

For the Environment

Asahi Holdings Group has formulated and implemented policies to address conservation activities for the global environment, and aims for sustainable development harmonious with the environment.

INDEX

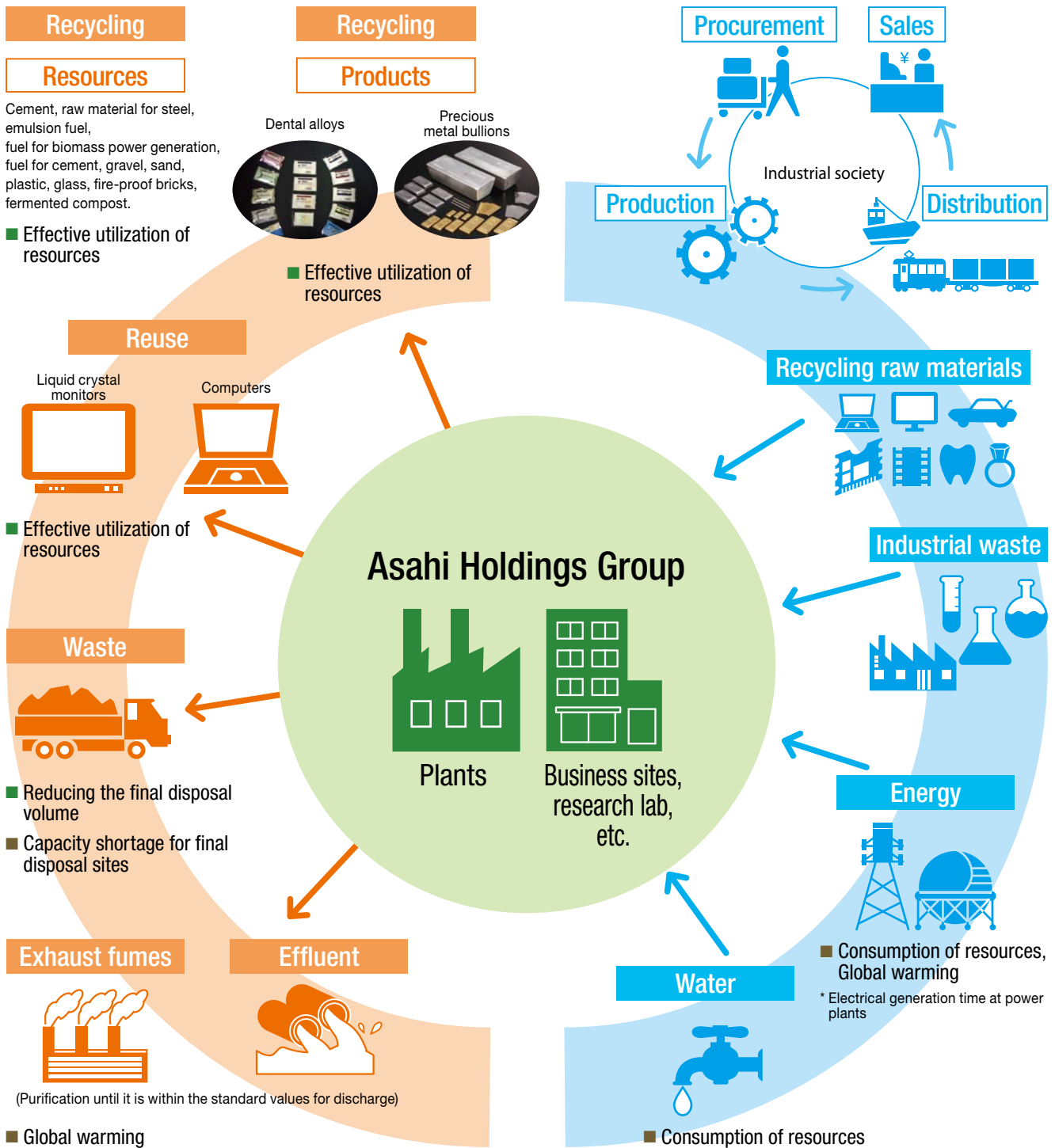
- 19 Environmental Impact Resulting from Business Activities
- 21 Global Warming Prevention Efforts
- 23 Reduction of Environmental Burden Through Business Activities
- 25 Environmental Management

ENVIRONMENTAL IMPACT RESULTING FROM BUSINESS ACTIVITIES

This indicates the INPUT of the resources and energy needed for our group's business activities, as well as OUTPUT in the form of the environmental impact produced through our business activities.

<Legend>

➔ OUTPUT ➔ INPUT ■ Envisioned positive environmental impacts ■ Envisioned negative environmental impacts



Environmental Performance

The energy, resources (water), chemicals, and so on used in our precious metal recycling and environmental protection business activities are listed as INPUT, while the environmental burdens given off from conducting business activities with the substances in the form of INPUT are listed as OUTPUT data.

As our number of business sites increased, there was a small increase in energy consumption volume. However, we managed to keep the volume of CO₂ emission as low as possible through improvements in business, etc.

INPUT

	Unit	FY2006	FY2007	FY2008	FY2009	FY2010
Electricity	MWh	15,892	18,942	23,167	21,674	24,097
Heavy oil	kℓ	1,410	2,433	2,406	1,466	1,466
Kerosene	kℓ	574	569	547	379	440
Light oil	kℓ	2,823	2,746	2,852	2,965	3,216
Gasoline	kℓ	632	704	804	848	899
Urban gas	1,000 m ³	784	700	684	527	64
Water	1,000 m ³	206	253	366	345	378
Chemical, etc.	t	20,082	21,336	17,347	13,293	13,189

OUTPUT

	Unit	FY2006	FY2007	FY2008	FY2009	FY2010
CO ₂ emissions* ¹	t	21,653	25,233	27,750	24,346	24,867
Effluent* ²	1,000 m ³	252	250	245	208	246
Waste	t	23,700	24,848	20,886	16,644	16,249

*¹: Calculated in accordance with the Law Concerning the Promotion of the Measures to Cope with Global Warming in 2009.

*²: Purified until it is within the standard values for discharge.

Environmental Accounting

For the promotion of environmental management, we have introduced environmental accounting starting in FY2005 and publicly disclose costs related to environmental protection. These are prepared in line with the Environmental Accounting Guidelines of the Ministry of the Environment.

● Environmental Protection Costs

(Unit: million yen)

	Category	Contents of major initiatives	Expenses	Investments
1. Costs within the business area	(1) Cost of preventing pollution	Control and maintenance of gas emission facilities, water drainage, and so on.	334.46	232.36
	(2) Cost of protecting the earth's environment	Energy saving (Decreasing electric consumption, improving fuel-efficiency for vehicles, and so on.)	10.14	43.76
	(3) Cost of recycling resources	Entrustment of industrial waste treatment	941.97	0.00
2. Upstream and downstream costs		—	0.00	0.00
3. Cost of management activities		Management activities of ISO14001 Preparation of Corporate Report	65.26	0.00
4. Research and development costs		Improving efficiency for the precious metal refining process Decreasing the landfill disposal volume	85.88	0.00
5. Cost of social activities		Clean up activities in the neighboring communities	5.23	0.00
6. Cost of handling environmental damage		—	0.00	0.00
Total		—	1,442.94	276.12

GLOBAL WARMING PREVENTION EFFORTS

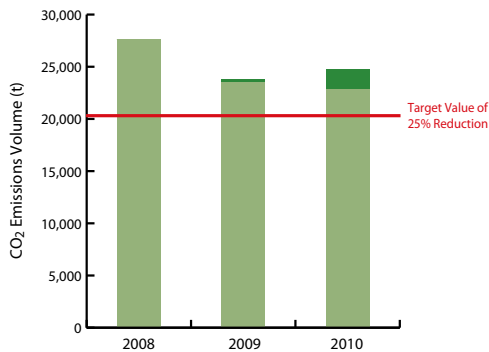
Target: Cutting GHG* emissions by more than 25% by 2020 from a 2008 base of 100

*Energy source CO₂ determined in the Global Warming Countermeasures Law

Major Actions

- ① Effective use of waste (alternative use for fossil fuels)
- ② Renewal to energy efficient equipment, facilities and buildings
- ③ Effective use of waste heat from incinerators
- ④ Expansion of use of waste fuels

Greenhouse Gas Emissions (Energy sources*: production, transportation and offices, etc.)



The volume of GHG emissions for the entire group increased by 2.7% compared with the previous year, as the number of our business sites increased.

However, the volume of GHG emissions, in our business sites in a 2008 base decreased by 17.1% from 2008 through energy saving operations of waste incinerator and active use of fuel wastes, etc.

- GHG emission volume for reduction target
- GHG emission volume in relation to increases in our number of business sites

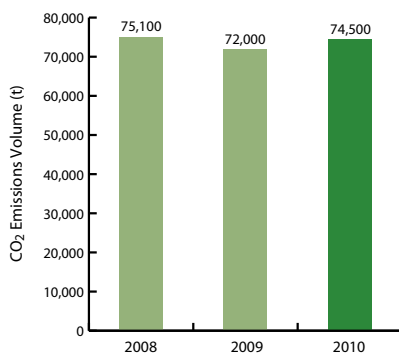
*Calculation of Greenhouse Gas Emission Volume

[Energy Source CO₂] = [CO₂ released in connection with use of electricity and fossil fuels]

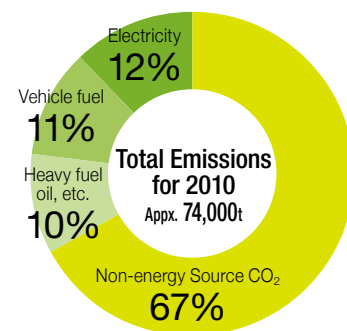
[Net Emissions] = [Energy Source CO₂] + [CO₂ released in connection with incineration of industrial waste]

Greenhouse Gas Emissions

Greenhouse Gas Emissions (Net Emissions* production, transportation and offices, etc.)



Breakdown of Greenhouse Gas Emissions



Green Curtain

The Techno-Center endured extreme heat by growing bitter melon (gooya) outside the west window.



Received "Greenhouse Gas Reduction Potential Diagnostic Check" from the Ministry of the Environment

The industrial waste incinerator at the Kitakyushu Plant was selected as a subject target and received a diagnostic check.

We received effective advice on recovery of gas waste heat from incinerators, improvement in incineration efficiency by petrochemical treatment of waste plastics and conversion of fuels to LNG (liquefied natural gas) and adoption of LED lights, etc. Based on the diagnostic check results, we will make efforts for further reductions of greenhouse gas emissions.



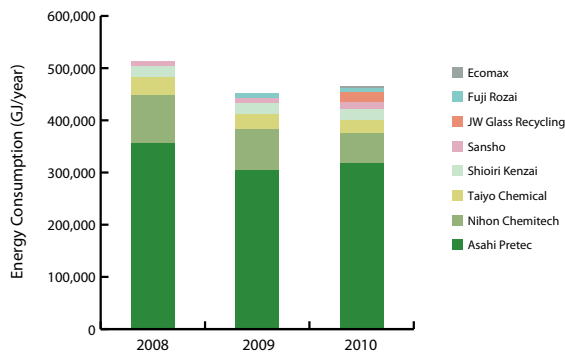
ENERGY-SAVING EFFORTS

Status of Efforts in 2010

Energy consumption volume increased in 2010 as our number of business sites increased. However, in existing business sites, energy consumption volume declined by 2% from 2009 through active energy reduction under energy-saving target, although influenced by the record-high heat last summer.

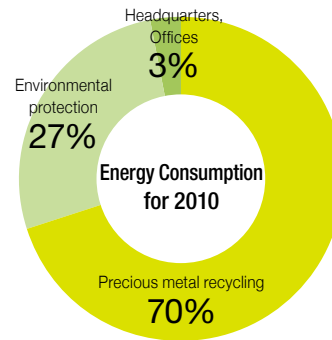
● Energy Consumption

(production, transportation and offices, etc.)

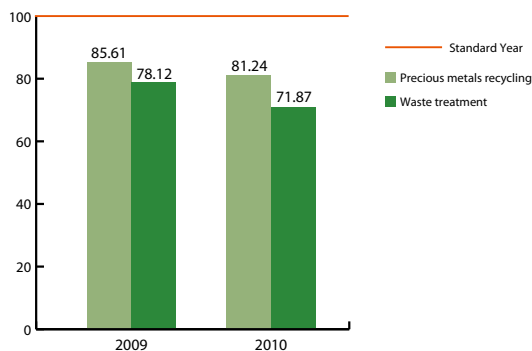


● Energy Consumption by Business Segment (Asahi Pretec)

(Asahi Pretec)

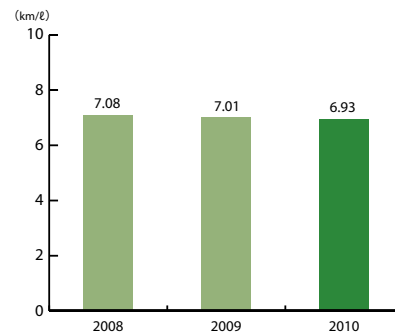


● Specific Energy Consumption (Asahi Pretec)



● Vehicle Fuel Consumption (Asahi Pretec)

Increase in air conditioning use due to extremely hot summer and increase of auto weight due to the replacement of our vehicles with environmentally safer wing trucks, etc. led to high fuel consumption.



● Energy-Saving Efforts at Each Plant

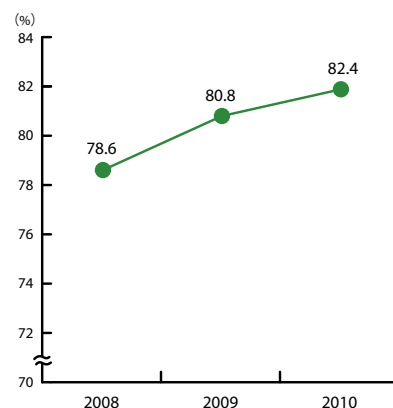
- (1) Saitama Plant
Converted each facility to energy-saving operations (conversion of energy into 37.8kl of crude oil)
- (2) Fukuoka Plant
By improving productivity, energy consumption volume was reduced (conversion of energy into 75.3kl)
- (3) Kitakyushu Plant
Used 2,178.2t of raw materials and fuels from industrial waste
- (4) Introduction of hybrid vehicles to Hanshin Office



● Efforts to Improve Recycling Rates

We have promoted recycling from different waste and achieved the highest rate in 2010.

<Recycling Rate>



REDUCTION OF ENVIRONMENTAL BURDEN THROUGH BUSINESS ACTIVITIES

Results of Our Group's Environmental Burden Reduction (FY2010)

We evaluated the major businesses and tasks of the company group to see how much of the environmental burden in the society as a whole has been reduced through our business activities. The subjects of the evaluation were the two business divisions for precious metals recycling and environmental protection, implementing at our plants and offices activities to save resources and make calculations in regard to (1) the reduction volume of natural resources, (2) the volume of recycling, (3) the volume of controlled greenhouse gas emissions and (4) the effects of reduction of final disposal.

Business process	Precious Metal Recycling	Environmental Protection							Photovoltaic power generation
		Treatment of effluent	Construction waste recycling	Recycling of glass and fire-proof bricks	Treatment by incineration	Fermenting and composting	Fuel production for energy generation	Freon detoxification treatment	
Reduction of environmental burden									
Saving exhaustible natural resources	●		●	●	●		●		
Recycling		●	●	●		●	●	●	
Reduction of greenhouse gases	●							●	●
Minimization of the final disposal volume			◆	●	●	●	●	◆	

Results of reducing the final disposal volume: Covers the quantity by which the volume of waste brought to us (excluding waste oil, waste acids, and waste alkalis) is reduced (the quantity that could avoid controlled landfill disposal) as a result of going through our waste treatment process.

●: Calculated by weight
◆: Not targeted for numerical evaluation

Results of Saving Exhaustible Natural Resources

Through recycling all kinds of raw materials, we are cutting back on the amount of natural resources (precious metals, non-ferrous metal ores, gravel, sand, agalmatolite, quartz sand, plaster, forests, etc.) that are being mined or felled, thus contributing to the protection of the global environment.

Precious Metal Ores (Precious Metal Recycling)



Recycling materials containing a lot of precious and rare metals contributes to saving mineral resources, such as precious metal ores.

3,210.0 thousand tons/year

Gravel (Construction Waste Recycling)



Materials such as sand, gravel and backfill soil are recycled from construction wastes like concrete waste.

14.3 thousand tons/year

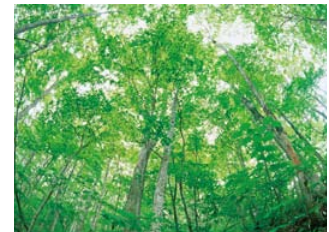
Fossil Fuels (Effective Use of Waste)



By making effective use of waste heat energy (waste oil and plastics, etc.) in an incinerator, fuels (fossil fuels) required for incineration can be reduced.

7.7 thousand tons/year

Timber (Construction Waste Recycling)



Wood chips made from wooden construction waste are used as a carbon-neutral fuel in place of fossil fuels.

3.0 thousand tons/year

Recycling (Including Reused Products)

Various industrial wastes are treated for reuse as raw materials, with the following major recycled/reusable products being manufactured.

Rivers*
(Waste Liquid, Food Waste)



232.1 thousand tons/year

*: Water discharged from waste treatment facilities

Glass Cullet
(Bottles, Waste Sheet Glass)



99.4 thousand tons/year

Gravel, Sand
(Construction Waste)



14.3 thousand tons/year

Fermented Compost
(Food Waste)



12.5 thousand tons/year

Raw Materials for Non-ferrous Metals
(Effluent containing metals)



4.8 thousand tons/year

Fuel for Cement
(Plastic Waste, Waste Oil)



4.2 thousand tons/year

Fire-Proof Bricks
(High-Temperature Furnace Waste)



3.1 thousand tons/year

Wood Chips
(Construction Waste)



3.0 thousand tons/year

Metal Scraps
(Construction Waste, OA Equipment)



1.8 thousand tons/year

Calcium Sulfate for Recycling



0.4 thousand tons/year

Results of Reducing Greenhouse Gases

140.3 thousand tons

We are making contributions to help reduce greenhouse gas emission through business activities such as the collection of precious metals, glass, fire-proof bricks and CFCs.

● Gold

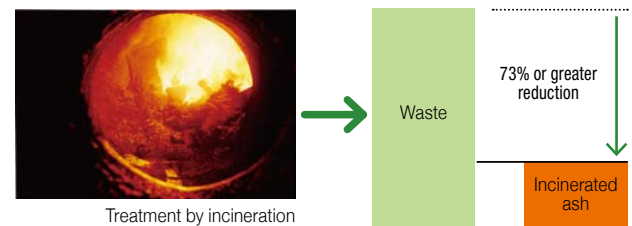
Amount of CO₂ emitted from mine production 100%

Amount of CO₂ emitted from our company's recycling production 14.3%

Results of Minimizing the Final Disposal Volume

Waste reduction volume: 21.1 thousand tons

The final disposal volume (landfill disposal) can be reduced by incinerating waste.



ENVIRONMENTAL MANAGEMENT

Environmental Policies

We will contribute to the environmental protection of the earth and establish a sound material-cycle society through the company's businesses on recycling of precious and rare metals and industrial waste treatment.

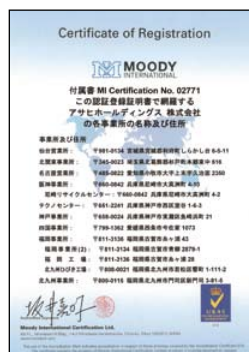
- (1) In all business activities we will strive to conserve resources and energy and reduce, reuse, and recycle waste to minimize the environmental burden.
- (2) We will promote the recycling of resources of precious and rare metals to achieve a more effective use of the limited resources of the earth.
- (3) We will adequately and safely perform our operations for the collection, transportation, and treatment of industrial waste to prevent environmental pollution.
- (4) We will prioritize a harmonious coexistence with nature and regional communities. We will strictly follow the relevant environmental laws and regulations and other requirements which we recognize.
- (5) We will establish environmental objectives and targets and periodically review them to continue improving our activities.
- (6) We will educate all our employees and increase their environmental awareness as members of the community, promote their understanding of environmental protection activities, and participate in such activities.

These environmental policies shall be conveyed to all of our employees and all those working for the company and announced to the public as our commitment.

ISO14001 Approval

The Asahi Holdings Group has obtained comprehensive ISO approval for the 10 centers including the 6 large centers of Asahi Pretec.

In addition, 4 companies and 7 centers related to Japan Waste have also individually obtained the approval.

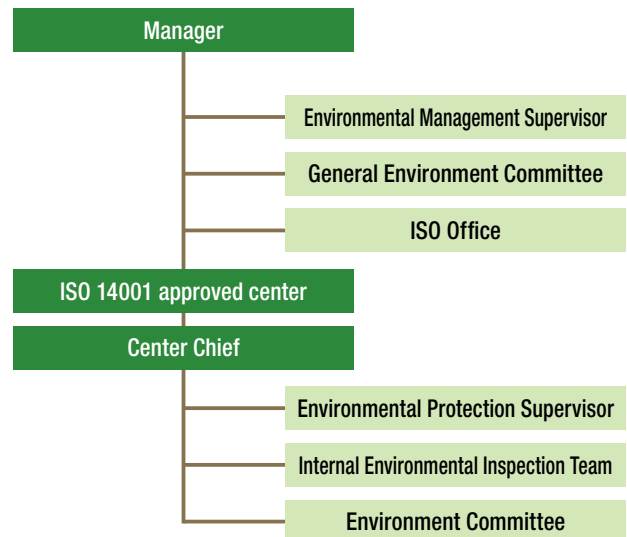


ISO14001 Authentication Certificate

Environmental Management Promotion System

Our "Company-wide Environmental Purpose/Goal (annual plan)" is devised based on the Environmental Policy that establishes our environmental protection philosophy.

With this established, the business offices which have acquired ISO 14001 approval, set the "Center Environmental Purpose/Goal (annual plan)" and implement environmental protection activities closely related to their business tasks. Furthermore, the Environment Committee of each center abides by the regulations set by the environmental law, revises plans and examines environmental education, etc. and provides reports to the management. While the ISO Office controls the environmental management system (EMS), an environmental protection supervisor is assigned for each business office as an aim to implement thorough promotion of environmental activities.



ISO14001 Environmental Audits

Regular inspections are carried out on the state of compliance with specifications by an external examining authority for ISO14001 activities. Moreover, internal environmental audits are conducted at least once a year at business sites in order to ensure that EMS is being properly administered.



An internal environmental audit