travel (by airplane)	Number of persons using airplanes x distance between airports for each flight x emission source unit	Target: Global (Results compiled from all airplanes except for Asia and Oceania regions) Flight distance between airports: Calculated by assuming flight is a straight line connecting two points on the earth's surface Emission source unit: ● Source: A calculation sheet made public by Defra (The Department for Environment, Food and Rural Affairs, UK) Emission source unit by flight class and distance Example: Economy class on domestic flight. 0.15504 kg-CO_2/passenger-km
7 Employee commuting	Train: Number of persons commuting by train x distance x emission source unit Bus: Number of persons commuting by bus x distance x emission source unit Car: Number of persons commuting by car x distance x emission source unit	Target: Japan Emission source units of trains and buses ● Source: The Ministry of the Environment's database*10; emission source units per traveler-km (Secretariat) Train: 0.0236 kg-CO_2/passenger-km Bus: 0.0836 kg-CO_2/passenger-km Emission source unit of cars: Car: Astellas internal regulations for private-use car commuting expenses ● Source: The Ministry of the Environment's guidelines for calculating greenhouse gas emissions from carbon offset activities (April 2011) Fuel consumption rate of gasoline by private-use car (9.09 km/Liter)
8 Use of sold products	Amount of HFC used as fillers in inhalation-type medical drugs x GWP	Target: Japan Targets sold inhalation-type medical drugs (HFC specification products)
9 End-of-life treatment of sold products	Usage volume of sold products when end-of-life treatment is approached in line with the laws on recycling containers and packaging x emission source unit	Target: Japan Emission source unit: ● Source: The Ministry of the Environment's database*8; emission source units by waste type (Secretariat) (excluding waste transportation stage) Example: Waste plastics 0.766 t-CO_2 equivalent/ton

* The Ministry of the Environment's database: The Ministry of the Environment's emission source unit database (ver.2.2) for calculating greenhouse gas emissions through the supply chain (March 2015)

14. Corporate Data

Company Name	Astellas Pharma Inc.
Headquarters	2-5-1, Nihonbashi-Honcho, Chuo-Ku, Tokyo 103-8411, Japan
Capital	¥103,001 million (as of March 31, 2014)
Representative Director	Yoshihiko Hatanaka (President and Chief Executive Officer)
Foundation	1923

Net Sales	1,247.2 billion (Consolidated basis, as of March 31, 2015)
Employees	17,113 (Consolidated basis, as of March 31, 2015)
Professional institution affiliation	・Japan Business Federation ・The Federation of Pharmaceutical Manufacturers' Associations of Japan ・Japan Pharmaceutical Manufacturers Association

■ Major consolidated subsidiaries

1. Coverage of the Environmental Action Plan

Company name	Facility	Location	Function
Astellas Pharma Inc.	Nihonbashi Office	Chuo-ku, Tokyo	Headquarters Development
	Takahagi Chemistry & Technology Development Center	Takahagi, Ibaraki	Research
	Tsukuba Research Center	Tsukuba, Ibaraki	
	Tsukuba Biotechnology Research Center	Tsukuba, Ibaraki	
	Yaizu Pharmaceutical Research Center	Yaizu, Shizuoka	
	Kiyosu Research Office	Kiyosu, Aichi	
	Kashima R&D Center	Yodogawa-ku, Osaka	
	Branches/Sales Offices	14 branches, 109 sales offices	Sales & Marketing
Astellas Pharma Tech Co., Ltd.	Nishine Plant	Hachimantai, Iwate	Manufacturing
	Takahagi Technology Center	Takahagi, Ibaraki	
	Yaizu Technology Center	Yaizu, Shizuoka	
	Toyama Technology Center	Toyama, Toyama	
	Takaoka Plant	Takaoka, Toyama	
Astellas Pharma Technologies Inc.	Norman Plant	U.S.A	
Astellas Ireland Co., Ltd.	Dublin Plant	Ireland	
	Kerry Plant		
Astellas Pharma Europe B.V.	Meppel Plant	Netherlands	
Astellas Pharma China, Inc.	Shenyang Plant	China	

Note 1) Operating sites throughout this report are in principle identified according to the name of each facility. In instances where there are multiple facilities on the same site, the following names may be applied.
- •Takahagi Facilities (Takahagi Chemistry & Technology Development Center and Takahagi Technology Center)
- •Yaizu Facilities (Yaizu Pharmaceutical Research Center and Yaizu Technology Center)

2. Facilities Outside the Coverage of Environmental Action Plan

Principal office buildings and research R&D Centers operated by the consolidated subsidiaries listed below:

- •Astellas US LLC (U.S.A.)
- •Astellas Pharma Europe Ltd. (U.K.)
- •Astellas Pharma Europe B.V. (Netherlands)
- •Agensys, Inc. (U.S.A.)
- •Astellas Research Institute of America LLC (U.S.A.)
- •and office buildings used by sales companies in the Americas, EMEA (Europe, the Middle East and Africa including NIS countries), and the Asia and Oceania regions

15. Site Data

Nishine Plant

	Item	Unit	FY2014
Energy	Electricity	MWh	10,035
	Fuel oil	kiloliter	-
	Kerosene	kiloliter	1
	LPG	tons	2
	LNG	tons	1,177
	City gas	thousand m^3	-
	Diesel oil	kiloliter	1
	Gasoline	kiloliter	0
	Total	TJ	165
CO_2 emission from energy use		kilotons	9
Air pollutants	NOx	tons	1
	SOx	tons	-
Chemical substance	VOC	tons	12
Water withdrawal	Tap water	thousand m^3	-
	Industrial-use water	thousand m^3	-
	Ground water	thousand m^3	356
	Total	thousand m^3	356
Drainage volume	into rivers	thousand m^3	356
	Sewerage system	thousand m^3	-
Water pollution	BOD load	tons	0
	COD load	tons	1
Waste	Generated	tons	378
	Landfill	tons	5

Takahagi Facilities

	Item	Unit	FY2014
Energy	Electricity	MWh	17,968
	Fuel oil	kiloliter	-
	Kerosene	kiloliter	-
	LPG	tons	4
	LNG	tons	1,149
	City gas	thousand m^3	-
	Diesel oil	kiloliter	0
	Gasoline	kiloliter	-
	Total	TJ	242
CO_2 emission from energy use		kilotons	13
Air pollutants	NOx	tons	4
	SOx	tons	-
Chemical substance	VOC	tons	0
Water withdrawal	Tap water	thousand m^3	30
	Industrial-use water	thousand m^3	2,491
	Ground water	thousand m^3	-
	Total	thousand m^3	2,521
Drainage volume	into rivers	thousand m^3	2,520
	Sewerage system	thousand m^3	-
Water pollution	BOD load	tons	3
	COD load	tons	10
Waste	Generated	tons	1,130
	Landfill	tons	9

Yaizu Facilities

	Item	Unit	FY2014
Energy	Electricity	MWh	42,088
	Fuel oil	kiloliter	-
	Kerosene	kiloliter	-
	LPG	tons	-
	LNG	tons	-
	City gas	thousand m^3	5,770
	Diesel oil	kiloliter	0
	Gasoline	kiloliter	0
	Total	TJ	679
CO_2 emission from energy use		kilotons	37
Air pollutants	NOx	tons	9
	SOx	tons	-
Chemical substance	VOC	tons	0
Water withdrawal	Tap water	thousand m^3	352
	Industrial-use water	thousand m^3	-
	Ground water	thousand m^3	330
	Total	thousand m^3	682
Drainage volume	into rivers	thousand m^3	624
	Sewerage system	thousand m^3	-
Water pollution	BOD load	tons	0
	COD load	tons	2
Waste	Generated	tons	814
	Landfill	tons	1

Toyama Technology Center

	Item	Unit	FY2014
Energy	Electricity	MWh	33,251
	Fuel oil	kiloliter	-
	Kerosene	kiloliter	-
	LPG	tons	0
	LNG	tons	-
	City gas	thousand m^3	3,931
	Diesel oil	kiloliter	3
	Gasoline	kiloliter	2
	Total	TJ	509
CO_2 emission from energy use		kilotons	28
Air pollutants	NOx	tons	3
	SOx	tons	-
Chemical substance	VOC	tons	11
Water withdrawal	Tap water	thousand m^3	190
	Industrial-use water	thousand m^3	2,244
	Ground water	thousand m^3	20
	Total	thousand m^3	2,454
Drainage volume	into rivers	thousand m^3	2,142
	Sewerage system	thousand m^3	-
Water pollution	BOD load	tons	3
	COD load	tons	10
Waste	Generated	tons	8,221
	Landfill	tons	22

Takaoka Plant

	Item	Unit	FY2014
Energy	Electricity	MWh	13,607
	Fuel oil	kiloliter	-
	Kerosene	kiloliter	-
	LPG	tons	2,241
	LNG	tons	-
	City gas	thousand m^3	-
	Diesel oil	kiloliter	0
	Gasoline	kiloliter	1
	Total	TJ	250
CO_2 emission from energy use		kilotons	14
Air pollutants	NOx	tons	3
	SOx	tons	-
Chemical substance	VOC	tons	1
Water withdrawal	Tap water	thousand m^3	61
	Industrial-use water	thousand m^3	3,504
	Ground water	thousand m^3	44
	Total	thousand m^3	3,609
Drainage volume	into rivers	thousand m^3	2,290
	Sewerage system	thousand m^3	-
Water pollution	BOD load	tons	3
	COD load	tons	7
Waste	Generated	tons	238
	Landfill	tons	1

Kiyosu Research Office

	Item	Unit	FY2014
Energy	Electricity	MWh	2,093
	Fuel oil	kiloliter	-
	Kerosene	kiloliter	-
	LPG	tons	-
	LNG	tons	-
	City gas	thousand m^3	273
	Diesel oil	kiloliter	-
	Gasoline	kiloliter	0
	Total	TJ	33
CO_2 emission from energy use		kilotons	2
Air pollutants	NOx	tons	0
	SOx	tons	-
Chemical substance	VOC	tons	0
Water withdrawal	Tap water	thousand m^3	8
	Industrial-use water	thousand m^3	-
	Ground water	thousand m^3	14
	Total	thousand m^3	22
Drainage volume	into rivers	thousand m^3	-
	Sewerage system	thousand m^3	15
Water pollution	BOD load	tons	0
	COD load	tons	0
Waste	Generated	tons	1,696
	Landfill	tons	0

Tsukuba Research Center

	Item	Unit	FY2014
Energy	Electricity	MWh	*1) 33,336
	Fuel oil	kiloliter	-
	Kerosene	kiloliter	-
	LPG	tons	-
	LNG	tons	-
	City gas	thousand m^3	6,721
	Diesel oil	kiloliter	-
	Gasoline	kiloliter	2
	Total	TJ	635
CO_2 emission from energy use		kilotons	34
Air pollutants	NOx	tons	6
	SOx	tons	-
Chemical substance	VOC	tons	17
Water withdrawal	Tap water	thousand m^3	29
	Industrial-use water	thousand m^3	222
	Ground water	thousand m^3	-
	Total	thousand m^3	251
Drainage volume	into rivers	thousand m^3	-
	Sewerage system	thousand m^3	149
Water pollution	BOD load	tons	1
	COD load	tons	2
Waste	Generated	tons	1,030
	Landfill	tons	27

Tsukuba Bio Research Center

	Item	Unit	FY2014
Energy	Electricity	MWh	6,548
	Fuel oil	kiloliter	-
	Kerosene	kiloliter	-
	LPG	tons	-
	LNG	tons	-
	City gas	thousand m^3	364
	Diesel oil	kiloliter	-
	Gasoline	kiloliter	0
	Total	TJ	82
CO_2 emission from energy use		kilotons	2
Air pollutants	NOx	tons	0
	SOx	tons	-
Chemical substance	VOC	tons	0
Water withdrawal	Tap water	thousand m^3	33
	Industrial-use water	thousand m^3	-
	Ground water	thousand m^3	-
	Total	thousand m^3	33
Drainage volume	into rivers	thousand m^3	-
	Sewerage system	thousand m^3	32
Water pollution	BOD load	tons	0
	COD load	tons	-
Waste	Generated	tons	967
	Landfill	tons	4

*1) 52 MWh generated by photovoltaic panels contained

Kashima R&D Center

	Item	Unit	FY2014
Energy	Electricity	MWh	*2) 18,319
	Fuel oil	kiloliter	-
	Kerosene	kiloliter	-
	LPG	tons	-
	LNG	tons	-
	City gas	thousand m^3	2,544
	Diesel oil	kiloliter	6
	Gasoline	kiloliter	-
	Total	TJ	297
CO_2 emission from energy use		kilotons	16
Air pollutants	NOx	tons	2
	SOx	tons	-
Chemical substance	VOC	tons	1
Water withdrawal	Tap water	thousand m^3	42
	Industrial-use water	thousand m^3	99
	Ground water	thousand m^3	-
	Total	thousand m^3	141
Drainage volume	into rivers	thousand m^3	-
	Sewerage system	thousand m^3	164
Water pollution	BOD load	tons	1
	COD load	tons	1
Waste	Generated	tons	175
	Landfill	tons	4

*2) 35 MWh generated by photovoltaic panels contained

(English version edited: JULY 31st. Japanese original version issued on June 15th, 2015)