

# Realizing a Sustainable Society For the Global Environment

## Promoting environmental management

### ←P12 CSR Policy ⑤

#### ● Development of the Environmental Conservation Action Plan

The Hitachi Chemical Group established Hitachi Chemical's Action Guidelines for Environmental Conservation in 1993 to drive conservation efforts related to the business activities of the Group as a whole. Each fiscal year, we formulate a Environmental Conservation Action Plan based on the Hitachi Group's roadmap, Environmental Vision 2015, and the Hitachi Group Environmental Conservation Action Plan.

In the Environmental Conservation Action Plan for 2008, we set concrete action targets in four categories (see p. 39). As a chemicals manufacturer, we will further reinforce Group-wide environmental management, reduce emissions of CO<sub>2</sub> and chemical waste, improve control over chemical substances, and expand our use of green products.

#### ● System for promoting environmental conservation activities

In the Hitachi Chemical Group, the Across-the-Board CSR Conference develops and ensures implementation of policies concerning environmental conservation activities for the entire Group, including the Environmental Conservation Action Plan (see p. 16). The conference is chaired by the President and CEO and attended by the heads of operating divisions, works and Group companies. Moreover, the Committee for Environmental CSR-compliant

#### GREEN 21 evaluation criteria

Category	Principal performance indicators
Eco-management (environmental management)	Action plan, environmental accounting
Eco-mind (awareness)	Employee education
Eco-products (green products)	Eco-design management system, green products
Eco-products (green procurement)	Green procurement, green purchasing
Next products and services strategy	Business and product strategy, sustainable business, external advertising
Eco-factory (prevention of global warming)	On-site energy conservation, environmental consideration in distribution
Eco-factory (resource recycling)	Waste reduction, chemical substance management
Collaboration with stakeholders	Information disclosure, communication activities, global citizen activities

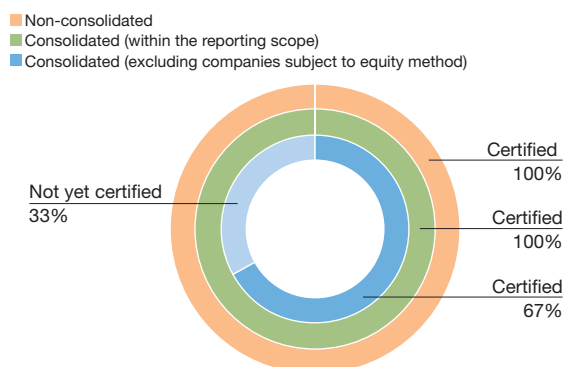
*Monozukuri*, the Committee for Energy Saving and Ecology and other committees have been set up to respond to regulations on chemical substances and promote cross-sectional information sharing encompassing works, sales offices and Group companies.

#### ● Development of an environmental management system

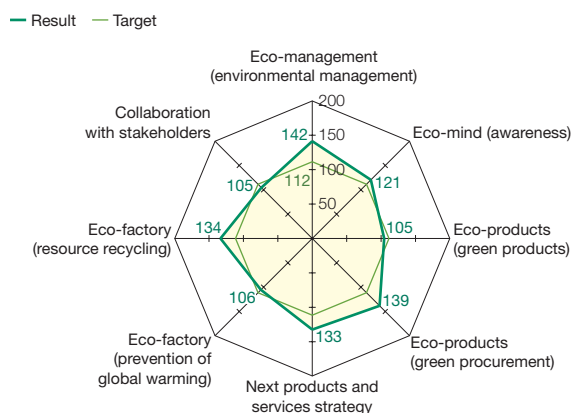
Individual works in the Hitachi Chemical Group have been actively promoting environmental conservation activities based on ISO 14001 and setting targets consistent with the Environmental Conservation Action Plan.

Major Group companies obtained ISO 14001 certification by fiscal 2002. As of April 2008, Hitachi Chemical and 36 out of 53 consolidated subsidiaries including sales companies (excluding companies subject to equity method) have been certified.

#### Percentage of companies with ISO 14001 certification (as of March 31, 2008)



#### GREEN 21 evaluation radar chart (consolidated) (FY2007)



● **GREEN 21 evaluation system for environmental activities**

2007 Result: 987 GP (Target: 896 GP)

2008 Target: 1,024 GP

In 1998, the Hitachi Chemical Group adopted the Hitachi Group's GREEN 21 self-evaluation system, which assesses environmental activities against specific standards.

Under GREEN 21, our activities and level of accomplishment for each year are evaluated in terms of Green Points (GP), which provide an overall measurement of accomplishments. This objective analysis of strengths and weaknesses is useful in promoting environmental activities.

In fiscal 2007, we earned 987 GP, exceeding the total target (896 GP: 112 GP each for eight categories). While we exceeded our target in eco-management (environmental management), Next products and services strategy, and Eco-factory (resource recycling), we fell short in eco-products (green procurement; professional education) and Eco-factory (prevention of global warming; environmental responsiveness in physical distribution).

In fiscal 2008, we will define concrete initiatives for expanding a prototype design for environment and voluntary

activities against global warming and work systematically to meet the targets. We will also review content and target setting for activities with lower GP toward raising the level of activities at each site.

● **Environmental accounting system**

The Hitachi Chemical Group introduced an environmental accounting system in fiscal 1999 to continuously enhance our environmental investments and conservation activities and to deepen stakeholder understanding of our corporate stance by disclosing information on the allocation of management resources to environmental activities and the value generated by environmental technologies and eco-friendly products.

In fiscal 2007, we expensed ¥6.2 billion on a non-consolidated basis and ¥11.4 billion on a consolidated basis in R&D for eco-friendly products, the management and maintenance of equipment such as boilers and improvement of production efficiency. We also invested ¥0.5 billion on a non-consolidated basis and ¥1.3 billion on a consolidated basis in fuel conversion to reduce CO<sub>2</sub> emissions and to introduce deodorizing equipment to reduce emissions of volatile organic compounds (VOCs).

We define the impact in monetary terms as economic effects, whereas amount is defined as volume effects; economic effects totaled ¥4.5 billion on a non-consolidated basis and ¥4.8 billion on a consolidated basis.

**Results of environmental accounting**

Category	Non-consolidated		Consolidated		Category	Non-consolidated		Consolidated	
	2006	2007	2006	2007		2006	2007	2006	2007
<b>1. Total costs (100 millions of yen)</b>	56.1	62.4	98.7	114.2	<b>1. Total economic effects (100 millions of yen)</b>	43.0	45.1	45.4	47.7
(1) Direct costs for production	32.0	31.8	53.0	53.2	(1) Net income effect	4.0	6.9	5.6	8.8
(2) Upstream/downstream costs	0.3	0.3	1.3	1.6	(2) Effect of reducing expenses	2.5	2.5	3.1	3.0
(3) Management activity costs	3.7	3.5	8.5	22.3	(3) Effect of reducing materials	36.5	35.7	36.7	35.9
(4) Research and development costs	19.5	26.1	35.9	36.2	<b>2. Volume effects</b>				
(5) Social activity costs	0.5	0.5	0.6	0.7	(1) Reduction of wastes landfilled (tons/year)	0	0	40	448
(6) Environmental damage costs	0.1	0.1	0.2	0.1	(2) Reduction of chemical substances released into the atmosphere (tons/year)	369	359	790	419
<b>2. Environmental investment (100 millions of yen)</b>	10.0	5.4	18.1	12.9					

Data is compiled from 28 domestic sites.

Following a change in the environmental impact data used for accounting, data was retroactively adjusted for FY2006 and prior years in tables and graphs on p. 31–37.