

## Environmental Performance

### HINO GLOBAL Environment Charter

Revised February 1, 2001

In April 1993, Hino Motors formulated the Hino Global Environment Charter, laying out its fundamental approach to environmental conservation. Every five years, the company creates a concrete action plan called an Environment Initiative Plan based on the charter, and advances activities in accordance with this plan.

#### I. Basic Policies

1. We will promote comprehensive and ongoing environmental protection.

As a leading manufacturer of diesel vehicles, we will endeavor to offer superior products to customers in all countries, and continue to contribute to the achievement of greater prosperity through our products. In this, we are fully aware of the environmental impact of our products, and pledge ourselves to an earnest commitment to sustainable human and global development through ongoing efforts, whilst also paying careful attention to preventing pollution wherever we engage in our corporate activities.

2. We will take concrete and definite steps to protect the global environment.

Through the establishment and operation of our Environmental Management System we will maintain continuous efforts to define, assess and review environmental goals and targets while strictly adhering to all legal and other requirements placed upon us.

#### II. Action Guidelines

1. We will minimize the environmental impact of our vehicles throughout their life cycles, and of all our corporate activities in general.

We are determined to offer the public products having top-level environmental performance, and to engage in continuous technical development designed to minimize the environmental impact of our products and their distribution. We will also engage in the establishment and operation of an Environmental Management System embracing all stages in the life cycle of our vehicles.

2. We will develop closer partnerships with our affiliated companies.

The cooperation of a great many companies is critical for the effective pursuit of our business activities. We will work closely with vehicle manufacturing partners both in Japan and abroad, and will strive to extend the mutual range of our environmental protection efforts.

3. We will make greater efforts in the areas of information disclosure, education and awareness-promoting activities.

We will engage in activities designed to disseminate to as many people as possible a correct and proper understanding of what we are trying to achieve. At the same time, we will spare no effort to hone our own environmental sensitivity.

4. Our contribution is not limited to the offering of superior products.

As corporate citizens, and as a corporate entity existing within a local community, we will take an active part in a broad range of community and social activities.

## Environmental Performance

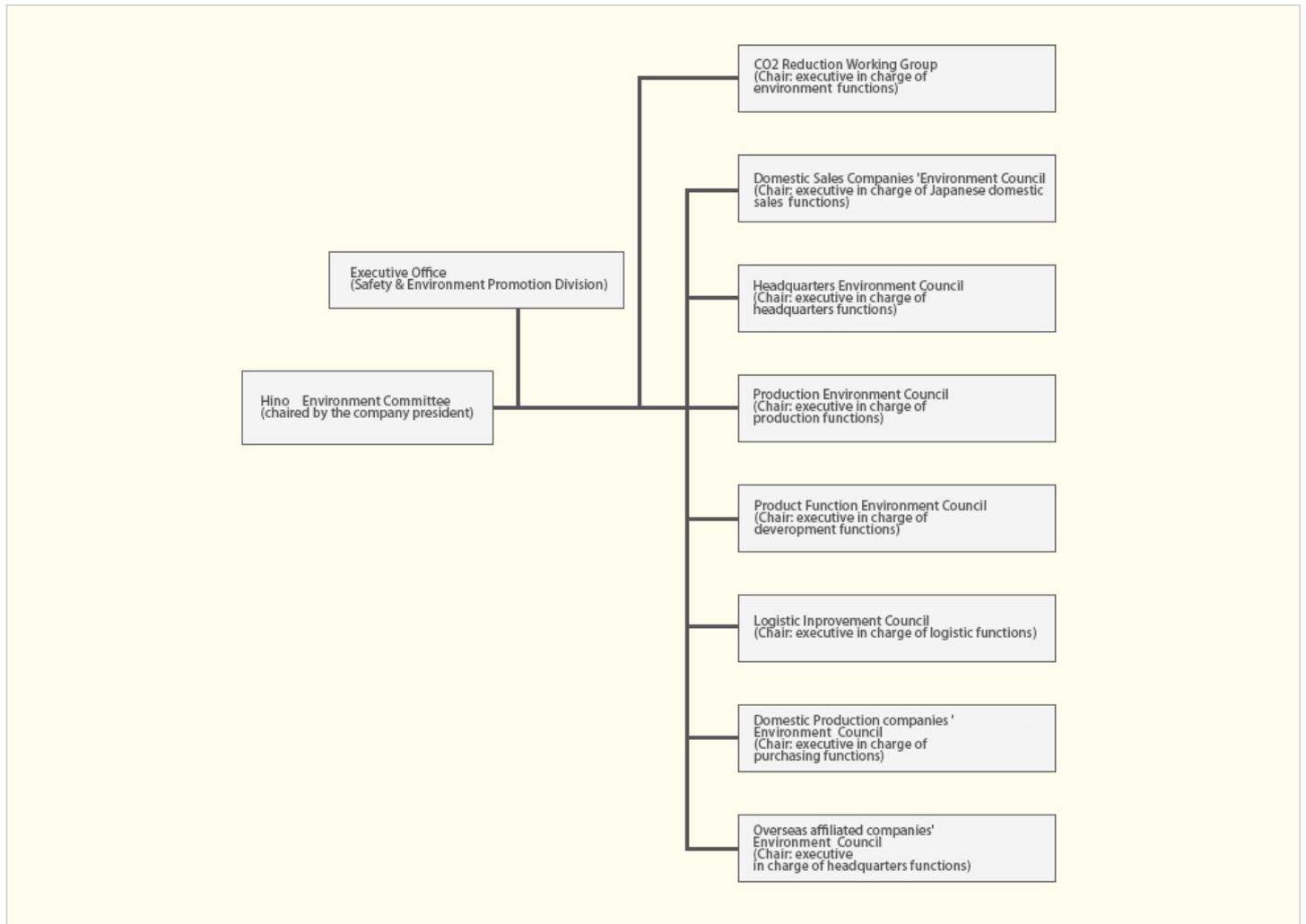
### Environmental Conservation Promotion Structure

In March 1993, Hino Motors established the Hino Environment Committee, an overarching Company-wide organization chaired by the Hino Motors' president. At the same time, Hino Motors formulated the Hino Global Environment Charter, which underpins various facets of Hino Motors' environmental conservation activities.

Developing and expanding environmental management systems on a separate functional basis are the features that most clearly define Hino Motors' environmental conservation activities. In this context, Hino Motors has established seven organizations subordinate to the Hino Environment Committee encompassing each of the Domestic Sales Companies, Headquarters, Production, Product Function, Logistic, and domestic dealer functions, Domestic Production companies, Overseas affiliated companies. Chaired by an appointed executive, these organizations promote specific environmental conservation initiatives.

Furthermore, in fiscal 2015 the CO<sub>2</sub> Reduction Working Group was newly established as a cross-company organization, with the aims of responding to societal expectations (for CO<sub>2</sub> emissions regulation, etc.) and engaging in further systematic CO<sub>2</sub> reduction activities with a long-term outlook. Through cooperation among the four organizational functions mentioned above, concerted company-wide efforts are being advanced to achieve CO<sub>2</sub> reductions in all areas.

#### ■ Environmental Conservation Promotion Structure



## Environmental Performance

### Environmental Management Systems

Hino Motors has developed environmental management systems (EMS) for all operational functions in Japan, and is effectively managing EMS in a manner that links each division's business operations to environmental conservation. At EMS certified companies, these systems are periodically subjected to stringent environmental audits to ensure their effectiveness.

By April 2003, Hino Motors has acquired ISO 14001 certification for its headquarters as well as the product development, product engineering, production and parts and vehicle distribution functions.

Hino Motors will continue to promote environmental initiatives with an even stronger policy of reinforcing links between its core business operations and environmental management systems.

#### ■ Acquisition of ISO 14001 Certification

Organization/Entity	Function	Date of acquisition
Headquarters & Hino Plant	Manufacturing, product development, production engineering, headquarters and sales operation in Japan and overseas.	March 24, 2001
Hamura Plant	Manufacturing	March 10, 1999
Nitta Plant	Manufacturing	March 27, 2000
Oume Parts Center	Parts distribution	January 11, 2002
Hidaka Delivery Center	Vehicle distribution	January 11, 2002

## Environmental Performance

### Environmental Audits

Hino Motors conducts internal environmental audits as well as external audits by registered inspection organizations. Audits are undertaken within the overall context of environmental management system implementation and based on ISO 14001 standards.

Hino Motors is responding appropriately to the results of external audits conducted in fiscal 2016, shown below.

#### ■ Fiscal 2016 Audit Results

(Unit: Number of instances)

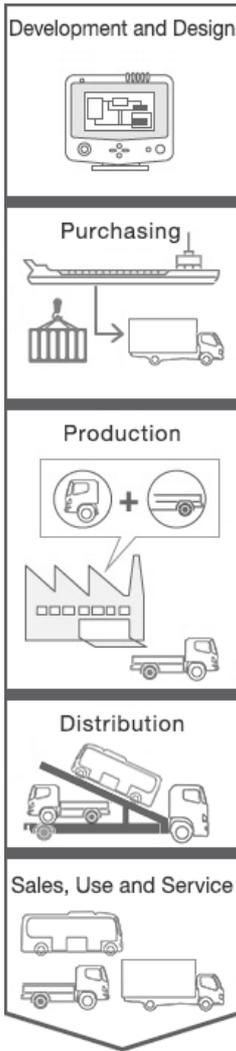
Office/Entity	Type of Audit	Imperative Non-Conformity	Non-Conformity	Observations
Headquarters & Hino Plan	Re-Certification	0	0	11
Hamura Plant	Surveillance	0	0	12
Nitta Plant	Surveillance	0	0	4
Oume Parts Center/ Hidaka Delivery Center	Surveillance	0	0	5

## Environmental Performance

### Supply Chain Initiatives

Hino Motors is carrying out activities for reducing its environmental impact at every stage of the supply chain, from product development to delivering vehicles to customers.

Over all of these stages, Hino Motors will proactively pursue initiatives that consider the environment in the future as it strives to bring benefits to society by reducing its environmental impact.



**Hino Motors aims to: develop environmentally conscious vehicles**

- Hino Motors' Environmental Technologies
- Design with Recycling in Mind
- Helping Improve Air Quality with Technologies for Reducing Vehicle Exhaust Emissions

**Hino Motors aims to: distribute products in consideration of the environment**

- Green Purchasing
- Environmental Activities by our Suppliers (Hino Motors Group Companies)

**Hino Motors aims to: make manufacturing more environmentally friendly**

- CO<sub>2</sub> Emissions Reduction at Production Plants
- Recycling Initiatives at Production Plants
- Activities to reduce the amount of water it uses
- Applying The Eco-Factory Concept

**Hino Motors aims to: distribute products in consideration of the environment**

- CO<sub>2</sub> Emissions Reduction in Distribution Operations

**Hino Motors aims to: ensure Hino vehicles are used in ways that do not harm the environment.**

- Environmental Conservation Activities by Hino Motors Group's Domestic Dealers
- Eco-Driving Support
- Environmental Activities at the Recycling Stage

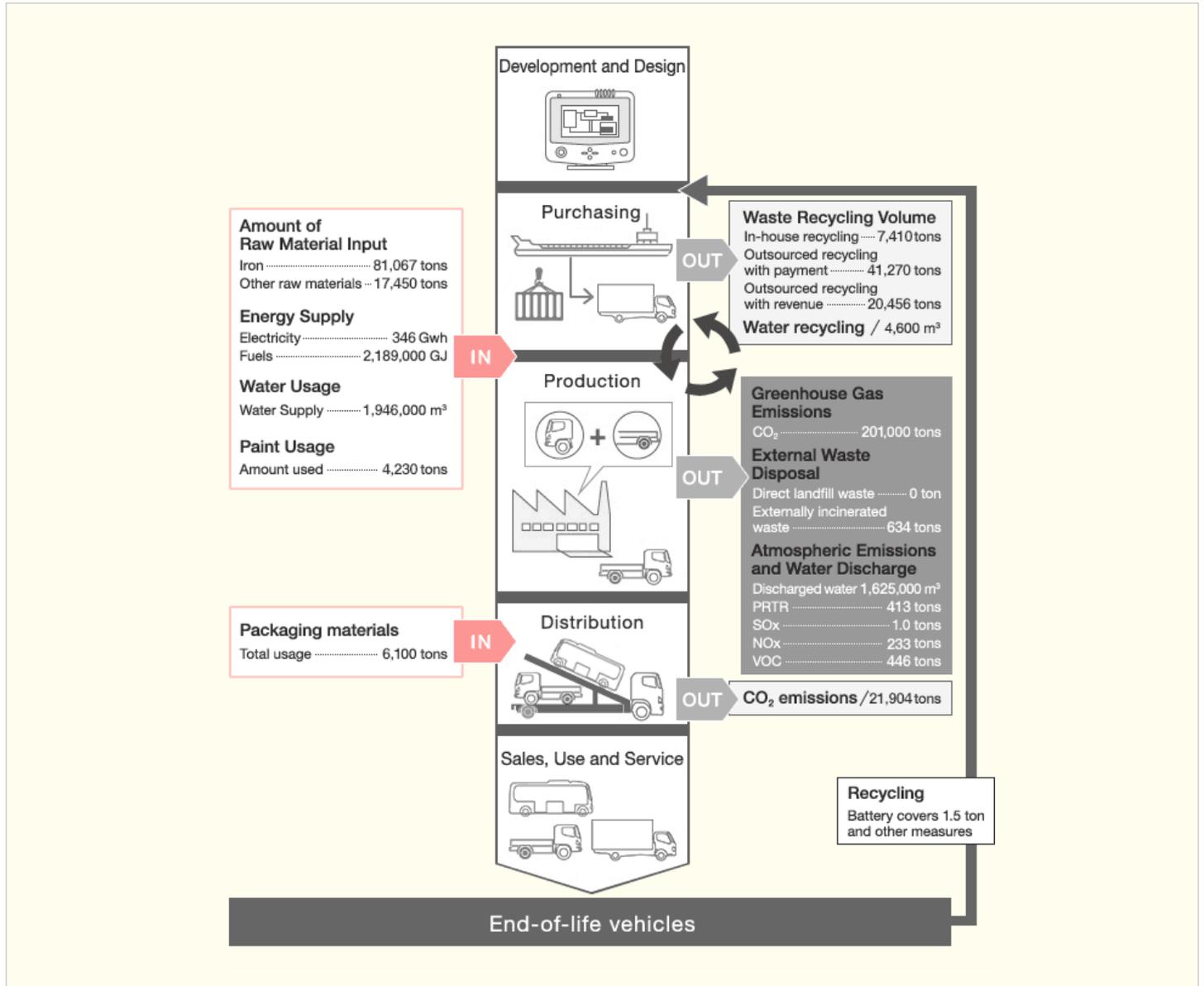
[Click here for data on Hino Motors' environmental impact in each of the areas listed above.](#)

## Environmental Performance

### A Complete Picture of Environmental Load

At each and every stage of the product lifecycle, from development through design to use and disposal, Hino Motors seeks to identify the impact of its business activities on the environment. Hino Motors is making every effort to reduce environmental load while working to clarify the processes where it is particularly evident.

■ Hino Motors' Business Activities and Their Environmental Impact in Fiscal 2016



Note: The information provided represents aggregate data for the Company's Hino, Hamura, and Nitta plants.

Please click [here](#) for more information on product lifecycles.

## Environmental Performance

### Environmental Risk Management

In various facets of its operational activities, Hino Motors Group is addressing environmental risk management through awareness of the environment-related regulatory compliance across each of the countries and regions in which the Hino Motors Group operates, and incorporation of environmental risk countermeasures into environmental management system targets. In this manner, Hino Motors is continuously enhancing its environmental risk management capabilities while diversifying and promoting the quality of its initiatives. In fiscal 2016, there was one case where the HINO Group exceeded the water quality standard level. In that particular case, manganese in the drainage at the paint wastewater treatment facility exceeded the standard level, and circulation pump failure was the cause. After confirming this excess, HINO Motors immediately took steps to prevent its recurrence.

#### Moving Forward with initiatives to Lower Environmental Risks

The Hino Motors Group identifies risks and implements countermeasures using an environmental risk assessment manual used throughout the Group.

With the goal of preventing leakage accidents, in addition to the external inspection for tanks at the plants, Hino Motors has begun conducting tests of wastewater gutters and dikes in fiscal 2013.

This enabled the plants to discover problems at an early stage, such as small cracks that were difficult to find through visual inspections conducted in the past, and take appropriate measures.

To further strengthen leakage accident prevention efforts, Hino Motors began in fiscal 2015 identifying environmental risks in work that involves the handling of liquid substances. The Company takes measures to further reduce environmental risks identified under any number of scenarios as part of these efforts.



A test of a wastewater dike



Instructions on how to identify environmental risks in work that involves the handling of liquid substances

#### Wastewater treatment inspections

Hino Motors has begun carrying out wastewater treatment inspections at each of its manufacturing sites in Japan in fiscal 2012.

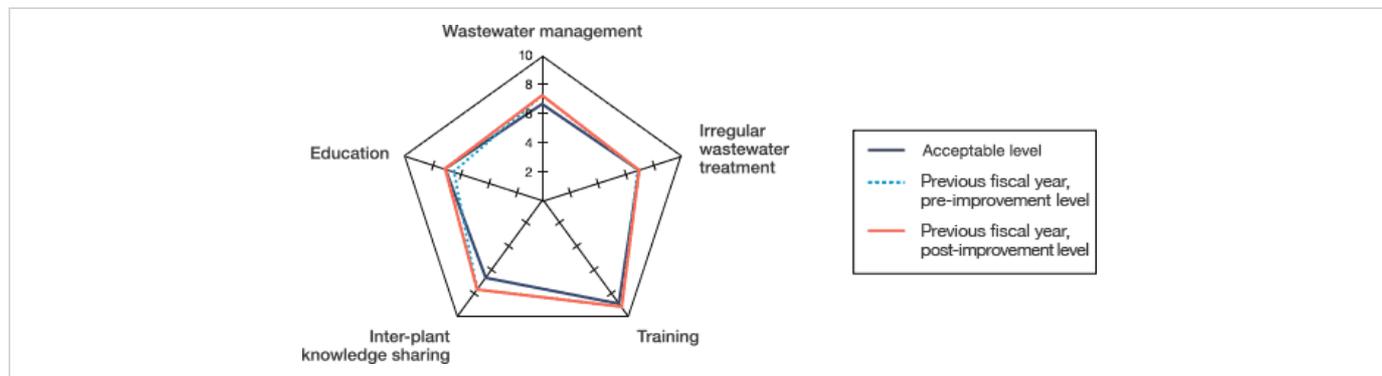
The inspections assessed the onsite status of various items by category, including wastewater management intended to prevent the generation and leakage of wastewater offsite, the existence of instances of irregular wastewater treatment, and the operation of relevant education and training programs.

The results of the inspections provided a basis for enhancement in the environmental management level. Hino Motors is aiming to conduct the inspections in the future as well, with the goal of ensuring that employees engaged in wastewater treatment activities are thoroughly familiar with rules and procedures in Japan.



An inspection in process

#### ■ Results of water treatment inspection (plants' average)



## Environmental Performance

### Green Purchasing Guidelines

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Hino Motors provides guidelines concerning green purchasing to its business partners for the purpose of enhancing the environmental activities of the Hino Motors Group.

It created these guidelines for its business partners around the world after holding separate information sessions with them. Since providing the guidelines, Hino Motors has been regularly monitoring the environmental performance of its business partners and their compliance with environment-related laws and regulations.

Looking ahead, Hino Motors intends to actively promote activities in collaboration with its business partners while stepping up initiatives that take full account of the supply chain.

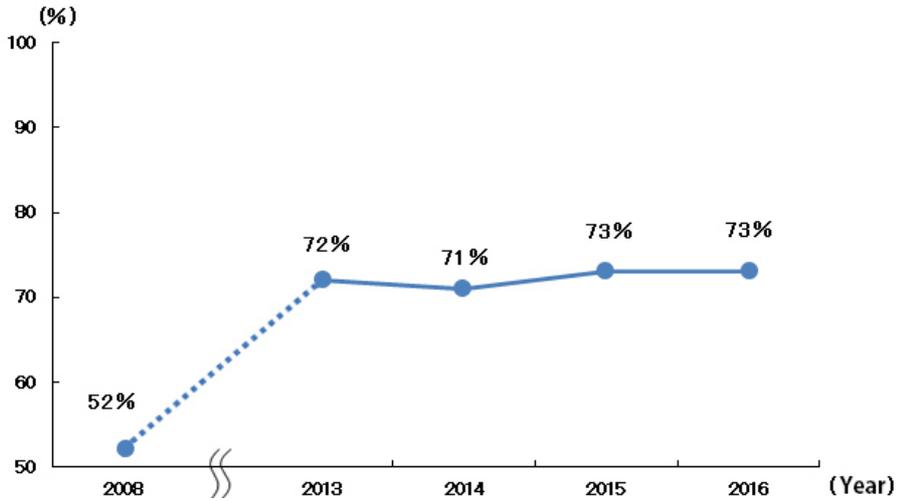
 [Green Purchasing Guidelines \(413KB PDF\)](#)

## Environmental Performance

### Green Purchasing

In September 2001, Hino Motors formulated a set of Green Purchasing Guidelines as well as a Green Purchasing Promotion Plan taking into consideration the Green Purchasing Items specified by the Ministry of the Environment under the Green Purchasing Law of Japan. In this manner, and as a part of its ongoing initiatives, Hino Motors is promoting the purchase of environmentally friendly office supplies and equipment. In fiscal 2016, the Company's green purchasing rate was almost same as that of the previous fiscal year.

#### ■ Green Purchasing Rate of Office Supplies



## Environmental Performance

### Environmental Accounting

Hino Motors tabulates the costs and results of environmental conservation activities based on the Environmental Accounting Guidelines of Japan's Ministry of the Environment. This enables the Company to contribute to environmental conservation through effective environmental investment and sustained reductions in its environmental load.

In fiscal 2016 the sum total of environmental conservation costs increased by 97% year-on-year to ¥34.3 billion, equivalent to 2.8% of sales. The economic effect of environmental conservation on the Group's financial performance was ¥1.4 billion, up 105% compared to the previous fiscal year.

### Environmental Conservation Costs

#### ■ Environmental Conservation Costs

Unit: millions of yen

Environmental Conservation Costs		FY2016 Results		FY2015 Results		Cause of discrepancy
Item	Description of major initiatives	Investments	Costs	Investments	Costs	
(1) Costs in operational areas		233	662	633	844	
① Pollution prevention costs	Expenses for environmental risk countermeasures, drainage water treatment, and other activities	71	375	76	389	
② Global environmental conservation costs	Installation of energy-saving equipment	118	13	552	132	Year-on-year cost reduction due to revision of the investment plan to achieve the 2015 Environmental Initiatives Plan
③ Resource recycling costs	3R promotional activities, waste disposal, and other activities	44	274	5	323	Active promotion of waste sand reduction to achieve the 2020 Environmental Initiatives Plan
(2) Upstream and downstream costs	Additional costs for reducing environmental	0	74	0	72	
(3) Management activity costs	Ongoing implementation of environmental management systems, and information disclosure	0	401	0	441	
(4) Research & development costs	R&D expenses for reducing environmental load	0	32,925	0	33,568	
(5) Social activity costs	Costs for environmental improvements, including off-site environmental conservation, tree planting, and beautification projects.	0	3	0	3	
(6) Environmental remediation costs		0	0	0	0	
Total		233	34,064	633	34,928	—

Note: Because certain investment items are difficult to determine as solely environmental, only those items for which a clear and exclusive environmental objective can be unquestionably ascertained are posted.

## Results of Environmental Conservation

### ■ (1) Economic results

Unit: millions of yen

	Details of results	FY2016	FY2015	Cause of discrepancy
Profits	Operational income from recycling	1,398	1,185	
	Others	0	0	
Reduced costs	Reduction in energy costs due to energy conservation	41	183	Year-on-year cost reduction due to revision of the investment plan to achieve the 2015 Environmental Initiatives Plan
	Reduction in waste treatment costs due to resource conservation and recycling	13	2	Active promotion of waste sand reduction to achieve the 2020 Environmental Initiatives Plan
	Others	0	0	
Total		1,452	1,370	—

### ■ (2) Quantitative results

Item	FY2016	FY2015
CO <sub>2</sub> reduction (tons-CO <sub>2</sub> )	1,041	4,259
Waste reduction (tons)	448	52

Note: The results of environmental conservation are calculated only for those items that can be definitely identified as having an effect over a single year.

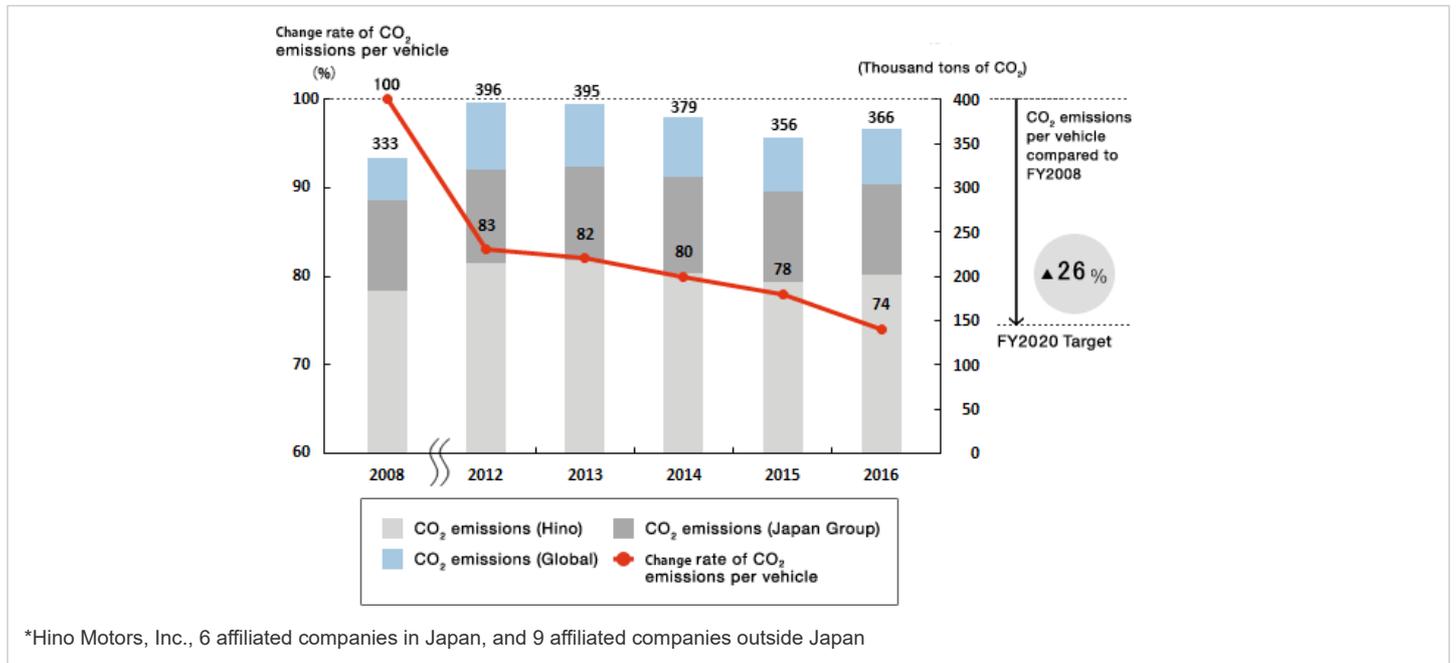
## Environmental Performance

### Major Environmental Performance Trends in Fiscal 2016

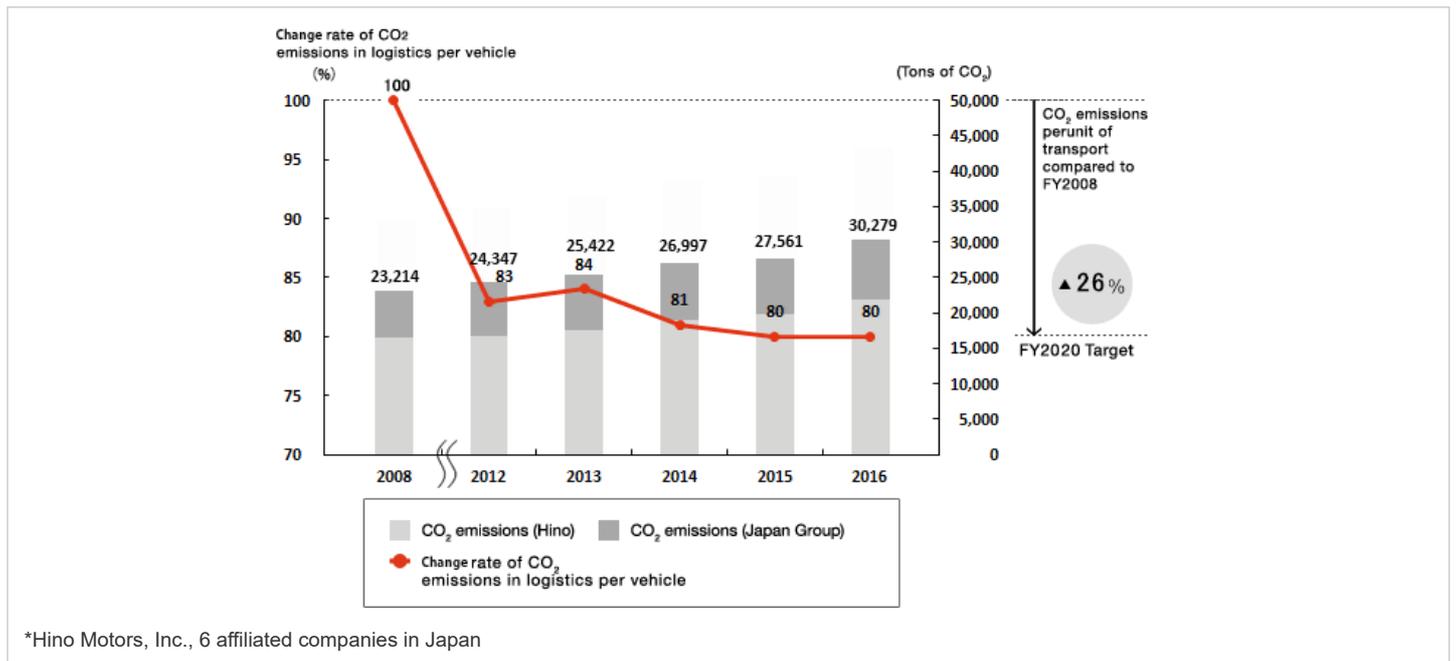
In the context of Hino Motors' environmental performance, inter-annual data as well as fiscal 2016 targets and achievements for most major items are provided as follows.

Please click [here](#) for more information on total amount trends.

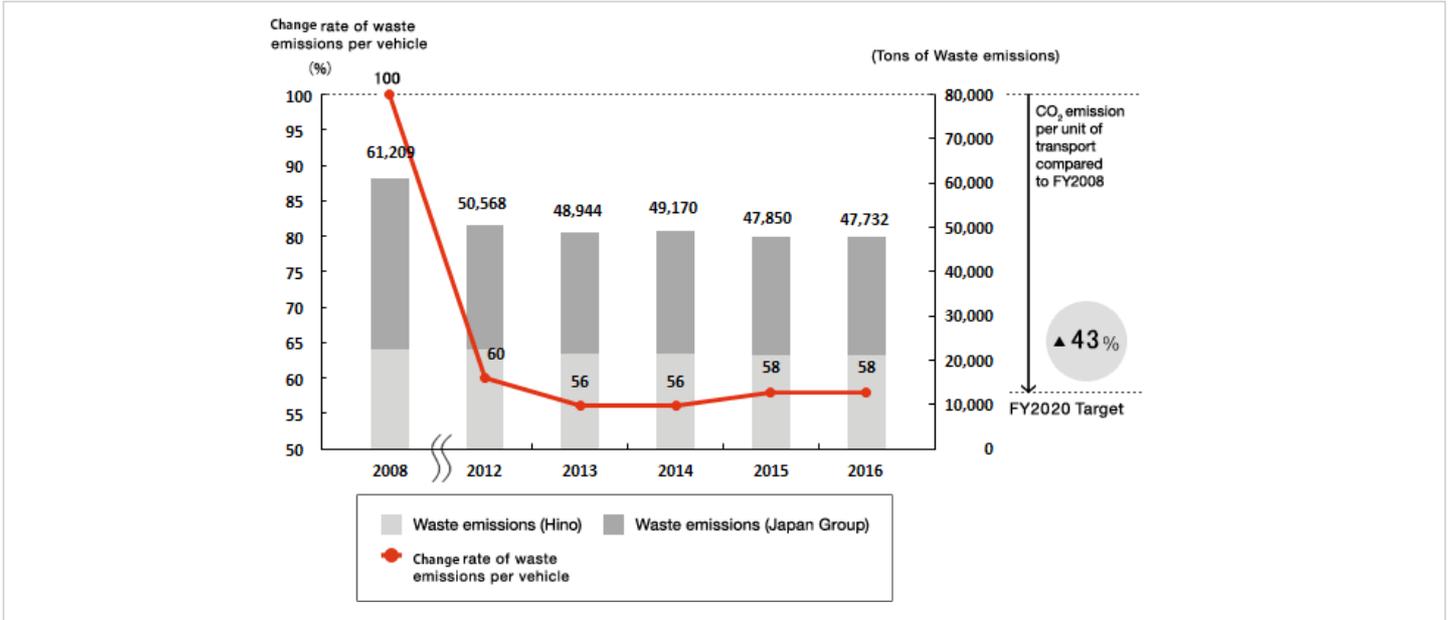
#### CO<sub>2</sub> emissions per vehicle by company and region\*



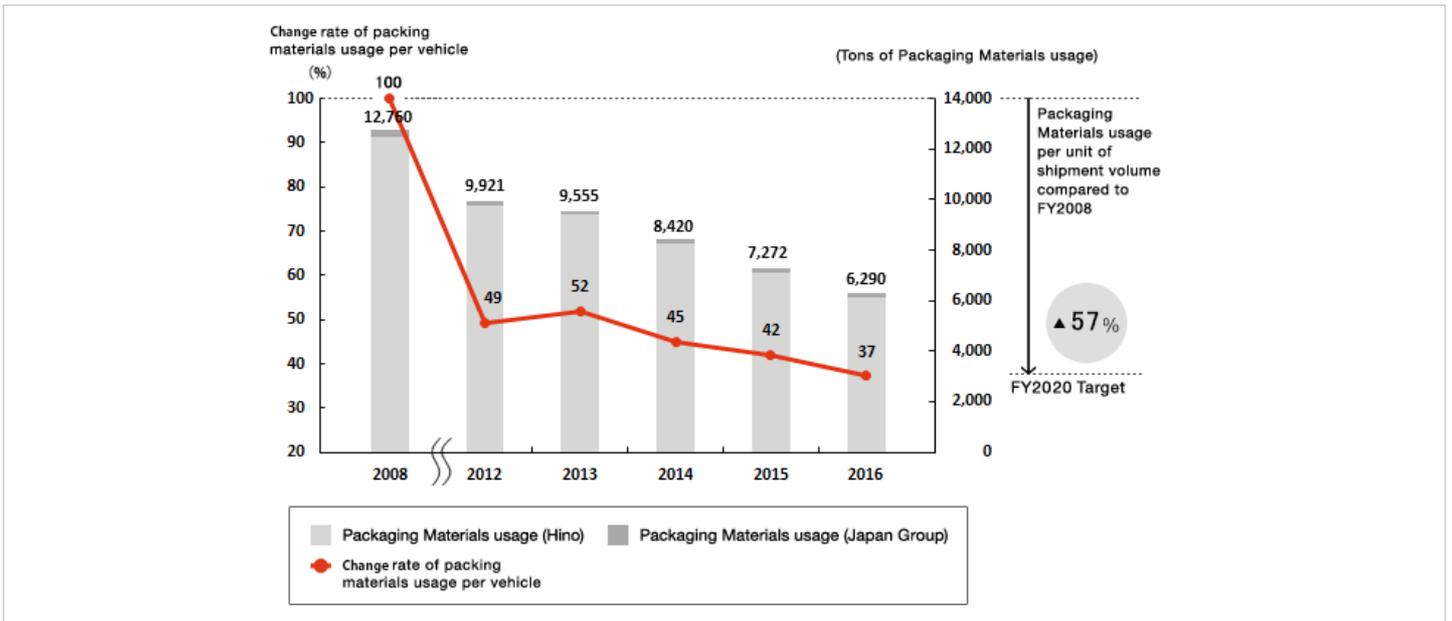
#### CO<sub>2</sub> emissions in logistics from consolidated companies in Japan\*



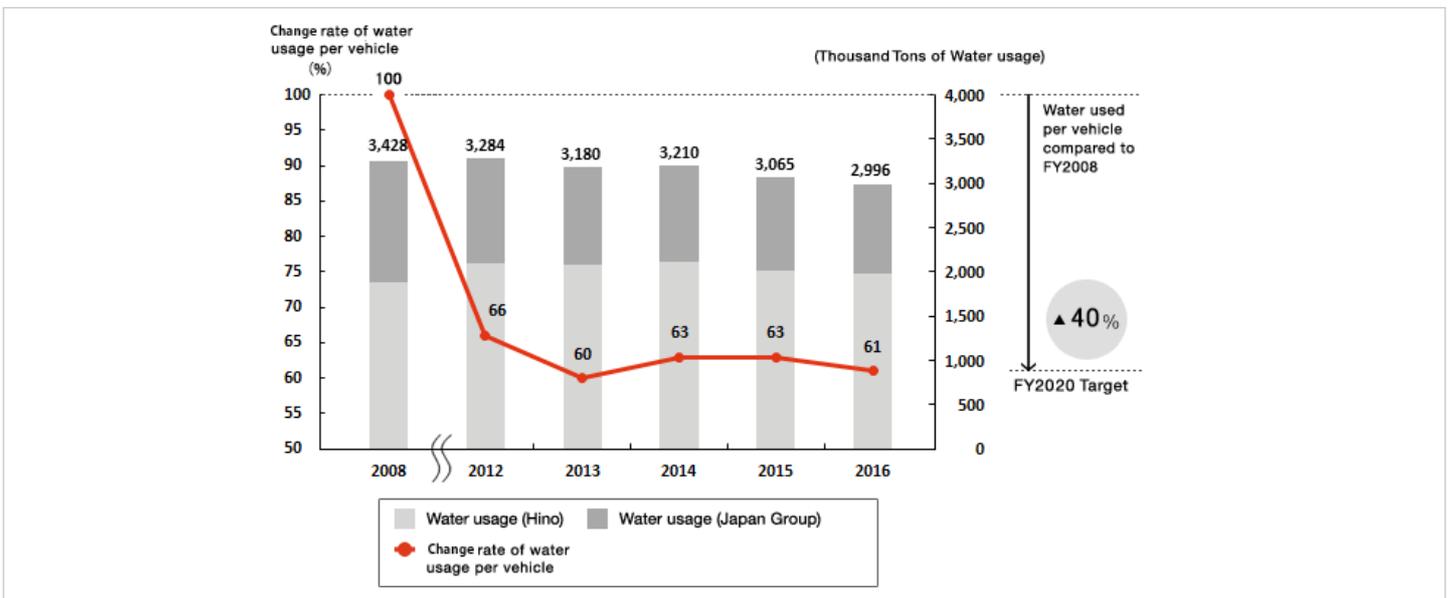
■ Waste emissions from consolidated companies in Japan\*



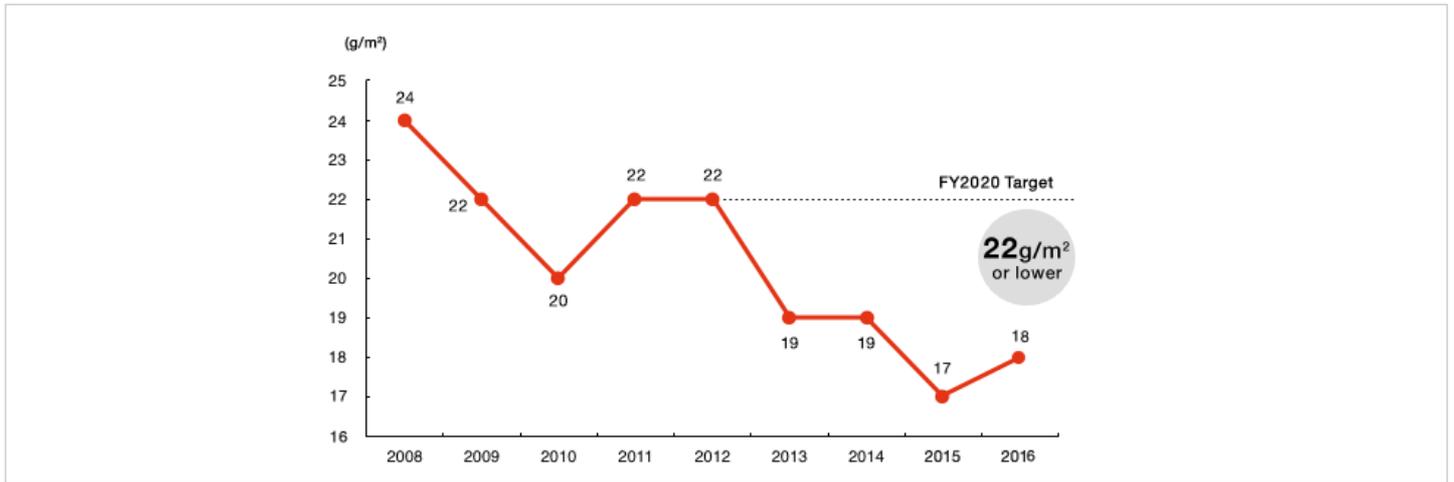
■ Packaging Materials usage by consolidated companies in Japan



■ Water usage by consolidated companies in Japan



■ Volatile organic compound (VOC) emissions from the Hino Plant and Hamura Plant



■ Measured trichloroethylene levels in underground water

(Environmental limits: 0.03 mg/l)

Location	FY2015 Level
Headquarters and the Hino Plant	ND~0.017*
Hamura Plant	ND~0.003*
Nitta Plant	ND~0.0026

\*Ongoing purification measures and monitoring are in progress

## Environmental Performance

### Handling Scope 3 Emissions

Companies are expected to calculate and disclose the greenhouse gas (GHG) emitted along the entire supply chain. Hino Motors calculates Scope 3 emissions, as well as Scope 1 and 2 emissions, based on GHG reporting guidelines.

Ratios of calculated emissions show that the combined percentages for Category 1 (Purchased Products and Services), Category 10 (Processing of Products Sold), and Category 11 (Use of Products Sold) account for approximately 98% of the total, with the remaining categories accounting for less than 1% each. Hino Motors will continue to strengthen management of CO2 emissions along its entire supply chain, while also focusing on CO2 reduction activities.

[Note]

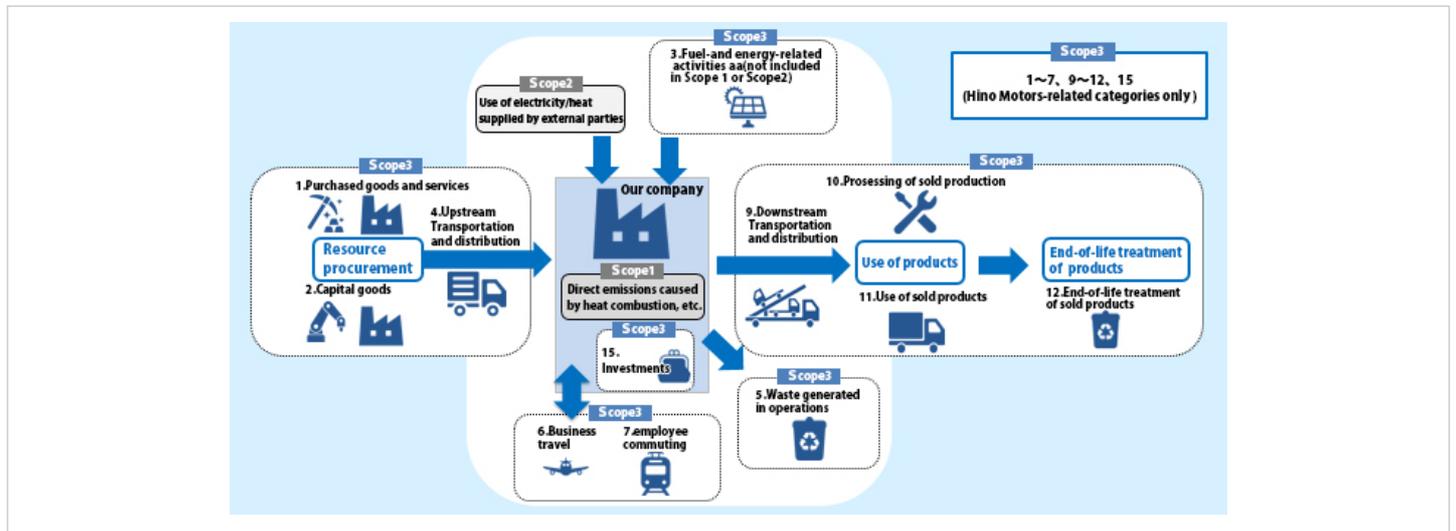
The scope of greenhouse gas emissions is categorized as follows.

Scope 1: Direct emissions at Hino Motors caused by fuel use, etc.

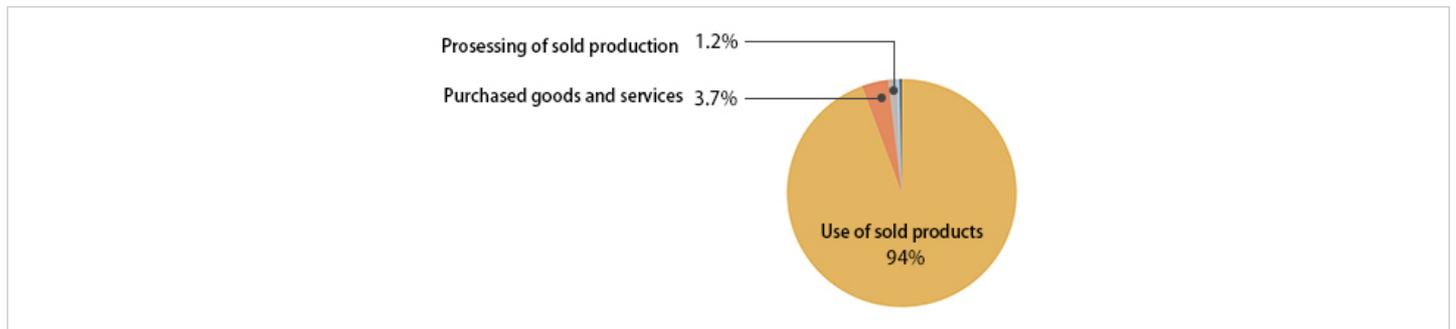
Scope 2: Indirect emissions at Hino Motors associated with electricity use, etc.

Scope 3: Direct emissions from activities outside of Hino Motors

#### ■ Diagram of Supply Chain Greenhouse Gas Emissions



#### ■ 15 Categories and Emission Ratios for Scope 3



Category		Emission rate
Scope1		0.2%
Scope2		0.3%
Scope3-1	1.Purchased goods and services	3.7%
Scope3-2	2.Capital goods	0.4%
Scope3-3	3.Fuel-and energy-related activities aa(not included in Scope 1 or Scope2)	0.1%
Scope3-4	4.Upstream Transportation and distribution	Less than 0.1%
Scope3-5	5.Waste generated in operations	Less than 0.1%
Scope3-6	6.Business travel	Less than 0.1%
Scope3-7	7.Employee commuting	Less than 0.1%

	Category	Emission rate
Scope3-8	8.Upstream leased assets	-
Scope3-9	9.Downstream Transportation and distribution	Less than 0.1%
Scope3-10	10.Processing of sold production	1.2%
Scope3-11	11.Use of sold products	94.0%
Scope3-12	12.End-of-life treatment of sold products	0.1%
Scope3-13	13.Downstream leased assets	-
Scope3-14	14.Franchises	-
Scope3-15	15.Investments	Less than 0.1%