Shimizu Corporate Social Responsibility Report
Some bright signs have begun to emerge in the business environment, with a weakening yen and recovering stock prices helping to bolster economic confidence. Within the Industrial Competitiveness Council established to formulate new growth strategies, the Japanese government has begun implementing concrete measures in high-priority areas that include health, energy and the environment; next-generation infrastructure; and agriculture, forestry, and fisheries. In accordance with its CSR management approach, which is founded on the pursuit of a prosperous and sustainable society, Shimizu will contribute all the strengths and qualities of the construction industry to building valuable social infrastructure, thus driving future growth and development.

More than two years have passed since the Great East Japan Earthquake. Nevertheless, much restoration work remains to be done in the affected areas. To allow the residents of these areas to return to their hometowns as quickly as possible, Shimizu is working to dispose of disaster-related waste in Ishinomaki and Minamisanriku and is engaged in various decontamination activities in Hirono, Date, and elsewhere. We are also active in other restoration projects, including the development of residential areas on raised land in Rikuzentakada and land remediation projects in Sendai. Companywide, we are doing all we can to achieve full restoration at the earliest possible date.

**Promoting the long-term Smart Vision 2010**

As part of Smart Vision 2010, our corporate vision formulated in 2010, we are working to strengthen three of our priority growth areas: the building stock management business, global businesses, and the sustainability business. We remain highly focused on these three business areas, in addition to our core construction business.

Regarding the building stock management business, we are starting to show good results and have strengthened our building management business based on an action policy “Extracting full value from existing buildings and structures.”

In our global businesses, in addition to developing overseas production facilities for Japanese firms, we are currently handling several large-scale construction projects ordered by local firms in Singapore and other nations, as well as taking active part in large-scale infrastructure development projects. One example is our tunnel project in Malaysia. We believe this project, discussed in this report as a special feature, represents a good example of how we can contribute to growth in emerging nations.

The ecoBCP initiative combining environmental measures with business continuity planning (BCP) represents the core of our sustainability business. We are currently in the process of implementing concrete measures under this initiative. As a real-world exemplar of the ecoBCP concept, our new head office building completed last year has attracted significant attention from customers and other related parties. Through this past March, roughly 10,000 visitors have come to see and experience this next-generation energy-saving office building. We will deploy the technologies and knowledge launched in this new office building in the construction of various office buildings, educational facilities, and residences. Through ultra eco-friendly construction, we are committed to doing our part in combating global warming and conserving energy.

Based on our long-term vision, we are also making progress on the following themes, each identified as one of the three pillars of CSR management:

- Fairness and transparency in business
- The creation of value that surpasses the expectations of local society
- The pursuit of business activities that coexist with society

**Fairness and Transparency in Business**

Based on corporate ethics of the highest standards, we are participating in projects around the world to help build sustainable societies. We were the first general contractor in Japan to sign and participate in the UN Global Compact, initiated by the United Nations in 2000 as a voluntary endeavor to build societies predicated on sustainable growth. In the four areas of human rights, labor, the environment, and anti-corruption, we are striving to safeguard against problems by strengthening risk management rules and systems, all based on the needs of individual countries and local communities.

In Japan and around the world, the Shimizu Group pursues fair and transparent business activities by promoting free and fair competition; establishing fair-trade relationships with partner companies; acting to eliminate violations of criminal codes and the Antimonopoly Law in construction bidding; and eradicating antisocial behavior. In fiscal 2013, we will consider appointing directors recruited from outside the company to further strengthen the management and supervisory functions of our board of directors with regard to these business activities.

**The Creation of Value That Surpasses Expectations**

With massive earthquakes forecast to strike at any time in the not too distant future, preparedness for earthquakes and their accompanying tsunamis is an urgent issue in Japan. We believe rebuilding the social infrastructure to ensure safety and security is the construction industry’s primary responsibility. Drawing on the latest disaster prevention and mitigation technologies (many of which were developed at the Shimizu Institute of Technology), we protect the lives and property of our customers, helping to build a society in which people can live with a sense of security. We create value that surpasses expectations by ensuring high quality at all stages, ranging from business development through design, construction, and operations, thereby meeting the true needs of our customers.

Global warming is yet another issue we must confront. We continue to promote our Ecological Mission, a companywide target for reducing carbon dioxide emissions, through state-of-the-art energy conservation facilities in various types of buildings, including our new head office building. As part of our energy business this year, we will also be active in renewable energy projects, including participation in solar power and experimental offshore floating wind farm projects advanced by the Japanese government.

**Coexistence with Society**

We have been making close ties to local communities through our construction activities. Positioning community outreach as a top company priority, we have contributed to local communities and to society by hosting site tours, participating in community events, and engaging in other activities. Our head office, branch offices, sales offices, and numerous construction sites all play vital roles in these activities.

We are also improving our working environment by creating attractive workplaces that help motivate diverse groups of employees and workers, encourage their initiatives, strengthen workplace communication, and promote mutual growth. To strengthen workplace safety, we continue to identify and implement effective accident-prevention measures and companywide safety initiatives.

Through all these efforts, we hope to ensure that every employee can fulfill his or her role as a member of society and that we remain true to our corporate slogan: “Today’s Work, Tomorrow’s Heritage.” Through these efforts, we are addressing a number of fundamental issues confronting Japan, including a declining population, aging demographics, energy security, and the need to establish a low-carbon, recycling-oriented society. Despite the declining numbers of employees entering the construction industry, we want to contribute to strengthening and revitalizing the construction industry by actively communicating to prospective employees the appeal of satisfaction inherent to construction activity.

This report covers the results of Shimizu’s CSR-related activities in fiscal 2012 and activity policies for 2013. The special feature in this year’s report is based on the theme of “Opening and Enlarging,” a phrase that expresses the value our projects and services can provide to society during these times of change.

Thank you for taking the time to read this report. As always, we welcome your feedback and candid comments.

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1. BCP (business continuity plan): Activities to be undertaken in ordinary times to minimize damage to business assets and allow the continuation or prompt recovery of core business activities in the event of an emergency, including natural disasters
2. ecoBCP: Eco measure in ordinary times that also account for the need for business continuity in times of emergency
3. Ecological Mission: see page 34

ecoBCP is a registered trademark of Shimizu Corporation in Japan.

Shuichi Miyamoto
President, Shimizu Corporation

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Editorial Policy
This report describes the CSR initiatives undertaken by Shimizu Corporation. We hope it will serve as a useful tool for disclosing information to stakeholders.
The following report is divided into two parts, a Special Feature section addressing the “Opening and Enlarging” theme and an Activities section on CSR Efforts and Assessment. The Activities section identifies activities Shimizu must undertake to address social issues, based on the seven core topics specified in ISO 26000 (Guidance on Social Responsibility). This includes our summary list of “CSR Efforts and Assessments” (see page 16) that provides an overview of Shimizu’s CSR performance in fiscal 2012 and policies for fiscal 2013. Sections on individual initiatives provide more detailed information. (Note that the above-mentioned list reflects Shimizu’s signing of and participation in the UN Global Compact from March 2013.)
The contents of this report, as well as detailed information and performance data that could not be included in the report due to space constraints, are available at the Shimizu website:

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Information on our company is published in various reports and on our website
(http://www.shimz.co.jp/)

Shimizu CSR Report 2013

Our mission

Toward an Abundant and Sustainable Society

Fairness and Transparency in Business

The Pursuit of Business Activities that Coexist with Society

Basic Scope of This Report
Outlined below is the basic scope of the contents of this Report.
- Organizations covered: Head office and both overseas and domestic branch offices of Shimizu Corporation and member companies of the Shimizu Group
  (Note that the performance figures and key performance indicators (KPIs) given in Activities only cover the activities of the head office and domestic branch offices of Shimizu Corporation.)
- Period covered: Chie/f_ly /f_iscal 2012 (April 2012 through March 2013),although some activities before and after this period are included.
- Publication of next edition: June 2014

Key performance indicators (KPIs)
This report introduces new key performance indicators (KPIs), a decision based on close examination of CSR activities from two perspectives: indicators of increased value for a diverse range of stakeholders and major indicators of progress in Shimizu’s growth. See page 16 for more information on these new KPIs.

*Quantitative indicators that allow effective assessment of efforts to address important management issues, progress on related business activities, and other matters.

Economic activities: Our business strategies and financial condition

Corporate Governance

Fair Business Practices

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Shimizu’s Relationship to Its Stakeholders

Shimizu advances CSR initiatives through its business activities to bolster the value delivered to a diverse range of stakeholders.

Basic CSR concepts

Shimizu’s management principles are based on the precepts set forth in Rongo to Soroban (“The Analects and the Abacus”) by Eiichi Shibusawa, who proposed a balance between society and business against a backdrop of changing social conditions surrounding the company and the construction industry. We have derived our management philosophy from the ideas of Confucius (552 – 479 B.C.) and have advanced the concept of CSR through our management philosophy.

Shimizu’s management philosophy is symbolized by the abacus and the ethical humanism of the Analects of Confucius. Moving forward in this spirit, amid the swift changes in social circumstances surrounding the company and the construction industry, we remain dedicated to a brand of CSR that values people and addresses problems through the needs of society.

Participation in the United Nations Global Compact

In March 2013, Shimizu became a signatory to and participant in the UN Global Compact.

The ten principles of the UN Global Compact

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and

Principle 2: Make sure that they are not complicit in human rights abuses.

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; and

Principle 4: The elimination of all forms of forced and compulsory labor; and

Principle 5: The elimination of child labor; and

Principle 6: The elimination of discrimination in respect of employment and occupation.

Principle 7: Businesses should support a precautionary approach to environmental challenges; and

Principle 8: Undertake initiatives to promote greater environmental responsibility; and

Principle 9: Encourage the development and diffusion of environmentally friendly technologies.

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

See the United Nations website for more information on the UN Global Compact: http://www.unglobalcompact.org/
Based on the “Opening and Enlarging” theme, this Special Feature introduces three projects:

01. Pahang-Selangor Raw Water Transfer Project
Due to their many difficulties and complexities, global activities broaden our technological base and open doors to international reliance.

02. Chubu University’s Smart Eco-Campus
Promoting the cause of our irreplaceable Earth by making people aware of how they can impact issues through their own efforts

03. Tachikawa Kodomo Mirai Center
Repurposing an environment filled with memories while broadening opportunities for community interaction

A tunnel projected to be Southeast Asia’s longest is currently under construction in Malaysia. Extending 44.6 kilometers, this water tunnel will supply 1.89 million cubic meters of water daily from the nearby state of Pahang to Malaysia’s capital area, centered on Kuala Lumpur, as well as to the state of Selangor, thereby ensuring a daily supply of water for residential and industrial use.

The Greater KL project is underway in Malaysia as a driver of economic growth and as a national project intended to transform the capital area into a major international city. The area’s current population of 6 million is expected to grow to 10 million by roughly 2020. Progress is already underway in developing the necessary urban infrastructure, including the Mass Rapid Transit (MRT) transportation system. Malaysia hopes to make Kuala Lumpur an international financial hub by 2020.

Our efforts to achieve these goals are based on a bold ingenuity and advanced technological capabilities. With the cooperation of personnel from Malaysia as well as neighboring countries, our efforts here are characterized by a sense of mission. We see ourselves as a partner capable of contributing to the growth of Asian countries through a transfer of expertise on safety and environmental protection, in addition to high levels of civil engineering technologies.

Scheduled for completion in May 2014, this water tunnel will deliver an abundant supply of water to the people of this growing city and help open the way to the future.

01. Pahang-Selangor Raw Water Transfer Project
Opening the way for a growing city
Kuala Lumpur (KLCC Park): Developing an international city with rich water and green environment

Maximum earth covering: 1,246m
Total length: 44.6km

- Project overview
  1. Construction site: The Malaysian states of Pahang and Selangor
  3. Construction period: June 1, 2009 – May 30, 2014 (1,825 days)
  4. Scale of construction: Total tunnel length 44.6km; diameter 5.2m; 1.11 million cubic meters of excavation; 250,000 cubic meters of concrete used; 15.8km of construction roads
  5. Tunneling methods: Tunnel Boring Machine (TBM) method used in three sectors; new Austrian tunneling method (NATM) used in four sectors; open-cut method used in one sector

- Project features
  1. At 44.6 kilometers, the tunnel will be the 11th longest in the world and the longest in Southeast Asia.
  2. With a maximum earth covering of 1,246 meters, the tunnel will be the world’s eighth deepest. (The deeper the tunnel, the more difficult the construction, due to increased ground and water pressure.)
  3. Rapid tunnel construction: The goal is to complete the project ultra-rapidly, with a target of 1,000 meters excavation per month (TBM target).
  4. Tunnel construction: Construction will proceed concurrently in seven sectors to ensure rapid completion. This will involve the simultaneous use of two construction methods in multiple sections: three sectors using the TBM method and four using the NATM method. (Tunnel construction typically proceeds from one or both ends of the proposed tunnel.)
  5. Our site organization: 128 staff members (20 from Japan and others from six countries) and approximately 1,000 workers from 12 countries.
Working together with multinational partners in Asia

Drawn from Malaysia and other chiefly Asian countries, including Indonesia, Bangladesh, and India, more than 1,000 overseas individuals are involved in the Pahang-Selangor Raw Water Transfer Project. By working with numerous engineers from countries around the region, Shimizu hopes to contribute to sustained growth in the Asia region by transferring not just Japan’s advanced civil engineering technologies, but its management skills in areas such as safety and the environment.

Technology transfers for complex and difficult construction tasks

In addition to a difficult construction environment characterized by high temperature and high humidity (with temperatures of 30°C and humidity of 90% or more), the excavation of this 44.6 kilometer tunnel is expected to pose various construction-related risks, including, but not limited to, sudden encounters with powerful springs of water and the need to deal with unstable ground and stratum terrain. Additionally, the demand for water supply is so urgent that it requires strict compliance with the timetable. In these and other ways, the project poses countless challenges.

In response to these difficulties, project staff from countries around Asia must play a central role in implementing the world’s most advanced civil engineering technologies and construction management technologies. For this reason, and to establish the groundwork for future partnerships, Shimizu made the decision to train tunnel engineers who can contribute to Malaysia’s future. A key aspect of this project is the promotion of energetic technology transfers that improve civil engineering technologies and lead to further development in Asia. Shimizu aims to fulfill its responsibility to international society through these efforts.

Engineers who have worked in Malaysia for more than 20 years and previously took part in the construction of the Musi underground power plant in Indonesia are playing key roles in this complex project.

International deployment of safety training from Japan

In addition to technology transfers, our safety management systems used by Shimizu in Japan are introduced to our local staffs in Malaysia to ensure construction safety. In English and in Bahasa Malaysia, daily morning meetings and weekly safety patrols address site safety in great detail, emphasizing safety-management to all local staffs. Other efforts seek to strengthen teamwork and facilitate smooth and effective communication among the members of the multinational team, all based on 10 management policies: greeting each other; being on time; keeping clean; strictly following rules; keeping target in mind; working cooperatively; striving to achieve improvements; being honest; being cheerful; and taking a proactive approach. Thanks to these activities, the project was recognized in 2011 by the Malaysian government for excellence in occupational safety and health.

■ Environmental protection

To ensure thorough environmental protection at the site, this project draws on the same environmental management system used in Japan. To reduce carbon dioxide emissions, state-of-the-art electric-powered excavation equipment is used. The earth excavated from the tunnel is recycled for future use as material for concrete and road construction, just one of the site efforts made to minimize project waste. To minimize the impact of construction on the surrounding environment, teams made up chiefly of young Malaysian engineers engage in various activities, including sampling of water quality and noise as required. Through these activities, this project also helps transfer environmental protection technologies to the Malaysian staff while promoting awareness of the importance of environmental protection.

The Malaysian staff is constantly reminded of the importance of certain routine practices, including daily efforts to remove clutter from construction sites.

Delivering the Project on time with a sense of urgency

The Pahang-Selangor Raw Water Transfer Project is one of the most prestigious projects undertaken by the Ministry, especially its unique 44.6 km of tunnel under the Main Range of Peninsular Malaysia, which is the longest tunnel in Southeast Asia. This project will not only ensure adequate water supply for Putrajaya, Kuala Lumpur and Selangor, rather it would also be a classic example of inter-state cooperation in Malaysia. It has been a challenging project and I must congratulate the project implementers for the excellent dedication in ensuring that the project is on schedule.

We are also fortunate to have undertaken the project, especially the tunnel construction, because it has been an invaluable capacity building opportunity for our local professionals and builders, specifically in modern design and construction technologies.

Apart from that, the project has indeed elevated Malaysia-Japan bilateral relations and cooperation to greater heights.

Malaysia is growing

My name is Suriya and I am working for the Pahang-Selangor Raw Water Transfer Project, Malaysia at present. I joined Shimizu in 2000 and had worked in several big Shimizu’s projects in Malaysia. In the beginning of project I could not imagine how we can construct this long tunnel but our staffs comes from Japan, Indonesia and so on working very hard and now almost 80% completed. After the completion this will brings plenty of water to Kuala Lumpur and Selangor States, this is the essential infrastructure for people in this area and Malaysia.

I live in Puchong, Selangor with my family and very proud that I am involved in this project with other staffs and colleagues.

Together with our partners (Construction director Takashi Kawada)

For more than 30 years, our predecessors at Shimizu have worked on infrastructure projects in Malaysia, including bridges, dams, sewage treatment facilities, and roads. Today, we are utilizing this human resources and ties to partner companies inherited from our predecessors as we work to build the longest tunnel in Southeast Asia, deploying world-leading technologies with an emphasis on safety and environmental protection.

Happily, with the support and cooperation of our customers, including Secretary General Loo and the project engineers, we have moved forward toward completion of this project, which consists of seven sectors with a total length of 44.6 kilometers. This is slightly ahead of our initial schedule. Only 4.5 kilometers comprising two TBMs-excavated sectors remain.

The project is moving forward despite a wide range of conditions that make construction arduous and difficult, including sudden springs of water that gush out at more than 20 tons/minute and bedrock temperatures above 50°C. Together with the friendly staff and workers and their palpable sense of teamwork, we are dedicated to providing a reliable supply of water to the people of Malaysia at the earliest possible date.
A three-year project to establish and operate a smart grid on the facilities of Chubu University’s Kasugai Campus got its start in July 2012. Campus power demand, which was steadily increasing due to the establishment of new colleges and departments, exceeded the power contract between the university and the power company in the summer of 2010. Reducing power demand on campus and leveling peak power consumption highlighted as urgent issues.

In step toward addressing these issues, the university implemented biologically measures at the facilities in the College of Life and Health Sciences. The measures included an energy-forecasting system based on weather forecasts and past data.

This information needs to be communicated not just to students, but to faculty, staff, and visitors.

We surveyed students in the College of Life and Health Sciences, whether this system is effective and how they might become more effective. Some of their candid comments are introduced as follows:

- "Now I pay attention to how much electricity I use. But the system is in place at just one college. Expanding the system to cover the entire university would broaden awareness of what we can do to save power."
- "I’ve started being more careful to conserve power even when I’m off campus."
- "This information needs to be communicated not just to students, but to faculty, staff, and visitors."
- "I think our sister campus, the University of Ohio, should give this a try."

### Saving power through “visual communication”

We surveyed students in the College of Life and Health Sciences, whether this system is effective and how they might become more effective. Some of their candid comments are introduced as follows:

- "Now I pay attention to how much electricity I use. But the system is in place at just one college. Expanding the system to cover the entire university would broaden awareness of what we can do to save power."
- "I’ve started being more careful to conserve power even when I’m off campus."
- "This information needs to be communicated not just to students, but to faculty, staff, and visitors."
- "I think our sister campus, the University of Ohio, should give this a try."

### Energy conservation measures and technologies

- **Saving power and cutting peak power consumption based on a smart grid system**
  - The system will achieve power savings and cut peak power consumption by controlling demand for electricity used for lighting and air conditioning. The system makes use of an energy-forecasting system based on weather forecasts and past data. It will also enable optimal control of the power supplied through the use of solar power, storage battery, cogeneration, and other technologies.

- **Support for volunteer efforts to reduce power consumption**
  - If power use must be reduced further at certain times, our power-saving navigation system automatically will send emails to faculty, staff, and students, for asking them to turn off laboratory equipment and other devices. By displaying the configuration of solar power generation and power consumption by the college on university smart grid monitors and the university intranet, all students, faculty, and staff are reminded of the need to save energy, thus promoting behavior that reduces power consumption.

- **Energy conservation**
  - To reduce peak power consumption, we calculated the amount of power that can be saved if all equipment is turned off. We deployed a system that can provide information on peak power consumption.

### Energy conservation results

**Results of step 1**
- **Reducing peak power consumption**
  - Target: −25% → −24.3%

  Of the 160kW reduction, 25% came from the energy conservation activities of students, faculty, and staff by means of the power-saving navigation system and volunteer efforts to reduce power consumption, thus demonstrating the effectiveness of visualization.

- **Energy conservation through power savings**
  - Target: −10% → −15.7%

  Our Smart BEMS achieved initial target through its optimal control of electricity demand and supply.

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**Towards environment friendly eco-campus**

With growing the number of new colleges and departments through the past decade, Chubu University came to the necessity for improving the balance of supply and demand of power. We requested Shimizu Corporation to provide a solution. Although we were happy with the results of our power-saving efforts last year, we will have a difficulty with the rising unit cost of electricity. Therefore we are planning to expand the visualization of energy consumption campuseside, with students, faculty and staff working as one to see just how much energy we can save.
The city of Tachikawa planned to develop a new facility for public services to support various community efforts, including child-rearing and artistic and cultural activities. At the same time, it hoped to revitalize the city’s central district. Applying the public-private partnership (PPP) method to draw on ideas and management expertise from the private sector, the city requested comprehensive proposals from the private sector, including everything from planning and construction through operations and maintenance. As a member of a partnership formed with eight other companies, Shimizu assumed responsibility for facility design and construction. One distinguishing feature of this facility is its Manga Park, which takes advantage of Tachikawa’s relationship to the manga industry. Other key features include physically appealing spaces that promote and inspire wide-ranging activities for local residents spontaneously. It also employs our proposal of new management systems specifically for this facility.

In addition, we organized workshops with more than 40 citizens’ groups from the planning stages on. Through the workshops, the center was gradually formed by sharing goals and exchanging thoughts and ideas directly with related parties, both in verbal form and as sketches, and also through interactions among the residents and frank exchanges of opinions between residents, businesses, and city government personnel. In this way, the project pioneers a new approach of corporate communication activities in the development of a public facility: a process approach of corporate communication activities in the development of a public facility: a process approach of corporate communication activities in the development of a public facility: a process approach of corporate communication activities in the development of a public facility: a process approach of corporate communication activities in the development of a public facility.

Another theme of this project has been the repurposing of the former city hall. While this was intended mainly to keep down the costs of developing the facility, it also proved significant in other ways, including reducing the amount of industrial waste from demolition, putting existing resources to their best use, and giving new role to a space deeply familiar to city residents with their memories. The renovated building has two stories and approximately 4,000 square meters of floor area. Rebuilding the entire structure would have generated industrial waste from demolition and required the use of large volumes of new building materials. Reuse of the existing facility, on the other hand, has reduced carbon dioxide emissions and can be seen much more environmentally friendly. To create an open space suited to be a base for community activities as well as to take the environment into consideration, we built a large, two-story terrace between the building and the adjoining square. This was intended to serve as an intermediate that unites activities inside the building with the spacious square in front. Serving as an extension of the building’s rooms, the terrace functions as a facility for staging events, thus creating relationships where people inside can see out into the square and vice versa. A stage or a movie screen can also be set up on the terrace, as well as seating for those looking out onto the square. Additionally, this project succeeded in creating an attractive space by fusing “the best of the old” with “a bright, open feeling”, adding a new entrance hall and overhead lighting and renovating furniture and signs while retaining the appearance of the existing interior, including its rounded walls and floor tiles. These efforts resulted in a project that not only fulfills the construction industry’s societal mission like protecting the environment, cutting the costs of public projects and utilizing social capital for effective use, but also opens new possibilities for the creation of attractive urban spaces through the joint efforts of community members, local government, and private companies.

The adjoining Community Center will also reopen following renovation in January 2014, which is expected to stimulate an even broader range of community activities.
CSR Efforts and Assessments

Shimizu has established six key performance indicators (KPIs) based on a close examination of its CSR activities from two perspectives: “its contribution to increase our company value for a diverse range of stakeholders” and “its impact on Shimizu’s growth”.

A self-evaluation of each effort based on targets and performance (including KPIs) showed that 12 of our 13 CSR efforts in fiscal 2012 either surpassed targets or were largely in line with plans.

In the one area that fell short of goals—Health and Safety Efforts—we plan to enhance CSR management by prioritizing efforts based on their urgency with respect to social needs and expectations. We will also advance disaster-mitigation efforts by thoroughly reviewing and improving existing conditions. To date, we have identified the elimination of falling accidents as a priority measure for fiscal 2013.

The opening pages of each section (pages 18, 24, and 38) present the KPIs and other quantifiable assessment indicators.

### Fairness and Transparency in Business

#### The Creation of Value Surpassing the Expectations of Customers and Society

<table>
<thead>
<tr>
<th>KPI</th>
<th>FY2012 performance</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of peer-reviewed papers submitted</td>
<td>109 (88)</td>
<td>-</td>
</tr>
<tr>
<td>Percentage of construction products ultimately disposed as waste</td>
<td>-32% (4.5%)</td>
<td>-</td>
</tr>
<tr>
<td>Base unit of total construction products generated</td>
<td>16.2kg/m² (16.0kg/m² or less)</td>
<td>-</td>
</tr>
</tbody>
</table>

#### The Pursuit of Business Activities That Coexist with Society

<table>
<thead>
<tr>
<th>KPI</th>
<th>FY2012 performance</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of women in management positions</td>
<td>17 (7 by FY 2016, a three-fold improvement from the end of FY2010)</td>
<td>-</td>
</tr>
<tr>
<td>Accident frequency rate</td>
<td>0.84 (0.66)</td>
<td>-</td>
</tr>
</tbody>
</table>

### CSR Efforts and Assessments

<table>
<thead>
<tr>
<th>Theme</th>
<th>Effort</th>
<th>Main activities, targets, and performance in fiscal 2012</th>
<th>Self-assessment</th>
<th>Targets and efforts in fiscal 2013</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>- Managing our corporate governance structure and internal controls for financial reporting by assigning suitable functions</td>
<td>- Maintaining levels achieved in fiscal 2012 and enhancing related activities</td>
<td>-</td>
<td>-</td>
<td>P19</td>
</tr>
<tr>
<td>Improvements in the Business Environment</td>
<td>- Addressing new security risks (targeted attacks)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>P20</td>
</tr>
<tr>
<td>Compliance and Corporate Ethics</td>
<td>- Ensuring awareness of information security rules among overseas staff; strengthening the security of computer peripherals</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>P21</td>
</tr>
<tr>
<td>Safety and Reliability</td>
<td>- Continuing to improve and publish our safety manual in more than 90 sections</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>P22</td>
</tr>
<tr>
<td>Delivering Optimal Quality</td>
<td>- Implementing CSR management by prioritizing efforts based on their urgency with respect to social needs and expectations</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>P23</td>
</tr>
<tr>
<td>Environmental Contributions Renewable Energy</td>
<td>- Conducting group training on the subject of procurement in light of biodiversity concerns</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>P24</td>
</tr>
<tr>
<td>Biodiversity Initiatives</td>
<td>- Promoting measures to prevent water pollution and ensure appropriate management of waste and harmful substances</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>P25</td>
</tr>
<tr>
<td>Preventing Global Warming</td>
<td>- Developing and deploying a company-wide version of the Construction Byproducts Recycling Measurement System (C-BRAMS)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>P26</td>
</tr>
<tr>
<td>Reducing and Recycling Construction Byproducts</td>
<td>- Continuing to study 100% use of manufactory</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>P27</td>
</tr>
<tr>
<td>Toward the Realization of a Company that Values People</td>
<td>- Implementing initiatives on the subject of procurement in light of biodiversity concerns</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>P28</td>
</tr>
<tr>
<td>Health and Safety Efforts</td>
<td>- Promoting measures to prevent water pollution and ensure appropriate management of waste and harmful substances</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>P29</td>
</tr>
<tr>
<td>Interacting with Society/Engaging in Social Contribution Activities</td>
<td>- Organizing or participating activities suited to the characteristics of each local community at branches, offices, project sites, Group companies, etc.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>P30</td>
</tr>
</tbody>
</table>

* The section in charge of each effort performed self-assessments.
* Environmental efforts are promoted through the establishment of Midterm Performance Targets every three years and the formulation of an environmental activity plan each year.
Fairness and Transparency in Business

Shimizu aims to achieve sound growth and development based on high standards of responsiveness, efficiency, lawfulness, and transparency in its management decision-making and business execution. Its fundamental policy in corporate governance is the practice of compliance-based management, grounded in strong corporate ethics among all officers and employees.

Corporate Governance Systems and Internal Controls Based on Propriety and Sound Judgment at All Times

Proper deployment of corporate governance systems

To achieve rapid, efficient management, Shimizu has reduced the number of its directors (currently seven out of a total of 12 seats) and now uses an executive officer system as part of its efforts to create a clear functional demarcation between strategic management and business execution. Shimizu has established a system whereby its Board of Directors and corporate auditors monitor and audit the performance of individual duties. Shimizu’s five corporate auditors include three external auditors, all independent reviewers as defined under the rules of the Tokyo Stock Exchange. They audit the directors’ overall compliance from a fair, impartial perspective.

The Audit Department undertakes comprehensive internal audits of the business execution sections, reporting to the company’s representative directors, corporate auditors, and accounting auditor on the results of audits based on audit plans approved by the Board of Directors.

In the area of internal controls, a Basic Policy on Developing an Internal Control System has been established to develop a system that ensures the propriety of business operations. This policy is reviewed by the Board of Directors as appropriate.

Corporate Governance System
Improvements in the Business Environment

In addition to enhancing risk management systems and activities to improve our ability to respond to various risks, we have identified key risk management items that need to be addressed on an organization-wide basis.

In fiscal 2012, special attention was given to addressing information security risks.

Risk management organization

- **Promoting risk management through the PDCA cycle**
- **Monitoring the status of risk management.**
- **Deliberates and makes decisions on risk management.**

- **Specific measures taken**
  - In fiscal 2012, the International Division established the Contract Risk Management Department and strengthened contract risk management overseas in response to globalization within the construction business.
  - The International Emergency Response Guidelines were established in March 2013 to specify responses to circumstances that could threaten the lives and physical safety of officers and employees overseas, including disasters, civil unrest, terrorism, and abduction.

- **Risk Management Organization (according to Risk Management Rules)**

Each fiscal year, the Risk Management Committee (chaired by the President) makes decisions on key risk management items for the entire company, taking steps to ensure that these decisions are incorporated into the plans of each section. Alongside these efforts, the Committee also undertakes risk management based on the Plan-Do-Check-Act (PDCA) cycle. Through this cycle, the status of risk management is monitored by function at all central and operating divisions as well as at Group member companies; corrections and improvements are proposed as appropriate; and new risks are addressed.

**Risk Management Committee**

- Meets regularly: Deliberates on and makes decisions on key risk management items.
- Monitors the status of risk management.

- **Risk Information**
  - Meets regularly: Deliberates and makes decisions on countermesures and recurrence-prevention measures when individual risks arise.

- **Risk Control Guide (established in fiscal 2002) to create a new system.**

- **In fiscal 2008, Shimizu thoroughly revised its Electronic Information Security Control Guide (established in fiscal 2002) to create a new set of Information Security Guidelines.**

- **A Privacy Policy is also established for the handling of all types of information, including information in paper form.**

- **Strengthening security overseas**
  - Ensuring thorough awareness of information security through continued information security training (in which 100% of employees took part) and auditing.
  - Addressing new security risks (targeted attacks)
  - Enhancing measures to prevent leaks at affiliate companies
  - Continuing support for improvements in the IT infrastructure designed to strengthen security
  - Supporting specialist contractors in efforts to improve security

- **Protecting personal information**

- **Appropriate management of personal information under the Privacy Policy**
  - As part of their business activities, companies in the construction industry manage a wide range of personal information, including information on clients, business partners, and employees.
  - In 2005, recognizing the importance of protecting personal information in a society increasingly characterized by advanced information technologies, Shimizu established a Privacy Policy whereby it manages all such personal information based on appropriate security management measures.
  - It has also established a contact point for personal information on its website to address inquiries related to its handling of personal information.

- **Business Continuity Plan (BCP)**

- **Responding to emergencies by establishing bases to aid in disaster recovery**
  - To fulfill its social responsibilities as a construction company when a disaster strikes, Shimizu established bases for disaster-response activities at its sales offices, company housing, dormitories, and other facilities. The measures taken bolstered information and telecommunications equipment and capabilities as well as emergency water, food, and first-aid supplies, allowing these facilities to function as disaster-recovery bases.
  - In preparation for large-scale disasters, Shimizu continually strives to improve its disaster-response systems through twice-yearly periodic drills and other measures. In fiscal 2012, drills involving some 120 companies, including Group companies, business partners, and suppliers, were conducted to reconfirm safety and initial response procedures. (The participation rate for BCP drills was 99.6%.)
  - As part of its disaster-relief efforts and as a member of the local community, Shimizu has reserved part of its head office building as an evacuation space for those unable to return home in the event of a disaster.
Compliance and Corporate Ethics

Since its founding, Shimizu’s fundamental principles have been based on the precepts set forth in Rongo to Soroban ("The Analects and the Abacus") by Ichirō Shibusawa, who proposed a balance between the ethical humanism of the Analects of Confucius (552 - 479 B.C.) and the economic activity symbolized by the abacus. According to this concept, a company can contribute to society by way of corporate returns through ethical business activities. Shimizu is working to ensure thorough compliance with these principles and our corporate ethics so that all employees and officers appreciate these principles and act in accordance with them in their daily activities.

Thorough Implementation of Compliance

Strengthening Compliance Groupwide

Code of Corporate Ethics and Conduct and internal systems
Shimizu has established a Code of Corporate Ethics and Conduct to ensure thorough understanding of corporate ethics companywide. As an internal system to achieve this goal, the Committee on Corporate Ethics, chaired by the Vice President, undertakes various activities, including the implementation and monitoring of efforts to achieve a thorough understanding of corporate ethics and compliance issues. In fiscal 2012, Shimizu established a new system for compliance with security export control regulations.

Compliance training
Shimizu provides compliance training for all employees, including those of Group member companies. In fiscal 2012, some 2,600 individuals from 22 Group member companies underwent this training. The e-learning course for all Shimizu employees (approximately 10,400 individuals) once again had a 100% attendance rate.

The International Division systematically carries out compliance training for staff assigned overseas and staff hired overseas, reflecting the actual conditions of each country while following the main points of domestic rules.

Compliance with environmental laws and regulations

Thoroughly ensuring appropriate management of construction byproducts by construction employees

Examples of problems and preventive measures
In fiscal 2012, Shimizu incurred zero administrative penalties involving violations of environmental laws or regulations. Nevertheless, five incidents addressed by environmental laws or regulations did arise during the fiscal year, mainly involving matters such as the runoff of alkaline mudwater generated by construction during sudden heavy downpours and specific deficiencies in the handling of building materials containing asbestos (levels 2 and 3) during demolition and repair work. We have implemented measures to prevent the recurrence of such issues, including training sessions and the internal distribution of relevant information.

Efforts to ensure compliance with environmental laws and regulations
Once again in 2012, June was designated water pollution prevention month. During this month, all sites tackled activities intended to prevent problems related to water pollution, including hanging warning posters and holding training sessions. To ensure a thorough understanding of the appropriate management of construction byproducts, employees involved in construction received training in the basics of construction byproducts. Over the two-year period beginning in fiscal 2011, some 5,000 employees involved in construction work (representing about 99% of all such employees) underwent this training. A residential management training course was also held for mid-level employees involved in construction byproducts. Over the fiscal period, some 500 individuals took part in the training, representing about 99% of all such employees.

A site tour for securities analysts (in Malaysia)

Creating, protecting, and using intellectual property rights and respecting the intellectual property rights of other firms

Launching basic training in intellectual property rights for new employees

Use and risk management
In addition to strategic patent applications and acquisition in priority areas, we continued the efforts begun in fiscal 2011 to increase the contributions and value of intellectual property (IP) rights to our business by promoting the effective use of patented assets. Risks related to intellectual property have grown in recent years. In response, we have sought to achieve thorough risk management based on a report sent by owners among other companies as well as the need to protect our own. In fiscal 2012, we began offering training in intellectual property issues for new employees. We also promote training on e-learning for newly appointed managers, mainly covering the use of intellectual property and related risks. Finally, we are pursing measures that target Group member companies, including activities related to licensing, the application of development results, and the provision of guidance on IP risks.

Fair and Transparent Transactions/ Disclosure of Corporate Information

Our goal is to further increase the transparency of our transactions and engagement in business in full accordance with all laws and regulations when serving as full partners with specialist contractors.

In disclosing corporate information, we strive to do so in a timely and accurate manner, with the goal of achieving fair disclosure.

Promoting CSR procurement

Activities to further strengthen partnerships

Further promoting CSR procurement
In the area of procurement, we work to build fair partnerships with our business partners. In fiscal 2012, we once again distributed our CSR-related documents (Basic Procurement Policy and Requests to Business Partners) to 1,489 new business partners. All 1,489 new business partners agreed to abide by the provisions set forth in these documents, further advancing our CSR procurement efforts.

Support for CSR procurement at specialist contractors
As a general contractor, we provide support for CSR procurement in order to maintain strong partnerships with specialist contractors. In particular, we use checklists that cover a range of topics such as legal compliance, environmental information, and corporate ethics. We visited 62 specialist contractors and provided them with relevant feedback.

In these ways, we continue to strengthen our partnerships while monitoring the status of CSR procurement efforts at each company.
The Creation of Value Surpassing the Expectations of Customers and Society

Society is currently undergoing intense and rapid change. Buildings and structures must adapt to changes in client businesses while responding to constantly shifting and diversifying client demand, including environmental considerations and preparedness for earthquakes and other natural disasters. Shimizu will strive to maximize customer satisfaction and contribute to society by providing value that anticipates and surpasses client expectations while also meeting our social responsibilities.

Safety and reliability

Based on lessons learned from the Great East Japan Earthquake, we’re working to develop technologies needed to build safe and reliable cities and buildings. Based on comprehensive disaster diagnostics, including prior site assessments and field studies of various facilities, we propose disaster prevention and mitigation measures that strengthen earthquake resistance and provide effective safeguards against ground liquefaction and tsunamis. We’re also working in disaster-affected areas to dispose of disaster-related waste and clean up radioactive materials resulting from the nuclear accident that followed the earthquake.

Delivering optimal quality

Shimizu has designated November 1st as “Mono- zukuri Day” and all of November as “Quality Month.” In fiscal 2012, under the slogan, “Doing our jobs with a sense of pride, devoting our passion to quality, and communicating our enthusiasm,” we pressed forward with companywide quality efforts, including the presentation of case studies that illustrate quality improvements. We hope to deliver technologies and services that satisfy customers by giving concrete shape to the values they expect with regard to planning, sales, design, construction, and repair work.

Contributing to the environment

We have identified “socio-dynamism” as a key aspect of the company’s Management Philosophy and accordingly positioned the environment awareness as the core of all its business activities in our long-term vision, Smart Vision 2010. We also strive to realize value that exceeds both social and customer expectations, based on the pursuit of sustainability in the building structures we deliver.

The Green Mound tsunami-resistant urban development system deploys multiple mounds to mitigate tsunami damage

The Green Mound is an urban development system that uses green cone-shaped mounds both as buffers against tsunamis and as evacuation areas for local residents. The system deploys staggered wave-dissipating mounds in coastline greenbelts and other areas to absorb tsunami energy and prevent tsunamis from moving inland. Fluid simulation results indicate that the technology can cut the maximum penetration zone of a tsunami by roughly 600 meters. Evacuation mounds will also be built for local residents in residential areas and other areas vulnerable to tsunami damage. The mounds are cone-shaped to minimize the force sustained in the event of a head-on tsunami strike. Measuring 50 meters in diameter by 10 meters high, the standard mound can accommodate about 150 evacuees. These mounds will be distributed every 500 to 1,000 meters. To facilitate construction by local companies, the mounds require no special construction methods and are designed with slopes inclined at less than 30°, eliminating the need for retaining walls. Composed of recycled aggregate and earth, the mounds also contribute to the reuse of disaster-related waste. Their surfaces will be greened so they can serve as recreational sites in ordinary times.

The Arch Shelter : An office building that provides safety and peace of mind—one that can serve as an evacuation center in the event of a major tsunami

Capable of withstanding major earthquakes of class 7 on Japan’s seismic scale and tsunamis in the wave-height class of 20 meters, the Arch Shelter is an office building designed to be capable of serving as a tsunami evacuation center. Consisting of a seismic isolation structure housed inside an arched shell structure, the hybrid structure of the Arch Shelter makes the most of the characteristics of concrete, which is strongly resistant to compressive forces. An Arch Shelter of the standard dimensions can protect the lives of up to 2,400 tenants and evacuees. Under certain conditions, an Arch Shelter can also be designed as a high-rise structure. In addition to housing evacuees, the Arch Shelter perimeter balcony increases the structure’s rigidity and resilience as reinforcement ribbing, which protects the building itself from the impact of drifting debris in the event of a tsunami. It also acts as a BCP solution, equipped with tanks for potable and nonpotable water and emergency power generators allowing it to function for three days. Arch Shelters serve as ideal evacuation centers immediately after a disaster, as recovery bases thereafter, and as business facilities once recovery is complete.
Technologies to improve seismic resistance

Improving seismic performance using Dynamic Screw rotational inertia dampers

The installation of seismic dampers is an ideal way to retrofit a structure to improve its seismic performance. This method can be completed quickly with minimal impact on tenants and tenant activities. Shimizu has developed Dynamic Screw rotational inertia dampers that efficiently dampen shaking generated by massive earthquakes. These dampers are effective even when installed in fewer locations than earlier seismic retrofitting methods.

Benefits of using Dynamic Screw technology

1. Minimized inconvenience for current building users (requires installation of just one-third to one-half the number of units required by earlier seismic damper equipment)
2. Dynamic Screw technology provides significant benefits to building owners. It can be installed while occupants continue to use a building, eliminating the need to relocate tenants. Requiring fewer installation locations than other methods, construction work can be limited to common areas. Dynamic Screw technology also provides greater flexibility in selecting layouts and floors for installation.
3. Faster construction (requires half the time to install compared to other methods)
4. Requiring fewer installation locations and being capable of restricting construction work to common areas, Dynamic Screw technology minimizes the impact on building use and can be installed in half the time compared to other methods.
5. Low cost (20% to 30% savings in construction costs)
6. Traditional seismic retrofitting methods involving damper installation require the demolition of the building's existing finish before work begins and restoration of the exterior once installation has been completed. The Dynamic Screw technology, on the other hand, requires fewer installation locations and reduces all associated construction work.
7. Improved safety (capable of withstanding long-period seismic tremors). In addition to demonstrating high seismic performance and shake resistance, Dynamic Screw technology effectively dampens the subsequent long-period seismic tremors, reducing their effective amplitude and times to about one-half.

Note: *Dynamic Screw® is a registered trademark of Shimizu Corporation in Japan.

Preventing ceiling cave-ins using Shimizu’s earthquake-resistant ceiling technologies

Since the Great East Japan Earthquake, Shimizu has compiled information on ceiling damage from numerous studies and other tests to develop new seismic diagnostics methods and retrofitting methods for suspended ceilings.

Suspended-ceiling seismic diagnostics methods

- **Quick and low-cost Rakkasan seismic diagnostics system**
  This system generates evaluations of ceiling seismic performance and retrofitting methods, requiring users only to fill out a special-purpose survey sheet with the measurements and results of visual inspections for each room. This allows rapid identification and selection of optimal repair methods.

Advancing technological development drawing on earthquake damage information

As part of efforts to contribute to solving the fault-related issues impacted by damage to ceilings and other future disaster mitigation efforts, Shimizu is currently seeking to optimize seismic technologies for ceilings and other non-structural parts and materials, taking on this issue ahead of the rest of the construction industry and even the Japanese government. We plan to pursue the proactive development of new technologies to help increase seismic safety and resilience, incorporating knowledge gained from studies of damaged buildings and vibration platform experiments.

A choice of retrofitting methods to meet customer needs

- “Shimizu’s new ceilings!”: Reliable, low-cost seismic retrofitting technologies for ceilings
  - Ceilings that remain intact in the event of moderate earthquakes and resist falling in the event of stronger earthquakes
  - Cost savings of approximately 30% compared to ordinary ceiling installations

- “The grid support method”
  Replacing ceiling panels without affecting current users
  - A construction method that allows rapid retrofitting outside business hours
  - Cut costs by roughly 20% to 30% and construction times by 50% compared to conventional ceilings

- “Capping—less construction” achieving both energy conservation and safety
  - The lack of a ceiling reducing ceiling-related damage from an earthquake
  - Spacious rooms improving work environments
  - Stable ceiling walls preventing the ceiling from falling without raised floor to install equipment

- “Reduction of ceiling decoration” for an improved work environment
  - Shimizu currently offers a diverse line of solutions, including Shimizu CR Dietec for optimizing downhill down-comers. Protection and Analysis System for the Control of Risk (PARS), Risk Management System (RMS) Center for Structural Safety and Reliability, Initiative of Technology

Aiming for rehabilitation and reconstruction of affected areas

Support to regain safe and secure life for local residents

This figure below shows our participating in the projects aiming for rehabilitation and reconstruction of the affected areas for the earliest possible time. Such as the decontamination of radioactive materials released during the nuclear power plant accident caused by the Great East Japan Earthquake, disposal of disaster wastes (nibbles) caused by tsunami damage, development of the Sanriku coastal road which is a key route for the restoration purposes, and relocation of the affected community to higher elevations and development of the community.

Participating in projects of decontamination, disaster waste disposal, reconstruction of infrastructure and community development

Urban Renaissance Agency: Reconstructing Rikuzen-Takata City to higher ground and community development project

- Reconstructing towns (including the towns of Koriyama and Namie) and Imamura districts to higher grounds by applying construction management method

- Miyagi Prefecture: Disaster waste disposal project (Minami-sanriku disposal ward)
  Conducting segregation, breakdown, incineration, granulation, biomass power generation, and self-removal of disaster wastes (144,000 t) and tsunami damages (32,000 t)

- Ministry of the Environment: Demonstration project of decontamination technology (FY 2012)
  Verification project of decontamination in buildings and other structures by applying Shimizu’s technology “S-Jet mobile decontamination systems”

- Date City: Full-scale decontamination project (Ryogen Town Kakeda Ward)
  Full-scale decontamination works for preparing for the community to restore. Residential: 540 homes
  Road length: 23.9 km
  Woodland area in living zones: 28.6 ha

- Date City: Full-scale decontamination project (Hobata Town Hashibarawa Ward)
  Full-scale decontamination works for preparing for the community to restore. Residential: 2 homes
  Road length: 25.2 km
  Woodland area in living zones: 28.6 ha

- Miyagi Prefecture: Full-scale decontamination project (Rokukura ward)
  Full-scale decontamination works to prepare for the community to restore. Residential: 5 homes
  Road length: 48.7 km
  Woodland area in living zones: 47.8 ha

- Ministry of the Environment: Demonstration project of decontamination technology (FY 2011)
  A verification project aimed at advancing the methodologies to clean the soil contaminated with radioactive materials and to reduce the volume of the soil

- Ishinomaki City: Full-scale decontamination project (Ishinomaki block)
  Full-scale decontamination works to prepare for the community to restore. Residential: 1,880 homes
  Road length: 38.4 km
  Woodland area in living zones: 25.8 ha

- Ministry of the Environment: Preliminary decontamination project in Naraha Town
  Spot decontamination works to prepare for the full-scale decontamination project and investigating the effect of the works. Residential: 37 homes
  Road length: 6.5 km
  Woodland area in living zones: 23 ha

- Hirono Town: Full-scale decontamination project
  Full-scale decontamination works to prepare for the residents to return and to the community to restore. Residential: 1,908 homes
  Public facilities, etc.: 35 km
  Roads length: 117.3 km
  Woodland area in living zones: 74.6 ha
  Agricultural land area: 20 ha

- Minamisanriku: Full-scale decontamination project
  Full-scale decontamination works to prepare for the residents to return and to the community to restore. Residential: 1,908 homes
  Public facilities, etc.: 89.1 ha
  Roads length: 117.3 km
  Woodland area in living zones: 74.6 ha
  Agricultural land area: 40 ha

- Ministry of the Environment: Preliminary decontamination project in Ishinomaki Town
  Spot decontamination works to prepare for the full-scale decontamination project and answering the request of the works. Residential: 8 homes
  Public facilities etc.: 5 km
  Roads length: 25.6 km
  Woodland area in living zones: 21.5 ha
  Agricultural land area: 10 ha

Ministry of Land, Infrastructure, Transport and Tourism: Coordination project for Sanriku coastal road project (Fudan-Kujii section)

- The 25-km section between Fudan and Kujii where the first PPP project was applied in order to improve the Sanriku coastal road development project

Ministry of Land, Infrastructure, Transport and Tourism: Sanriku coastal road project

Yoshinami route construction project

Road improvement works to increase convenience to the local area and to enhance the evacuation function of the road in the event of an emergency
  Tunnel length: 1,664 m
  Bridge numbers: 3

Disaster waste disposal project

(iishinoki block)

Conducting segregation, breakdown, and incineration of disaster wastes (3,120,000 t) and tsunami damages (291,000 t)

Ministry of the Environment: Preliminary decontamination project in Okuma Town

Spot decontamination works to prepare for the full-scale decontamination project and investigating the effect of the works. Residential: 588 homes

Ministry of Land, Infrastructure, Transport and Tourism: Sanriku coastal road project

Yoshinami route construction project

Road improvement works to increase convenience to the local area and to enhance the evacuation function of the road in the event of an emergency
  Tunnel length: 1,664 m
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Disaster waste disposal project

(iishinoki block)

Conducting segregation, breakdown, and incineration of disaster wastes (3,120,000 t) and tsunami damages (291,000 t)
Delivering optimal quality

Shimizu has designated November 1st as “Monozukuri Day” and the month of November as “Quality Month.” In fiscal 2012, under the slogan, “Doing our jobs with a sense of pride, devoting our passion to quality and communicating our enthusiasm,” we pressed forward with comprehensive quality efforts, including the presentation of case studies that illustrate quality improvements. We hope to deliver technologies and services that satisfy customers by giving concrete shape to the values they expect with regard to planning, sales, design, construction, maintenance, and repair work.

Delivering reliable quality based on a consistent quality control system grounded in human resource development

Drawing on our quality management system and focusing on human resource development to support industry-leading construction at each stage, from planning and sales through design, construction, maintenance, and repair work, we’re moving forward with processes and activities to create a consistent quality assurance system that will strengthen these efforts and deliver optimal quality.

The human resource development required to support manufacturing

Shimizu takes all necessary steps to ensure that its human resources have the required management abilities, skills, and knowledge, setting HR development targets for each specialized function and identifying achievement targets for each age bracket.

- Strengthening innovation and creativity among younger designers
- We have set up the streamDEW Committee as part of the HR development efforts in our Design and Business Proposal Divisions. This committee encourages young design employees to present unique ideas, and its name reflects the concept of creating a massive “stream” from the “dew” of individual creativity, all based on mutual sharing and inspiration. A container booth at the Tokyo Designers’ Week event held at MeijiJingu Gaien (October 30 through November 5, 2012) featured a related exhibit. This booth, created inside a cargo container with mirrors mounted on all its walls, displayed photographs and models of structures on which Shimizu had worked. It was an impressive experience – as if walking in a kaleidoscope – that generated significant word of mouth and drew numerous visitors throughout the event.

From real estate valuation to energy saving technologies, Shimizu’s comprehensive solutions improved our business efficiency

In order to achieve an optimal quality, we start with understanding of the customer’s business environment and precisely identifying the potential needs and issues that need to be shared. Shimizu’s highly practical proposals and support activities are based on a wealth of past experience. For example, by including corporate real estate (CRE) strategies that maximize the efficiency of real estate investments and by drawing on the Multipurpose Testing Laboratory (a research facility intended to meet diverse customer needs and the changing demands of society), we provide key support to important procedures at the initial stages of a project, in which the directions of action are determined and goals set.

Pursuing optimal quality, from planning and sales stage to maintenance stage

The following three pages introduce Shimizu’s efforts to identify customer needs and to deliver optimal quality, with examples from the following stages: planning, sales, design, construction, maintenance, and repair work.

Delivering optimal quality

Shimizu was ordered the building facility management at the head office building and conducted surveys of all 110 facilities across Nagano Prefecture. Shimizu identified the current status of the client’s properties and sorted all pertinent information. Based on this information, we proposed solutions to cut costs and improve efficiency. These included suggestions to consolidate facilities or deploy energy management planning.

In partnership with Group member companies Shimizu BLC Co., Ltd. and MILX Corporation, Shimizu submitted energy management proposals to reduce electricity costs, which account for a major portion of utility costs. In its first fiscal year, these solutions achieved 24% cost cut at 23 facilities. Current plans call for a similar deployment at other facilities. Other proposals included the development of rooftop gardens and the conversion of all building lighting to LED.

We proposed improvements in Client’s business efficiency by renovating aged facilities and through the relocation, new construction, and consolidation and closure of specific facilities. We recommended candidate sites for relocation based on regional market needs in order to strengthen sales capabilities. We presented cost-saving solutions through the joint use of facilities, including maintenance workshop place. We also submitted proposals to achieve more efficient asset management, based on our study of overall concept about the utilization of Client’s former workshop place after its moving out.

From real estate valuation to energy saving technologies, Shimizu’s comprehensive solutions improved our business efficiency

As a result of projects that generate CO2 emissions, namely automobiles, our efforts began with a drive to reduce environmental load by greening cities and promoting energy saving. When we decided to renovate our head office building, we took advantage of this opportunity to study how to improve the energy performance of air conditioning, lighting, and other facilities at numerous sites across the prefecture. We also considered the closure and consolidation of our facilities to improve business efficiency. We chose Shimizu Corporation as a partner for two reasons. First is Shimizu’s capability of anticipating and vast volume of information about real estate and region at Shimizu. Also, in the current or future real estate, we see the need to be under the view with fragmental and intelligent information. However, with Shimizu’s support, we made comprehensive, informed studies possible, and we could maximize the value of our property as a result. The second is Shimizu’s broad range of expertise not just with buildings but with landscaping and energy conservation as well. Shimizu was able to contribute to the development of everything from land valuation to studies of facility plans and operations. For minimizing our business risk, it is essential to study issues from a wide range of perspectives. In the future, we hope to contribute to the environment and community development through activities closely linked to the local society, including joint community efforts.

The Creation of Value Surpassing the Expectations of Customers and Society

ACTIVITIES

SHIMIZU CSR Report 2013
To meet customer needs, it's essential to identify such needs with the greatest possible specificity at the design stage. In addition to giving presentations based on building plans and computer graphics (CG), the key to advancing the design process is to ensure customers and designers gain a feel for actual results and maintain a shared understanding through repeated discussions.

Ueda Hospital, a space built by hand through close study alongside the customer

This project posed the following question: how best to give concrete form to the project owner's desire to preserve a pediatrics, obstetrics, and gynecology hospital handed down from the previous generation at a time of low birth rates, a shortage of doctors, and the winnowing of industry players? The plan required building a space to recreate the patient experience of Ueda Hospital over the course of its long history, which includes the Kobe earthquake.

Based on a design created chiefly by young female staff in the Design Dept. of the Kansai Construction and Civil Engineering Headquarters who carefully considered ease-of-use issues, the design generated a "hand-made" space created in partnership with the customer, unfettered by preexisting concepts of what a hospital should be. Essential to this process were repeated and detailed meetings with the hospital staff members who would eventually use the facilities.

Shimizu’s proposal reflected obvious care and attention and helped us create a space where patients can spend time in tranquility and comfort.

Rokuro Ueda, Director, Ueda Hospital

Patients voiced high regard for the hospital exterior before rebuilding efforts began. We wanted to expand the building without losing this positive aspect. We chose this proposal due to our positive impressions and our recognition of the project owner’s care and attentiveness. We wanted a bright, airy building where people could relax, one that didn’t feel too much like a hospital. Our requests were demanding. Doctors focus on functionality; patients value privacy. Taking to visiting family members is obviously important, but sometimes patients don't want their families to overhear discussions with their doctors. Shimizu created a plan that meets all these intricate demands. My experience with this building since completion has been nothing short of delight. Hospital Director Rokuro Ueda (center)

The four studios

The collaboration studios at the Tokyo Mokkoujou Arts & Crafts Furnishings, where a full-sized mockup of the planned hospital is presented

Tokyo Mokkoujou includes a hands-on showroom where customers can see, touch, and feel mockups of completed buildings. Comprising four themed studios, the facility gives customers a chance to gain a true feel for factors such as ease of use, the dimensions of specific spaces, and the actual materials to be used. In particular, through various changes in partition locations and the layout of furniture in accordance with customer plans, the hospital room lab allows customers to verify real-world ease of use from the perspective of the patients and hospital staff.

The Creation of Value Surpassing the Expectations of Customers and Society

ACTIVITIES

Delivering optimal quality

Design stage

Increasing building value through close communications with customers

Delivering optimal quality

Construction stage

Honing technologies and sharing knowledge specific to various facilities / strengthening quality assurance in overseas construction

Efforts corresponding to facility uses

Beyond knowledge of specific terminology and specific equipment used in each facility, construction staff seeking to give concrete form to customer needs at the construction stage must also understand other issues, including the features of a facility’s different areas and the organizations, roles, circulation, and interactions of those working there.

Without understanding medical terminology and equipment, one cannot engage in detailed meetings with customers or build hospitals that meet our standards of excellence. For this reason, we've prepared and distributed to all staff involved in building medical structures, both in Japan and abroad, an introduction to hospital construction that covers medical knowledge, construction techniques, and the expertise we've accumulated throughout our work building hospitals.

In addition, we organize technical study sessions to hone our technologies by sharing construction techniques and expertise specific to individual facility uses with the staff responsible for facility construction, including residential structures, retail complexes, and logistics facilities.

Feedback and after-sales service activities based on customer satisfaction (CS) surveys

Monozukuri grounded in CS based on customer satisfaction (CS) surveys

We have launched efforts to gather customer feedback on buildings and our business activities, including sales, design, construction, and repair work. The goal is to deliver even better buildings and services from the customer’s perspective. We seek to obtain candid opinions from our customers on various topics, including our services leading up to construction completion and the overall impression of the finished building at the initial usage stage, as well as its ease of use, ease of maintenance, and the maintenance services provided after the building has entered service. The results of these surveys are promptly passed on to the sections responsible for improving efforts companywide.

After-sales service activities to help buildings remain in use even longer

We've established after-sales service activity standards to provide an optimal response to customer needs after the completion and delivery of a building. These standards also call for close partner relationships in building and facility maintenance and management over the long haul. We perform after-sales service activities under standardized company-wide rules that specify maintenance structures and responsibilities, striving at all times to provide services best matched to particular facility uses and customer needs. This includes full-scale maintenance, including energy conservation support services, simplified building diagnostics, seismic diagnostics, and periodic visits, in addition to basic services such as presentations on building use and maintenance and periodic inspections for customers accepting delivery of completed projects.
Projects of a mega-solar power plant and floating offshore wind farm
Creating sources of renewable energy

Under a feed-in tariff system for renewable energy that took effect in July 2012, power companies will purchase electricity generated from various renewable energy sources at fixed prices over the next two decades. Of the various renewable energy technologies currently available, solar power facilities are perhaps the easiest to install. Numerous individuals and companies have applied to supply electricity generated by solar power.

In addition to serving as a contractor providing the full range of services, including planning, design, procurement, construction, and maintenance, at projects across the country (primarily mega-solar power plants), Shimizu is also preparing to operate a 10 megawatt (10,000 kilowatt) solar power plant on its own. Construction is already underway, and plans call for the facility to begin supplying electricity to Kansai Electric Power Co. from spring of next year.

As a one step toward widespread mega-solar power generation, this project will help expand the renewable energy base and allow Shimizu to accumulate expertise in associated construction tasks and facility operations.

Advancing a project to construct a floating offshore wind farm

Like solar energy, wind power is expected to play a key role in the future of energy. While 1.870 wind turbines are already installed across Japan as of the end of FY2011, chiefly in mountainous regions, offshore wind turbine facilities appear set to enter a major growth phase.

As a nation surrounded by the sea, Japan would appear to have high potential for marine-based wind power generation. However, due to the relative scarcity of shallow coastal areas, only a limited range of locations can accommodate the pile structures typically used to support offshore wind turbines. For this reason, the idea of a floating offshore wind farm—something not yet realized anywhere else in the world—has attracted significant interest.

As a participant in the consortium working on the Fukushima recovery floating offshore wind farm demonstration project under contract to the Ministry of Economy, Trade and Industry of Japan, Shimizu is currently engaging to build the world’s largest offshore wind power facility. Other consortium members include the University of Tokyo, Marubeni, Mitsubishi Corp., Mitsubishi Heavy Industries, Shimizu, and the Mizuho Information & Research Institute. Working as a team assembled from across Japan, the consortium is moving forward to realize a commercial floating offshore wind farm.

In the not-too-distant future, a magnificent wind farm will stand off the coast of Fukushima Prefecture, an area that sustained grave damage during the Great East Japan Earthquake, where it will serve as a proud symbol of the region’s recovery.

Contributing to the Environment

We have identified “socio-dynamism” as a key aspect of the company’s Management Philosophy and accordingly positioned the environment awareness as the core of all its business activities in our long-term vision, Smart Vision 2013. We also strive to realize value that exceeds both social and customer expectations, based on the pursuit of sustainability in the building structures we deliver.

Biodiversity Initiatives

Under the Shimizu Action Plan on Biodiversity, Shimizu is making steady progress on planning, design, procurement, construction, and R&D related to various biodiversity issues, including efforts by individual facilities as well as efforts to preserve entire ecosystems across broad areas.

Efforts in construction activities

Protecting precious flora and fauna while maintaining a sustainable source of lumber

Building a dam capable of coexisting alongside the Hodgson’s hawk eagle (Yofudo Dam) in Kobe City is a multipurpose dam being built by Hyogo Prefecture in the city of Asago for flood control and other purposes. The area around the dam is a habitat for various flora and fauna, including the Hodgson’s hawk eagle and the Japanese giant salamander. To preserve these populations, some unusual measures have been incorporated into the construction project, including painting temporary facilities in natural earth-toned colors, installing soundproofing covers over equipment and machinery, and habituating wildlife (the Hodgson’s hawk eagle in particular) to equipment and machinery before construction begins. The latter measure involves setting up construction machinery at a site unattended, operating it for brief intervals at the start; then gradually lengthening the durations over which the machinery is used, thus minimizing the number of abrupt disturbances.

Observations have confirmed successful breeding pairs and hatchlings for three consecutive years, attesting to the effectiveness of these measures. One young raptor hatched in 2012 currently makes its home on the site, which is continually monitored to ensure it remains an ideal home for the Hodgson’s hawk eagles.

Seicho-No-Ie (“Office in the Forest”) and efforts to achieve sustainable lumber

Based on the principle of local production and consumption, the construction of an office in the woods for the religious organization Seicho-No-Ie involved the purchase of more than 4,000 logs of FSC-certified lumber from local communities in Yamagata Prefecture. To achieve the goal of zero energy building (ZEB) status, the facility will continue purchasing wood-based fuel from local sources after the office opens this fall. Project members are also aiming to preserve and revitalize the natural forest keeping the needs of local communities and the site’s status as a tourist attraction firmly in mind. Measures include distributing flowerpots to the local community from trees that were felled for unavoidable construction reasons. Meanwhile, efforts continue to achieve ZEB status and ensure harmonious coexistence with the local community.

R&D efforts

Using UE-Net Aichi to map ecosystem networks in Aichi Prefecture

In partnership with Chubu University, Shimizu has developed UE-Net Aichi, a database that maps the networks of ecosystems hospitable to living creatures in the urban areas of Aichi Prefecture. This system helps visualize important environmental networks and the differences between one habitat and another. It’s ideal for a wide range of applications, from analyses of individual sites to the greening of wide-ranging areas. Future efforts will target urban greening activities to help advance biodiversity strategies at the national level.

Mapping ecosystems to achieve coexistence between humans and other living creatures

Alongside Shimizu Corporation, Chubu University launched a joint research project on biodiversity assessment in 2010, an effort that sought to address the issue at an even wider level of biodiversity, including genetic diversity. These efforts have led to significant achievements, including a joint exhibit at COP10. As a post-COP10 initiative, we’re working with Shimizu on a joint project involving academic bodies, industry, and the local government to develop an ecosystem network in Aichi Prefecture. UE-Net Aichi marks the first step of this project, which, as a technology for mapping the characteristics of various ecosystems, appears likely to make significant contributions to a brand of urban development that can achieve harmonious coexistence between humans and wildlife.
Preventing Global Warming—Ecological Mission

Shimizu is promoting six measures to prevent global warming: design of energy-saving buildings; resource conservation and green activities at construction sites; energy-saving renovations and building management; promoting the introduction of new energy sources; energy-saving in office spaces; and obtaining and utilizing Certified Emission Reductions (CERs). Together, these measures are designed to achieve a 30% reduction, by fiscal 2030, in carbon dioxide emissions from all structures built by Shimizu (both past and present) in Japan relative to fiscal 1990 levels, in accordance with our Ecological Mission.

Fiscal 2012 performance

The Ecological Mission is currently underway. We achieved the reductions targeted in fiscal 2012 (14% vs. fiscal 1990 level).

Fiscal 2012 targets

Continuing to promote the six measures under the Ecological Mission, we targeted the following reductions based on high-level government plans and other initiatives relating to Japan’s energy strategy.

■ Ecological Mission Fiscal 2012 Performance

Total CO2 emissions in fiscal 2012 amounted to 17,970,000 tons, a decline of 14% from the fiscal 1990 figure of 20,960,000 tons, thereby meeting our targeted reduction goals. This figure is also 5,430,000 tons below the hypothetical reference scenario in which all buildings constructed through 2012 had been built to 1990 standards.

CO2 emissions from all buildings:

Reduced 14% vs. FY 1990

5,430,000 tons

Efforts to reduce CO2 emissions at the head office and branch offices

Efforts to conserve energy and cut back on electricity consumption at the head office and branch offices reduced CO2 emissions by 5,981 t-CO2.

Building renewable energy facilities

We’re currently building various renewable energy facilities, including wind farms, mega-solar facilities, and biomass power generation facilities. The Awaji Wind Power Generation Plant of Kansai Electric Power Co. (KEPCO) began operating commercially in December 2012. Combined, these efforts have resulted in cumulative reductions of 390,000 t-CO2 in emissions.

Activities

The Creation of Value Surpassing the Expectations of Customers and Society

Design of energy-saving buildings

Reductions from buildings, including those constructed in the past:

2,090,000 t-CO2

Resource conservation and green activities at construction sites

Reductions at all sites in operation in FY 2012:

2,760,000 t-CO2

Resource conservation and green activities at construction sites

Reductions at all sites in operation in FY 2012:

2,760,000 t-CO2

Resource conservation and green activities at construction sites

Reductions at all sites in operation in FY 2012:

2,760,000 t-CO2

Energy-saving renovations and building management businesses:

110,000 t-CO2

Energy-saving in office spaces

Reductions through energy conservation and power saving in the head and branch offices:

6,000 t-CO2

Obtaining and utilizing Certified Emission Reductions (CERs)

Achieved emission reductions through the operation of CDM project facilities:

76,000 t-CO2

Building renewable energy facilities

■ Promoting renewable construction

Cutting CO2 emissions through activities ranging from proposed energy conservation solutions to renewable construction

We promote renewal construction through proposals on issues such as energy consumption analysis, optimization of building operations, and the adoption of energy efficient equipment, in conjunction with plans for equipment updates and the full replacement of equipment systems. In 2012, these efforts resulted in cumulative reductions of 390,000 t-CO2.

■ Promoting green construction

Reducing CO2 emissions based on daily efforts at construction sites

Through various measures, including discouraging the idling of construction vehicle engines, ensuring proper maintenance of construction machinery and vehicles, using LEDs for temporary lighting, promoting fuel-efficient operating modes, using fuel-efficient construction equipment, and deploying vehicles meeting the latest fuel consumption standards, we cut fiscal 2012 per-unit CO2 emissions by 22.5% and CO2 emissions by 350,000 t-CO2 (relative to fiscal 1990).

■ Promoting the building management business

Reduction of CO2 emissions at facilities managed under building management contracts

Together with Shimizu BLC affiliate companies, we’re helping to cut CO2 emissions in various ways, including the optimization of operations and the promotion of energy conservation at facilities managed under building management contracts. In fiscal 2012, these efforts cut CO2 emissions by 79,000 t-CO2 (relative to fiscal 1990).

■ Promoting new technologies

Results of technologies to reduce the environmental impact of the new head office

Completed in May 2012, Shimizu’s new head office building is the first new office building in Japan to earn a Gold certification under the LEED for New Construction Rating System, an international index of environmental performance. This reflects international recognition of the new head office’s superior environmental performance.

The screening process for LEED for New Construction Version 2.2 assesses the environmental performance of design and construction by assigning scores in the following six categories: Sustainable Sites; Water Efficiency; Energy and Atmosphere; Materials and Resources; Indoor Environmental Quality; and Innovation in Design. Depending on the cumulative score, performance is rated as Certified, Silver, Gold, or Platinum. The bar for certification is high: to date, only 30% of applicant properties worldwide have earned certification of any rank.

Column

Lens wind turbine

Technology Network, Inc. and SC Machinery Corp., two Shimizu Group companies, are currently installing compact 1-kW and 3-kW wind power generation facilities that achieve efficient power generation with low noise, combining collapsible supports developed by the two companies with a lens wind turbine developed by Kyushu University.

A lens wind turbine is a compact wind power generator equipped with a round wind-concentrating “lens” around its blades to amplify wind power. It delivers three times the output of a traditional wind turbine of the same size at roughly half the power generating cost. Lens wind turbines are highly versatile and can be installed in settings ranging from ordinary households to office buildings and factories, thus attracting much interest as a renewable energy technology. Amid high expectations, testing on offshore wind power generation applications is currently underway in Hakata Bay.

Note: “Sune Wind Turbine” is a registered trademark of Ren Wind Co., Ltd., an academia-industry joint venture with Kyushu University.
Reducing and Recycling Construction Byproducts

To help establish a recycling-oriented society, Shimizu is striving to reduce and recycle construction byproducts as a cornerstone of its 4R Activities.*

**Fiscal 2012 performance**

- Continuing to promote 4R Activities and examining new measures to reduce construction byproducts
- Developing and deploying a company-wide version of the Construction Byproducts Management System
- Reducing paper consumption by 20% and the number of travel cases by 35%

**Fiscal 2013 targets**

- Continuing to promote 4R Activities and examining new measures to reduce construction byproducts
- Continuing the promotion of the “Shin Kan-tasu” (improved “Kan-tasu”) construction byproducts management system
- Beginning efforts toward the use of e-manifest forms in all cases

Efforts based on a new construction byproducts management system

**Sustained resource conservation and recycling starting before construction**

- Introduction of the “Shin Kan-tasu” integrated construction byproducts management system. We began using the Construction Byproducts Management System in October 2012, followed in April 2013 by the launch of the Shin Kan-tasu integrated construction byproducts management system, which incorporates the earlier system. This new system is expected to provide the following benefits:
  1. Automatically forecasts volumes of construction byproducts generated based on site-specific construction data
  2. Monitors numerical data on the status of construction byproduct reductions and recycling, starting from the planning stages
  3. Ensures proper disposal of byproducts and cost savings through improvements in efficiency
  4. Safeguards against information risks that may occur when preparing electronic manifests via the Japan Industrial Waste Information Center (JIMNET) system

- Total volumes generated and base unit of total construction byproducts generated

  Figures for total construction byproducts generated rose by 18% from the previous year to approximately 2,380,000 tons. The final waste disposal rate (excluding sludge and harmful substances) was 3.2%.

  - The base unit of total construction byproducts generated from new construction projects (excluding sludge or other harmful substances) was 15.2kg/m². Based on the New Kan-tasu construction byproducts management system, and sustained efforts to reduce and recycle byproducts from before the start of construction, we plan to keep the base unit of total construction byproducts in the 15.5 to 16.0kg/m² range. This is half the industry average or less.

**Fiscal 2012 material flows**

*As shown in the flowchart below, material flows are managed quantitatively through the final disposal stage according to different materials categories.

**INPUT**

- Electricity: 11,773,000kW\(\cdot\)h
- Water: 17,010,000m³
- Recycled Crushed stones: 76,000t
- Lumber: 3,879,000m³
- Petrol: 2,590,000ℓ

**OUTPUT**

- Green waste: 1,100t
- CO\(\text{2}\): 276,000t
- Mixed waste: 70,000t
- Construction waste volume generated by construction work: 2,260,000m³
- Construction waste volume generated by temporary treatment plant: 2,100,000m³
- Concrete: 6,720,000m³
- Paving: 1,710,000m²
- Construction wood chips: 400,000t

**Environmental communication**

**Efforts at Tokyo Mokkoujou Arts & Crafts Furnishings:**

Woodworking workshops seek to convey the special warmth of real wood and the value of our forest resources

- Introduced below are various activities undertaken at Tokyo Mokkoujou Arts & Crafts Furnishings, this is the only woodworking plant currently operated by a general contractor in Japan. These activities exemplify Shimizu’s long-standing commitment to communications on environmental issues with its stakeholders, including customers, employees, shareholders, and local communities. Tokyo Mokkoujou Arts & Crafts Furnishings pursues a wide range of activities intended to convey the value of our forest resources, creating opportunities for visitors to appreciate the warmth of real wood and making things from lumber. Woodworking workshops are among these activities.

- **Hands-on experience with woodworking**

  The 2012 International Tokyo Toy Show was held in June at Tokyo Big Sight. Here, Shimizu set up a hands-on event booth at the annual event Japan’s highest profile trade show for the toy industry-hosting workshops, demonstrations, and exhibits, all based on the theme of “learning about wood and its special warmth.” These events proved popular, attracting so many participants that the booth ran out of materials. Children took clear delight in learning the names of different types of wood, working with real wood, and carrying out projects side by side with instructors. Several children expressed hopes of returning the following year.

  For the second consecutive year, Shimizu took part in the “Junior Green School” at Eco-Products Exhibition 2012, held in December at Tokyo Big Sight. Shimizu also held woodworking workshops at the Sapporo International University campus festival, where a new campus building is currently under construction, and the Koto Ward Festival, held in the same ward where Tokyo Mokkoujou Arts & Crafts Furnishings is located. Each workshop proved remarkably popular.

**Traveling woodworking workshop visits Minamisanriku**

- Children in an area affected by the Great East Japan Earthquake experience the joy of building things by hand

  In August 2012, ten staff members at Tokyo Mokkoujou Arts & Crafts Furnishings visited a high school that had undergone reconstruction, Minamisanriku High School in the town of Minamisanriku, Miyagi Prefecture, where they organized a woodworking workshop to cheer the children up in the disaster-affected area. A total of 98 children from the town’s five elementary schools taking part in this workshop were given the opportunity to make one of several items: a coaster, a key holder; a chopping board (for the younger students) or bookend, a file holder, or a box (for the older students). In the process, the students learned how to use saws, hammers, and other tools and experienced the joy of working with wood and building things by hand.

  Creating distinct objects reflecting individually, all the children finished their chosen projects with apparent satisfaction. “I’ve never used a hammer before,” said one child in the packed workshop venue. “It was fun. I’d like to try building other things, too.”

-PARENT-CHILD WOODWORKING WORKSHOPS

**Building workshops**

Building things with the same tools used by professional carpenters

- Held annually since 2007, the parent-child woodworking workshops began with an invitation to visit Tokyo Mokkoujou Arts & Crafts Furnishings that was extended to employees’ children of elementary school age. The workshop has also welcomed visitors from outside the company (primarily individuals from architectural firms) since fiscal 2011. In 2012, a woodworking workshop was added to hands-on technology seminars at the Institute of Technology intended for employees and their families. These workshops create a special opportunity to use everyday woodworking tools and to experience the special warmth of wood sourced from sustainably harvested Japanese cypress.

**Building a flower stand**

Parents and children choose something to build. Work-site safety risk experiencing the joy of building things in a setting guaranteed to create fond summer memories.

**Planning wood**

Instructs how to use a plane to work wood, after which children learn to use it and apply the correct pressure when stripping various wooden objects.

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The Pursuit of Business Activities that Coexist with Society

As a responsible corporate citizen dedicated to harmonious coexistence with society, Shimizu and its stakeholders pursue a broad range of activities whose goals are to improve social welfare, establish and strengthen community relationships, and create workplaces where employees and specialist contractors can work in secure settings inspired by a sense of purpose. Through a dedicated commitment to such activities, our everyday business activities, and all our other efforts, we seek to build and maintain prosperous, peaceful communities and contribute to sustained growth.

A Company that Values People

Shimizu’s Management Philosophy incorporates the concept of “Humanism” along with “Socio-dynamism,” “Innovation,” “Market Orientation,” and “Zeal.” In addition, the first item in our Code of Corporate Ethics and Conduct calls for building “a company that values people.” We are currently pursuing numerous measures, which change in response to changes in the business environment, to achieve this goal.

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Helping women thrive in the workplace

As of March 2012, the total number of women working at Shimizu was 1,414, or 13.2% of the total workforce. Since the inception of the Diversity Promotion Office in 2009, we’ve examined and implemented various measures and activities, held new training programs, and made progress in developing systems and measures to foster workplace environments hospitable to working women. As part of these improvements in the workplace environment, we’re moving forward in a number of areas that account for the needs of female employees. These improvements extend even to the uniforms and hard hats worn at construction sites. We also hold roundtable discussions on future measures concerning women in regular positions who have been with the company for two to five years. Drawing on a broad range of information and perspectives, including the views expressed at these roundtables, we plan to continue pursuing measures that promote and expand the role of women in the workplace. Our most recent figures show 17 women currently holding management positions.

Promoting diversity and inclusiveness

The Shimizu Diversity Policy addresses a wide range of topics, including the company’s concept of diversity, principles, background, and goals. The purpose of establishing the Diversity Policy was to demonstrate, both inside and outside the organization, our approach and commitment to achieving diversity. Our Intranet features a diversity promotion website that communicates information on policies, systems, and measures to promote diversity; the status of these measures; reports on training and other events; and employee feedback, among other topics. We’re continuously enhancing the content of this website in various ways, including a periodically updated series of columns by different members of the Human Resources Department.

Shimizu presents opportunities to participate in state-of-the-art R&D with researchers from other fields.

Pham Van Phuc,
Institute of Technology
I’m originally from Vietnam and joined Shimizu in 2008. My main duties involve R&D and design assistance activities, mostly through wind tunnel testing related to the wind environment and numerical fluid analysis. More recently, I’ve been involved in the development of state-of-the-art fundamental analytical technologies, working alongside researchers from other fields and using some of the world’s fastest supercomputers, including the Tokyo Institute of Technology’s TSUBAME and the K Computer at the RIKEN Advanced Institute of Computational Sciences. These are environments and opportunities rarely found at a workplace other than Shimizu. While my role is not directly related to building structures, I’m hoping my children will one day take pride in the work I do.

New graduate hires

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<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
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<tbody>
<tr>
<td>Regular employee</td>
<td>144</td>
<td>82</td>
<td>174</td>
<td>166</td>
</tr>
<tr>
<td>Regional employee</td>
<td>38</td>
<td>35</td>
<td>37</td>
<td>33</td>
</tr>
</tbody>
</table>

Hiring and promoting non-Japanese employees

We are currently promoting the hiring of non-Japanese employees to help reach various company goals, including the need to secure outstanding human resources. Since fiscal 2010, we have hosted a series of seminars for international students residing in Japan as part of these efforts. These seminars include discussions with senior non-Japanese employees, events at which the questions asked by participants often reflect a keen sense of motivation.

Non-Japanese new graduate hires for regular positions

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
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<tr>
<td>15sections (1/15 sections)</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>2</td>
</tr>
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</table>
Providing employment and support for those with disabilities

Shimizu takes an active role in hiring employees with disabilities. Our percent age of employees with disabilities averaged 2.05% in fiscal 2012, exceeding the legally mandated minimum of 1.80%. In connection with the planned increase in the legally required rate (to at least 2.0%) from fiscal 2013, we have revised our own company target to an annual average of 2.05% or higher. The new head office building to which Shimizu relocated in August 2012 exemplifies progress in the construction of barrier-free facilities, including wheelchair-accessible entrance gates and elevators, and multipurpose restrooms (with flashing lights for use by those with aural disabilities), and handrails installed in common areas. Shimizu also energetically promotes support for the employment of those with disabilities. These efforts include the subcontracting of cleaning and watering services for first-floor parking areas to Sawaya Work Chuo, a type-B facility for continual employment assistance for those with disabilities located in Tokyo’s Cho Ota Ward. Workers often say “thank you” notes received from workers suggest the new head office building is a convenient place to work due to its proximity to a railway station and its safe environment, which working women in particular find welcoming.

Work experience for students from Ichikawa Ohno High School

In October 2012, four students from Ichikawa Ohno High School, a school for students with special needs run by Chiba Prefecture, visited in order to gain work experience. The students placed copies of the company bulletin in envelopes sent to Shimizu personnel. Despite expressing surprise at the crowded trains during rush-hour commutes, the students were able to broaden their goals for future employment through their short-campus work experiences.

Human rights efforts

Led by a Committee to Enhance Awareness of Human Rights (chaired by the Vice President), we established a comprehensive program whose members include sectional human rights facilitators and promotion staff, and also incorporated a policy of respect for human rights into our Code of Corporate Ethics and Conduct. Under this system, we energetically pursue efforts to heighten awareness of human rights issues. We also support the activities of Group member companies by holding training sessions and briefings on instructional materials for human rights facilitators at affiliate companies. We seek to raise awareness of human rights through other broad-ranging activities. For example, we clearly indicate in our workplace rules and on the intranet our policies to prevent harassment and have also established dedicated consultation centers. Related efforts include our Human Rights Awareness Training program that targets specific job responsibilities and an awards program soliciting slogans for human rights awareness, in addition to posters clearly delineating policies on sexual and power harassment displayed at our head office, branch offices, construction sites, and other facilities.

Support for achieving a balance between work and family life

In addition to exceeding legal minimums in areas such as childcare and family care leave, we are making progress in establishing an environment where employees doing childbirth or child-rearing can work with true peace of mind. For example, we encourage employees to take time off for birth by spouses, and we support the return to the workplace of employees who have taken childcare leave. We have also established a system for rehiring employees who have left the company for reasons such as childbirth or childcare and provide interest-free loans to pay for fertility treatments. A new system of subsidies for babysitting provided independently by Shimizu now complements the existing discount babysitting program provided by Kodomo Minna Zaidan.

Free childcare leave (through age two): 45 (43), including 1 (3) male
Percentage of female employees taking childcare leave: 94.3% (96%)
Reduced work hours for childcare (through third grade): 32 (31)
Exemption from overtime/holiday work: 3 (3)
Childbirth leave: 83 (77)
Child medical care leave: 2 (3)
Family care leave: 5 (2)
Reduced work hours for family care: 0 (3)
Family care leave: 3 (3)

Best Slogans on Human Rights Awareness, Fiscal 2012 (number of entrants: 1,300)

Employee Section:
“A sincere ‘thank you’ is a password to the heart.”

Family Section:
“Thank you,” the magic words everyone knows from birth.”

Preparations are essential both for work and raising children

Ryosuke Katsu, Health Dept., Osaka Branch

My third child was born while I was finishing up work at a construction site and being relocated to another construction site as a periodic personal exchange. I took about two months of childcare leave, including site transfer leave. During this time, to reduce the burden on my wife, I handled most of the tasks other than nursing the baby, including caring for our other children and handling the housework. During this time apart bonding with my children, I got a clear sense of how arduous my wife’s daily tasks are. This experience with life revolving around childcare gave me certain insights on how to look at buildings from the user’s perspective. I think this helped remind me of the importance of good preparation. It also provided other experiences I can put to use in my work.

Based on our efforts to formulate and achieve the goals of a general business action plan in compliance with the Act on the Advancement of Measures to Support Raising the Next Generation of Children, we were certified by the Ministry of Health, Labour and Welfare to use the Kurenai certification logo.*

Promoting health maintenance

We strive to promote health maintenance optimized for employee age and working environment. These efforts include mandatory and complete medical checkups for all employees over the age of 40. We use a system of health management categories based on the diagnoses of industrial physicians, and also conduct activities, including guidance from industrial physicians and public health nurses and follow-ups handled by employee supervisors.

In addition, we’re strengthening a variety of mental health measures, including counseling by clinical psychotherapists and various informational presentations, partnerships with an external employee assistance program (EAP), and programs to help employees return to the workplace after leaves of absence.

For employees working in construction at the Fukushima Dai-ichi Nuclear Power plant and in radiation cleanup efforts involving local governments, we’ve set internal control values for radiation exposure below the legally mandated limits. As part of our comprehensive control system for radiation exposure, we’ve established a system that allows precise measurement, recording, and control of external and internal radiation exposure. We examine various health aspects, not just through legally mandated medical exams for those working in areas associated with radiation risks, but also through efforts led by our head-office clinic, including monitoring and following up on health conditions.

Promoting a sound work-life balance

We offer a wide range of leave programs for employees, including refreshment leave and site transfer leave for site workers. Many employees have used volunteer leave to contribute to recovery efforts following the Great East Japan Earthquake.

Annual leave taken in FY 2012:
○Remaining leave (14 consecutive days every 10 years): Taken by 671 employees (471)
○Volunteer leave (10 days/year): Taken by 18 employees (47)

Note: Numbers in parentheses indicate fiscal 2011 figures.

We also promote activities to reduce work hours, including regular discussions between labor and management, site patrols, information sharing on positive improvements across the organization, and brief closures of entire sites to encourage employees to take vacation time and days off. On Family Day (the third Sunday in November) and Family Week (both recommended by the Japanese government), we prohibit overtime work companywide and offer a hands-on technical seminar for family members of employees.

HR evaluations to improve results and capabilities

Shimizu uses an HR evaluation system to identify results accurately and improve the capabilities of each individual. The system involves semiannual meetings between employe es and their supervisors. In the meetings at the start of each semiannual period, personnel and supervisors discuss performance issues and goals. The meetings at the end of the period are used to discuss and assess progress toward these goals. This system is intended to identify specific expectations for the employees by setting goals at the start of each semiannual period and allowing him or her to identify any shortcomings and corresponding improvements that are necessary. These issues are discussed at the end of the period, with the goal of improving results and capabilities.
HR Development: Fostering Imagination and Individuality

Carefully planned training suitable for employee’s experience and ability

Training for all new employees

Over the four-day period beginning April 2, 2012, we held training sessions for all 211 new employees, with the goals of establishing self-awareness as professionals and establishing our expectations for Shimizu employees. This year’s training program welcomed a diverse new workforce. Five of the trainees were non-Japanese employees; two had graduated from overseas universities; and 37 were women.

Support program for prospective employees (site tours)

After the ceremony for tentatively-appointed employees in October, site tours are held for them in the greater Tokyo area and at all branches across Japan. These are intended to deepen understanding of the construction business (monozukuri), foster self-awareness as members of the Shimizu organization, and instill an outlook focused on goals. Participant responses to a survey undertaken after the tours indicate high satisfaction. “It was interesting to hear from senior colleagues on things like the thrill of building things and the sense of accomplishment once a building has been completed,” said one participant. Another said, “It was a great chance to network with other colleagues taking part in the tour.”

Global HR development

Begun in fiscal 2011, a program to place new employees in assignments overseas completed its second year in 2012. In the current year, 12 new employees (the same number as last year) were assigned to Singapore and Malaysia (including two female employees). In October, follow-up training on intercultural communication was conducted in Singapore, along with follow-up interviews by Human Resources Dept. officers and clinical psychologists. We’re also launching some new initiatives in the area of global HR development, including a program, started in 2013, involving periodic rotations of fourth-year employees in architectural construction positions to overseas sites. In 2012, we instituted changes in the pre-assignment training system for construction engineers scheduled to be posted overseas as project managers, with a new focus on language education. We added technical English for engineers as a subject, mindful of the various situations likely to arise in the course of construction projects. This came in addition to existing training in conversational business English. The program won favorable recognition, for its instructors offered both engineering and language experience, and trainees had the opportunity to learn while preparing for work at the construction sites they are assigned to.

Improving business skills through e-learning

In December 2012, as part of preparations to welcome new employees in April, Shimizu released a new e-learning program on keigo (terms of respect in the Japanese language) for all employees. This course included the following four sections, based mainly on the Shimizu Start Guide used as training materials for new employees:

1. Types of keigo
2. Examples of common keigo errors
3. How to refer to people when introducing them
4. Key points on customs related to language

“The program provided an opportunity to reconsider the keigo I use casually everyday,” said one participant. “I can’t wait to put what I learned in this course to use in study meetings inside my department,” said another.

Training provided when employees switch to a managerial track

On October 1, 2012, following the ceremony for delivery of written assignments to employees changing from regional positions to regular positions, 10 employees (including four non-Japanese employees) attended training to prepare them for this change. With the goals of providing motivation for their new positions and clarifying their future objectives, including specific personal and professional goals, the program raised employee awareness of numerous issues, including the importance of training and communicating with subordinates. Sessions were led by an outside leadership trainer regarding how to put human resource development into practice. Training was also provided on subjects such as mental health in the workplace, compliance, and understanding managerial courses of action.

Strengthening cooperation with partner companies to achieve a better construction industry

Building even stronger bonds of trust with partner companies

As we have done every year since the calendar’s first edition in 2010, we once again published a Monozukuri calendar as part of our continuing efforts to strengthen bonds with partner companies. This year’s publication run exceeded 10,000 copies, and the calendar has become an established symbol of the monozukuri (“building things”) efforts we make alongside our partners. We also held our 21st annual training program this year for next-generation managers at partner companies, welcoming 29 companies as participants. The support provided by this program has furthered our efforts to achieve strong partnerships and mutual prosperity.

Securing skilled human resources

The number of new graduates and younger people entering the construction industry has declined markedly in recent years. In the current fiscal year, Shimizu again implemented various measures to secure a strong human resource base. The joint company briefings for the hiring of new graduates organized by the Tokyo Kanekikai, composed of partner companies, was held this year for the fourth time. Some 20 companies active in areas including ground structures, finishing, facilities, and civil engineering took part. This was the first such event to be held at our new head office building. In these briefings, the attractions of the construction industry were discussed in detail with each individual student. As part of an awards system established to recognize outstanding forepersons making significant contributions at construction sites with respect to quality, safety, and the environment, we presented employees with commemorative boxes featuring the word takumi (“craftsperson”). This year, 23 persons received the takumi designation, making a total of 130 takumi currently active at sites across Japan. Other continuing efforts include the national deployment of a compensation system that forepersons can use to develop outstanding construction technicians and efforts to promote the Retirement Pension Fund Association for Construction Workers (Kentarei).

From a takumi recipient

On winning the award for outstanding forepersons

Takuma Hirota (structural carpenter), Hitachi Construction K.K., Fukushu Tekishitaikai Medical Center construction/new construction project, Kyushu Branch

Due to the special nature of the project, my work on the construction project at Hakata Station (my project when I won the award) proved an invaluable experience. It’s incredibly gratifying to win the award—it means I’ve become someone my family can take pride in. I believe we live to build things. Construction sites represent the front lines of monozukuri, places where things (‘mono’) are built (‘zukuri’). My goal is to continue striving to be a strong and trustworthy foreperson and to keep in mind at all times the joy of building things and the value of communicating with people in other positions. In this way, I hope I’ll be able to inspire others to do their best.
Health and Safety Efforts

In the area of health and safety, Shimizu is carrying out activities to prevent accidents by consistently implementing the Occupational Health and Safety Management System (OHSMIS). In fiscal 2013, we focused on three measures. First, the eradication of accidents involving falls or slipping, crane-related accidents, and a collapse of heavy structures; second, the prevention of short-fall accidents (short-fall: a fall from less than two meters high); and third, the prevention of accidents among older workers. By prioritizing the eradication of accidents involving falls, and also by the assessments of risk and the application of the Sangen-Shugi principle (the “three actuals”) to the actual site, the actual situation, and the actuality/understand and improve upon the current conditions, we aim to achieve further decline in accidents for fiscal 2013.

Fiscal 2012 results

The number of short-fall accidents and accidents caused by cranes or heavy equipment stood out. Adherence to basic rules remains a concern.

■ Health and safety goals and results
Our accident frequency rates in fiscal 2012 worsened from fiscal 2011, rising from 0.59 to 0.54, and missing our target of 0.60.
* Accident frequency rate: The number of death and injuries per million cumulative man-hours (figure for all industries and for the construction industry represent accidents resulting in one or more days of lost work; figure for Shimizu represents accidents resulting in four or more days of lost work.)

■ Accident analysis
As shown in the chart categorized by accident types, percentage of falling accidents has especially increased, from 9% in fiscal 2011 to 13% in fiscal 2012. These accidents were equally distributed among all phases of construction (total working conditions, and work as a team to eliminate accidents,” he said at a morning press conference. Each year, President Miyamoto undertakes safety patrols at construction sites. Despite his efforts, a breakdown of accidents by age shows a tendency for short-fall or slipping accidents to increase with worker’s age. The percentage of high-fall accidents was especially high among younger workers. (high-fall: a fall from more than two meters high)

■ Company President Mr. Miyamoto undertakes safety patrols
Each year, President Miyamoto undertakes safety patrols at construction sites during National Safety Week and National Occupational Health and Safety Week. “I want each you to diagnose the project site as well as each other’s conditions, and work as a team to eliminate accidents,” he said at a morning meeting at the Kabuki-za redevelopment site he visited in July. After taking part in a site safety patrol, he offered the following encouraging words to site workers: “I hope you’ll continue your safety practices to serve as a model for all our projects around the country.” All phases of construction (total working hours: 3,125,894 hrs) were completed by the end of February 2013 without a single accident.

Specific measures in fiscal 2013

■ Eradication of falling accidents (top priority)
Having made eradication of falling accidents the top priority, we will implement our double safety measures suited to specific work details and risky areas based on assessments. Together with these efforts, we will monitor accident prevention measures and make improvements based on the Sangen-Shugi principle.

■ Prevention of accidents among older workers
Due to the high rate of short-fall or slipping accidents among older workers, we will create work environments that account for older workers. Examples include deploying barrier-free safety walkways, marking stairs closely, and ensuring adequate lighting.

■ Ensuring subcontractors obtain social insurance
Shimizu has strengthened its check using systems such as GIS®, in order to encourage subcontractors to provide social insurance and improve working conditions for skilled workers.

■ Significant reductions in short-fall accidents
Due to the continuing high rate of short-fall accidents, we will identify the work details and specific locations associated with a high risk of such accidents and establish to carry out appropriate prevention measures. We will also reinforce the proper use of stepladders, movable work platforms, and similar equipment.

Accident prevention among older workers.

Prevention of accidents among older workers involves the general public.

Efforts at the Otononaka Tunnel

Bypass construction with consideration for the local community and the environment

The Otononaka Bypass project is a high-spec road construction project that links the village of Otoineppu and the town of Nakagawa on National Hwy. 40, which stretches from the city of Asahikawa to the city of Wakkanai in Hokkaido. The roadway bypasses a stretch of road where flooding, icebergs and avalanches place special restrictions on transit, thus improving the safety and reliability of road transport and reducing traffic accidents. Construction of a 4,698-meter tunnel, a part of the bypass construction and located on the border between the village of Otoineppu and the town of Nakagawa, involves year-round transport of soil by 30 dump trucks over a distance of 40 kilometers from theafarestand of the construction site to the disposal site. As this area experiences heavy snowfall during winter, work on the project is proceeding along with regular communication with the local people in order to prevent winter traffic accidents involving third parties on Hwy. 40. Since the construction is taking place inside a Hokkaido University research forest, we also considered ways to reduce the environmental impacts caused by the project.

■ Prevention of accidents involving third parties
- Installing safety barriers on dump trucks
Traffic safety barriers were designed to help prevent accidents year-round on national highways. The various barriers were prominently displayed on the front of all trucks, to help raise safety awareness for the truck drivers as well as other drivers on road.

■ Communication with the local community
- Monthly flyer distributions
We distributed flyers to promote further understanding of our construction activities among the community, resulting in closer ties with area residents.

■ Environmental measures in the Hokkaido University research forest
- Protecting the trees in the research forest
Shimizu removed snow from seven kilometers of narrow forestry roads in the Hokkaido University research forest for 24-hour use by the tunnel construction work. We also took measures to avoid inadvertently knocking over these precious trees.
- Spreading of sand on forestry roads to enhance traction and prevent slipping
We also made efforts to protect the environment by spreading sand instead of snow melting chemicals on the frosty roads when using them for construction.
- Lowering tolerances for pH and SS values of construction wastewater
Flowing through the Hokkaido University research forest, the Kotoshigara River is a part of a natural environment monitoring zone for agratic life including the cherry salmon. We lowered tolerances for project wastewater from the regulatory values (pH: 1, SS: 150 mg/L) closer to natural levels in order to protect the environment. Warnings are issued if runoff from the site reaches pH levels of 6.5 to 7.5 or SS levels of 50 mg/L.

Contributing to the local environment while striving to achieve zero accidents

Although the weather was particularly poor, we were able to overcome difficulties of safety and environmental management at the two separate segments which were 40 km far from each other.

With employees and partners working side by side as Team Otonoaka, we will continue to contribute to the local community while targeting zero fatal accidents, serious injuries, and accidents which involves the general public.

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Communicating with Society/Social- Contribution Activities

Shimizu pursues its business efforts in careful coexistence with local communities across Japan and around the world. We communicate proactively with local communities to deepen mutual understanding, improve our business activities, and make various contributions to society. As part of these efforts, we have identified the typical activities of each section as a single medama (“special feature”) project. In fiscal 2012, 15 sections took part in the Medama Project.

Fiscal 2012 performance

- Designating activities suited to the characteristics of each local community at branches, offices, project sites, Group companies, etc.
- Medama projects in 15 sections
- Number of participants in site tours across Japan: 13,014 individuals

Fiscal 2013 targets

- Taking a proactive approach to enhancing communication with local communities at branches, offices, project sites, Group companies, etc.
- Target number of participants in site tours across Japan: 14,000 individuals

Activities targeting community dialogue

Activities that contribute to community vitality

- An event for interaction with the local community at an expressway construction site
  - Construction is currently underway on the Tokyo Gaiakou Expressway at the Gaiakou-Owada construction site in the city of Ichikawa, Chiba Prefecture. The Chiba Gakan Project Community Event in Support of Earthquake Recovery in Fukushima was held here in June 2012 to help residents of Fukushima Prefecture and create opportunities to mingle with Ichikawa residents. The event included shops set up by Ichikawa retailers and vendors from roadside rest areas in Fukushima Prefecture, a recital by area children, opportunities for residents to pose with heavy construction equipment for commemorative photos, and panel displays on this expressway project. Some 2,500 local residents attended the event, which bustled with energy from start to finish.

- Site tour of construction on a traditional structure
  - In November 2012, the city of Shizuoka in Shizuoka Prefecture hosted a tour for city residents at the site of Sunpu Castle’s Hituisuyayagura tower in the city’s Sunpu Castle Park. Shimizu is currently undertaking restoration work at this site. Built by Totsugawa Ieyasu, Sunpu Castle serves as a symbol of his Shogun government. As part of the park improvement project, the city of Shizuoka is restoring Hituisuyayagura, the castle’s largest tower. Some 170 city residents took part in the tour. Participants marveled at the restoration of the tower’s graceful structure as they climbed to the top of the temporary structure housing the tower.

- Community Exchange Center begins activities at the new head office building
  - The Community Exchange Center begins activities at the new head office building. In November 2012, the Center was opened at the new head office building, which opened in August 2012. During fiscal 2012, the Center rented facilities at the head office building for use by organizations registered with Chuo Ward. Also, in November and December the Chuo citizen’s college program organized by Chuo Ward held three sessions of a course conducted jointly with Shimizu, “Mimosakurikatotenshi” (the handing down of specialized technologies, knowledge, and skill) as seen in Construction: Fieldwork in the Architecture of Chuo Ward.” Each of the three sessions was attended by 60 people, more than the expected number of participants.

Community outreach efforts by Group member company TTK Co., Ltd.

Delivering new perspectives through bridge tours

TTK Co., Ltd. is at work on some 20 bridge construction sites at any given time. The company interacts with local residents through bridge tours and other activities. In September 2012, it held a work site tour on the Shokanoki Overpass on the Otadai-Nihon Highway (part of the Japan Sea-Tohoku Expressway) that was organized jointly with the Ministry of Land, Infrastructure, Transport and Tourism’s Nooshiori River and National Highway Office. Participants walked over the surface of the bridge being built and looked out over the scene. Among the many questions asked included, “How earthquake resistant is the bridge?” Said one guest, “This tour definitely brought me closer to the road and to the bridge.”

Contributing to the community: Restoring the study of the historic Shimizu home

The study within the historic Shimizu home (built around 1910 as an annexe) has been restored and relocated to a Japanese garden opened by Tokyo’s Setagaya Ward in April 2013 within Futakotamagawa Park, where it will serve as a sumidaeshura facility. Shimizu partnered with Setagaya Ward in the design and construction efforts, and also assumed the construction costs as part of its efforts to contribute to the community and preserve the architecture of this period. Faithfully restored in every detail, but now incorporating safeguards against damage from earthquake and other threats, the structure was registered with the ward as a tangible cultural asset in March 2013. It is open to the public.

Joint efforts with other organizations

Joint efforts involving company-provided training for teachers

In August 2012, Shimizu took part in a program involving company-provided training for teachers, an annual effort undertaken by the Keitak Koho Center. The program accepted five teachers in their 20s and 30s who work at kindergartens, high schools, and technical schools for a three-day training program. After learning about the construction industry and Shimizu’s business concepts in classroom lectures, participants toured the head office, the Institute of Technology, and Tokyo Moskousou Arts & Crafts Furnishings, thereby experiencing the latest construction technologies at actual sites. To get an even clearer idea of the state-of-the-art in monozukuri, they also visited the Kabuki-za redevelopment and Kanamach Purification Plant sites.

Remarks by teachers on the training program:

- “It was enlightening to learn about the woodworking activities of a general contractor.”
- “Learning about new construction methods by actually seeing the sites and hearing them described on the site tours provided useful information for my classes.”
- “In my work in education, I want to nurture people companies will need: people with human skills who are also capable of creating new environments and technologies to build a new era.”

Major initiatives to advance social contribution activities among employees and executives

“Table for Two” menus used at employee dining halls

Shimizu’s participation in the Table for Two program of the world’s roughly seven billion people, one billion suffer from hunger, while another billion suffer from lifestyle-related conditions such as obesity attributable to diet. The nonprofit Table for Two was established in Japan in fall 2007 to help address this dramatic inequality regarding food access. In fiscal 2012, Shimizu took part once again in Table for Two program.

Under this program, when an employee selects an eligible meal item from the menu, the company donates 20 yen to pay for school lunches for children in developing countries. Shimizu introduced the Table for Two program at employee dining halls in its company facilities. In fiscal 2012, a total of 3,172 employees took part in the program.
Stakeholder Reactions to the CSR Report 2013

From the Director Responsible for Dialogue with Stakeholders

—Shimizu Corp.—

Stakeholder Reactions to the CSR Report 2013 From the Director Responsible for Dialogue with Stakeholders

While the 19 CSR Reports published to date have discussed the form of our CSR activities and how to disclose CSR-related information, typically using stakeholder dialogue as the most important forum for communication. In this year’s dialogue, I believe we were able to engage in fruitful discussion in a way that incorporated the results of last year’s stakeholder dialogues. For example, this year’s CSR report discourses key performance indicators (KPIs), a result of long discussions. We have established indicators that describe CSR in the construction industry, and it also makes clear the relationship between KPIs and business activities in accordance with the principles of the UN Global Compact, to which Shimizu is now a signatory. Another example is the Shimizu CSR website, which we plan to establish as the main tool to disclose CSR activities and information separately. In the future, however, integration and coordination of environmental, social, and governance (ESG) factors and business results will be essential at a strategic management level in order to maximize corporate value. I look forward to seeing a deeper and future-oriented “Integrated Thinking” that links both financial and non-financial information.

Note For KPIs, see page 5.

Dialogue with Stakeholders

Shimizu provides opportunities for dialogue with a wide range of stakeholders including experts, students, and consumers.

■ Held on Thursday, April 11, 2013, in a meeting room at Shimizu

We held a discussion forum on the 18th Shimizu CSR Report (2012), based on assessments and analyses from the perspectives of students.

Held on Friday, March 22, 2013, at Shimizu’s Tokyo Mokkoujou Arts & Crafts Furnishings

■ Held on Thursday, April 11, 2013, in a meeting room at Shimizu

We held a discussion forum on the 18th Shimizu CSR Report (2012), based on assessments and analyses from the perspectives of students.

Held on Friday, October 19, 2012, in a meeting room at Shimizu

■ Held on Monday, October 29, 2012, at a hotel in Tokyo

We held a discussion forum on the 17th Shimizu CSR Report (2011), based on assessments and analyses from the perspectives of students.

Held on Thursday, April 11, 2013, in a meeting room at Shimizu

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A discussion between businesses and consumers organized by the Keizai Koho Center.

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**Fiscal 2012 External Awards**

- **Winning projects at the 53rd BCS Awards**
  - Touroku Cubic Garden (design, construction)
  - Hitoya/Katsumi H. Hitoya store (Power Ship) (construction)
  - Kyoto Ritsukyo University/Katsura College New Accident Building construction project (construction)

- **Japan Society of Civil Engineers Awards**
  - Technology Award
  - Long-life Section

- **BELCA Awards (Technology Award)**
  - Main Pump Station construction at Kurobe Railway's Chôra Station
  - Hibiya Kadan K.K. Hibiya store

- **List of other awards won**
  - Work recognized by prizes or awards

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**Independent Assurance Report**

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**Environmental Management System (ISO 14001)**

- **Policies, objectives**
  Based on its Basic Environmental Policy, Shimizu has established Environmental Policies for each of the following sections: ISO 14001-certified architectural construction and civil engineering businesses, Engineering Headquarters, and Nuclear Projects. Details can be found at:

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**Quality Management System (ISO 9001)**

- **Quality policies**
  Individually quality policies are established for each of the following segments: architectural construction, civil engineering, and construction.

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**Editor’s Afterword**

In fiscal 2012, Shimizu focused on our development and implementation of environmental technologies such as energy conservation and disaster-prevention technologies as well as mitigation technologies that is our urgent issue currently. In fiscal 2012, our business field was also expanded physically by overseas business and urban development and conceptually by getting into the new business field like renewable energy business. In references to our management incentive special feature was titled “Opening and Enlarging” and provides an introduction to some symbolic projects in this regard. Starting with this year’s report, the Activities section provides KPIs to make our CSR initiatives easier to grasp. We’ve also added the Shimizu CSR Best 100* to our website to introduce some of the efforts carried out each year and other carefully selected initiatives. We will continue to update this content on our website. We have every intention of listening to and incorporating the feedback provided by our readers, thereby continuing to strengthen Shimizu’s CSR activities.

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