

For the Global Environment

Promoting environmental management

P16 CSR Policy 5

● 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 and has revised these guidelines as needed in response to social demand and the progress of activities. Each fiscal year, we formulate an Environmental Conservation Action Plan that sets environmental targets for the fiscal year. The Environmental Conservation Action Plan reflects the content of Environmental Vision 2025, the Group's roadmap, and the Hitachi Group Environmental Conservation Action Plan.

In the Environmental Conservation Action Plan for 2009, we have established concrete action targets for the Group in four categories of eco-mind and global environmental management, next-generation products and services, high-standard eco factories and offices, and environmental collaboration with stakeholders (see p. 53). As a chemicals manufacturer, we will further strive to reinforce group-wide environmental management, reduce emissions of CO₂ and chemical waste, improve control over chemical substances, and expand green products.

● System for promoting environmental conservation activities

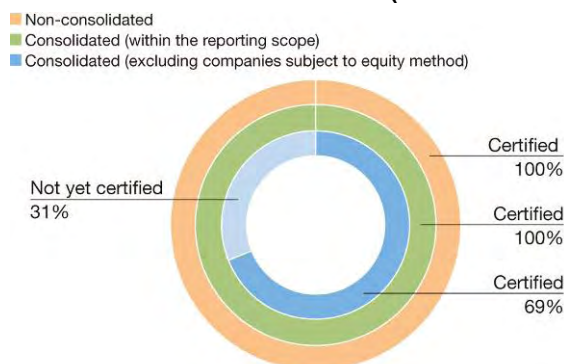
In the Hitachi Chemical Group, the Across-the-Board CSR Conference develops and ensures implementation of policies concerning environmental conservation activities for the entire Group, including the Environmental Conservation Action Plan (see p. 21). The conference is chaired by the President and CEO and attended by the heads of operating divisions, works and Group companies. Moreover, the Committee for Environmental CSR-compliant 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, and carry out various conservation activities.

● 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 in Japan and overseas obtained ISO 14001 certification by fiscal 2002. As of the end of March 2009, Hitachi Chemical and 37 out of 53 consolidated subsidiaries including sales companies (excluding companies subject to the equity method) have been certified.

Ratio of ISO 14001 certified sites (as of March 31, 2009)



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

2008 Result: 1,113 GP (Target: 1,024 GP)	2009 Target: 1,152 GP
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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 accomplishment. This objective analysis of strengths and weaknesses is useful in promoting environmental activities.

In fiscal 2008, we earned 1,113 GP, exceeding our target of 1,024 across all eight categories. While we exceeded our target of 128 GP in most categories—eco-management (environmental management), eco-mind, eco-products (green products), eco-products (green procurement), next products and services strategy, and eco-factory (resource recycling)—we fell short in eco-factory (prevention of global warming) and collaboration with stakeholders. The results in these two categories were due to fewer voluntary CO₂ emission reduction activities and having submitted few applications for environment-related recognition, respectively.

In fiscal 2009, we will define concrete initiatives for expanding a prototype design for the environment and voluntary activities to prevent global warming and systematically work to meet these targets. We will also review content and target setting for activities with fewer GP at each site toward raising individual activity levels.

GREEN 21 evaluation criteria

Category	Principal performance indicators
Eco-management (environmental management)	Action plan, environmental accounting, compliance
Eco-mind (awareness)	Employee education
Eco-products (green products)	Eco-design management system, green products, environmental conservation action plan, specialist training
Eco-products (green procurement)	Green procurement
Next products and services strategy	Business and product strategy, sustainable business, external advertising
Eco-factory (prevention of global warming)	Voluntary CO ₂ emission reduction, on-site energy conservation
Eco-factory (resource circulation)	Waste reduction, promotion of resource circulation, reduction and management of chemical substances
Collaboration with stakeholders	Information disclosure, application for environment-related recognition, communication activities, global citizen activities

GREEN 21 evaluation radar chart (consolidated) (FY2008)



● 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 2008, we spent ¥6.3 billion on a non-consolidated basis and ¥12.7 billion on a consolidated basis in R&D for eco-friendly products, the management and maintenance of equipment such as boilers, and improved production efficiency. We also invested ¥0.4 billion on a non-consolidated basis and ¥1.0 billion on a consolidated basis in fuel conversion to save energy and reduce CO₂ emissions and in treatment of odor and waste water and other measures.

We define the impact in monetary terms as economic effects, whereas amount is defined as volume effects; economic effects totaled ¥5.2 billion on a non-consolidated basis and ¥5.6 billion on a consolidated basis.

Results of environmental accounting

Category	Non-consolidated		Consolidated		Category	Non-consolidated		Consolidated	
	2007	2008	2007	2008		2007	2008	2007	2008
1. Total costs (100 millions of yen)	62.4	63.4	121.4	126.6	1. Total economic effects (100 millions of yen)	45.1	51.8	47.1	56.4
(1) Direct costs for production	31.8	29.2	57.5	47.2	(1) Net income effect	6.9	7.2	8.1	9.9
(2) Upstream/downstream costs	0.3	0.5	3.7	2.9	(2) Effect of reducing expenses	2.5	4.2	3.0	5.5
(3) Management activity costs	3.5	3.9	22.5	23.3	(3) Effect of reducing materials	35.7	40.4	35.9	40.9
(4) Research and development costs	26.1	29.2	36.2	49.8	2. Volume effects				
(5) Social activity costs	0.5	0.5	0.8	0.6	(1) Reduction of wastes landfilled (tons/year)	0	0	1,449.5	2,798.6
(6) Environmental damage costs	0.1	0.1	0.7	2.7	(2) Reduction of chemical substances released into the atmosphere (tons/year)	443	64	419	113
2. Environmental investment (100 millions of yen)	5.4	4.1	12.9	10.3					

Data is compiled from 28 domestic sites.

Publishing a Japanese version of a report that compiled methodologies for assessing the correlation between corporate activities and ecosystems

In October 2008, Hitachi Chemical published a Japanese version of the Corporate Ecosystem Services Review (ESR), a systematic methodology for assessing the correlation between corporate activities and ecosystems.

The ESR is conducted in terms of the degree of both dependence and impact on ecosystems. The methodology was officially announced by the World Business Council for Sustainable Development (WBCSD) in March 2008. Since fiscal 2007, the Company has been a core member company of the WBCSD Ecosystem Focus Area, one of the four top priority areas for the WBCSD. A Japanese translation of the ESR was a part of our dedication to these activities.

Going forward, we will actively cooperate in developing activities to extensively introduce WBCSD proposals in Japan.



Front cover of the Corporate Ecosystem Services Review (ESR)