

# Hitachi Group Sustainability Report 2012 Digest

VALUE CREATION FOR A SUSTAINABLE SOCIETY

### Sustainability Report Editorial Policy

### **Basic Concept**

The *Hitachi Group Sustainability Report 2012* (issued in July 2012) presents basic policies, promotion systems, measures, and key performance indicators on each initiative in keeping with reporting guidelines. This approach maintains honest and transparent disclosure of information regarding fiscal 2011 initiatives and Hitachi's stance in addressing social and environmental issues that are vital to the sustainability of corporate management and society.

This *Hitachi Group Sustainability Report 2012 Digest* (issued in September 2012) summarizes and mainly reports Hitachi's key management issues.

### Key Guidelines Referred to in Preparing this Report

"Environmental Reporting Guidelines (FY2012 version)", Ministry of the Environment, Japan "Environmental Reporting Guidelines 2001 – With Focus on Stakeholders," Ministry of Economy, Trade and Industry, Japan "GRI Sustainability Reporting Guidelines (G3.1)," Global Reporting Initiatives "ISO 26000: 2010," International Organization for Standardization

### Scope of Reporting

[Period] The main period covered is fiscal 2011 (April 1, 2011 to March 31, 2012)

[Companies] Hitachi, Ltd. and 939 consolidated subsidiaries (including modified entities to which the equity method of consolidated reporting applies): total 940 companies

[Scope of data]

*Financial data* Hitachi, Ltd. and 939 consolidated subsidiaries (including modified entities to which the equity method of consolidated reporting applies): total 940 companies and 183 affiliated companies that use the equity method

Social data Scope of data indicated under each item

*Environmental data* Hitachi, Ltd. and 939 consolidated subsidiaries (including modified entities to which the equity method of consolidated reporting applies): total 940 companies. However, for environmental load data generated through business operations, companies that cover 90% of the load (based on Hitachi calculations) are included.

The data for each fiscal year indicates the results according to the scope of data in that fiscal year.

• The base fiscal year data has been revised in accordance with the scope of data for fiscal 2011.

### **Disclosure of Financial and Non-Financial Information**

Hitachi Ltd., referring closely to deliberations of the EU and International Integrated Reporting Consortium (IIRC) about non-financial disclosure, presents information to match the needs of stakeholders reading this report. While financial information is in the *Annual Report 2012*, the *Hitachi Group Sustainability Report 2012* presents non-financial information and clarifies how sustainability issues relate to financial activities. Up-to-date information is available on the Hitachi Group's website.

### **Third-Party Assessments**

To enhance the credibility of this report, we commissioned third-party assessments of environmental, management, and social performances in fiscal 2011. Bureau Veritas Japan assessed environmental performance. Ernst & Young Sustainability Co., Ltd., verified management and social performance based on International Standard on Assurance Engagement (ISAE) 3000. The certification report is posted in the *Hitachi Group Sustainability Report 2012* (PDF).

### **External Evaluations**

We were selected in September 2011 for the Dow Jones Sustainability World Indexes (DJSI World), one of the world's leading sustainability investment fund indexes. We were also awarded the Silver Class in the Sustainable Asset Management (SAM) Sustainability Yearbook 2012 (January 2012 issue).



Received 15th Green Reporting Award (sponsored by Toyo Keizai Inc. and the Green Reporting Forum).

### Initiatives That We Participate in

We have been a member of the United Nations Global Compact since February 2009 and the World Business Council for Sustainable Development (WBCSD) since 1995.



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### Items Included in the Hitachi Group Sustainability Report 2012 (PDF)

The following items can be viewed on the website: http://www.hitachi.com/csr/download/

### **Top Commitment**

### Hitachi's Management Strategies and CSR

### Management Report

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### **Social Report**

Respect for Human Rights / Supply Chain Management / Diversity Management / Public Policy Initiatives /Quality Assurance and Customer Satisfaction / Communication with Shareholders and Investors / Employee Health and Safety / Global Human Capital Development / Social Contribution Activities

Comparative Table with GRI Guidelines Comparative Table with ISO 26000 Core Subjects Comparative Table with the UN Global Compact Policy, Vision, and Guidelines Major Results Data Independent Assurance

### Major CSR (Corporate Social Responsibility) Content on the Website

The CSR website has a full PDF version with details on our activities and the following content. The Environmental Activities website reports on environmental protection initiatives. The Global Community Relations and Activities website discloses social contribution activities.

Hitachi's CSR Principles: Vision and Policies / Highlights: Spotlighting 2005 through 2011 Innovation Management\* / Global Human Capital Development\*/ Diversity Management / Quality Assurance Activities\* / Employee Health and Safety\* / Welfare / Supplementary Data for Environmental Report\* \*Expanded version of *Hitachi Group Sustainability Report 2012* (PDF)

#### Symbol Marks Used in This Booklet

- † Technical terms, proper nouns, etc., in the text requiring explanation
- \* Additional explanation of terms, etc., in tables or diagrams

WEB Indicates the title and URL of the Web page related to the article. The Environmental Report (pages 16–19) can be accessed from http://www.hitachi.com/environment/data/

### **Hitachi Group Profile**

### Company Profile (as of March 31, 2012)

Corporate Name	Hitachi, Ltd.	Capital	427,775 million yen	
Incorporated	February 1, 1920 (founded in 1910)	Number of employees (unconsolidated basis)	32,908	
Head Office	1-6-6 Marunouchi, Chiyoda-ku,	Number of employees (consolidated basis)	323,540	
	Tokyo 100-8280, Japan	Number of consolidated subsidiaries	939	
Representative	Hiroaki Nakanishi, Representative	(Japan: 340, c	), outside of Japan: 599)	
	Executive Officer and President	Number of equity-method affiliates	183	
		(Japan: 78, outside of Japan: 105)		

### **Consolidated Business Overview and Results for Fiscal 2011**

Revenues	9,665.8 billion yen (up 4% year-over-year)			
Operating inco	me	412.2 billion yen (down 7%)		
Capital investm	ent	649.2 billion yen (up 17%)		
R&D expenditures		412.5 billion yen (up 4%)		
Overseas output as a percentage				
of consolidated net sales			26%	

### **Revenues and Operating Income**



### Revenues by Geographic Area (billions of yen)

### Revenues by Industry Segment (billions of yen)



### Information & Telecommunication Systems

- System integration, outsourcing services, software, disk array subsystems, servers, mainframes, telecommunications equipment, ATMs
- Hitachi-Omron Terminal Solutions, Corp., Hitachi Computer Products (America), Inc., Hitachi Computer Products (Europe) S.A.S., Hitachi Information & Control Solutions, Ltd., Hitachi Solutions, Ltd., Hitachi Systems, Ltd., Hitachi Consulting Corporation, Hitachi Data Systems Corporation, Hitachi Information & Telecommunication Systems Global Holding Corporation



### **Power Systems**

- Thermal, nuclear, hydroelectric, and wind power generation systems
- Babcock-Hitachi K.K., Hitachi-GE Nuclear Energy, Ltd., Japan AE Power Systems Corporation, Hitachi Engineering & Services Co., Ltd., Hitachi Power Europe GmbH, Hitachi Power Systems America, Ltd.



Ultra supercritical pressure coalfired power plant

Hitachi High-Technologies' Field-

Emission Scanning Electron

Microscope

#### **Electronic Systems & Equipment**

- Semiconductor and LCDs' manufacturing equipment, test and measurement equipment, medical electronics equipment, power tools, electronic parts processing . equipment
- Hitachi High-Technologies Corporation, Hitachi Koki Co., Ltd., Hitachi Kokusai Electric Inc., Hitachi Medical Corporation, Hitachi Via Mechanics, Ltd.

### **High Functional Materials & Components**

- Wires and cables, copper products, semiconductor and display-related materials, circuit boards and materials, specialty steels, magnetic materials and components, high-grade casting components and materials
- Hitachi Cable, Ltd., Hitachi Chemical Co., Ltd., Hitachi Metals, Ltd.

Information storage media, batteries Hitachi Maxell, Ltd., Hitachi Maxell Energy,

**Components & Devices** 

**Financial Services** 

Leasing, loan guarantees

Hitachi Capital Corporation

Ltd.



Hitachi Metals' NEOMAX neodymium sintered magnet



Hitachi Maxell Energy's prismatic lithium-ion rechargeable batteries featuring thin type and high capacity



Hitachi Capital's multifunctional IC card

### Social Infrastructure & Industrial Systems

Industrial machinery and plants, elevators, escalators, railway vehicles and systems

Hitachi Industrial Equipment Systems Co., Ltd., Hitachi Elevator (China) Co., Ltd., Hitachi Building Systems Co., Ltd., Hitachi Plant Technologies, Ltd.



Hitachi Plant Technologies Reverse osmosis desalination system

#### **Construction Machinery**

- Hydraulic excavators, wheel loaders, mining dump trucks
- Hitachi Construction Machinery Co., Ltd.



Hitachi Construction Machinery's land mine removal excavator

#### **Automotive Systems**

- Engine management systems, electric powertrain systems, drive control systems, car information systems
- Clarion Co., Ltd., Hitachi Automotive systems, Ltd., Hitachi Automotive Systems Americas, Inc

#### **Digital Media & Consumer Products**

- Optical disk drives, flat-panel TVs, LCD projectors, room air conditioners, refrigerators, washing machines, airconditioning equipment
- Hitachi Appliances, Inc., Hitachi Consumer Electronics Co., Ltd., Hitachi Media Electronics Co., Ltd., Hitachi Consumer Products (Thailand), Ltd., Hitachi-LG Data Storage, Inc.

### Others

Logistics, property management Chuo Shoji, Ltd., Hitachi Life, Ltd., Hitachi Transport System, Ltd., Hitachi America, Ltd., Hitachi Asia Ltd., Hitachi (China) Ltd., Hitachi Europe Ltd., Hitachi India Pvt. Ltd.



Hitachi Automotive Systems electrically controlled brake

Hitachi Appliances' Big Drum frontloading washer-dryer featuring heat recycling and air iron



Hitachi Transport System's Keihin Distribution Center

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Major Products & Services 📕 Major Consolidated Subsidiaries (as of March 31, 2012). Products marked with an asterisk (\*) in the table above are those of Hitachi, Ltd. (Notes.) 1. Hitachi Systems, Ltd. was formed on October 1, 2011, through the merger of Hitachi Electronics Services Co., Ltd., and Hitachi Information Systems. 2. As of April 1, 2012, Japan AE Power Systems Corporation was dissolved, with power transmission and distribution operations transferring to the former joint venture's three

- partners 3. Hitachi Displays, Ltd., Hitachi Display Device (Suzhou) Co., Ltd., its consolidated subsidiary, and Viviti Technologies Ltd., which were part of the Component & Devices segment, were removed from consolidation in March 2012 following share divestments.
- 4. Hitachi Maxell Energy, Ltd., took over the battery systems business of Hitachi Maxell, Ltd., following a company split as of April 1, 2011.
- 5. Chuo Shoji, Ltd., was renamed Hitachi Urban Investment Ltd. as of April 1, 2012.
- 6. As of April 1, 2012, the Company abolished the Component & Devices segment as part of a reclassification, integrating it with "Others" segment.

### TOP COMMITMENT

# Contributing to a Sustainable Society as a Good Corporate Citizen



### **Realizing a Sustainable Society**

In 2011 we faced many natural disasters, from the Great East Japan Earthquake to the flooding in Thailand and then the earthquakes in Turkey. Hitachi City in Ibaraki Prefecture (northeast of Tokyo), Hitachi's birthplace, was among the areas heavily impacted by the March 11 quake, and our operations were damaged by the Thai floods. Despite these setbacks, along with the accompanying disruption to our global supply chain, we achieved solid business results. Our consolidated fiscal 2011 statements showed record net income for the second consecutive year. I would like to again thank the many people who made this possible; we owe our success to all stakeholders. Through last year's experiences, we gained new awareness of the importance of partnerships. In an age of diverse values and rapid change, creating business with partners is a true driver of growth. By thinking deeply about what societies need and by cooperating with our partners, we aim for growth leading to a new stage. At the same time, we continue to foster mutual understanding with stakeholders around the world—customers, suppliers, and national governments, as well as NGOs and other

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policy and business influencers—as we help to resolve social issues throughout the world over the medium to long term.

### Finding the Best Energy Mix for a Safe, Secure Society

The Fukushima Daiichi Nuclear Power Plant accident stirred worldwide discussions about appropriate energy sources. A stable and sustainable energy supply is essential for building and maintaining a safe, secure society. To prevent global warming, we need to choose power sources that are ecoconscious and optimal for a sustainable society. Given these circumstances, I believe Hitachi must work to overcome problems, including population pressure and limited natural resources. We must also weigh the strengths and weaknesses of each technology and build a consensus in each country to find optimal power sources toward realizing the best energy mix. For this reason, and to find a stable energy supply, we propose a range of options, including nuclear, thermal, and renewable energy, while we innovate in ways that help to prevent global warming.

### **Being a Good Global Corporate Citizen**

Our business climate is changing: rapid globalization is leading to economic disparities all over the world; environmental issues such as climate change continue to be pressing; and awareness of the interplay between business and human rights is becoming much more important and relevant. The United Nations Conference on Sustainable Development (Rio+20)<sup>†</sup> has asked companies to make broad contributions to society, mainly through corporate activities, with an eye not only on the environment but on issues such as poverty alleviation and human rights.

Hitachi, since signing the United Nations Global Compact in 2009, has worked hard to become a global corporation with quality management. I believe that the essence of CSR is the quality of our management coupled with sustainable competitive strength. For Hitachi, CSR is the core of management because we must now work on social problems beyond environmental issues, including adopting the UN's framework for human rights. We intend to be a corporation that creates both social and economic value at the same time, while earning lasting trust as a good global corporate citizen.

Since our founding, we have helped build social infrastructures in Japan and worldwide to realize a safe, secure society. Drawing on more than a century of experience, we are committed to making further contributions for a sustainable society. We will do this through business creation in cooperation with partners across the globe, or "collaborative creation," centered on our Social Innovation Business.

† United Nations Conference on Sustainable Development: A meeting of world leaders in Rio de Janeiro, Brazil, in June 2012, discussing ways to address economic, social, and environmental issues over the next ten years. Coming 20 years after the United Nations Conference on Environment and Development (Earth Summit) of 1992—and held in the same city—this conference has been called Rio+20 because it takes stock of the progress since then.

H. Nalu

Hiroaki Nakanishi President, Hitachi, Ltd.

### VISION

# Management Strategies and CSR

Transforming into a truly global enterprise, we share society's values and pursue sustainable growth by integrating management strategies and CSR. Our challenge is to achieve our 2012 Mid-Term Management Plan and CSR to create both social and economic value.

For us, CSR is about making our Corporate Credo and Group Vision a reality. Based on Hitachi's Founding Spirit, our Group Vision guides our purpose as a business to contribute to resolving the issues in the UN Millennium Development Goals—poverty and hunger, inequality of primary education, disease and environmental problems—and to realize a safe, secure, comfortable society. Also, the Hitachi Group Codes of Conduct help us maintain a high level of public trust, and we make sure that these are known to our employees worldwide.

To develop global operations focused on Social Innovation Business, we created the 2012 Mid-Term Management Plan in fiscal 2010. We work with customers and partners to create value that will last for generations, based on our mission as a manufacturer. We strive to reflect our Mid-Term Management Plan's challenges, identified through materiality analysis, in our CSR activities.

Through these activities, we integrate management strategies and CSR and create both social and enterprise value to realize sustainable management and a sustainable society. Corporate Credo Adopted June 1983

WEB http://www.hitachi.com/about/vision/credo/

### **Hitachi Group Vision**

We will contribute to solving fundamental global issues, and pursue the realization of a better, more prosperous global society, in line with Hitachi's Founding Spirit, utilizing the Group's knowledge and technology.

Adopted November 2006

#### Hitachi Group Codes of Conduct Adopted August 2010

WEB http://www.hitachi.com/about/vision/conduct/

### **CSR Management**

In fiscal 2010, we created the Five-Year CSR Roadmap, a medium-term plan for CSR. Based on this roadmap, we are striving to resolve social issues by reinforcing the foundations of the management and integration of CSR with the management, in order to demonstrate global leadership as a Social Business Innovation enterprise in 2014.

Using global advanced enterprises as a benchmark, the Hitachi Group CSR Self-Assessment Tool was developed in fiscal 2008 to clarify measures that should be taken, and was revised in fiscal 2011 based on changes in the requirements, such as ISO 26000 and globalization. This tool is used as a new guideline for activities to realize the roadmap.

To promote the integration of management strategies with CSR, the "material issues for Hitachi" have been clarified using the materiality process, which emphasizes dialogue with stakeholders. By incorporating these important issues, which are deeply related to the main measures of the Mid-Term Management Plan, in CSR activities, we are promoting the realization of CSR based on our management strategies. This report is also conducted in accordance with these important issues.





### Management Strategies and CSR

Hitachi Group Sustainability Report 2012 Digest http://www.hitachi.com/csr/

### 2012 Mid-Term Management Plan

### Management Goals and Forecasts for the Final Fiscal Year

We created the 2012 Mid-Term Management Plan in fiscal 2010. Regarding the forecasts for fiscal 2012, although revenues will not reach the target due to our sale of the HDD and small-to-medium LCD

	Fiscal 2011 Results	Fiscal 2012 Forecasts	Fiscal 2012 Targets
Revenues	¥9,665.8 billion	¥9,100 billion	¥10,000 billion
Operating income ratio	4.3%	5.3%	Over 5%
Net income attributable to Hitachi, Ltd.	¥347.1 billion	¥200 billion	Consistently generate at least ¥200 billion
Debt-to-equity ratio*	0.86 times	0.80 times	0.8 times or below
Total Hitachi, Ltd. stockholders' equity ratio	18.8%	20.0%	20%

\*Including the non-controlling interest and liabilities associated with the consolidation of securitized entities

businesses, other targets, such as operating margin ratio, net income attributable to Hitachi, Ltd., debtto-equity and total Hitachi, Ltd. shareholders' equity ratios, are expected to be achieved.

### WEB Progress of 2012 Mid-Term Management Plan http://www.hitachi.com/New/cnews/120510a.html

### Forecast Revenue Ratio and Percentage of Employees outside Japan

Fiscal 2010 Re		Fiscal 2010 Results*	Fiscal 2011 Results	Fiscal 2012 Forecasts
Outside Japan revenue ratio		41%	43%	43%
Employee	Employees in Japan	212,000	212,000	212,000
yee composition	Employees outside Japan (percentage)	100,000 (32%)	111,000 (34%)	125,000 (37%)
ition	Total	312,000	323,500	337,000

\*Includes impact of sale of small-to-medium LCD and HDD businesses

# 2012 Mid-Term Management Plan: Key Management Policies and Related CSR Activities

CSR activities are playing a crucial role in achieving 2012 Mid-Term Management Plan goals. For our key management policies in particular, we will need to promote CSR activities and strategies related to Hitachi's material issues (see page 016).

2012 Mid-Term Management Plan	Material Issues for Hitachi		
Key Management Policies	CSR Initiatives and Results		
I. Strengthen Management Base	Supply Chain Management (see page 021)		
(1) Cost structure reforms	Promotion of the Hitachi Smart Transformation Project*1*2		
<ul> <li>Execute the Hitachi Smart Transformation Project</li> </ul>	Expand rate of procurement outside Japan FY 2011 38%		
(2) Strengthen financial position			
<ul> <li>Boost profitability and reinforce financial position</li> </ul>	Products that Create a Sustainable Society (Sustainable Business)		
Focus management resources	Focused R&D investment in Social Innovation Business*3 FY 2011 ¥230 billion		
II. Global Growth Strategies (1) Expand investment in key regions • Globalize corporate functions and promote China Business Strategy 2015 • Expand business in ASEAN as a new key region	Diversity Management (see pages 022–023)		
	Participation in Global Fundamental Course FY 2011 Total participants: 139		
	Number of non-Japanese employees FY 2011 239 people		
and start up business in Myanmar	Number of young employees given experience outside Japan FY 2011 1,064 people*4		
(2) Optimize use of human resources and increase efficiency			
Pursue global human resource strategies	Caring for the Environment (see pages 016–019)		
Launch Global Management Human Resources	Contributions to CO <sub>2</sub> emission reduction FY 2011 (estimate) 18.09 million tonnes		
Development and Allocation Program in Fiscal 2012	Eco-Product sales ratio FY 2011 80%		
(3) Strengthen global governance			
<ul> <li>Strengthen response to globalized management and supervisory functions</li> </ul>	Respect for Human Rights (see page 020)		
(4) Value creation and CSR	Implementing human rights e-learning in Europe*1 FY 2011 Provided to approx. 10,000 employees		
<ul> <li>Pursue contributions to the environment and regional social contribution activities</li> </ul>			
Respect human rights and implement	Public Policy Initiatives (see page 024)		
stakeholder dialogues	Implementation of stakeholder dialogues*1 FY 2011 Held in three regions: Brazil, Indonesia, and Belgium		

\*1 Non-quantitative activities \*2 See Hitachi Group Sustainability Report 2012 (PDF), page 024, Corporate Governance. \*3 See Hitachi Group Sustainability Report 2012 (PDF), page 036, Innovation Management. \*4 See Hitachi Group Sustainability Report 2012 (PDF), page 115, Global Human Capital Development.

### FEATURE

# Relationships Drive a Sustainable Society Lessons from the Great East Japan Earthquake

### 14:46, March 11, 2011

Eastern Japan was struck by a catastrophic earthquake and tsunami, an unparalleled disaster that caused widespread damage and severe problems. During this critical time, at Hitachi we used our expertise in power generation, waterworks, communications systems, and other social infrastructure—working with our stakeholders—to overcome many obstacles.

Sendai's Minami-Gamo Purification Center, handling the sewage treatment essential for urban living, suffered considerable damage from the tsunami. The strong sense of social responsibility shared by both Hitachi, the center, and a customer enabled us to quickly restore equipment and systems. Similarly, the generous support extended to us by our suppliers reflected the deep mutual understanding and trust we have developed through sharing information and challenges and through resolving problems together. These solid relationships meant that Hitachi could act together with Kita-Nippon Bank and other customers affected by the earthquake and tsunami in ways that in some cases went beyond the scope of contracts and rules, using wide-ranging networks to find solutions.

Another critical issue was to heal the deep emotional scars left by the disaster. We used our people-centered methods to collaborate with Sendai City to survey evacuation centers, identify issues, and propose solutions. We also provided volunteer support for our own employees' urgent needs. By sharing the lessons learned from the disaster with stakeholders, we will continue to use energy technologies and other elements of our Social Infrastructure Business to help build a sustainable society.





# **Protecting Lives**

With Customers: Minami-Gamo Purification Center

The Minami-Gamo Purification Center, treating wastewater for 700,000 people in Sendai, had severe tsunami damage. Sharing a sense of responsibility for this key infrastructure, we helped to restore emergency systems.

# Rapid Makeshift Restoration Keeps City Functioning

The Minami-Gamo Purification Center in Sendai, the biggest wastewater treatment plant in northeastern Japan, processes sewage and gray water for 700,000 people. The tsunami caused massive damage to many treatment plants on the coast.

The loss of water purification, among the most important urban systems, seriously impacted daily life. Center director Keiji Ishikawa recalls that when At the Minami-Gamo Purification Center From left: Masatomi Yamakawa, Foreman, Minami-Gamo Purification Center, Waterworks Division, Construction Bureau, Sendai City; Hiroshi Kawahara, same; Keiji Ishikawa, Director, Minami-Gamo Purification Center; Masaru Mizuhara, Director, Social Solutions Group, Electrical Equipment Systems Division, Tohoku Area Operation, Hitachi, Ltd.



The tsunami wreaked pipes, wastewater intake equipment, pumping towers, machinery, and electrical equipment. Much equipment was destroyed.

the disaster struck they were working on a business continuity plan (BCP) and reviewing cooperation. "We lost communications with most engineering companies, but by midnight Hitachi and other companies went to City Hall to offer their help."

Immediately after the tsunami, sluice gates were opened to prevent flow back into the city. "Some nearby towns limited sewage to prevent backflow. In Sendai, the strong sense of duty and hard work of our staff and cooperating companies prevented backflow," says Ishikawa. "Working with Hitachi and other partners early on to assess the damage really sped up restoration."

Creating an equipment restoration plan came next. Blueprints and office equipment had been washed away, and debris filled the buildings. Hitachi engineers worked with center staff under trying conditions to check equipment, write a detailed report, and develop a recovery plan.

### Going Global Based on Experience Gained from the Disaster

Sewage treatment began just after the disaster, followed in March 2012 by medium-level microorganism treatment to improve water quality. We restored an ultra-high voltage substation and sludge incineration equipment. We will help with full restoration in 2015.

"Last year, 159 groups and 2,000 people came to visit," notes Ishikawa, "probably the last time a sewage plant of 400,000 tonnes per day for 700,000 will be rebuilt in Japan, but many world cities need large-scale processing, as well as areas with poor sanitation. It would be great if Hitachi uses their experience globally gained from restoring our center to combine solar power and energy efficiency."

Our Social Infrastructure Business covers water and other urban systems. With a strong social responsibility, we develop technologies and gain experience for safe, comfortable living.

### **FEATURE** Relationships Drive a Sustainable Society

### Financial Systems Support Communities

### 💎 With Customers: Kita-Nippon Bank

Kita-Nippon Bank, supporting communities in the Tohoku region and elsewhere, had many branches damaged by the tsunami. We used our nationwide network to quickly find office terminals and get ATMs into temporary facilities, assisting with their recovery. At the Midorigaoka Branch of Kita-Nippon Bank From left: Takahiro Chubachi, Iwate Branch, Tohoku Area Operation, Hitachi, Ltd.; Shinichi Kudo, Assistant Manager, Systems Control Group, Business Systems Division, Kita-Nippon Bank; Yoshinori Takahashi, Manager, Business Systems Division, Kita-Nippon Bank; Masahiro Nakaochi, Service Head Office, Tohoku Regional Office, Hitachi Systems, Ltd. We received a letter of thanks from Kita-Nippon Bank for our support after the Great East Japan Earthouake.

# Helping Restore Damaged ATMs and Terminals

Kita-Nippon Bank in Iwate operates in Tokyo and in Tohoku (except Yamagata). The nine branches on the coast had major tsunami damage.

Since 2008, this bank has been using the Hitachi systems solution NEXTBASE.\* We recovered ATMs that had been swept away and contacted other banks that use NEXTBASE, arranging for office terminals to be brought in. We provided support in response to requests that included putting ATMs into temporary branch offices, installing new ATMs, and providing computers.

Yoshinori Takahashi from Kita-Nippon Bank said that we went between banks and handled everything from contracts to opening temporary offices. He said, "Hitachi acted as though it was nothing special, just a natural extension of a strong relationship built up over time." "Key data was saved because the center with the host computers

\* NEXTBASE: A joint outsourcing service that provides base systems such as accounting and host systems for regional financial institutions wasn't in Tohoku, allowing for a speedy recovery," added Shinichi Kudo.

### Developing Disaster-Resistant Information Systems

Catastrophes like the Great East Japan Earthquake make it hard for banks to quickly recover. "If Hitachi could devise ways for banks to lend among themselves in an emergency, it would really help during disasters," suggests Yoshiyuki Sato from Kita-Nippon Bank. We will always live up to the trust of our customers by using our technologies and networks to support local communities.



The tsunami devastated the Takata Branch, sweeping away the building front and ATMs.



The tsunami caused major damage to 20 ATMs. Engineers tackled tasks such as repairing ATMs with case damage.

# Taking on the World with Strong Partnerships

### 🞽 With Suppliers: Hitachi Industrial Cooperative

The swift recovery of the damaged Hitachi Works in Hitachi City was underpinned by support from many of our suppliers. The strong partnerships with suppliers that come from sharing information, challenges, and the same dedication was critical during the disaster.



Hitachi Works after the disaster. Many Group factories were damaged.

At the Hitachi Works Yasunobu Komine, President of Komine Corporation and Acting Director Hitachi Industrial Cooperative (right); Toshio Shimizu, General Manager Procurement and Sourcing Dept., Power Systems Company, Hitachi, Ltd.

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### Partnerships Shine during Disaster Recovery

The Great East Japan Earthquake and tsunami devastated buildings, cranes, machine tools, and other equipment at the Hitachi Works in Hitachi City, Ibaraki Prefecture. By the end of March—less than a month later—production was almost completely restored. This quick recovery was due in part to the Hitachi Industrial Cooperative.\*

Made up of Hitachi Group suppliers, the Cooperative has linked Hitachi and small and mediumsized local companies since being founded in 1949. Immediately after the disaster, Cooperative members shared information on damages and supported the restoration of Hitachi Works. For example, when workers couldn't enter damaged buildings, Yasunobu Komine recalls how member companies lent us workspace and tools to reduce the impact on our customers as much as possible. Support from the Hitachi Industrial Cooperative and many other suppliers was vital for our rapid restoration of operations.

### Growing Together by Sharing Information and Challenges

"Cooperative members know they are contributing to society through their involvement in Hitachi's operations, focused on the Social Innovation Business," explains Komine. "At regular briefings, we share information on markets and technology. Responding to Hitachi's requirements helps us to develop."

"Interaction, such as information exchanges, allows the Hitachi Group and suppliers to meet challenges, like globalization, together," says Toshio Shimizu. Study groups discuss globalization and BCPs. In June 2012, Hitachi coordinated a trip to China for 14 companies. The strong supplier partnerships create a sense of purpose, information, and challenge. For tough competition in global markets, we will deepen those partnerships and support our partners' globalization as we grow together.

\*Hitachi Industrial Cooperative: 37 suppliers (March 2011) with committees on canning, electrical products, and machinery raw materials, with joint order receipts, purchasing, low-interest loan promotion, and insurance.

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### FEATURE Relationships Drive a Sustainable Society

## Supporting Disaster-Resistant Cities

### With Government: Sendai City Hall

Broken utilities and transportation systems forced more than 100,000 into Sendai's evacuation centers. We used our peoplecentered techniques to survey and analyze these centers, highlighting challenges and urgent needs, while proposing solutions.

From left: Atsushi Okawa, Disaster Reconstruction Office, Sendai City; Hirohito Kojima, (then-) Vice Director, Disaster Reconstruction Headquarters, Sendai City; Nobuaki Takahashi, Information Systems Sales Dept. 2, Tohoku Area Operation, Hitachi, Ltd.

### Joint Evacuation Center Survey with Sendai City

In Sendai, the disaster took 872 lives, while the tsunami damaged or destroyed more than 8,000 homes. Local government authorities opened evacuation centers, even though City Hall was undamaged.

Hirohito Kojima from Sendai City's Disaster Reconstruction Headquarters says, "When considering recovery and disaster prevention plans in the future, Sendai City and local government authorities around the country first want to know about conditions in evacuation centers: What would happen there, and what issues might arise?" After the disaster, many companies offered help, and Sendai City asked Hitachi to jointly survey the evacuation centers. "We wanted to assess the challenges together with a global company like Hitachi in the hope that they might develop technologies

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and widely spread the information gained," notes Kojima. This was the first joint disaster survey in Sendai conducted by government authorities and a company. The survey team went into evacuation centers in August and September 2011.

### Unique Hitachi Methods Supporting "Soft" Disaster Recovery

We used the experience-based Ex-Approach<sup>\*</sup> for the survey, interviewing 27 people in seven shelters on items such as nearness to transportation or devastated areas. For easy analysis, events and problems were arranged chronologically from when the earthquake occurred to closing the centers. The survey showed life in evacuation centers moving through three phases: "gathering," "living," and "leaving." We then held two workshops with Sendai City to assess the key issues, later developing disaster prevention and mitigation proposals,



At a workshop at the City Hall, events and victims, then issues from the time of the earthquake to evacuation center closure were drawn from City Hall staff's daily reports and accounts of interviews with disaster victims then arranged chronologically for analysis and identification of issues, together with those staff members.

including clustering evacuation centers in communities and using information systems to gather and collate information.

"In government, we tend to focus on the 'living' phase of operations, but the survey gave us a bigger picture. We will need similar cooperation from companies in the future," Hirohito Kojima commented. Atsushi Okawa, also from Sendai City, praised the impartial way issues were identified.

# Using People-Centered Technology as a Partner of Government

Sendai City is improving its disaster mitigation and energy policies to become a "disaster-resistant, environmental city on a new level." Another aim is to strengthen "civilian power" by intensifying collaborations with companies and people's ability for self-help. Hirohito Kojima notes, "Sendai's mission is to create a disaster-resistant model through the lessons learned during and after the disaster and to communicate this to the rest of Japan and the world. We hope that Hitachi will contribute both 'hard' and 'soft' technologies to increase social satisfaction and to work together with us to pass on these innovations to Japan and beyond."

We look forward to making maximum use of our people-centered and experience-focused survey and analysis techniques, as well as our technological strengths. We will continue to collaborate with local authorities to resolve the issues faced by their communities, helping to build systems that provide a safer, more secure society for everyone.

\*Ex-Approach: A unique Hitachi framework for assessing and sharing issues and solutions with others, using consensus and making issues visible to create realistic basic concepts and systemization plans.



### Supporting Employees' Volunteer Work for Disaster Recovery

We hold seminars and workshops to respond to the needs of employees volunteering their support for disaster areas and victims. We will continue to support our employees' volunteer work.

Many employees volunteered to help in disaster areas. However, others wanted to help but were worried about going there. Hitachi's Corporate Citizenship Department then supported those employees. In fiscal 2011, we held four meetings for 150 employees, including a mental care seminar and a cloth toy workshop.

The mental care seminar gave employees an understanding of the conditions and some preparation to prevent them from being overwhelmed or becoming a burden to victims when they volunteer in disaster areas. Employees who were introduced to volunteer activities that could be carried out in Tokyo, such as making cloth toys for children in disaster areas, commented that they were pleased to know that there was something they could do locally.

Social concern was clear from employees using the in-house Social Networking Service (SNS); they exchanged information, talking about volunteering and their own experiences. We value employees' concern and maintain support for volunteering through, for example, seminars and travel to disaster areas. The entire Hitachi Group supports the recovery process.



Volunteers used SNS and websites, showing their volunteer spirit at a seminar. Volunteer information and personal reports are put up on the SNS and websites, fostering the volunteer spirit among Group employees.

# Exploring Energy Sources in Light of the Quake

After the earthquake, Hitachi made every effort to promote the restoration of power generation plants and other infrastructure systems.

Dialogue

Vice President and Executive Officer, and President of Power Systems Company

Tatsuro Ishizuka

Hideto Kawakita

EO, International Institute for Human, Organization and the Earth (IIHOE) Hideto Kawakita Set up IIHOE in 1994 to help non-profit organizations and socially responsible corporations while laying the foundations for cooperation between nonprofit organization and governments, and engaging in corporate social responsibility and environmental and social communications.

### Harnessing Human Resources and a Swift Restoration

Kawakita: The Power Systems Company delivers thermal and nuclear power generation, power transmission and distribution, and renewable energy. I heard that Hitachi Works, a core plant which you oversaw during the earthquake, was severely damaged. What was your initial response?

**Ishizuka:** Above all, we worked on preventing a secondary disaster because there were frequent aftershocks. We did not let people go into the plant until we made sure that it was safe.

Kawakita: So, safety was the overriding concern. Ishizuka: We also needed to respond swiftly to customer needs. At first, we were unable to picture the overall damage. So, we summoned general managers and above and instructed them to gather information on the situations at nuclear and thermal power plants, especially those requiring immediate attention, and we provided support to Emergency Response Centers. We had trained employees for contingencies and had a communications network in place. So, there was little confusion in confirming safety.

Still, the earthquake ruined plumbing and some plant equipment, causing water cuts and blackouts. We had to restore things quickly. But only 10 of 6,000 employees were plumbers or electricians. So, we formed teams with other Hitachi Group employees and with people from outside the Group who came to help. We harnessed their expertise and skills. For example, an inspector knowledgeable about high

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voltages inspected a power plant, a construction engineer helped to build a temporary office, and so on. Hitachi Works traditionally holds a sports day that crosses business boundaries. I think that one reason our recovery went so smoothly was that we were able to form cross-divisional teams. Kawakita: What about community assistance? Ishizuka: We used the gasoline we obtained from headquarters to fuel emergency vehicles and enable Group company Hitachi Dentetsu Co., Ltd. to operate local buses. We felt it was important to rebuild the community infrastructure based on the belief that the town would start up again once it regained some transportation. Although we had a well at the plant, we could not distribute water to local residents because we did not have approval from the public health department. After the earthquake, we did get authorization and reached agreement with the municipal government to supply well water during emergencies in the future.

# Reviewing Safety Standards and Going beyond Assumptions

**Kawakita:** Since the quake, people's expectations for ensuring energy safety have been increasing. What is your safety focus?

**Ishizuka:** Improving the safety of nuclear power is a social necessity. We are focused completely on this. Preventing another serious accident like the one at Fukushima Daiichi is closely related to the national government's safety guidelines. We will make

### High-Efficiency Coal-Fired Thermal Power Helps Reduce Global CO<sub>2</sub> Levels

Coal-fired thermal power supplies 40 percent of electricity globally, and coal is a major energy source. Coal-fired generation efficiency rises when steam is at high temperatures and pressures, so we developed ultra supercritical thermal power technology, with temperatures up to 600°C and 25-MPa pressures.  $CO_2$  emissions are 7 percent lower than current pressure power generation (estimate).

We help reduce global CO<sub>2</sub> levels with high-efficiency coal-fired thermal power. Ultra supercritical thermal power plants are the world's most efficient.



proposals and participate in technical improvements. At the same time, after a full review we must now prepare for events that go beyond our assumptions. We need to review frameworks, such as those for regulations and responsibilities, as a national commitment. To do this, I think we need to communicate risks accurately rather than fuel anxiety. It will take a long time to decommission the reactors at Fukushima Daiichi. We are committed to contributing to that process through to completion, including developing robot technology.

Kawakita: From the public's point of view, no matter how much you say that something is technically safe, you cannot completely erase concerns. To ensure safety, you need to generate trust with people and the organizations controlling technology. So, aside from the technical management, I believe that people will continue to question how seriously safety is being handled.

# Responding to National and Regional Best Energy Mixes

**Kawakita:** It seems that demand for energy and expectations for a stable supply are likely to increase. What's your stance on energy?

**Ishizuka:** When you consider such factors as energy costs, sustainability, and security, we should explore the potential of natural energy. At the same time, I think it is important to make nuclear power safer and increase the efficiency of thermal power. Optimal energy mixes differ among countries and regions. Particularly in Asia, there is high demand for coal-fired thermal power, so many governments base their policies on coal. Demand is rising for boil-

ers using lignite, which has high moisture content, in Eastern Europe, India, and Southeast Asia. Our leading-edge ultra supercritical coal-fired thermal power technology is highly efficient and can help reduce CO<sub>2</sub>. We need to meet energy demand by combining natural energy with nuclear, thermal, and other power generation, while using our global technologies and resources.

Kawakita: Following the Great East Japan Earthquake, interest in energy and local production, consumption and regional optimization has risen. We're seeing a trend toward combining biomass, wind power, storage batteries, and other technologies. Ishizuka: We're focusing mainly on wind and solar power. Hitachi is strengthening business in downwind technology, which is ideal for sea and hill sites. However, we need transmission networks that can handle diverse combinations including wind, solar, thermal, and other power sources with different types of power. In April 2012, we set up the Transmission & Distribution Systems Division, and are focusing on cutoff equipment, transformers, transmission networks, and smart grids.

**Kawakita:** When you develop business outside Japan, don't you sometimes make proposals before national standards are decided?

**Ishizuka:** For countries without energy regulations, we submit proposals for formulating regulations and energy policies, and we assist with the education of technicians. We propose optimal solutions for each country and region that uses highly efficient smart grids, combining components such as thermal and other large generating plants, natural energy and other distributed energy, and storage batteries.

## Caring for the Environment

Guided by the Environmental Vision to achieve a sustainable society, our corporate environmental management aims for the goals set by the long-term Environmental Vision 2025 and our Environmental Action Plan. Also, corporate environmental management is a focus of the 2012 Mid-Term Management Plan. We are helping to reduce environmental burden by providing our products and services and through our business operations.

### The Hitachi Environmental Vision

**Hitachi's Environmental Vision** 

We have drawn up the Environmental Vision which describes the aim of our corporate environmental management: "to achieve a sustainable society." The world's population is expected to reach 9 billion by 2050, while the world economy continues to grow. The increase in economic and social activities increases



### Towards a Sustainable Society

the demand for energy, water, minerals, and other resources. This has made environmental problems worse, including resource depletion and climate change. To solve these problems faced by the entire world, the load on the environment must be reduced to the highest extent possible to achieve a sustainable society.

We are committed to the prevention of global warming, the conservation of resources and the preservation of ecosystems as the three pillars of our vision. Our goal is to achieve a more sustainable society by promoting global production that reduces the environmental burden of a product throughout its life cycle.

### Long-Term Plan Environmental Vision 2025

The Intergovernmental Panel on Climate Change (IPCC), a UN panel assessing and advising on the causes and effects of climate change, concluded in its Fourth Assessment Report that CO<sub>2</sub> emissions must be reduced by 50 to 85 percent of their 2000 levels by the year 2050 in order to meet the minimum stabilized density scenario for greenhouse gases (450 ppm stabilization scenario). The International Energy Agency (IEA) has drawn up a CO<sub>2</sub> emission reduction scenario allocating the amount of reductions for power supply and demand. Hitachi is widely conducting business in both of these sectors.

The long-term Hitachi Group Environmental Vision 2025 targets the prevention of global warming, one of the issues that the world is facing today, and states our goal of helping reduce annual CO<sub>2</sub> emissions by 100 million tonnes by 2025 through Hitachi products and services. This means that as we reduce CO<sub>2</sub> emissions—by improving the environmental efficiency of Hitachi Group products and by other means—our contribution to curbing CO<sub>2</sub> emissions through the use



23.4

tonnes of CO

Company, Hitachi, Ltd.

Hitachi Virtual Storage Platform

per system is 23.4 tonnes.

The Hitachi Virtual Storage Platform is an enterprise

disk array optimized for a cloud environment, taking

mation. Energy efficiency is improved by using large-capacity 3.5-inch HDDs (hard disk drives), etc. The

contribution to the annual reduction in CO<sub>2</sub> emissions

advantage of innovation in virtualization and auto-

Hitachi Construction Machinery Co., Ltd.



ZH200 hybrid hydraulic excavator

A motorized swing arm stores electricity during deceleration so that it can be used to assist the hydraulic motor during acceleration. The hydraulic system uses three pumps and control valves, reducing fuel consumption by 20 percent compared with the standard model (ZX200-3). One ZH200 excavator contributes to an annual reduction in CO2 emissions of 9.7 tonnes.

### Main Products Contributing to CO<sub>2</sub> Emission Reductions in Fiscal 2011

**Supercritical Thermal Power Plant** Power Systems Company, Hitachi, Ltd.



Keephills 3 power plant (Canada)

Canada's Keephills 3 power plant (output: 495 MW) began commercial operation. Hitachi supplied the entire plant for this high energy-efficiency supercritical thermal power plant, including the boiler, turbine, environmental control systems and related facilities The new plant will contribute to an annual reduction in CO<sub>2</sub> emissions of 190,000 tonnes.

\*Please see page 055 of the Hitachi Group Sustainability Report 2012 (PDF) on the method used for calculating the contribution of Hitachi products to CO<sub>2</sub> emission reduction and other details.

of our products and services will be 100 million tonnes per year by 2025 compared with the products of the base year, fiscal 2005.

Our contribution to CO<sub>2</sub> reduction in fiscal 2011 is estimated to be 18.09 million tonnes. A wide range of products and services contributed to the reduction in emissions, including high-efficiency thermal and hydro power plants, energy-saving information systems, consumer electronics products, as well as parts and materials used in energy-saving products. Due to the effects of the disaster caused by the Great East Japan Earthquake, however, plans for introducing electric power plants were drastically altered, preventing us from achieving the original target of 20 million tonnes. We will continue working to develop and popularize products that contribute to CO<sub>2</sub> emission reductions.

Contributions to CO<sub>2</sub> Emission Reduction (base: FY 2005)



The 2009 figures in the IEA's  $CO_2$  Emissions from Fuel Combustion Highlights (2011 Edition) were used for  $CO_2$  emission coefficients.

### **Increasing the Ratio of Eco-Products**

In 1999, we introduced Assessment for DfE (Design for Environment) which sets specific environmentally conscious criteria for designing and developing products and services to minimize their environmental burden across their life cycle. Products that meet DfE standards are designated as Eco-Products. One of our goals is to

### Examples of Eco-Products Select\*

HDRIVE Hitachi Motor Drive Energy Conservation Service Infrastructure Systems Company, Hitachi, Ltd.



High-voltage motors and large 400 kVA+ inverters are installed at large factories, such as petrochemical plants and cement works, at no initial cost to customers. Since this system began in 2001, 360 GWh of energy has been saved (as of May 2011), equal to about 138,000 tonnes of  $CO_2$ .

\*Eco-Products that meet even more demanding requirements are designated Eco-Products Select. For more information on Eco-Products Select, please see page 062 of the *Hitachi Group Sustainability Report 2012* (PDF).

increase the Eco-Products sales ratio, or the ratio of Eco-Product sales to total product sales.

In fiscal 2011, we increased the number of models designated as Eco-Products to over 10,000 and the Eco-Product sales ratio to 80 percent, topping our goal of 79 percent. We aim to boost the Eco-Products sales ratio to 88 percent by fiscal 2015.



### **Building a System for Visualizing Energy Use**

Starting in April 2012, we began tallying the monthly use of energy such as fuel oil, gas, electricity at 200 large business sites in Japan, and started a system to post the results on the Hitachi Group intranet as part of a visualization system. Since July 2012, we have been operating the Hitachi Group Electric Power Data Counting and Monitoring System to collect hourly data



on power use at 238 large sites (contracted capacity of 500 kW or above). This system makes more efficient energy use possible and makes employees more aware of the need to save power.

Display Example of Typical Energy Visualization System

#### Super-Amorphous XSH series Hitachi Industrial Equipment Systems Co., Ltd.

intachi industrial Equipment Systems co., Etc.



The amorphous alloy with a high magnetic flux density used in the iron core boosts performance to more than 150 percent of Top-Runner standards. Compared with conventional transformers using silicon steel plates in their iron cores, less stand-by power is wasted when equipment is not operating.

### **Recycling Water Resources**

We are committed to effective water use by reducing the consumption in our operations.

Hitachi Elevator (Shanghai) Co., Ltd. uses water recycling equipment employing advanced technologies such as chemical treatment, filtration, and reverse osmosis membranes. After the wastewater from production is collected and treated, it is reused for manufacturing as well as for toilets and other domestic water use and for watering trees and plants within the grounds. Through these recycling technologies, we save around 80 m<sup>3</sup> of water a day, the same amount used by a Shanghai resident in 18 months.

**Recycled Water Use Flow** 



Pond where recycled water is stored after treatment

### **Omika Smart Factory Project**

Omika Works, producing information and control systems in Ibaraki Prefecture, Japan, has installed a 940 kW photovoltaic system that has been operating since May 2012. Around 900 monitoring devices, such as smart meters, make power consumption visible for each building and use. The factory has also introduced



Photovoltaic system installed at Omika Works

an Energy Management System (EMS) so that production timelines can be shifted based on energy supply and demand forecasts.

### **Green Curtain Project**

In summer 2011, to conserve electricity, the Hitachi Group launched the Green Curtain Project, an initiative to reduce building temperatures by cultivating vines along building windows and walls. The project involved more than 300 Hitachi Group facilities, as well as the homes of employees who chose to participate. Green curtains not only save power but they create comfortable working and home environments along with being visually appealing. In December 2011, we held the Hitachi Group Green Curtain Contest for 2011, presenting awards in the group and individual categories.



### **Participation at Exhibitions**

We value direct dialogues with stakeholders, so we participate in environment-related exhibitions. In Japan, we participated in the Eco-Products Exhibition 2011 in December 2011, and outside Japan, the China-Japan Green Expo 2011 in June 2011, and we held the Hitachi Eco Conference 2011 in February 2012.

We reduce the environmental load of our exhibition booths. Our booth at Eco-Products Exhibition 2011 used LED lights as well as carpets and wall materials that were made from environmentally conscious materials. The Hitachi booth won the best Eco & Design Booth Prize, and it was our second straight prize winning following last year.



Hitachi booth at Eco-Products Exhibition 2011

### **Reducing the Environmental Burden of Business Activities**

We have set targets for reducing greenhouse gas emissions, chemical substance emissions, waste (including valuable resources), and water use. In the new Environmental Action Plan, we set higher targets for environmental load reduction for each of the action items, and in fiscal 2011, the first year of the plan, we were able to achieve our targets for ten items, including reducing CO<sub>2</sub> emissions and using water effectively, but fell short in the remaining two\*: reducing waste generation per unit production rate (assembly industry group) and decreasing the ratio of VOC atmospheric emissions. We are now making every effort to ensure our targets are achieved for all items by the final year of the plan. \*Please see page 055 of the *Hitachi Group Sustainability Report 2012* (PDF) for more information.



We are promoting sustainable energy-saving investment and higher efficiency in production processes. In addition to sharing energy-saving knowhow across the Group, we support the development of energy conservation personnel and assess energy efficiency.





Truck transportation soared after the long-term railway damage from the Great East Japan Earthquake. This led to an increase in  $CO_2$  emissions compared with fiscal 2010. However, we achieved a 19 percent reduction in energy consumption per unit production from the base year.





We have set a Group target and introduced measures to reduce water use, especially outside Japan where water resources are scarce. We will strive to optimize water use efficiency, as well as reduce our water consumption by preventing leaks and boosting the rate that we recycle.



Through our sustainable energy-saving investment, we are introducing energy-efficient machinery and switching to alternate fuels. In fiscal 2011,  $CO_2$  emissions decreased, since Hitachi Global Technologies, Inc. and Hitachi Displays Ltd. were removed from the total calculation.



We are reducing and recycling waste materials generated during manufacturing, including valuable resources. We have improved recycling efficiency by installing foreign matter removal equipment and by introducing returnable transportation packaging materials and pallets.

### **Ratio of VOC Atmospheric Emissions\***



Because of an increase in painting processes, we did not achieve our fiscal 2011 target of 5.8 percent. We will introduce alternate materials into the painting process, as well as improve these processes.

\*VOC atmospheric emission ratio: VOC atmospheric emissions / total volume of VOCs handled.

## **Respect for Human Rights**

Cherishing humanity has been fundamental to management since our founding. When operating globally, we respect human rights based on international codes for all of our stakeholders, appreciating the cultures of every country and region to enhance our understanding of their values.

### **Human Rights Policies**

We established the Hitachi Group Codes of Conduct in 2010. Central to these rules are respect for national and regional laws as well as universal human rights based on international norms. Our codes require respect for the individuality and personalities of all stakeholders, ending discrimination in recruitment and employment, as well as respect for basic human rights in all workplaces. We have translated the codes into 17 languages to improve human rights awareness among all Hitachi Group employees worldwide. We also focus on corporate management that respects human rights, as outlined in ISO 26000.

We established the Central Human Rights Promotion Committee to gauge the impact of business activities on stakeholders' human rights and to deliberate on mechanisms and policies that prevent human rights violations. A Hitachi, Ltd. executive officer chairs this body, and members include representatives from sales, procurement, human resources, and other corporate divisions. Information from deliberations is shared with all employees through company and business site committees, led by company and division executives.

We maintain a framework to more swiftly detect and resolve internal and external human rights violations. This framework includes the Compliance Reporting System, a sexual harassment consultation system, and employee awareness surveys. We identify human rights risks globally by regularly assessing management and business risks.

### **Raising Awareness of Human Rights**

Hitachi improves Group-wide human rights awareness based on guidelines deliberated on and decided by the Central Human Rights Promotion Committee. We provide educational materials and information for the entire Group that augment a business unit's group training, seminars, and video education. We also give a human rights e-learning course that all employees take once every three years.

As a global enterprise, we encourage human rights awareness. One example: we work with our CSR team in Europe as, we believe, the most advanced region that is addressing human rights, to develop educational materials and other awareness-raising programs. Our European CSR team collaborated with European Group companies to launch a human rights project, promoting the United Nations framework for business and human rights called "Protect, Respect and Remedy," which was formulated by Professor John Ruggie, Special Representative of the Secretary-General. Based on that framework, we exchange views with the people who helped to shape and write the UN Guiding Principles, and we provide human rights education based on these principles. In fiscal 2011, an e-learning program was made available to about 10,000 employees. We are also helping our suppliers to understand our position on human rights.

### **Contributing to International Discussions**

As a member of the UN Global Compact (UNGC) Human Rights Working Group, we promote human rights principles and support the understanding and the implementation of the UN framework. In Europe, we are in a working group on supply chains and human rights operated by CSR Europe, a business network promoting European CSR.

### VOICES

### Leading the Way on Human Rights



Rachel Davis Managing Director, SHIFT Former Legal Advisor to Professor John Ruggie, UN Special Representative on Business and Human Rights

The new UN Guiding Principles on Business and Human Rights provide companies with a blueprint to "know and show" that they are respecting human rights in their own activities and in their business relationships.

The next steps for Hitachi will be to develop the human rights due diligence and remediation processes needed to implement the policy. The implementation of these kinds of systems and procedures takes a lot of time, particularly for a company of Hitachi's size and diversity, but we have high expectations of Hitachi's activities. Moreover, as both a Japanese-headquartered company and a global company, we want Hitachi to play a leading role in sharing the learning from its own efforts with others who are just beginning to address these issues.

# Supply Chain Management

One priority of the 2012 Mid-Term Management Plan—expanding our global procurement ratio by purchasing more in emerging economies—reinforces our competitiveness. During procurement, we respect the human and basic work rights of everyone in the supply chain, and we collaborate with suppliers to promote CSR.

### **Promoting Globalization**

Using the 2012 Mid-Term Management Plan, we intended to raise the Hitachi Group's global procurement ratio from 36 percent (fiscal 2010) to 50 percent by fiscal 2012. We therefore formulated the Hitachi Group Mid-Term Procurement Strategic Plan. The key aims are to establish global partnerships to create Group procurement strategies, to stabilize the supply of materials, and to reinforce CSR and sustainability within the supply chain. In fiscal 2011, the global procurement ratio reached 38 percent. We appointed procurement officers to oversee local procurement in China, the rest of Asia, Europe, and the Americas. These officers are responsible for expanding the pool of suppliers in the emerging nations, as well as for reinforcing our responsiveness to CSR risk, a growing concern as the global supply chain expands.

### **CSR Awareness and Supplier CSR Surveys**

We distribute, throughout the Group and to our suppliers, the *Hitachi Group Supply Chain CSR Deployment Guidebook*, which conforms to JEITA (Japan Electronics and Information Technology Industries Association) guidelines. To mitigate procurement risks, in fiscal 2011 we used this guidebook for a supplier CSR evaluation survey conducted in China and elsewhere in Asia.

The fiscal 2011 survey covered 101 suppliers. When we collated the results, converting the points on the JEITA checklist to a maximum of 100, four companies (three in China and one in South Korea) achieved the maximum score, while the bottom score of 54 was recorded by one company. The average was 84. These results show how effective CSR initiatives are and how strong CSR awareness is at the companies we surveyed.

Below is the point distribution across the 101 companies. Seventy-two companies, or around 70 percent, scored 80 or more, while four scored between 50 and 59.

In fiscal 2012, we will use these survey results for

# Results of CSR Monitoring Survey of 101 Suppliers in China and the Rest of Asia

No.	Country/Region	No. of companies surveyed	Top score	Bottom score	Average
1	China	68	100	54	87
2	South Korea	10	100	59	78
3	Taiwan	6	98	60	84
4	Thailand	6	99	64	82
5	Malaysia	4	90	79	86
6	Indonesia	2	63	61	62
7	Vietnam	2	76	64	70
8	The Philippines	2	96	55	76
9	Singapore	1	80	80	80
Total		101	100	54	84

(Maximum score = 100)

# Distribution of Points across 101 Suppliers in China and the Rest of Asia



working out which suppliers to audit, using an external organization.

WEB Hitachi Group Supply Chain CSR Deployment Guidebook http://www.hitachi.com/procurement/policy/\_\_icsFiles/afieldfile/2010/08/30/ SC\_CSR\_E\_2.pdf

### **Response to the Conflict Minerals Issue**

The Dodd-Frank Wall Street Reform and Consumer Protection Act became law in the US in 2010. Four conflict minerals—columbite-tantalite, cassiterite, gold, and wolframite—that are produced in the Democratic Republic of Congo ("DRC") and adjoining countries (together the "DRC countries") are financing conflicts where atrocities and other serious infringements of human rights are occurring. The goal of this law is to cut off revenues from armed groups that use violence and violate human rights.

Hitachi is committed to responsible procurement practices and has no intention, directly or indirectly, of abetting the human rights violations in the DRC countries. Accordingly, we are working with Group companies, suppliers, and the industry association JEITA to boost supply chain transparency and to ensure that the minerals we procure do not finance or benefit armed groups committing human rights violations.

# Diversity Management and Human Capital Strategy

Our diversity initiatives build a corporate culture and work environment that motivates people to fulfill their potential, enabling every employee to feel that his or her job is rewarding and worthwhile, and allowing them to work with enthusiasm.

### **Diversity Development Project**

We launched the Diversity and Inclusion Development Project in fiscal 2006 to strengthen our commitment to programs that enable employees to balance work with child or nursing care and to promote women in the workplace.

### **Diversity Development Group Council**

We began the Diversity Development Group Council in fiscal 2009 to foster Group-wide diversity (within Hitachi, Ltd. and 25 major Group companies). The Council works to raise the standards of the entire Group by sharing internal and external expertise and through exchanging views.

# Trend in the Number and Ratio of Female Managers within Hitachi, Ltd.



### Women's Summit Tokyo 2011

We cosponsor Women's Summit Tokyo, a cross-industry networking event helping to advance women in the workplace. People discuss in groups and workshops how to support women's goals, diversity management, and globalization. At the fourth event, in November 2011, 190 people from 42 companies took part.



Women's Summit Tokyo 2011

### Second Work-Life Balance-up! Month

In fiscal 2010, we began holding Work-Life Balance-up! Month (WLB-up! Month) every November to inform employees and encourage them to use work-balance programs.



In the 2nd WLB-up! Month

in fiscal 2011, we included people from Group companies, who now encourage others to review their worklife balance, creating a supportive corporate culture.

# Diversity Training and Workshops for Managers to Improve Awareness

It is vital to improve awareness among managers of the need to respect diversity and encourage the participation of all employees. We started diversity training for managers in fiscal 2011, and 450 managers participated. Comments by the participants included, "It is necessary to change old ways of thinking regarding work," reflecting the beneficial effect of this training.

We conducted a World Café<sup>†1</sup> workshop to create a better understanding of and to highlight the need for diversity and work-life balance. The workshop provided opportunities for all employees, including senior executives and young employees, to discuss diversity and work-life balance. We received many positive comments from participants. One person felt satisfied at being able to contribute to diversity initiatives; another found that the workshop was a good way to share issues and opinions. This event also helps foster a corporate culture of mutual respect and assistance. In fiscal 2011, 550 people participated.

1 World Café: Open dialogues among groups of four or five people about specific topics in an informal, café-like atmosphere.



Diversity workshop

### **External Assessments of Initiatives**

We have received awards for diversity and workplace initiatives, such as 2nd place in the *Nihon Keizai Shimbun* 2011 Ranking of Companies with the Best Working Conditions and 21st place in the

Nikkei Business Publications 2011 Ranking of the Best 100 Companies that Encourage Working Women. Also, Hitachi Data Systems Corporation was selected by *Fortune* Magazine in the US as one of the "100 Best Companies to Work For" in 2012.



The Kurumin Mark

### **European Diversity Project**

Europe's population is aging at an unprecedented rate. Over the coming decades, companies in Europe will face an intensifying struggle over talent.

The European Diversity Project that we started internally in 2009 continues to address diversity issues across all Hitachi Group companies in Europe. With the focus on gender diversity, an e-learning course is available to all employees, and more than 80 percent of selected managers have taken part in face-to-face workshops. We believe that having a diverse, inclusive corporate culture supports us in becoming a truly global company.

### **Employing People with Disabilities**

We are developing workplaces where anyone can make a full contribution. We continually employ those with disabilities and promote Group-wide understanding in Japan.

During fiscal 2011, we stepped up hiring people with disabilities. We held the Hitachi Group job fair for disabled jobseekers twice instead of once. We also held five study meetings during the year on employing people with disabilities. The goals were to deepen understanding and to share information among companies. As of June 2011, the employment ratio of people with disabilities was 2.00 percent at Hitachi, Ltd. and 1.86 percent for the entire Group, reaching the legally mandated ratio of 1.8 percent.

### Global Human Capital Management Strategy

Hitachi, Ltd. created the Global Human Capital Management Strategy to support the Group's worldwide expansion, and established the Global Human Capital Division in July 2011, to drive that strategy. The new division uses a common framework for human capital (resource) management, while optimally matching human capital management programs with the specific requirements of regions, businesses, and market needs—in collaboration with other business divisions. We consider Japan as important a region as the Americas or Europe. We intend to further develop the global human capital management framework, systems, and knowhow, and implement them globally.

To reinforce local management, we built the Global Human Capital Database to cover all Hitachi Group employees, excluding factory workers outside Japan. We will encourage the inclusion of information from this database into Group company human resource management. Also, we are building a global grading system that will apply to all managers in the Hitachi Group, in and outside Japan. This new system will be a common platform for job evaluations throughout the entire Group.

In-house and Group companies are collaborating to optimize human capital management in keeping with regional and business requirements. By the end of fiscal 2011, we completed surveys in the 11 key regions outside Japan (excluding China). And based on the results of the 2011 surveys, we will develop managers who are familiar with each region, helping to grow our business.

We have also provided the Global Fundamental Course for Hitachi Group managers to instill in them an understanding of our core values, such as the Corporate Credo and guidelines for conduct. In fiscal 2011, 139 managers took this course.





### **Public Policy Initiatives**

Partnerships with governments and policymakers worldwide are helping to grow our Social Innovation Business and create a sustainable society. We are improving relationships by informing management of social and policy trends and are responding to expectations as a company supplying social infrastructure.

### **Promotion Structure and External Relations**

Our basic plan is to participate in public policy initiatives not only in Japan but in countries and regions across the world and to help develop a sustainable society. This means building networks with government institutions to monitor policy trends and to offer recommendations for social innovation solutions, such as energy generation and smart cities.

In fiscal 2011, the Government & External Relations Division was set up as an organization directly under our president that will liaise closely with senior management. The division's operations were substantially enhanced, adding personnel in charge of external relations at Hitachi's in-house and Group companies. Regular information exchanges are held with these external relations personnel at the Hitachi Group External Relations members meeting.

### **Hitachi External Relations Promotion Structure**



### **Strengthening Global External Relations**

An important factor in strengthening external relations is exchanging experts among public institutions and private firms. Hitachi currently has many people with valuable expertise on loan to Japanese government and international institutions who contribute to public policymaking. Hitachi also extends invitations to government institutions that are operating on the frontlines of public policymaking.

Within the Japan Business Council in Europe (JBCE), an association formed in 1999 by Japanese companies in Europe, Hitachi participates in policy committees on issues such as the environment, CSR, and trade. In particular, as Chair of the JBCE CSR Committee, we assist policymakers by making recommendations to EU institutions, and by enhancing our profile by, for instance, attending European Commission-led meetings as an invited stakeholder. In fiscal 2011, talks were held with the European Commission and industry associations on disclosing non-financial information. On the same issue, we gave the European Commission and other key figures a letter of recommendation from the perspective of non-European global companies. Our proactive approach received a positive response.

### **Stakeholder Dialogues**

We hold stakeholder dialogues worldwide to identify social issues, understand what is expected of us, and to reflect this in our management and strategy. Especially in the 11 key regions, we are discussing the social and environmental issues faced by local communities and how we might help resolve them through Social Innovation Business. We are building relations with local communities as a good corporate citizen.

In Brazil in November 2011, we discussed social and environmental issues, looking at urban transportation in particular following the Olympics and the World Cup. We received advice on the diversity of cities, working with local governments, and technologies that improve transportation. In February 2012, dialogues were held in Indonesia and Belgium. In Indonesia, discussion focused on environmental issues, with stakeholders suggesting areas other than technology where we might contribute. Smart cities were the topic of discussion in Belgium, where stakeholders suggested how local residents' needs and cities' particular characteristics should be reflected in technology and urban development.



Stakeholder dialogue in Indonesia

### **Management Information Disclosure**

We disclose non-financial information, mainly our activities in fiscal 2011, ended March 31, 2012, in the Hitachi Group Sustainability Report 2012. Operating and financial information for shareholders and other investors is in the Annual Report 2012. Our website provides the latest information on these and other topics.

### **Non-Financial Information Reports**





WEB CSR (Corporate Social Responsibility) http://www.hitachi.com/csr/index. html

WEB Global Community Relations and Activi-



WEB Environmental Activities http://www.hitachi.com/ environment/index.html

Hitachi Group Sustainability Report 2012

#### **Financial Information Reports**





WEB Investor Relations http://www.hitachi.com/IR-e/index.html



Note: We also disclose financial information on Hitachi, Ltd. in the report on the 143rd Business Term and the Annual Securities Report

### **Report Media**

Annual Report 2012

The Hitachi Group Sustainability Report 2012 Digest (A4, 24 pages) is a summary of policies, areas of special social interest, and reports on key management issues from the larger Hitachi Group Sustainability Report 2012 (A4, 141 pages), which is issued as a PDF. Our website also reports on detailed activity, as well as news releases and other up-to-date information. Since fiscal 2011, the Hitachi Group Sustainability Report has combined edited contents of the Hitachi Group CSR Report and the Hitachi Group Environmental Sustainability Report, which we published through fiscal 2010.



# HITACHI Inspire the Next

Inquiries:

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### Hitachi Group Sustainability Report 2012 Digest Request for Cooperation by Questionnaire

What were your impressions when reading the report on the Hitachi Group's CSR and environmental activities, *Hitachi Group Sustainability Report 2012 Digest?* Please answer the questionnaire on the other side of this page. We consider readers' opinions very important and want to ensure that this feedback is reflected in our various CSR activities.

The full version of the Sustainability Report can be viewed and downloaded as a PDF file from the following web page: http://www.hitachi.com/csr/download/ Contact: CSR Promotion Department CSR Division **(b) Hitachi, Ltd.** 1-6-6 Marunouchi, Chiyoda-ku, Tokyo 100-8280 Japan Tel: +81-3-3258-1111 Fax: +81-3-4564-1454

http://www.hitachi.com/csr/

**Inspire the Next** 

### Results of Responses to Web Questionnaire on *Hitachi Group Sustainability Report 2011 Digest* (Conducted by DEF Inc., Total respondents: 570)



Main Feedback and Our Responses

### Encouragement

- Hitachi is aiming to become a sustainable company and the report outlined its projects for that purpose.
- I got the impression that the report focuses on providing information that people require.
- The graphs and use of colors made it easy to understand.

### Suggestions

- I think objective assessments by third parties are necessary.
- I would have liked to see more detail on the change in values after the Great East Japan Earthquake and Hitachi's vision for the future.
- In general there were too many terms in *katakana* phonetic script, making it hard to read.

### Our Responses

- We conducted screening by an independent third party regarding the data and other facts included in the Report.
- The themes of the feature article were energy and the lessons learned from the Great East Japan Earthquake.
- Regarding technical and other specialist terms, we appended footnotes as much as possible.

### Questionnaire on Hitachi Group Sustainability Report 2012 Digest

Please complete the questionnaire and mail or fax it to the address below:

(Please select one only in each of the following)

High

(1) Comprehensibility

(2) Volume

(3) Layout

(4) Articles

CSR Promotion Department, CSR Division, Hitachi, Ltd. 1-6-6 Marunouchi, Chiyoda-ku, Tokyo 100-8280 Japan

Fax: +81-3-4564-1454

Q2. Which articles in the report did you find valuable? (You may select more than one) Hitachi Group Profile TOP COMMITMENT: Message from Management □ VISION: Hitachi's Management Strategy and CSR FEATURE: Relationships Drive a Sustainable Society-Lessons from the Great East Japan Earthquake Caring for the Environment Respect for Human Rights Supply Chain Management Diversity Management and Human Capital Strategy Public Policy Initiatives • If any of the above articles particularly interested you, please explain why Q3. What is your opinion of the Hitachi Group's CSR activities and initiatives? (You may select more than one in each of the following) (1) Areas of Excellence Compliance Environmental protection Product/technology/quality Customer satisfaction Public policy initiatives Social contribution activities Respect for human rights Supply chain management Employment environment Other ( Environmental protection Compliance (2) Areas for Further Improvement Product/technology/quality Customer satisfaction Public policy initiatives Social contribution activities Respect for human rights Supply chain management Employment environment 🗌 Other ( ) • Please write below any other comments you have regarding the Hitachi Group's CSR activities Q4. Which of the following best describes you or your relationship to Hitachi? (Please select one only) Customer Shareholder/investor Supplier Government/public administration employee Research/education institution employee News/media employee Student □ NPO/NGO representative

Q5. How did you find out about this CSR report? (Please select one only) Newspaper 🗌 Magazine 🗌 Website Seminar Exhibition From a Hitachi employee Other (

Q6. Please write below any other comments or requests you have regarding the Hitachi Group Sustainability Report or the Group's CSR activities.

Hitachi Group employee/family member

Other (

### Thank you for your cooperation.

Resident near Hitachi Group facility

We will use your feedback to improve the Hitachi Group Sustainability Report and our CSR activities.

Low Too little

# Too much

Easy to read Excellent

• Please explain the reasons for your selections

Average Appropriate Average Average

Hard to read Inadequate

Q1. What were your impressions of Hitachi Group Sustainability Report 2012 Digest?