

Environmental Governance

Enhancing Environmental Governance

Frameworks and Systems

To achieve our Environmental Vision and reach our long-term environmental targets, we are enhancing environmental governance by building a global structure to support environmental decision making and implementation at Hitachi, Ltd. and 803 consolidated subsidiaries (a total of 804 companies as of March 31, 2019).

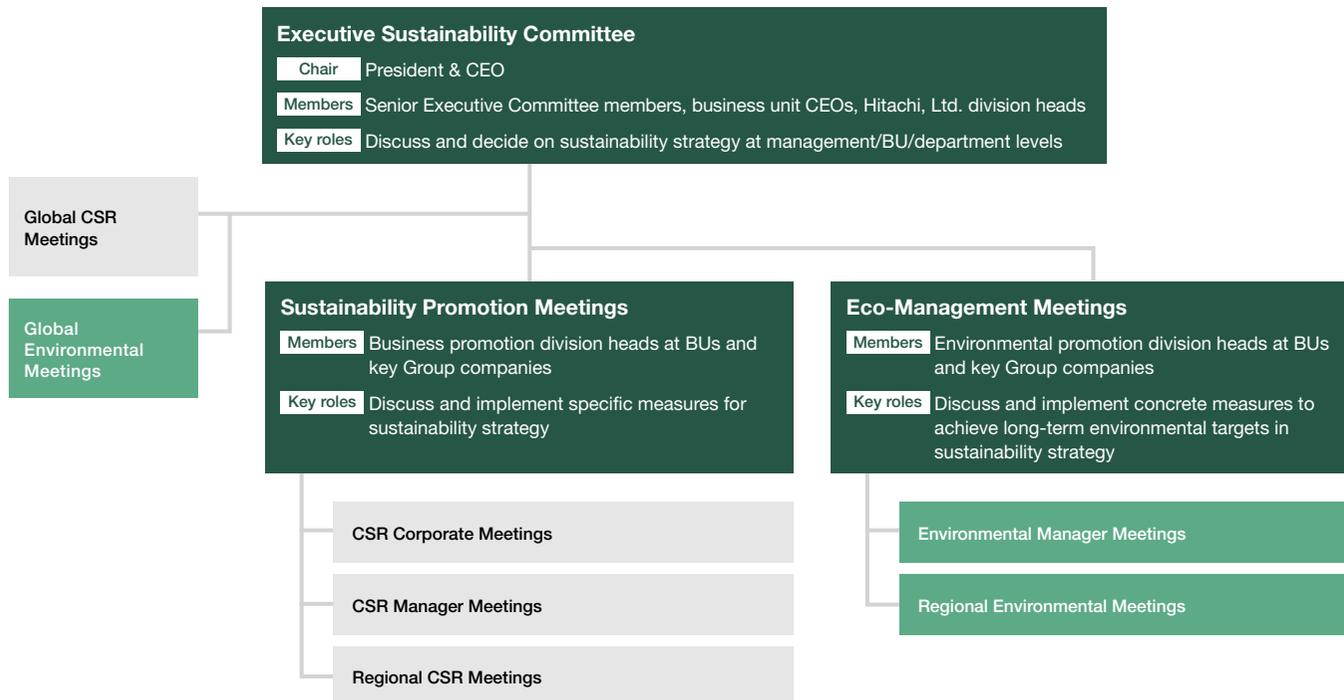
Important items related to environmental initiatives are deliberated by the Executive Sustainability Committee, chaired by the president and CEO of Hitachi, Ltd., and attended by top Hitachi executives. To develop ways to achieve our long-term environmental targets and reduce

environmental compliance risks, the three-year Hitachi Group Environmental Action Plan is formulated in line with the Mid-term Management Plan by environmental promotion division heads from business units and major Group companies participating in Eco-Management Meetings. Targets (and measures to achieve them) in the Environmental Action Plan that affect not only our environmental strategy but also our business strategy—like those to reduce the CO₂ emissions of our products and services—are determined jointly by the Eco-Management Meetings and Sustainability Promotion Meetings, attended by business promotion division heads. A progress

report concerning important targets in the Environmental Action Plan is made to the Executive Sustainability Committee, and instructions from committee members are reflected in actual environmental activities.

Group-wide efforts to advance environmental activities are undertaken outside Japan as well. Environmental officers are assigned to China, the rest of Asia, the Americas, and Europe to share information on the state of progress of our environmental activities and on the latest environmental regulations in each country and region. Respective Regional Environmental Meetings are also held once or twice a year.

Sustainability Strategy Promotion Structure



Environmental Action Plan

Objectives, Activities, and Achievements

Hitachi incorporates its environmental strategy into its management strategy in order to achieve its Environmental Vision and the Hitachi Environmental Innovation 2050 long-term environmental targets. Toward this end, the Environmental Action Plan is drawn up every three years in accordance with the Mid-term Management Plan.

Environmental Action Plan for 2018: Results

Hitachi has pressed forward with environmental activities based on the Environmental Action Plan for 2018 (fiscal 2016–2018), which stipulated detailed activities and high targets to tackle by fiscal 2018.

For our performance in fiscal 2018, its final year, we were able to achieve the goals for key indicators except two: “improve environmental performance” of “products and services” and “reduce energy use” of “factories and offices: climate change response.” For the former, the sales of environmentally high performance products and services fell short of our forecast, and for the latter, the amount of energy use increased due to the in-house-manufacture of the products that used to be outsourced and the decrease in sales in energy intensive business divisions.

Management

Item	Indicator	Fiscal 2018 target	Fiscal 2018 result	Achievement level
Strengthen global environmental management	Voluntary implementation of environmental monitoring by business units and Group companies at overseas business sites (implementing sites/total targeted)	80% or higher (cumulative total)	90%	◆◆◆

Products and Services

Item	Indicator	Fiscal 2018 target	Fiscal 2018 result	Achievement level
Improve environmental performance	Rate of reduction in CO ₂ emissions from use of products and services (base: FY 2010)	40%	34%	◆◆

Factories and Offices: Climate Change Response

Item	Indicator	Fiscal 2018 target	Fiscal 2018 result	Achievement level
Reduce energy use	Reduction in energy use per unit (base: FY 2005)	17%	14%	◆◆

Factories and Offices: Enhance Efficiency of Water Usage

Item	Indicator	Fiscal 2018 target	Fiscal 2018 result	Achievement level
Enhance efficiency of water usage	Reduction in water use per unit (base: FY 2005)	27%	34%	◆◆◆

Factories and Offices: Use Resources Efficiently

Item	Indicator	Fiscal 2018 target	Fiscal 2018 result	Achievement level
Reduce waste generation	Reduction in waste and valuables generation per unit (base: FY 2005)	14%	16%	◆◆◆

Factories and Offices: Manage Chemical Substances

Item	Indicator	Fiscal 2018 target	Fiscal 2018 result	Achievement level
Reduce emissions of chemical substances	Reduction in atmospheric emissions of chemical substances per unit (base: FY 2006)	36%	40%	◆◆◆

Ecosystem Preservation

Item	Indicator	Fiscal 2018 target	Fiscal 2018 result	Achievement level
Contribute to ecosystem preservation	New ecosystem preservation activities implemented	600	953	◆◆◆

◆◆◆ Achieved ◆◆ Partially achieved

Environmental Action Plan for 2021 (Fiscal 2019–2021)

We developed the Environmental Action Plan for 2021 in line with the 2021 Mid-term Management Plan, and we will further enhance our measures to achieve the Hitachi Environmental Innovation 2050 long-term environmental targets. They have been reclassified into 27 targets in four categories, namely, the three societies, as set out in the targets—a low-carbon society, a resource efficient society, and a harmonized society with nature—and environmental management.

For a low-carbon society, the original goals of improving environmental performance and reducing energy use have been revised to “reduce CO₂ emissions from products and services” and “reduce CO₂ emissions from business sites,” which are more closely aligned with our long-term

Environmental Governance

targets. For a resource efficient society, a new goal, “respond to water shortages,” has been added to such goals as enhancing the efficiency of water and resource usage. For a harmonized society with nature, we have set a new goal of calculating impact per BU and Group company in order to “reduce impact on natural capital” in addition to such goals as “reduce emissions of chemical

substances.” GREEN 21 is used as a system for evaluating and managing the achievement made over the three years for each goal.

The following is a list of major goals for the first and the final years of the Action Plan covering the three years from fiscal 2019 to 2021.

 Environmental Action Plan Achievement Evaluation System: GREEN 21

Environmental Action Plan for 2021

Our environmental activities and targets are updated every three years with a view to achieving our long-term environmental targets.

Environmental Management

Items	Indicators	Fiscal 2019 targets	Final fiscal year (2021) targets
Promote environmental human capital development	Environmental human capital development of the Hitachi Group		
Enhance global environmental management	Implementation rate of voluntary environmental audits (number of implementing sites/number of sites outside Japan)	20%	80%

A Low-Carbon Society				
Items	Indicators	Fiscal 2019 targets	Final fiscal year (2021) targets	
Products & services	Reduce CO ₂ emissions of products and services	Reduction rate of CO ₂ emissions (base: FY 2010)	19%	21%
	Address climate change risks and opportunities	Identification and review of risks and opportunities		
Factories & offices	Reduce CO ₂ emissions of factories and offices	Reduction rate of CO ₂ emissions per unit (base: FY 2010)	7%	9%
	Reduce CO ₂ emissions from transportation (shipping)	Reduction rate of transportation energy consumption per unit (base: FY 2010)	9%	11%

A Resource Efficient Society				
Items	Indicators	Fiscal 2019 targets	Final fiscal year (2021) targets	
Water circulation (factories and offices)	Enhance efficiency in the use of water	Reduction rate in water use per unit (base: FY 2010)	23%	26%
	Respond to water shortages	Promotion of water risk management based on water stress survey results		
Resource circulation (factories and offices)	Enhance efficiency in the use of resources	Reduction rate in waste and valuables generation per unit (base: FY 2010)	10%	12%
	Reduce and recycle waste materials	Waste landfill rate	14%	12%

A Harmonized Society with Nature				
Items	Indicators	Fiscal 2019 targets	Final fiscal year (2021) targets	
Chemical substances (factories and offices)	Reduce chemical emissions	Reduction rate in chemical atmospheric emissions per unit (base: FY 2010)	16%	18%
Ecosystem preservation	Reduce impact on natural capital	Calculation of positive and negative impact (environmental load, forest conservation activities, etc.)		

Evaluation system for the achievement of the Environmental Action Plan

GREEN 21

Environmental Management System

Frameworks and Systems

Enhancing the Environmental Management System

Hitachi has built an environmental management system to promote activities aimed at attaining the goals of the Environmental Action Plan.

We have established globally applicable environmental classification criteria to conduct environmental management properly and efficiently in accordance with the environmental load and compliance risk levels of Group business sites, both large and small. We assign a score for each classification item, such as the amount of power consumed, the volume of waste generated, and whether or not legal restrictions apply. All Group business sites are then classified into A, B, or C, and environmental management is conducted according to the respective level of risk. Of our approximately 1,200 business sites, about 200 major manufacturing sites are classified as A, a category accounting for more than 90% of the Group's total environmental load.

The business units and Group companies with category A manufacturing sites participate in Eco-Management Meetings to draw up the Environmental Action Plan. The plan is then disseminated throughout the BUs and Group companies by environmental strategy officers, chosen from among the heads and general managers of those organizations.

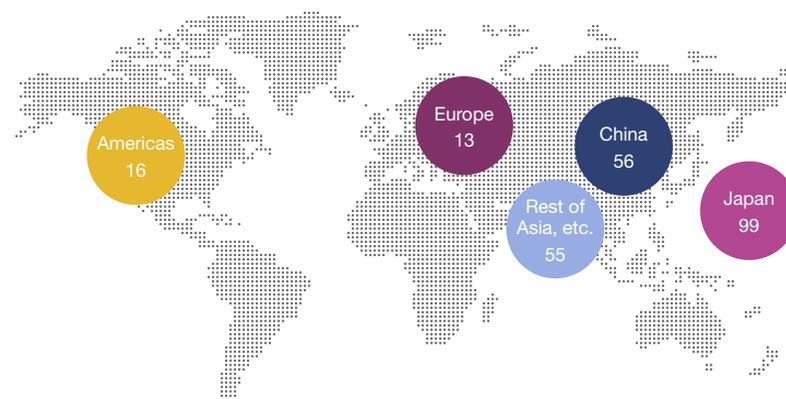
The corresponding BUs and Group companies formulate their own environmental action plans based on the Hitachi Group plan. Our environmental management system is thus a product of a Group-wide effort, extending from the stage of formulation to implementation.

In addition to adhering to an in-house environmental management system, all our global category A manufacturing sites have acquired external certification, such as ISO14001. By seeking the opinions of external experts, we have developed a framework for Group-wide improvements in our environmental activities.

Status of ISO 14001 Certification (Hitachi Group, as of March 31, 2019)

	Total
Number of certified companies**	239

**1 Companies with at least one certified business site.



 List of ISO 14001-Certified Companies

Collecting and Monitoring Environmental Performance Data to Improve Environmental Practices

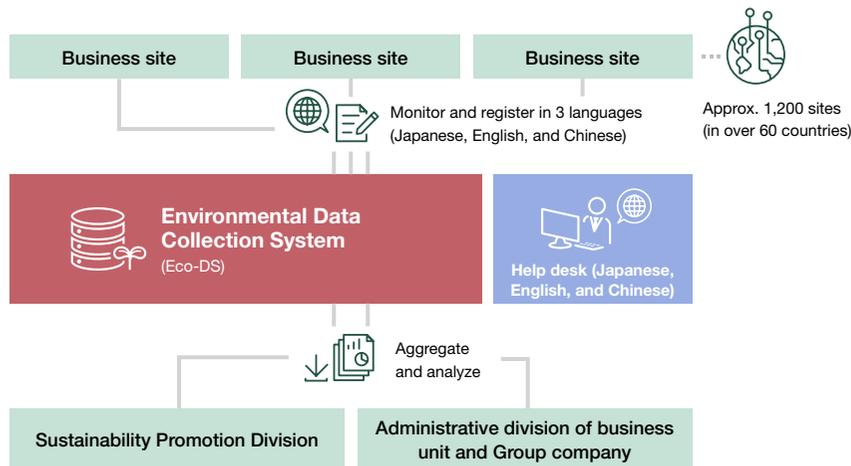
To conduct environmental management efficiently and effectively, we collect data on the environmental performance of business operations using the Environmental Data Collection System (Eco-DS). The system supports three languages (Japanese, English, and Chinese) and enables some 1,200 Hitachi business sites, including factories, research laboratories, and offices in over 60 countries, to extensively monitor and register about 20 items, ranging from environmental load data on items such as energy use, water use, and waste generation, to

whether an item falls under relevant environmental laws and regulations, to environmental accounting. We have also set up an international help desk to support the system's operation and promote understanding of environmental management at each business site.

The collected data is aggregated and analyzed by the Sustainability Promotion Division, as well as by the administrative division of each business unit and Group company, and is used to identify environmental management issues, share instructive examples within the Group, and apply the PDCA cycle to improve environmental practices.

At the approximately 200 Hitachi manufacturing sites that have been prioritized for monitoring under our environmental classification criteria, we aggregate and analyze data on such key items as energy, waste materials, and water on a monthly basis, implementing measures to reduce the environmental burden and achieve the targets of our Environmental Action Plan.

Environmental Data Collection System



Environmental Action Plan Achievement Evaluation System: GREEN 21

GREEN 21 is used as a system for evaluating and managing our achievements made over three-year periods toward the targets set in our Environmental Action Plan.

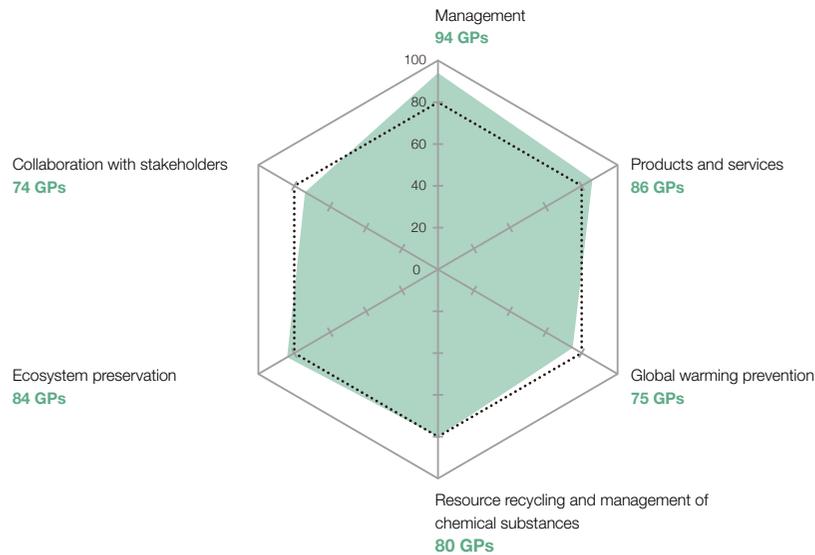
GREEN 21 uses the environmental load data registered in our Environmental Data Collection System (Eco-DS) to convert the success shown by each of approximately 200 major manufacturing sites at reaching the targets of the Environmental Action Plan into green points (GPs), then evaluates each site's progress on a category-by-category basis. A perfect score for any category is 100 GPs. Meeting the Environmental Action Plan's first-year targets is worth 40 GPs, meeting the second-year targets 60 GPs, and meeting the final-year targets 80 GPs. Points are also awarded for particularly ambitious and motivated activities, as an incentive, and progress made on the three-year Environmental Action Plan is comprehensively evaluated. Representing this progress as GPs shows how much each site has achieved in each category, and allows sites to be compared with each other, the results of which are in turn used in the Environmental Action Plan's PDCA (plan-do-check-act) cycles.

The Sustainability Promotion Division also uses the results of the GREEN 21 evaluation as a condition for awarding its Eco-Factories & Offices Select certification for business sites that promote activities demonstrating a high level of environmental consciousness and produce notable results in that area.

From fiscal 2019, progress will be evaluated and managed for individual categories newly created based on the Environmental Action Plan for 2021, and this will be used to promote further environmental activities.

Key Indicators

• GREEN 21: FY 2018 Evaluation Results (Hitachi Group)



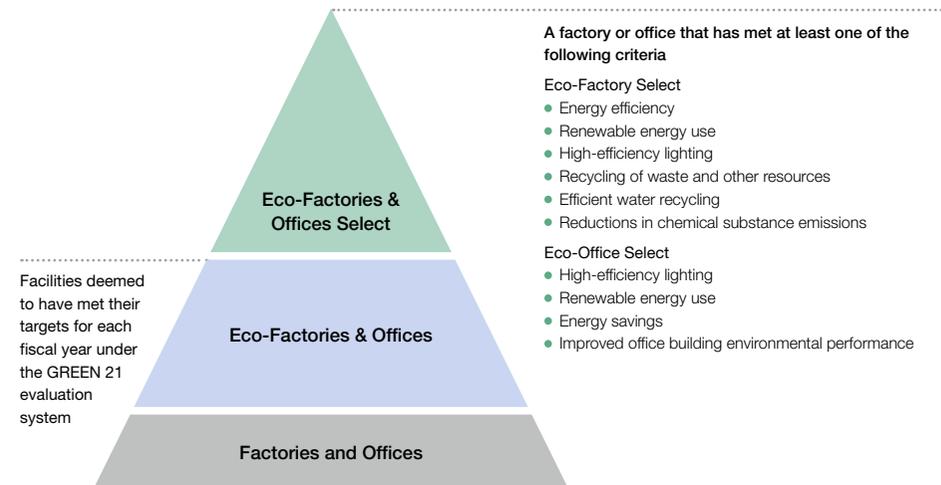
Reducing the Environmental Burden Through “Eco-Factories & Offices Select” Certification

To reduce the environmental burden of our business sites, since fiscal 2011 the Sustainability Promotion Division has implemented an “Eco-Factories & Offices Select” certification program for business sites that promote activities demonstrating a high level of environmental consciousness and produce notable results in that area. This helps raise the environmental awareness of employees and promote environmentally conscious activities at our business sites.

Based on certification criteria that were developed for our manufacturing (factory) and nonmanufacturing (office) divisions globally, we certify existing factories that actively engage in improvements to achieve efficient production and new offices that have been environmentally designed from the start. Superior policies from certified factories and offices are shared with the

entire Group, with other locations encouraged to implement them as well. To maintain and raise the level of environmental awareness through Eco-Factories & Offices Select, certified factories and offices are re-evaluated every fiscal year to confirm that their performance continues to meet requirements. In fiscal 2018, 6 facilities were newly certified, 2 facilities were recertified and 61 facilities had their certifications renewed. The total number of certified factories and offices was 69.

Eco-Factories & Offices Select Certification Criteria



Environmental Education for Employees

Hitachi believes that promoting greater environmental awareness and understanding among employees is essential to efforts to energize its environmental activities. Toward that end, we offer general education using e-learning for all Group employees, from new hires to executives. We also provide specialized Hitachi Group training on environmental risks and compliance with environment-related laws and regulations for working-level employees in charge of environmental management and internal environmental auditors.

Environmental Education and Training System

Target	Introductory	Beginning	Intermediate	Advanced
General education All employees	Introductory training for new employees			
	Online e-learning: Eco-Mind education (General topics: Global environmental issues, environmental law, etc.)			
		Online e-learning: Eco-Mind education (Hitachi Group topics: Environmental policy, Environmental Action Plan, etc.)		
Specialized education Working-level employees	Basic environmental management course for working-level employees (management of waste, air/water quality, & hazardous materials; development & operation of management systems; etc.)			
		Education for Eco-Factories		
		Eco-Product development training		
		Risk communicator training		
Internal environmental auditors			ISO 14001 auditor brush-up training	
			ISO 14001 auditor certification training	
				ISO 14001 senior auditor certification training

Actions and Achievements

For general education aimed at all employees, we offer Internet-based e-learning courses in Japanese, English, and Chinese to heighten familiarity with our Environmental Vision and long-term environmental targets called Hitachi Environmental Innovation 2050. In fiscal 2018, 156,233 employees worldwide received this training.

For employees working in air, water quality, and waste management, we also provide specialized Hitachi Group training on recent amendments to laws and operational procedures as well as on basic environmental management. In fiscal 2018, we offered legal compliance education for internal environmental auditors and working-level employees. In Japan, 159 people from 48 companies attended courses (October 2018) on social responsibility that examined revisionary trends in environmental laws and case studies of things to avoid. In China, 73 people from 41 companies attended working-level courses in Beijing (September 2018) to not only deepen understanding of regulatory amendments but also to learn about the initiatives taken at Group business sites to save energy, recycle water, and reduce volatile organic compounds (VOCs). In addition, they deepened their understanding of the Sustainable Development Goals (SDGs) at a seminar organized by an external consulting company.

The enforcement of China's environmental laws and regulations has been growing more stringent under the guidance of the central government, and the number of charges and penalties has increased sharply. An environmental management training program—attended by 44 people from 36 companies—was held in Beijing, China, in March 2019 to reduce environmental risks and raise the knowledge of working-level employees. The program featured lively group discussions on various issues, including points worth noting in environmental compliance.

In addition to Hitachi Group training, individual companies and units provide education tailored to their own business area.

Environmental Compliance

In conducting business activities around the world, Hitachi seeks to minimize environmental risks to ensure compliance with the laws and regulations of each country and region.

One such effort is by setting and monitoring compliance with voluntary management criteria that are more stringent than regulatory requirements. In the unfortunate event that we do find a

violation or receive a complaint, we take steps to enhance environmental risk management by sharing the causes and countermeasures throughout the Group and preventing a recurrence of similar incidents.

To further mitigate environmental risks we also conduct multifaceted internal environmental audits. In addition to the internal audits set forth under ISO 14001, the major global business sites are audited by the Sustainability Promotion Division and the Internal Audit Office—which are corporate divisions of Hitachi, Ltd.—around every three years. Business units and Group companies have their own environmental audit programs. In the three years from fiscal 2016 to 2018, they conducted environmental audits at 70 of the 78 overseas business sites that have been prioritized for monitoring under our environmental classification criteria. The business sites identified as needing improvements were requested to submit action plans and provided with follow-up and advice until the plans were fully implemented. In these ways we comprehensively implement and enhance our environmental compliance framework.

In fiscal 2018, we received a worldwide total of 16 notices of regulatory violation concerning water quality, air quality, or waste matter and complaints about noise or odor. Of these, 3 were complaints from nearby residents regarding noise or odor, but they were all promptly addressed.

Hitachi will continue to implement enhanced environmental management in order to prevent repeated or new contamination occurrences.

Regulatory Violations and Complaints (Hitachi Group)

	Regulatory violations				Complaints
	Water quality	Air quality	Waste matter	Other (equipment registration, etc.)	
Fiscal 2018 cases	4	2	3	4	3

As part of our measures to address the pollution of soil and groundwater, we are examining the soil and water for any contamination at business sites where hazardous chemical substances had been used. In case contamination is found, we will conduct cleaning and monitoring activities until decontamination has been completed.