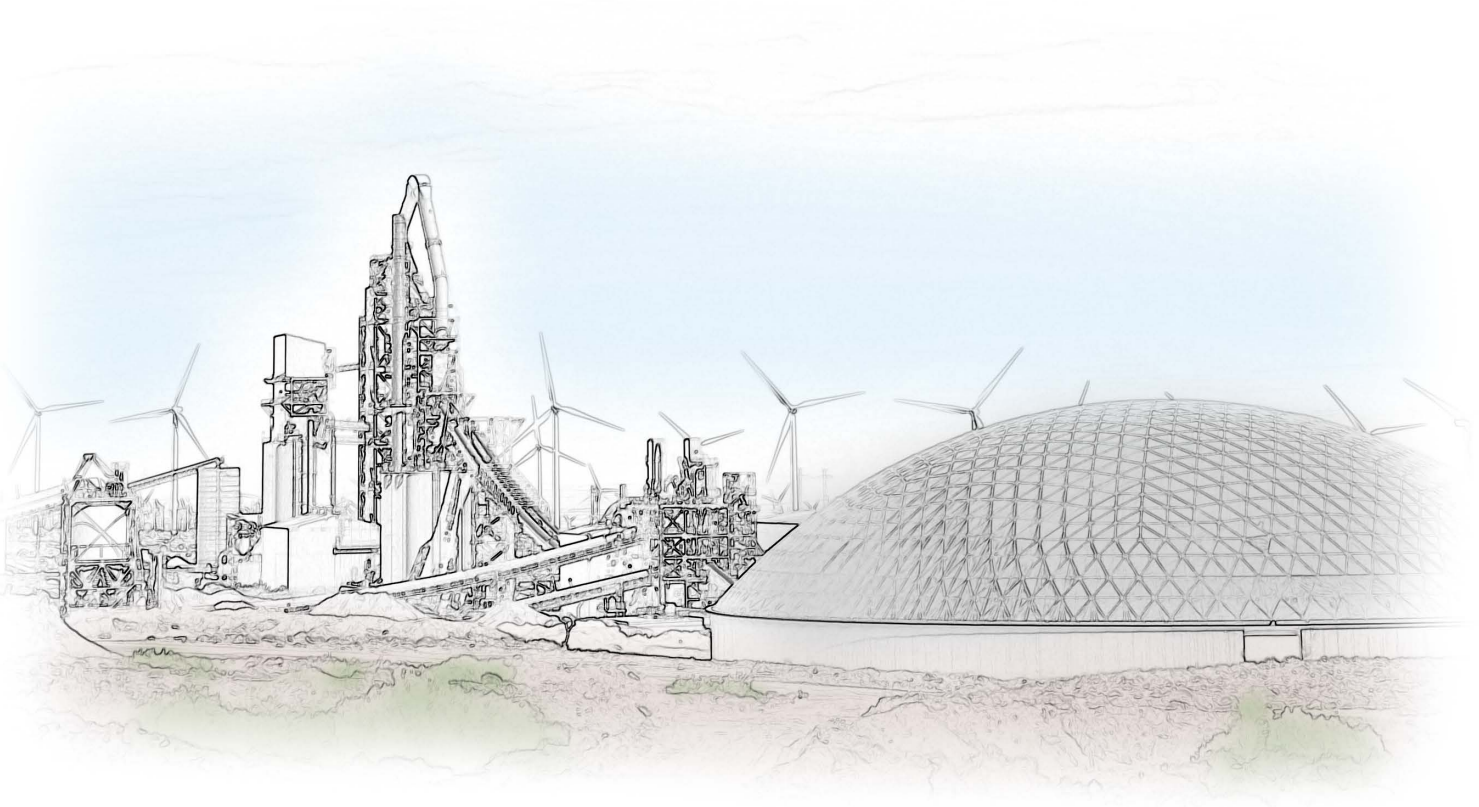
CSR REPORT 2018

TAIHEIYO CEMENT CORPORATION
Corporate Social Responsibility Report 2018



TAIHEIYO CEMENT CORPORATION

Continuing to grow and change with vitality and an insatiable curiosity while remaining firmly established as an enterprise that society depends on

Masafumi Fushihara

Masafumi Fushihara

President and Representative Director
Taiheiyo Cement Corporation

Being Appointed President

I assumed the office of president and representative director of Taiheiyo Cement Corporation in April 2018 on the company's 20th anniversary and in the 140th year since the original company, which evolved into the Taiheiyo Cement Group, was founded. We are truly fortunate to carry on the legacy of a cement business for such a long period. Nevertheless, current domestic demand for cement is at less than half of its peak in the 1990s. This means that the days are gone when we were recognized as a valuable business in society just for providing a stable supply of high-quality cement.

While anticipating a gradual decline in domestic demand for cement, we have recently been focusing on strengthening our non-cement operations, such as the International, Environmental and Mineral Resources Businesses. I think one reason I was appointed president, with the heavy responsibility for navigating through this transitional period for the group, is my extensive involvement in non-cement businesses. Given this situation, I am fully aware of the great responsibility that I assume in taking on this worthy challenge.

Our Confidence Boosted by the 17 Medium-Term Management Plan

We have announced the group's intention to achieve our Future Vision and Direction targeting the mid-2020s to be an enterprise group capable of providing a sense of safety and security to communities in the Pacific Rim by demonstrating the group's overall capabilities. Under the 17 Medium-Term Management Plan, positioned as the first step to achieving our vision, we have focused all our energy on reaching these three objectives: (1) generate and improve our earnings capacity, (2) build a flexible and strong financial structure, and (3) enhance shareholder returns.

Overall, we have successfully achieved this first step. We have made great strides in further strengthening our financial structure and have substantially increased corporate value by considerably reducing interest-bearing debt and taking other actions. Our investments in growth areas to generate and improve our earnings capacity have been implemented as planned, including the purchase of the Oro Grande plant in the U.S. and launch of the biomass power generation business in the Ofunato Plant.

Our only miscalculation has been the lower-than-expected domestic demand for cement. Under these

circumstances, we have been able to achieve the major objectives of our medium-term management plan, which has significantly boosted our confidence. Along with this progress, we have formulated the 20 Medium-Term Management Plan as the second step for realizing our Future Vision and Direction.

Investing in Growth Areas, Fully Aware of Risks and Opportunities

Under the 20 Medium-Term Management Plan for the three-year period from fiscal 2018 to fiscal 2020, we will establish a sound business foundation for the group's sustainable future growth by continuing our initiatives and implementing new measures to strengthen earnings capacity, a persistent challenge, based on the business and financial strategies and results of the 17 Medium-Term Management Plan. For instance, we will focus on investing in growth areas, with a plan to invest 120 billion yen in those areas over the three years. To maximize synergies with our businesses, we will focus investments on the International, Environmental and Mineral Resources Businesses. In implementing the 20 Medium-Term Management Plan, we will accurately identify medium- to long-term business environments, risks and opportunities and incorporate them into our strategies. In doing so, we must consider the ESG (environmental, social and governance) perspective that has recently emerged as the key for evaluating corporate sustainability. Everyone in the cement industry is naturally aware that the business depends on mining activities in their nations. All of us must therefore acknowledge public expectations for our business operations in regard to protecting the natural environment,

contributing to communities and adopting the necessary discipline that allows us to maintain this perspective.

It is even more likely that further development of our international business will pose unexpected country risks. The Taiheiyo Cement Group consists of a wide range of companies, including over 300 entities. The group's sustainable future growth will absolutely depend upon rigorously implementing risk management worldwide while ensuring the safety of every company and employee from a number of perspectives.

Promoting CSR as an Initiative for Strengthening the Management Foundation

The group has established quantitative targets in the areas of (1) Prevention of accidents, (2) Reduction of greenhouse gas emissions, and (3) Workplace diversity as CSR Objectives for 2025 and incorporated them into the 17 Medium-Term Management Plan. We have continued with this approach for the 20 Medium-Term Management Plan and will promote those targets as key actions for strengthening our management foundation. Many companies have recently endorsed the UN Sustainable Development Goals. We recognize that aligning our CSR, including efforts to address social issues, with our management targets is essential in order to contribute to achieving the goals as a key industry for urban infrastructure.

Accident prevention has continued to be a primary focus. Our top management is firmly committed to developing a safety culture to prevent accidents that generate concern among employees and uncertainty among their families, and they are ready to take any necessary actions.

The reduction of greenhouse gas emissions is a key area in which the cement industry specifically will be able to exert its influence. A large amount of CO_2 is produced in the course of cement manufacture. However, appearing to admit this connection as unavoidable will delay any progress in this social issue. For example, significant advances in addressing the issue become more likely if we establish a technology for recovering CO_2 emitted from chimneys. While this may take a lot of time, it will be well worth the effort.

In terms of diversity, with a particular focus on empowering women, we will strengthen our awareness-raising efforts and improve our working environment. These efforts will contribute to addressing the issue of Japan's declining labor force. Hiring more women is easy; the challenge is enabling them to continue to work with a sense of purpose. We will encourage diversity by, for example, creating a working environment that allows female employees to resume their careers easily, even after a temporary leave.

Achieving Growth for the Entire Group

Taiheiyo Cement was founded through the merger of three companies that collectively represent over 100 years of history and unique contributions. Therefore, as a company with an intense curiosity, it has surely inherited the corporate DNA of the original merged companies. We have learned from our corporate history about the pioneering spirit of those who have come before us, and we have inherited their same energy and drive for achieving success. For instance, the company launched its extensive overseas operations around 1990, when demand for cement in Japan was at its highest, and also led the industry in launching environmental protection initiatives.

Clearly the cement business will continue to be the mainstay business for the Taiheiyo Cement Group. On the other hand, we will be able to continue to contribute to the creation of a sustainable society by adapting our business foundation to changes in the economic environment and growing the entire group. Under the new medium-term management plan, we are committed to achieving this new phase of the Taiheiyo Cement Group by nurturing a sense of unity among domestic and overseas employees and sharing the aspiration to grow together beyond our various financial connections.

Formulation of the 20 Medium-Term Management Plan (FY2018–FY2020)

● Medium- and long-term direction for future sustainable growth

Future Vision and Direction (toward the mid-2020s)

To become an enterprise group that provides a sense of safety and security to societies in the Pacific Rim by demonstrating the group's overall capabilities

Mission of the Taiheiyo Cement Group

Our mission is to contribute to social infrastructure development by providing solutions that are environmentally efficient, enhance our competitive position and bring value to our stakeholders.

● Outline of the 20 Medium-Term Management Plan

Fundamental Policies

To become an enterprise group that anticipates future changes in the business environment and seeks innovations on all fronts, thereby advancing along a pathway of growth.

To contribute to the establishment of a sense of safety and security in society through the stable provision of high-quality products, solutions and advanced technology development, in order to build national resilience as a member of the social infrastructure industry.

To push ahead with the strengthening of our earnings foundation for businesses and further improve our financial structure through thorough cost reductions as well as by actively executing investments in promising fields that will contribute to the group's sustainable growth.

Strategy for Research and Development | **Business Strategies** | **Strengthen Management Foundations**

Establish a solid business foundation

● 20 Medium-Term Management Plan: Management Targets

	Target for FY2020
Operating Income on Sales	9% or more
ROA (ordinary income)	8% or more

● 20 Medium-Term Management Plan: Guidelines for Achieving Management Targets

Indicators (Billions of yen, unless otherwise stated)

	FY2017 Actual	FY2020 Plan	Change
Net sales	871.1	950.0 or more	78.9 or more
Operating income	65.1	85.0 or more	19.9 or more
EBITDA*	111.6	140.0 or more	28.4 or more
Net debt/equity ratio (DER) (times)	0.6	0.5 or less	More than -0.1
Net interest-bearing debt/EBITDA* (times)	2.1	1.5 or less	More than -0.6

*EBITDA = Operating income + Depreciation (including goodwill amortization)

Financial Strategy and Shareholder Returns

Generate an operating cash flow of 300 billion yen

Capital expenditure and investment and financing (total of three-year period)	Returns to shareholders	Further improvement of our financial structure
230 billion yen (including growth investments: 120 billion yen)	Consider flexibly repurchasing shares toward achieving a total return ratio of around 30%	Net debt/equity ratio (DER) (times) 0.5 or less

Review of 17 Medium-Term Management Plan (FY2015–FY2017)

As the first step toward realizing our future vision and direction, the group has worked to:
(1) generate and improve its earnings capacity,
(2) build a flexible and strong financial structure, and
(3) enhance shareholder returns.

	Plan	Results
❶ Earnings capacity	**Enhance existing businesses** thorough cost reductions, etc. **Formulate and implement growth strategies** Grow investments for generating and improving earnings capacity (100 billion yen)	**•Significant, deeper-than-expected decline in domestic cement demand** Management targets underperformed → Continue to strengthen our earnings capacity **• Executed growth investments as planned** Acquisition of the Oro Grande plant (U.S.) and construction of a new mill, the biomass-based electricity business, DC Co., Ltd.'s becoming a wholly-owned company, etc.
❷ Financial structure	**Reduce interest-bearing debt** **Improve the equity capital ratio** **Promote selection and concentration**	**•Significantly reduced interest-bearing debt** **•Achieved net DER and other financial indicators one year earlier than planned** **•Improved the equity capital ratio**
❸ Returns to shareholders	**FY2015: dividend of 6 yen/share** **Increased by 1 yen/share from FY2014** **FY2016–FY2017** **Determined dividends with consideration of fund needs for growth investments, etc.**	**•FY2015–FY2017: maintained dividends of 6 yen/share*** **•FY2016: repurchased 10 billion yen of Taiheiyo Cement Corporation's shares** *The company has consolidated shares of common stocks at a rate of one for every ten shares, effective October 1, 2017. As a result, the year-end dividend per share for FY2017 will be 30 yen. The dividends per share for the period and for the full year, without reflecting the impact of share consolidation, are 3 yen and 6 yen, respectively.

Management Targets

	FY2017 Plan	FY2017 Actual
Operating income on sales	8.4% or more	7.5%
Return on assets (ROA) (ordinary income)	7% or more	6.3%

Guidelines (Billions of yen, unless otherwise stated)

	FY2017 Plan	FY2017 Actual
Net sales	950.0 or more	871.1
Operating income	80.0 or more	65.1
EBITDA*	125.0 or more	111.6
Net debt/equity ratio (DER) (times)	Less than 1.0	0.6
Net interest-bearing debt/EBITDA (times)	2.6 or less	2.1

*EBITDA = Operating income + Depreciation (including goodwill amortization)

Mission of the Taiheiyo Cement Group ►GRI102-16*

Our mission is to contribute to social infrastructure development by providing solutions that are environmentally efficient, enhance our competitive position and bring value to our stakeholders.

Business Principles Governing the Way the Company Conducts Business ►GRI102-16

- We are committed to creating sustainable value for our shareholders by generating synergies among the Taiheiyo Cement Group of companies.
- We aim to manage the environmental impact of our operations while supporting the development of a recycling-based society.
- We will act in an ethical manner and abide by the laws and regulations of those countries in which we operate.
- We will openly communicate with our stakeholders and proactively report on our business activities in a transparent manner.
- We are committed to the ongoing development and application of innovative technologies in order to provide products and services that benefit our customers and society.
- We are committed to maintaining an international outlook and conducting our business in accordance with global standards.
- We will strive to anticipate the changing business environment to assess new opportunities for growth.
- We are committed to achieving our full potential through training and self-development.
- We are devoted to providing a safe and healthy working environment where our employees are valued and the human rights of all individuals involved in our business are respected.

Under the Mission of the Taiheiyo Cement Group, which was established in June 2002, the company pledges to focus its management on the triple bottom line, the economy, the environment and society, to realize sustainable development, a shared principle of the WBCSD of which we are a member. In December 2002 we formulated the Business Principles of Taiheiyo Cement, which comprise nine principles for realizing the Mission of the Taiheiyo Cement Group, and are striving to implement them.

Contents

*Relevant indicators of the GRI Standards are shown next to titles in the report.

Future of the Taiheiyo Cement Group ►GRI103-1

Vision and direction targeting the mid-2020s

To become an enterprise group that utilizes all of its capabilities to provide a sense of safety and security to society in the Pacific Rim region.

CSR Objectives for 2025

I. Prevention of Accidents

Fatalities: 0

II. Reduction of Greenhouse Gas Emissions

Reduce by at least: 10%

*Specific net CO_2 emissions per tonne in comparison to fiscal 2000 levels

III. Workplace Diversity

Ratio of female to male employees among new hires at least: 30%

Ratio of female to male employees at least: 10%

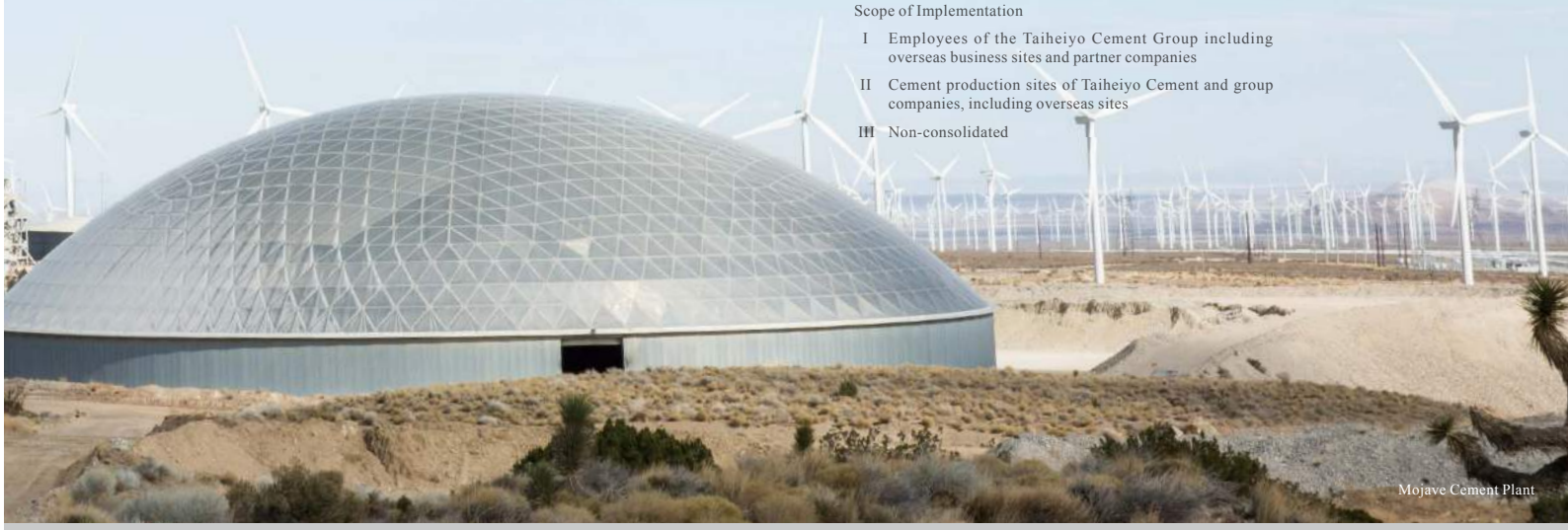
Ratio of newly appointed female to male managers at least: 10%

Scope of Implementation

I Employees of the Taiheiyo Cement Group including overseas business sites and partner companies

II Cement production sites of Taiheiyo Cement and group companies, including overseas sites

III Non-consolidated



Mojave Cement Plant

CSR Objectives for 2025

	Area	Target (by FY2025)	Policy for Achieving the Target	Scope of Implementation
I	Prevention of Accidents	Zero fatalities	(1) Promote safety activities that ensure all employees of the group, affiliated companies and partner companies can independently implement PDCA cycles within each company. (2) Improve working environments to eliminate incidents of workers being caught by or dragged into equipment or falling.	Employees of the Taiheiyo Cement Group including overseas business sites and partner companies
II	Reduction of Greenhouse Gas Emissions	Reduce the specific net CO_2 emissions per tonne of cementitious product by at least 10% from fiscal 2000 levels by fiscal 2025.	(1) Further contribute to creating a recycling-based society. • Promote the global expansion of our recycling technologies for producing cement with conventional waste and by-products. • Promote the development of technologies for handling wastes that are difficult to recycle, with a focus on reusing them as alternative energy resources. (2) Promote further energy saving. • Introduce energy efficient equipment and install additional in-house power generation equipment such as waste heat power generation systems. • Promote further energy saving by adopting renewable energy sources. (3) Promote R&D activities that contribute to reducing global environmental impact, including R&D into innovative cement production technologies. • Promote the development of new technologies for practical applications.	Cement production sites of Taiheiyo Cement and group companies, including overseas sites
III	Workplace Diversity	• Increase the ratio of female to male employees under "G Course" (employees without work location restrictions) categories to at least 30%. • Build an appropriate portfolio of human resources by increasing the ratio of female to male employees to at least 10%. • Promote the appointment of female employees to management positions with the objective of raising the ratio of newly appointed female managers to 10%.	(1) Build an appropriate portfolio of human resources and actively promote attraction and retention strategies for recruiting and retaining talented women, while also implementing initiatives to achieve this goal. (2) Improve productivity and promote work-life balance management toward building an organization in which a variety of human resources can fully demonstrate their abilities in the workplace, while also implementing initiatives to achieve this goal.	Non-consolidated

Review of Operations at the Taiheiyo Cement Group

► GRI102-1, 3, 4, 5, 6, 7, 8, 10, 45, 103-2, 3, 201-1, 401-1, 405-1

Taiheiyo Cement Profile (as of March 31, 2018)

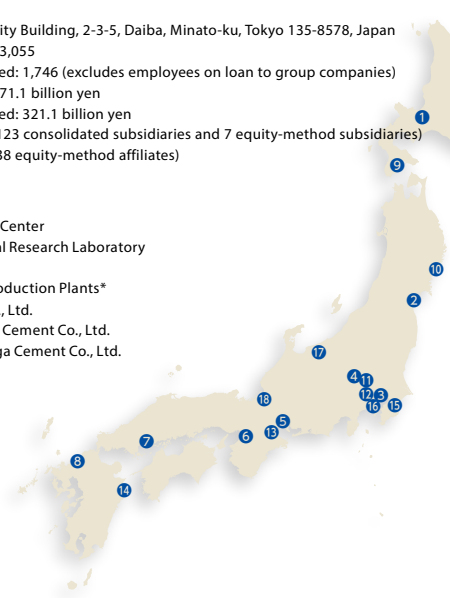
Company name	TAIHEIYO CEMENT CORPORATION
Established	May 3, 1881
Capital	86.2 billion yen
Headquarters	Daiba Garden City Building, 2-3-5, Daiba, Minato-ku, Tokyo 135-8578, Japan
Number of employees	Consolidated: 13,055 Non-consolidated: 1,746 (excludes employees on loan to group companies)
Net sales	Consolidated: 871.1 billion yen Non-consolidated: 321.1 billion yen
Subsidiaries	202 (including 123 consolidated subsidiaries and 7 equity-method subsidiaries)
Affiliates	105 (including 38 equity-method affiliates)

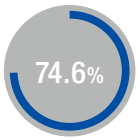
Headquarters/Branches
❶ Hokkaido Branch
❷ Tohoku Branch
❸ Headquarters/Tokyo Branch
❹ Kanto Branch
❺ Chubu Hokuriku Branch
❻ Kansai Shikoku Branch
❼ Chugoku Branch
❽ Kyushu Branch

Cement Plants*
❾ Kamiiso Plant
❿ Ofunato Plant
⓫ Kumagaya Plant
⓬ Saitama Plant
⓭ Fujiwara Plant
⓮ Oita Plant

Research Center
⓯ Central Research Laboratory

Group Production Plants*
⓰ DC Co., Ltd.
⓱ Myojo Cement Co., Ltd.
⓲ Tsuruga Cement Co., Ltd.





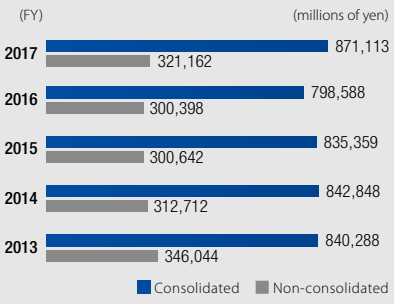
Japan: Net sales (consolidated, fiscal 2017)
649,909 million yen

Japan: Number of employees (consolidated, fiscal 2017)
7,842 [Male] 6,887 [Female] 955

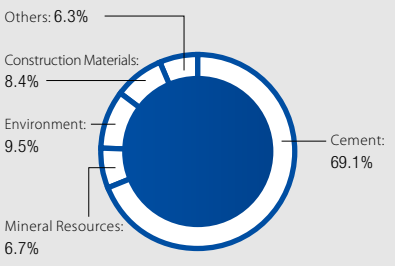
Financial Data

Economy

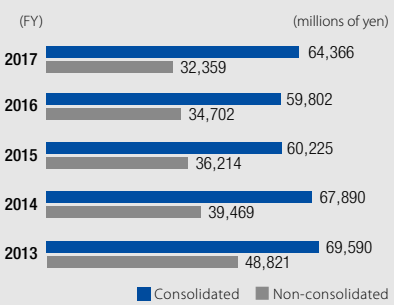
Net Sales



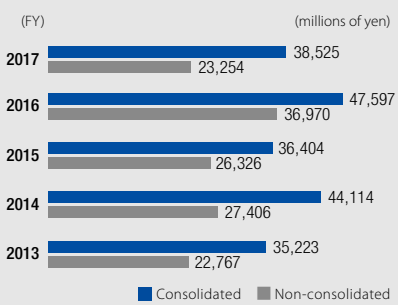
Net Sales by Segment (Consolidated, Fiscal 2017)



Ordinary Income



Profit Attributable to Owners of Parent (Consolidated), Net Income (Non-consolidated)



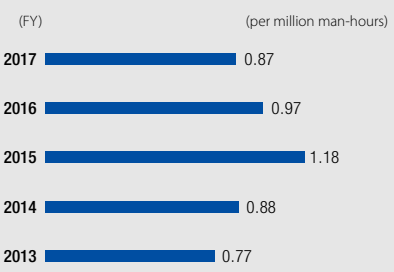
Non-financial Data

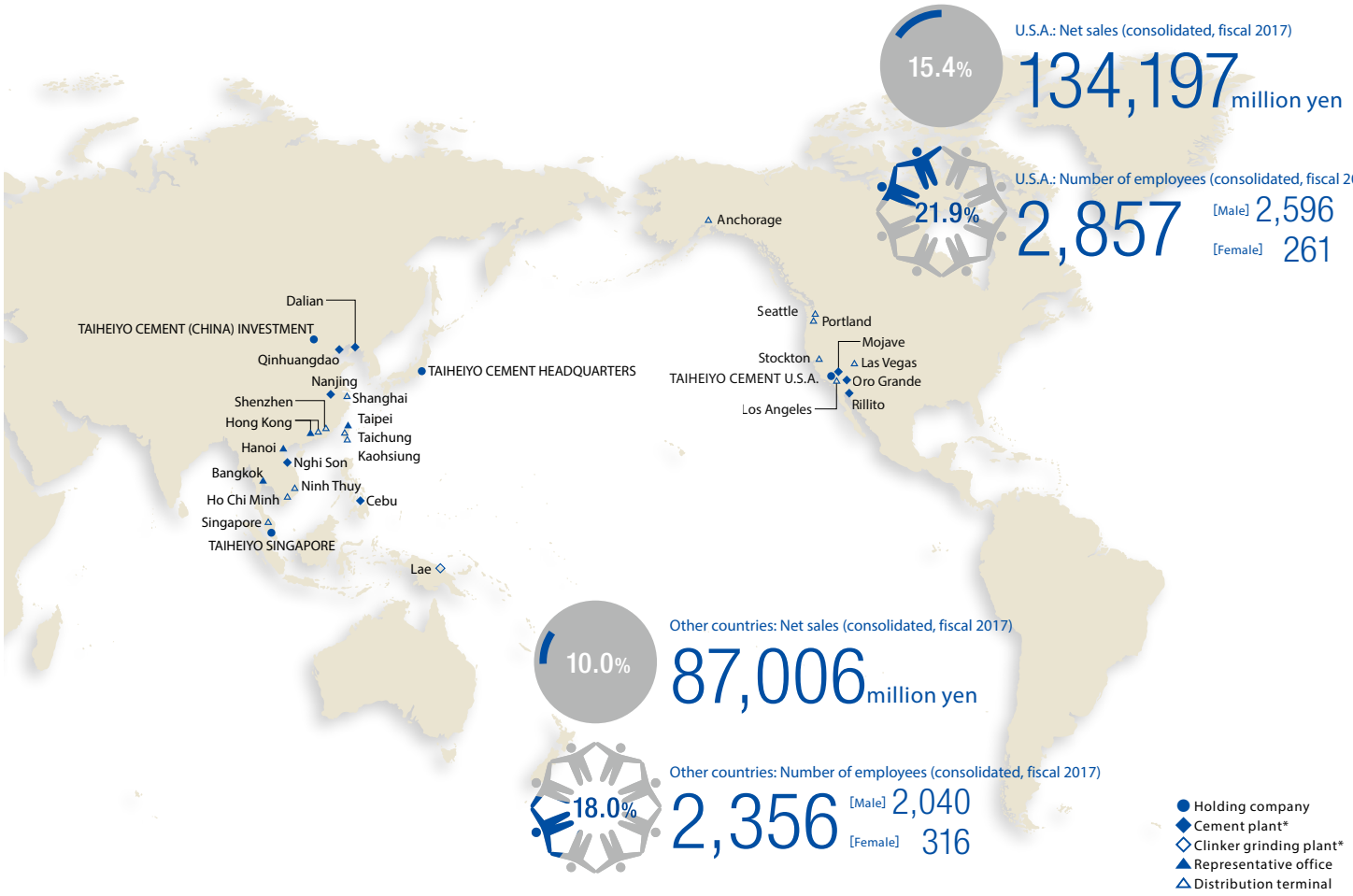
(Detailed data of reporting organization are provided on page 70.)

Safety

Number of Fatalities

Lost Time Injury Frequency Rate WBCSD





15.4%

U.S.A.: Net sales (consolidated, fiscal 2017)

134,197 million yen

21.9%

U.S.A.: Number of employees (consolidated, fiscal 2017)

2,857 [Male] 2,596 [Female] 261

10.0%

Other countries: Net sales (consolidated, fiscal 2017)

87,006 million yen

18.0%

Other countries: Number of employees (consolidated, fiscal 2017)

2,356 [Male] 2,040 [Female] 316

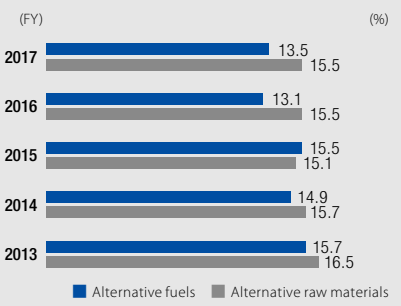
- Holding company
- Cement plant*
- Clinker grinding plant*
- Representative office
- Distribution terminal

* Business locations where data for WBCSD-CSI KPIs are collected (fiscal 2017)

Environment

Reduction Rate of Specific Net CO_2 Emissions per Tonne of Cementitious Product (Compared with Fiscal 2000) WBCSD

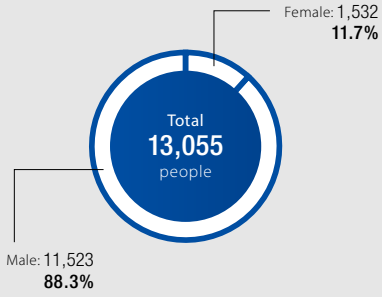
Ratio of Alternative Raw Materials and Fuels WBCSD



Diversity

Ratio of Female to Male Employees Non-consolidated

Number of Employees by Gender (Consolidated)



Management Plan

Review of the 17 Medium-Term Management Plan

Management Targets	FY2017 Plan	FY2017 Actual
Operating income on sales	8.4% or more	7.5%
Return on assets (ROA) (ordinary income)	7% or more	6.3%

Outline of the 20 Medium-Term Management Plan (FY2018–FY2020)

Management Targets	Target for FY2020
Operating income on sales	9% or more
ROA (Ordinary Income)	8% or more

Fundamental Policies

To become an enterprise group that anticipates future changes in the business environment and seeks innovations on all fronts, thereby advancing along a pathway of growth.

To commit to national resilience as a member of the social infrastructure industry by contributing to the establishment of a sense of safety and security in society through the stable provision of high-quality products and solutions as well as the development of advanced technology.

To push ahead with the strengthening of our earnings base for businesses and further improve our financial structure through exhaustive cost reductions as well as by actively executinginvestments in promising fields that will contribute to the Group's sustainable growth.

Strategy for Research and Development | Business Strategies | Strengthen Management Foundations

Establish a solid business foundation.

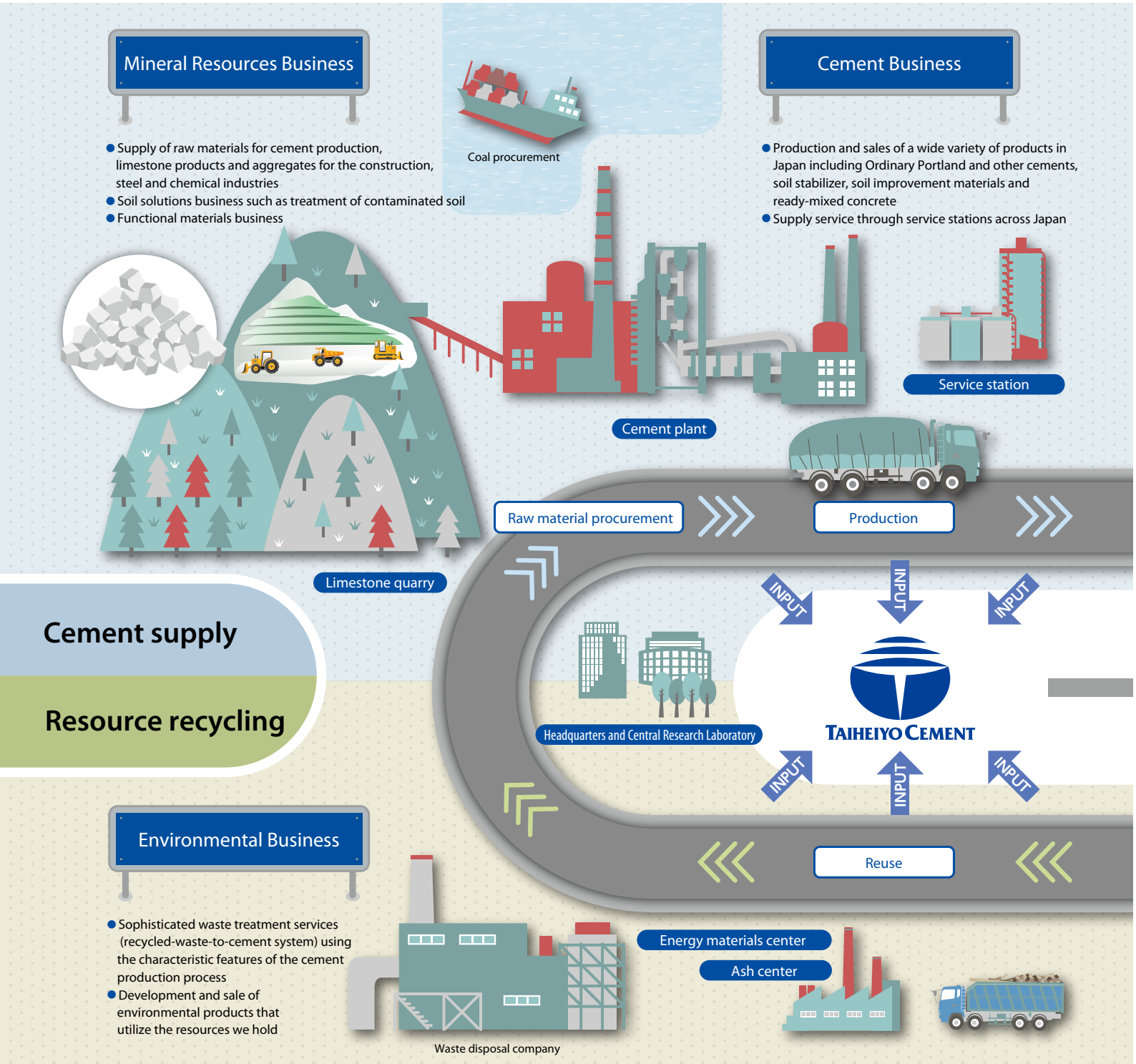
CSR Objectives for 2025
Disaster prevention, Reduction of greenhouse gas emissions, Diversity

Business Operations and Material Issues of the Taiheiyo Cement Group

► GRI102-2, 9, 11, 15, 29, 32, 40, 42, 43, 44, 46, 47, 103-1, 2, 3, 201-2, 203-1

The cement industry has two major social roles. One is to ensure a stable supply of base materials for building social infrastructure, and the other is to take advantage of cement production technology to encourage the circulation of resources in society through the safe recycling of wastes and by-products as alternative raw materials and fuels for cement.

The social value Taiheiyo Cement Group seeks to create under its growth strategy calls for performing these two social functions in the Pacific Rim region, providing a sense of safety and security, and thereby contributing to sustainable development.

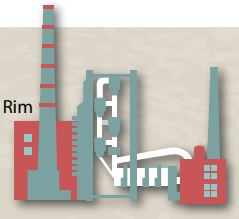


STEP 01 | Identification of Issues

We organized our environmental and social issues based on an overview of our value chain.

International Business

- Cement, ready-mixed concrete and aggregates business around the Pacific Rim
- Solutions for saving energy and reducing environmental impact that incorporate our cement production technologies



Other Business

Real estate business

Information processing business

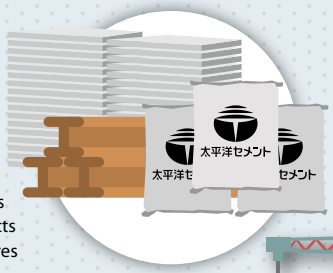
Transportation and warehousing business

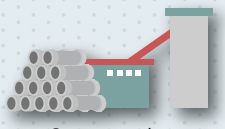
Engineering business

and others

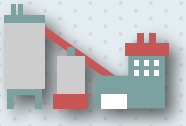
Construction Materials and Building Construction & Civil Engineering Business

- Manufacture and sales of a wide variety of construction materials
- Manufacture and sales of cement-related and concrete products
- Civil engineering work such as ground improvement projects
- Diagnostic and repair services for existing concrete structures



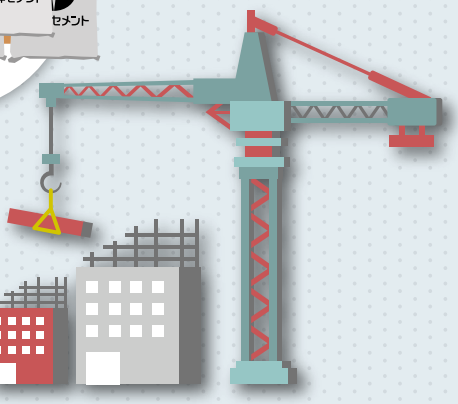


Concrete products manufacturing plant



Ready-mixed concrete plant

Sea transportation

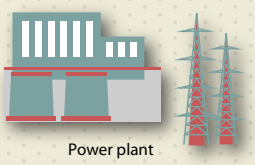


Construction site

Logistics and supply

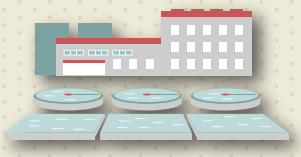
Use

OUTPUT	OUTCOME
Cement supply	Building safe and secure social infrastructure
Recycling waste and by-products	Creating recycling-oriented society

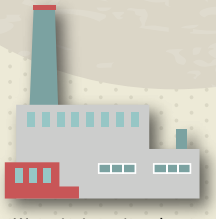


Power plant

Steel mill



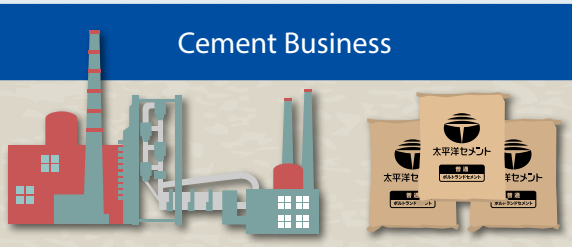
Water supply and drainage treatment plant



Waste incineration plant

Social Contribution and Initiatives by Segment and Relevant SDGs (STEP 01)

Cement Business



Products and Services

We contribute to the building of safe and secure social infrastructure by supplying a variety of high-quality construction materials.

Initiatives through our Business Operations

We contribute to the protection of the global environment and the creation of a recycling-based society through the use of waste and by-products that are difficult to recycle in other industries as alternative raw materials and fuels for cement. Before accepting any waste or by-products we conduct environmental impact assessments and, under strict regulations governing their use, we ensure the stable operation of our cement plants and avoid the discharge of pollutants. Moreover, waste is stored in fully enclosed facilities inside our plants so that odor cannot escape into the surrounding areas.

- **Manufacturing:** To maintain highly reliable product quality, we have implemented a quality management system in accordance with ISO 9001. We work to ensure that our cement production kilns are being safely operated and install equipment to protect the environment, including energy-saving equipment to maximize energy efficiency and equipment to reduce air polluting emissions. We also measure emissions of pollutants and then disclose the results.
- **Sales:** We place the highest priority on customer satisfaction and quickly and effectively respond to customer requirements through the collaboration of sales and technical staff and each business unit.
- **Technical divisions:** We conduct a wide range of activities, such as responding to customers' technical requests related to product use, and providing support for improving customers' technical capabilities as well as quality assurance.
- **Cement plants:** We communicate with the local population and contribute to their lives by holding community briefings on plant operations, offering worksite tours, making our facilities available for public use and participating in local festivals and events.

Mineral Resources Business

Products and Services

In addition to supplying essential raw materials and minerals for the manufacturing and construction industries, we also provide products and services that meet environmental needs. These products and services include the recycling of construction soil as raw materials and fuels for cement, and solutions such as DENITE® for treating contaminated soil that is difficult to recycle. DENITE® is a heavy metal immobilization product for the effective treatment of contaminated soils. Furthermore, we produce and sell a material for LEDs called ChiccaLight® and high-purity silicon carbide which is a single crystal material for power semiconductors.

Initiatives through our Quarry Operations

In quarry operations, representing our core business, we strive to ensure safety and reduce environmental impact during all stages, from development to closure. Specific efforts vary by quarry and site location. In consideration of the environment, we endeavor to prevent pollution associated with quarry operations such as air and water pollution, noise and vibration. We also promote the greening of quarries by soil dressing and tree planting.

For support and advice on quarry's safety, we set up a working group that includes outside experts as needed and we continue to maintain stable conditions at old quarry sites, deposited soil sites and quarry slopes. In addition to these efforts, we leave the perimeter of the quarry intact which works effectively as a raised embankment to protect the scenery at some locations.

With regard to our efforts to conserve biodiversity we have been successful in the preservation and growth of rare plant species by using biotechnology.

Research and Development

Cement segment
- Development of our innovative quality predictive system with a focus on maintaining and improving product quality.
- Promotion of R&D activities, such as lowering costs, protecting the environment, saving energy and reducing CO_2 emissions in the production of cement.

Concrete segment
- Promotion of our "Concrete Solution Menu" to provide useful information to each user through a dedicated website utilizing the technical data we have accumulated.
- Focus on R&D activities on cement-based materials with the world's highest strength
- Development of diagnostic and repair technologies that contribute to ensuring the safety and security of infrastructure.
- Striving to expand the use of concrete as a pavement material.

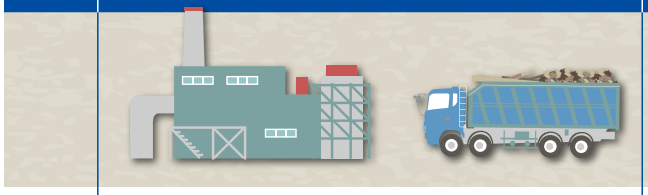
- Development of functional materials that add value to the mineral resources we hold, such as hollow spheres and ultra-high-purity silicon carbide.
- R&D activities on immobilizing agents, a technology for treating contaminated soil.

Key Stakeholders' Expectations and Demands Related to CSR Issues (STEP 01)

We strive to fulfill our responsibilities in response to the expectations and demands of stakeholders while directly and indirectly maintaining sound relationships with them. Listed right are the Taiheiyo Cement Group's key stakeholders, identified through consideration of our business characteristics and environment.

Stakeholders		Major Opportunities for Engagement
Shareholders	Shareholders, investors and financial institutions	● Publication of various reports (financial statements, annual reports and CSR reports, etc.) ● Website and IR site ● IR activities ● Response to surveys
Customers	Sales agents, ready-mixed concrete companies, ordering parties and waste disposal companies	● Sales contact at the head and branch offices ● User societies and industry associations ● Technical journal and product catalogue ● Technical workshop ● Website
Employees		● Labor-management consultation and briefing sessions ● Training programs ● Setting up contact points for consultation and whistleblowing ● Website and intranet ● In-house newsletter ● CSR report
Society	Local communities in which we do business	● Briefing sessions, debriefing sessions, tours and environmental monitoring system ● Social contribution activities ● CSR reports ● Dialogue
	Local governments	● Notifications to local governments ● CSR reports ● Dialogue
	NGOs and NPOs	● Meetings and gatherings ● Surveys ● Dialogue ● Social contribution activities
Suppliers	Business partners (procurement)	● Procurement briefing sessions
	Partner companies (facilities operation)	● The Health and Safety Cooperative Committee

Environmental Business



Products and Services

Our recycled-waste-to-cement system enables us to safely recycle large volumes of various waste and by-products generated in other industries. By recycling waste and by-products as resources we not only extend the lifetime of landfills but also help prevent natural resource depletion and reduce environmental impacts.

In the environmental product business we contribute to the creation of a recycling-based society by recycling resources, using a recycling system in which we not only sell limestone to thermal power stations as a flue-gas desulfurization material but also receive the gypsum generated by the power stations as a by-product, which we then use as raw material for cement.

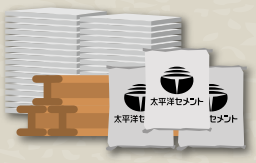
We are also expanding our environmental business in the area of water filtration and purification by consolidating water-related technologies across the group to address environmental issues.

Initiatives through our Business Operations

As a company engaged in the environmental business we also aim for good relationships with business partners and local communities and secure their trust by focusing on compliance and managing risk and safety matters. In order to safely handle waste we follow our manual for its acceptance and use and make sure that the waste has no adverse impact on the cement production process, on accident prevention or on environmental protection.

- Development of technologies for recycling waste that is difficult to recycle and recovering rare materials.
- Development of water-related technologies such as for wastewater purification and phosphorus recovery.
- Development of technologies for removing materials contaminated by radiation.

Construction Materials and Building Construction & Civil Engineering Business



Products and Services

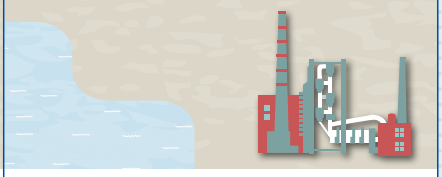
We manufacture and sell construction materials and also install them as a contractor for various construction site needs.

In the field of construction materials we deal in cement-related products such as high-performance premix products and additives for concrete and concrete products, including autoclaved lightweight concrete (ALC) panels and paving blocks. We also conduct sales using the distribution network developed by the group.

In our building construction and civil engineering business we perform ground improvement projects and seismic retrofitting projects. We have also been conducting diagnostic and repair services to extend the life of concrete structures. Through these activities we contribute to the long-term safe and secure use of social infrastructure.

- Proceeding with an initiative to serve as a center for generating synergies across the group's R&D activities.

International Business



Products and Services

In the overseas market, blended cement incorporating slag and fly ash dominates the market due to strict environmental regulations. We expanded the capacity of the silo for blended cement in our Singapore cement terminal, allowing us to produce and store cement suitable for each local quality standard as well as the usage environment to meet the international market needs. We are also focusing on the cement trading business, including the export of cement produced at our domestic and overseas plants and triangular trade, capitalizing on our international distribution network.

- **U.S.**: Our operations include cement manufacture, ready-mixed concrete, aggregates and more on the West Coast.
- **China**: We operate three core joint venture companies for the production and sale of cement. We intend to expand our business operations, including in the energy saving and environmental business, while drawing upon our cement production technologies.
- **Southeast Asia**: We manufacture cement and produce ready-mixed concrete from our operations in Vietnam, we manufacture cement in the Philippines, operate an imported clinker grinding business in Papua New Guinea, and are involved in the purchase and sale of mineral products as well as other businesses in Thailand.

- We are developing a system to design, specify and provide cement and concrete to meet local market requirements under our globalization/localization ("glocalization") initiative as well as to provide technical support in the area of environmental protection and reduced environmental impact.

Stakeholder Expectations and Demands

Economy	Environment	Society
● Management stability and growth potential ● Stable redistribution of profits ● Information disclosure	● Effective allocation of management resources ● Information disclosure	● Effective allocation of management resources ● Information disclosure
● Stable supply of products ● High value-added products ● Improved economic efficiency of waste disposal	● Provision of environmental products ● Reduced environmental impact from waste treatment	● Maintaining product quality and safety ● Provision of information on product use ● Technical support for product use ● Response to complaints ● Improved resource circulation in the community
● Payment of reasonable price	● Promotion of environmentally sound management	● Respect for human rights ● Respect for diversity ● Elimination of discrimination; fair evaluation and equal opportunity ● Secured occupational safety and improved work environment ● Support for skill and career development ● Ensuring opportunities for conversation
● Sharing social costs	● Reduced environmental impact on the community ● Countermeasures to mitigate climate change ● Contribution to resource recycling ● Improved energy efficiency ● Appropriate use of water resources ● Conserving biodiversity ● Information disclosure	● Contribution to infrastructure development ● Maintaining the quality of product and service safety ● Job creation ● Respect for human rights and the community ● Social contribution activities ● Information disclosure
● Tax payment		
● Activity support and sponsorships		
● Payment of reasonable price	● Fair evaluation of environmental considerations ● Support for environmental measures ● Promotion of environmentally sound management	● Equal and fair relationships ● Respect for human rights ● Secured work safety and improved work environment

Risks and Opportunities for our Business Operations and their Relationship to SDGs (STEP 01)

The Taiheiyo Cement Group recognizes and evaluates group risks and opportunities from the perspective of ESG (environment, society and governance). Furthermore, it strives to reduce potential, medium- to long-term business risks, fully utilize its resources and create social value and expand business opportunities.

		E: Environment	S: Society	G: Governance
Business environment; Risks	Japan	● Climate change ● Severe natural disaster ● Resource constraints ● Waste treatment ● Reinforcement of environmental regulations	● Declining birth rates, an aging population and a labor shortage ● Progress in deterioration of infrastructure ● The Tokyo Olympics and Paralympics. ● Large infrastructure projects ● Restoration and reconstruction in disaster-stricken areas ● Technological innovations (ICT, IoT, AI, etc.)	● Unfair trade ● Corruption and bribery ● Falsification of data
	Overseas	● Climate change ● Resource constraints ● Waste treatment ● Reinforcement of environmental regulations	● Expansion of production and consumption ● Rapid urbanization ● Growing infrastructure improvement ● Technological innovations (ICT, IoT, AI, etc.)	
Opportunities		● Creation and development of a recycling-oriented society ● Provision of environmentally friendly products ● Technical assistance for emerging economies	● Stable provision of high-quality products ● Anti-disaster projects and efforts to restore deteriorating infrastructure ● Provision of solutions ● Provision of labor-saving products ● Restoration and reconstruction in disaster-stricken areas ● Retention and development of capable human resources	● Compliance ● Risk management

Key Directions for the Group

- Stable provision of products and services
- Creation and development of a recycling-oriented society
- Construction of new business model
- Enhancement of group governance
- Efforts to mitigate and adapt to climate change
- Expansion of strategic business domain
- Retention and development of capable human resources
- Strengthening of corporate governance

Relationships between SDGs and Our Business Operations

Relationship

5 goals most closely related to our business operations

Low — Medium — High

STEP 02 | Prioritization

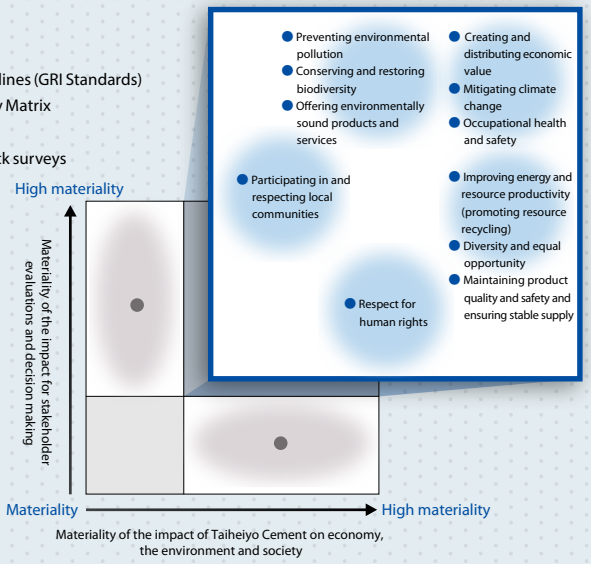
We identified sustainability issues while referring to international guidelines and stakeholder feedback in the context of our business. Through internal meetings we then held discussions on the priority themes for the Taiheiyo Cement Group, resulting in 11 priority aspects of the material issues.

In the process of steps 1 and 2 we referred to:

- GRI Sustainability Reporting Guidelines (G4)
- ISO 26000
- AA1000SES (AA1000 Stakeholder Engagement Standards)
- ESG surveys and evaluations
- Stakeholder Dialogue
- Opinions and advice from outside experts and advisors
- GRI Sustainability Reporting Guidelines (GRI Standards)
- SDGs, SDG Compass, SDGs Industry Matrix
- SASB
- Internal questionnaire and feedback surveys
- CSR report questionnaire survey

Various sustainability issues

- Appropriate use of water resources
- Appropriate management of chemical substances
- Compliance with environmental laws and regulations
- Mitigation of environmental impacts of transfer and transport
- Human resource development
- Work-life balance management
- Sound labor-management relations
- Fair trade
- Corruption prevention
- Marketing communication
- Personal information protection
- Information disclosure
- Protection and use of intellectual property



■ Material Issues and Approaches of the Taiheiyo Cement Group

Categories	Material Aspects	Boundaries of Major Impact			Management Approaches		Report Page
		Taiheiyo Cement	Value chain				
Economic	Creating and Distributing Economic Value	✓	✓	Society	Policy:	• Conducting business activities in accordance with our 20 Medium-term Management Plan (fiscal 2018 to fiscal 2020)	pp.05,08-09, 64-67
Environmental	Improving Energy and Resource Productivity (promoting resource recycling)	✓	✓	Industry and regional waste-related facilities	Policy: System: Evaluation:	• Environmental management policy • WBCSD-CSI "CSI Charter" • Setting up Environmental Management Committee • All plants, head office, branches and the Central Research Laboratory are operating in compliance with ISO 14001 • CSR Objectives for 2025 • Group environmental targets based on the CSI Charter and KPIs • Monitoring and review by the Environmental Management Committee	pp.38-41,47
	Mitigating Climate Change	✓	✓	Industry and regional waste-related facilities			pp.38-39,47
	Preventing Environmental Pollution	✓	✓	Areas around plants			pp.44-45
	Conserving and Restoring Biodiversity	✓	✓	Areas around plants			pp.42
	Offering Environmentally Sound Products and Services	✓	✓	Society			pp.46, 50-51,53
Social	Occupational Health and Safety	✓	✓	Partner companies	Policy: System: Evaluation:	• Occupational Health and Safety Policy • Establishment of the Environmental Management Committee • OSHMS has been running in all plants and mines • CSR Objectives for 2025 • Monitoring of data on health and safety including information from partner companies	pp.61-63
	Diversity and Equal Opportunity	✓			Policy: System: Evaluation:	• The Basic Policy Concerning the Development of Human Resources • The Basic Policy Concerning Diversity • Development of a long-term human resource development system, a fair evaluation system and comfortable working environments • CSR Objectives for 2025 • Quantitative targets for diversity • Monitoring various kinds of personnel data	pp.56-60
	Maintaining Product Quality and Safety and Ensuring Stable Supply	✓	✓	Cement users Society	Policy: System: Evaluation:	• Quality Policy • A unified ISO 9001-based management system for product development, design and production • Technical support in the framework of Taiheiyo Brand Cement/Concrete (TBC) activities • Analyzing suggestions and inquiries related to quality • Regularly disclosing safety-related data on our website	pp.51-52
	Participating in and Respecting Local Communities	✓	✓	Areas around plants	Policy: System: Evaluation:	• Identifying communication with communities as a material issue in the Mission of the Taiheiyo Cement Group and the Basic Policy of CSR • Promoting company-wide activities by the Stakeholder Communication Committee • Managing progress and sharing information under the company-wide action plan	pp.64-67
	Respect for Human Rights	✓	✓	Partner companies	Policy: System: Evaluation:	• Basic Policy Concerning Human Rights and Labor Practices • Promoting company-wide activities under the Human Rights Committee • Contact points for counseling • Managing progress according to the company-wide action plan and facilitating the exchange of opinions and negotiations at labor-management consultations	pp.56

STEP 03 | Validation

We confirmed the Principles of Completeness and Stakeholder Inclusiveness are applied to finalize the identification of the report content.

➡ Discussion at the CSR report editing task force meeting
➡ Reporting and approval at the CSR Management Committee

STEP 04 | Review

We implement a review every fiscal year for the report issued.

● Internally
➡ Report booklets are distributed to all employees of Taiheiyo Cement Corporation and a questionnaire survey is conducted.
➡ CSR report briefing sessions are held at all business sites and plants (17 sites in fiscal 2017).

● Externally
➡ Third-party opinion by experts
➡ CSR report questionnaire survey
➡ Review by external advisors

Fourteenth Stakeholder Dialogue ►GRI102-27, 43, 44

What Does Society Expect from the Cement Industry through ESG and SDGs?

As suggested by current buzzwords such as ESG (Environmental and Social Governance) and SDGs (Sustainable Development Goals), the business environment has dramatically changed amid a growing need to transition into a sustainable society. How should corporate management capitalize on diverse social demands? Should they be viewed as business risks or new growth opportunities? Or as criteria for looking into the future? We invited external experts to participate in a discussion at the CSR Management Committee, which includes all board directors as members. The dialogue took place in July 2018.

Experts

Eiichiro Adachi
Counselor, the Japan Research Institute, Limited

Mr. Adachi conducts industrial surveys and assesses the value of firms by including CSR measures in their valuations. He served as a national expert in the Japanese delegation of the ISO 26000 Working Group from March 2005 to May 2009. In fiscal 2017, he was a member of the study group on environmental information and corporate value at the Ministry of the Environment. He is the author of many books on ESG and the SDGs.

Kaori Kuroda
Executive Director, CSO Network Japan

Ms. Kuroda joined the effort to develop the ISO 26000 (social responsibility standards) as a nongovernmental organization representative from Japan. She is a member of the working group on the Sustainable Sourcing Code of the Tokyo Organizing Committee of the Olympic and Paralympic Games in 2020. She joins the government's SDGs Promotion Roundtable Meetings and serves as president of the Japan Civil Society Network on SDGs (SDGs Japan).

Summary of Discussions

Cement Industry Faces ESG Investing Trend

ESG investing, which takes into account corporate efforts on ESG issues in the investment decision-making process, is sweeping across the globe and becoming increasingly common in Japan as well. Taiheiyo Cement's ESG efforts have been well received, with the company being selected as a component of the MSCI Japan ESG Select Leaders Index. However, in the future, part of its cement production facilities may become known as stranded assets if additional cuts in CO_2 emissions are required in the global response to climate change.

In this context, the International Energy Agency (IEA) announced in April 2018 a cement industry technology roadmap that highlights a pathway to cutting CO_2 emissions by 2050. The roadmap suggests that the cement industry could not achieve the IEA's 2-degree Celsius scenario, which seeks to limit the average global temperature increase to two degrees, without significantly improving carbon efficiency in cement production from the current level through every possible means, such as by adopting advanced low-carbon technologies and switching to low-carbon fuels. Investors who value the ESG perspective will refer to such a goal as a benchmark and base their decision making on how much an individual company meets that numerical target.

Taiheiyo Cement boasts high-level low-carbon technologies by world standards but needs to more boldly advertise its strategy, such as through lobbying activities in other countries.

Expectations for Corporate Approaches Originated from SDGs

Governments and companies are required to actively work toward achieving the 17 SDGs and 169 targets as international objectives for the realization of a sustainable world in which "no one is left behind." In Japan, the government has taken the initiative to map out action plans, and companies are supposed to integrate their management philosophies with the SDGs, positioning them at the core of their activities.

One idea calls for companies to seek to achieve the SDGs by identifying social needs as their business goals and not by starting from in-house goals or agendas. Companies that consider ways of achieving the SDGs through business operations frequently begin by examining how business activities map to specific SDG issues. While this is one correct approach, hopefully companies could go a step further and start from the SDGs while asking what could be done through their technologies, know-how and management resources. Some innovations are possible only after looking beyond specific goals.

Discussion Session

Question **Given the rising number of ESG inquiries from investors in Japan and abroad, what should corporate management emphasize to convince investors with various perspectives?**

Answer From the investor relations point of view, while it is reasonable to seek useful benchmarks, there is no single answer for CSR. Since investors indeed represent diverse perspectives, companies have no choice but to highlight their distinctive features, share them with investors and encourage those in alignment with those qualities to buy shares. Amid the rising tide of ESG investing, the first step for promoting CSR actions is to examine thoroughly how a company applies its excellence. Then, I believe, clearly stating a company's distinctive strengths and offering sufficient explanations to investors will eventually earn stakeholder trust in a company.

Question **While there are various goals, such as the SDGs, public attention appears to be focused primarily on greenhouse gas emissions. How do you think a cement company should deal with that?**

Answer With the continued opposition of U.S. President Trump to the regulation of greenhouse gases, reducing greenhouse gas emissions tends to be emphasized as a core aspect of securing the Paris Agreement reached at the United Nations. Another reason is that reports of abnormal weather conditions across the globe are placing a spotlight on visible impacts on society. Many companies, including those in the cement industry, cannot avoid releasing greenhouse gases in the course of their business operations. However, it is certainly possible to demonstrate ways for reining in global warming without completely eliminating greenhouse gas emissions, such as commercializing carbon capture and storage. There is significant value in impressing the world with a new way to combat global warming as a company based in Japan, a nation known for manufacturing, and in so doing, revealing the future of the cement industry.

Special Feature

CalPortland Pursues Sustainability

We report on CalPortland, which will continue to take on advanced initiatives in response to cement demand on the West Coast of the U.S. while adopting the region's forward-looking environmental regulations.

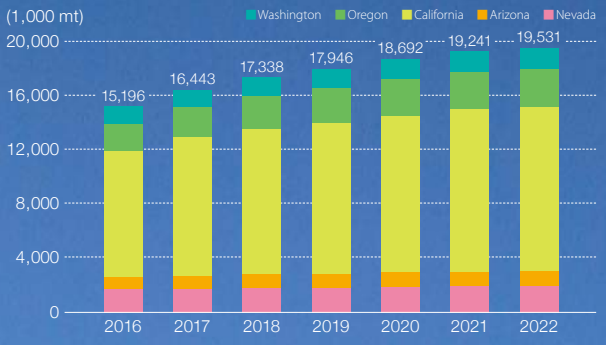
Developing a Business Focused on the U.S. West Coast

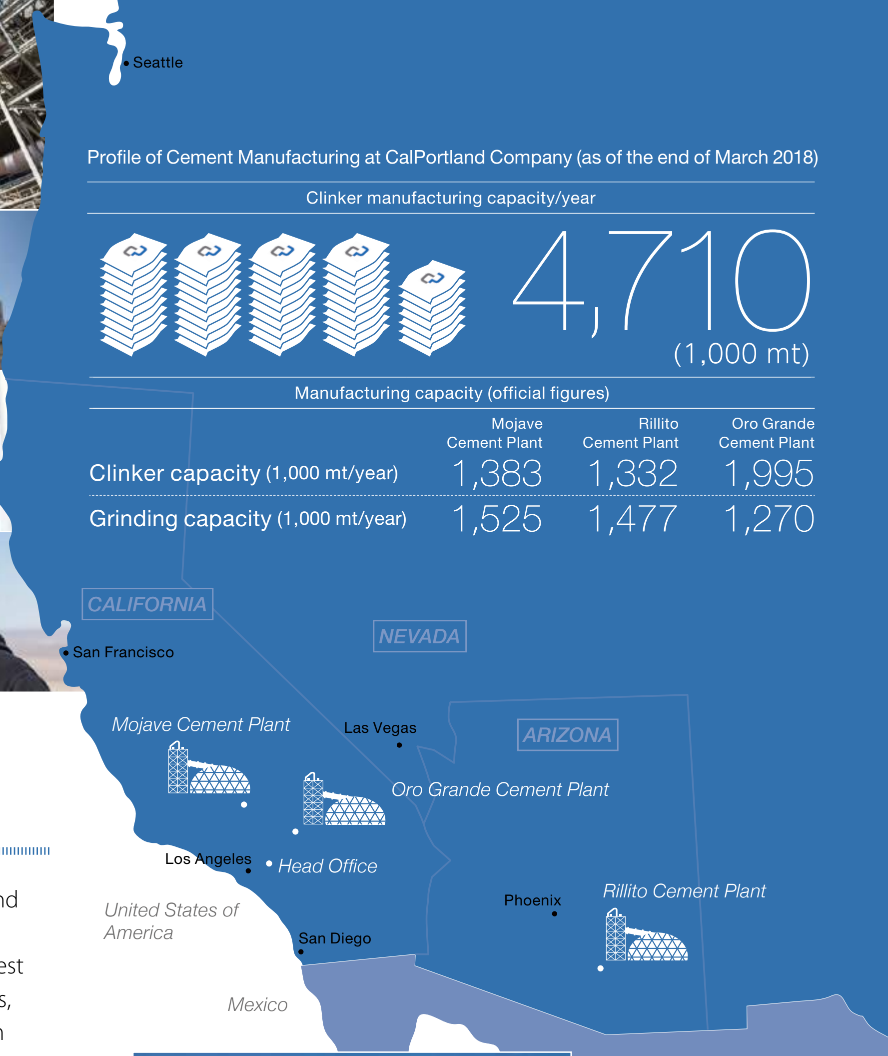
Thirty years have passed since Taiheiyo Cement entered the U.S construction market, one of the largest in the world. CalPortland Company, which plays a central role in Taiheiyo Cement's U.S. business, is one of the largest cement manufacturers in the West Coast. The company has developed the cement, ready-mixed concrete, and aggregates business from Alaska in the north to California and Arizona in the south and has responded to demand for cement from the construction industry across the entire region.

In addition, CalPortland has focused on tripartite trade, fully leveraging the group network of Taiheiyo Cement. It has imported and sold high-quality cement products and met the needs of this regional market. In recent years, cement demand in California and other areas along the U.S. West Coast has been robust, benefiting from the U.S. government policy of expanding investments in social infrastructure to create a sustainable society with a strong IT industry. In the context of the world's most stringent environmental regulations, the government is strongly encouraging CalPortland to strengthen its corporate structure to ensure a steady supply of cement to support the region's development.

• Forecast of Cement Demand in Five States (principal market for CalPortland)

The forecast of the Portland Cement Association (PCA) as of autumn 2017 (published in January 2018)





Profile of Cement Manufacturing at CalPortland Company (as of the end of March 2018)

Clinker manufacturing capacity/year

4,710 (1,000 mt)

Manufacturing capacity (official figures)

	Mojave Cement Plant	Rillito Cement Plant	Oro Grande Cement Plant
Clinker capacity (1,000 mt/year)	1,383	1,332	1,995
Grinding capacity (1,000 mt/year)	1,525	1,477	1,270

Enhancing Manufacturing, Distribution, and Sales Systems

CalPortland is engaged in the manufacturing, import and sales of cement and manufacturing and sales of ready-mixed concrete and aggregates, focused on the U.S. West Coast markets. Cement manufacturing, its core business, is operated at the Oro Grande Plant and Mojave Plant in California State and the Rillito Plant in Arizona State.

The Oro Grande Plant is near Los Angeles, California. We acquired the plant from a local company in 2015. The plant manufactures four types of cement products and is further reinforcing its manufacturing capacity through measures such as the construction of a new finish mill. The Mojave Plant boasts the largest cement grinding capacity among CalPortland's three plants. It is responsible for supplying cement to markets from Los Angeles and its neighbors to Northern California. One distinct characteristic of the plant is its oxygen enrichment system, which contributes to higher manufacturing volume.

CalPortland faces the challenge of more effectively utilizing the cement manufacturing capacity of each plant. To address this issue, the company constructed cement distribution terminals in strategic locations across California and Nevada and has enhanced train and truck transportation between the sites. As a result, CalPortland has established strong, stable manufacturing and distribution systems to meet the recently rising demand for cement.

Furthermore, cement plants are required to strictly comply with environmental regulations associated with climate change and reduced pollutant emissions due to the large scale of their operations at a single site. CalPortland has been proactively and flexibly responding to these regulations while pursuing sustainable business operations.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1, 2: Coal transported by belt conveyor is stored inside the dome.
3, 4, 5: Cement transported by trains and shipped from plants by trucks
6: The Mojave Plant is located in a desert.
7: Overview of the Oro Grande Plant from the top of a preheater
8. Head office of CalPortland

Rigorously Responding to Strict Environmental Regulations

California, a principal market for CalPortland's business operations, is also known for its long history of achievements in the forefront of international environmental regulations. The U.S. maintains very strict environmental regulations, and residents are very aware of environmental issues. Consequently, the cement industry faces difficult challenges in supporting regional construction demand, including ensuring a steady, ongoing supply of cement and consistently reducing environmental impact. Under such circumstances, it is virtually impossible for cement manufacturers to conduct business without having established environmentally-sound operations at all of their facilities.

The Cap-And-Trade Program, a greenhouse gas (GHG) emissions trading initiative, is an example of California's strict regulations. The program targets businesses that emit 25,000 or more tons of CO_2 annually and applies to the energy industry as well as a broad range of other business sectors, including cement and glass manufacturers, beer breweries, wineries, and canneries. The volume of greenhouse emissions has been decreasing over time as a result of the program.

Some regions in California have adopted regulations for other products and materials, such as water resources, hazardous waste, and dangerous substances. Such local regulations can be more stringent than U.S. or state regulations. This means each CalPortland plant must adopt different environmental management systems. For instance, to support the region's sustainable growth, the Oro Grande Plant near metropolitan Los Angeles must comply with stricter regulations than those enforced by the state.

To effectively respond to the spirit and letter of these environmental regulations, CalPortland has steadily improved environmental efficiency by launching its own energy management program in 2003. This has led to initiatives for more efficient energy consumption, which in turn has resulted in the introduction of new technologies and encouraged employee engagement.

The company also organizes regular visits, or "Treasure Hunts," at the plants for small groups of experts while also identifying the high-quality initiatives of each plant from a professional standpoint and sharing information with other plants to improve overall operations. Through these efforts, the plants are nurturing a corporate culture for doing business while keeping pace with improvements that are environmentally sound and efficient.

1: Of the numerous wind mills in the Mojave Plant area, eight are used for plant operations.
2: Site inspection by a production superintendent at the Mojave Plant
3: Replacing a belt conveyor at the Mojave Plant
4: Central control room of the Mojave Plant

● History of Environmental Regulations in California

1966	Adopted the U.S.'s first automotive emissions regulations.
1974	Enacted a law that sets energy efficiency standards for electrical appliances.
2006	Enacted the California Global Warming Solutions Act (AB32).
2014	Implemented Cap-And-Trade, a greenhouse gas emissions trading program.
2016	Extended a new state law to enhance countermeasures for climate change (SB32).
2017	Founded the Climate Union, which consists of states that take the initiative to achieve the goals of the Paris Agreement.

CalPortland Energy Cup Raises Environmental Awareness at All Plants

CalPortland sponsors the annual CalPortland Energy Cup as a voluntary initiative for improving efficiency in energy consumption at the Mojave, Oro Grande, and Rillito plants.

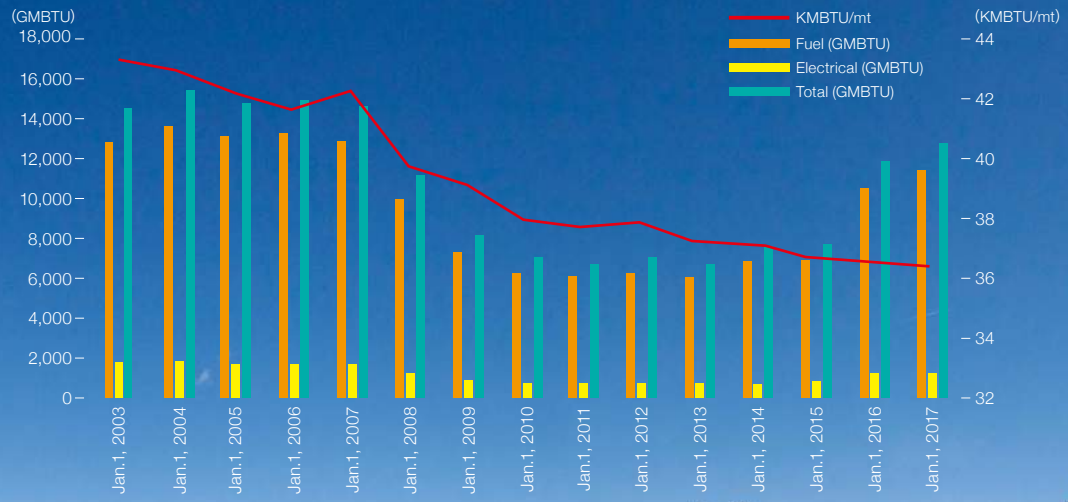
The program monitors annual energy consumption at each plant, compares their achievements, and then recognizes the plant that has demonstrated the most improvement. To determine the winner and ensure the program is viewed as more than a competition, the company conducts an in-depth analysis of selected measures at each facility.

Program judges ascertain levels of achievement at each location and then share related information with all of the plants. Consequently, the program offers an opportunity to generate synergies for future plant operations.

CalPortland will continue raising environmental awareness at each plant through the CalPortland Energy Cup and establish a system for quickly complying with the stringent environmental regulations of California and the federal government.

Presentation ceremony

● CalPortland Energy intensity Trend 2003–2017



While the volume of manufactured products decreased in the aftermath of the global financial crisis, signs of recovery have recently appeared driven by rising demand. In addition, the energy consumption per unit of cement production has declined every year due to the company's continued efforts to improve efficiency in energy consumption at each plant and across the organization.

Making Every Effort to Support the Region's Sustainable Growth

As a result of ongoing efforts to improve environmental efficiency, CalPortland received the "ENERGY STAR Partner of the Year—Sustained Excellence Award" for the fourteenth time in a row. This award is part of an environmental labeling program that the U.S. EPA (Environmental Protection Agency) sponsored in 2018 and encourages support for companies and groups that have made strides in reducing their greenhouse gas emissions by improving energy consumption efficiency. CalPortland, in turn, has reduced greenhouse gas emissions by promoting its unique energy management program, which features a wider application of ICT, such as monitoring its facilities with drones. Now the company can also declare that CalPortland is a frontrunner in the U.S. in terms of implementing energy management for plant operations.

ENERGY STAR trophy received by CalPortland

Given the slow but steady decline in construction investments in Japan, the open U.S. West Coast market, which demands a massive volume of cement, is increasingly important for the sustainable growth of the Taiheiyo Cement Group. Furthermore, the region is further distinguished by its high level of awareness of environmental regulations. The region therefore presents significant potential as a market for the environmental technologies that Taiheiyo Cement has developed in Japan. Taiheiyo Cement and CalPortland Cement will work together to contribute to the sustainable growth of this region by responding to the stringent environmental regulations in California, quickly and effectively, while it steadfastly supplies high-quality cement.

5

6

7

8

5: Blasting at a cement quarry
6: Belt conveyor that transports limestone, a raw material for cement at the plant
7: Diverse employees, including women and seasoned workers in their 70s, joined the blasting work.
8: Plaques at the Mojave Plant in recognition of its contributions to the community

MESSAGE

Doing Business with Close Community Ties in an Environmentally Conscious California

Allen Hamblen
President and CEO, CalPortland Company

Our social mission is to support the region's development over the long run through the steady supply of cement. We should note that environmental regulations in California are stringent compared to other U.S. states, and residents there are very aware of environmental issues. In operating the plants, we should place the highest priority on ensuring the safety of people in the region. That said, it is also essential to raise awareness of environmental protection to earn community support for our business.

We intend to be a company that develops close ties with the community and to support local employment by both enhancing compliance and implementing other efforts, such as achieving increasing energy consumption efficiency prior to the enforcement of stringent regulations. Moreover, it is a critical mission of CalPortland to comply with legal requirements and operate plants "with integrity," as stated in our mission, as a company with close ties to the community.

Our Commitment to:

Mojave Cement Plant

Icons are related to UN SDGs (see page 12–14 and 66 for details)

CSR Management

We aspire to be a pioneer in the creation of a sustainable future for the earth. To achieve this group aspiration we established the CSR Management Committee as a means for sharing information about CSR issues and activities across departments, and aligning our CSR initiatives with our business operations.

Corporate Framework for CSR

►GRI102-15, 16

The Mission of the Taiheiyo Cement Group is the highest level concept and guiding principle of our business activities. Our Business Principles present more specific guidelines for action based on the Mission.

The vision and direction targeting the mid-2020s has been established as our vision for the future based on the Mission to present the value and direction of the group in qualitative terms.

The Medium-Term Management Plan sets forth our management strategy and targets for the next three years, while the CSR Objectives for 2025 are long-term, quantitative CSR targets. We strive to realize our vision and direction based on these targets.

*The Mission of the Taiheiyo Cement Group: page 6; Business Principles: page 6; CSR Objectives for 2025: page 7

Basic Policy for Promoting CSR Management

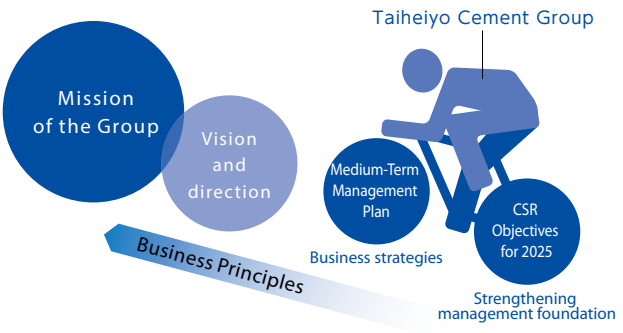
►GRI102-16

We promote CSR management in accordance with our CSR guidelines which specify actions that are essential for realizing the Mission of the Taiheiyo Cement Group and implementation of our Business Principles. The guidelines direct the company in conducting activities in and outside of the business that fulfill our social responsibility while we pursue sustainable growth for both the company and society as a whole. Moreover, they lay down basic policies for promoting CSR management.

CSR Management Promotion System

►GRI102-18, 19, 20, 21, 28, 29, 30, 32

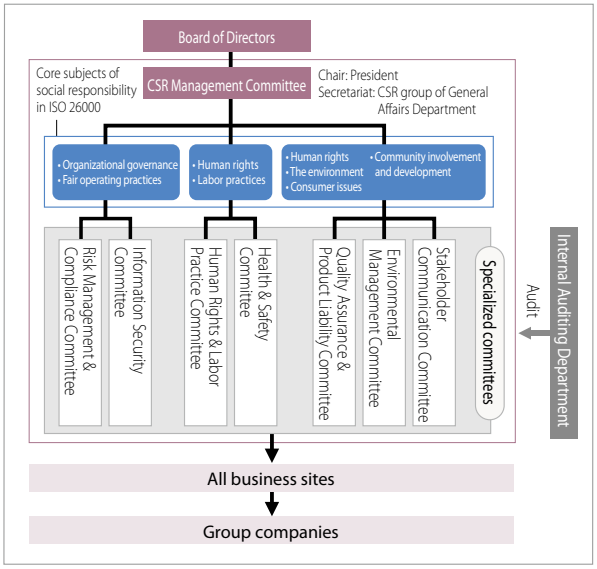
To promote our CSR management we have created a cross-departmental CSR Management Committee, chaired by the president with all board directors as members, under the direct oversight of the Board of Directors. The CSR Management Committee's role is to screen CSR action plans and other material items and review their progress. Reporting to this committee are seven specialized committees for individual CSR subjects, each chaired by the director responsible for that area. The department most closely associated with any given issue acts as the secretariat for the related committee.



Basic Policy for Promoting CSR Management

1. Based on our Mission and Business Principles, the company will clarify the ideal form of CSR management to be pursued and strive to advance operations based on CSR.
2. Promoting a corporate culture that places great importance on compliance, we aspire for all directors and all employees to always make the most appropriate independent judgments.
3. We will manage the company with awareness that our social mission includes environmental protection, defense of human rights and contribution to communities.
4. We will proactively engage on key CSR issues and undertake the most appropriate prioritization and resource allocation.
5. We will practice appropriate information disclosure and communication with stakeholders, based on the status of our CSR management promotion, and build relationships of trust.
6. We will treat CSR management and promotion as a group-wide activity.

● CSR Management Promotion System
(CSR Management Committee and Specialized Committees)



CSR Training and Education

►GRI102-27

We provide CSR education through training programs for each position, including sessions for newly hired employees, follow-up courses for second-year employees, career development (around ten years after joining the company) and training for newly appointed managers. For education on specific issues such as human rights, each specialized committee provides the relevant training programs. We also conduct executive-level CSR training once a year, including for group companies. In addition, in fiscal 2017 we continued to conduct CSR report presentations at all our business sites, either through site visits or teleconferencing.

● Executive-level CSR Training (FY2017)

Date	Companies in Attendance	Topic
October, 2017	96	•Learning about gender diversity, with a focus on gender identity disorder •Preventive measures required by group company management

● CSR Report Presentations (FY2017)

Date	Location	Attendees
October to December 2017	17 sites, including the headquarters, branches, plants and the central research laboratory	728

CSR report presentation at the headquarters

Collaboration with External Organizations

►G102-11, 12, 13

WBCSD Cement Sustainability Initiative

We have participated as a member of the Cement Sustainability Initiative (CSI) of the WBCSD since 2000. As a core member of the CSI we work with 23 other cement companies from around the world to address the sustainable development challenges facing our industry.

In 2002 the CSI published an Agenda for Action detailing joint commitments by ten core member companies in accordance with research based on dialogues with stakeholders worldwide about the sustainable development of the cement industry. Following this Agenda for Action, created as a vision for the following 20 years, the CSI established working groups for each key challenge.

These include climate protection, effective use of raw materials and fuel, reduction of air pollutant emissions, biodiversity, global water issues, employee health and safety, and supply chain management. Members have been developing key performance indicators (KPIs; see page 68 for fiscal 2017 performance) and various guidelines to meet the challenges. Member companies set and publish their individual targets in areas such as emissions reductions and take their own actions to create a sustainable society. With respect to climate protection in particular, the CSI has developed a common methodology for calculating CO_2 emissions and energy use, a standard CO_2 and energy protocol for reporting by the world's cement companies, and a regime for providing highly reliable information on energy usage and CO_2 emissions. The CSI also built a global database and reports actual CO_2 emission volumes and energy use data for a significant number of the world's cement plants. We recognize that the issues the CSI addresses are the same as the company's key management challenges, which is why we are working diligently to tackle them.

Participation in the Industrial Federation for Human Rights, Tokyo

We participate in the Industrial Federation for Human Rights, Tokyo. Established in November 1979, the federation now consists of 124 companies (representing about 1 million employees as of April 2018), most of which are headquartered in Tokyo. Under its basic philosophy of voluntary management and full participation, the federation endeavors to resolve the issue known as Dowa, a discrimination issue in Japan, and other human rights issues.

Results of FY2017 CSR Efforts

► GRI102-11, 44

	Plan	Results	Evaluation	See Also
Organizational Governance and Fair Operating Practice	**Organization Risk Management & Compliance Committee**			
	1.Continually improve risk management based on PDCA cycles, including group companies, respond to new risks, and enhance efforts to resolve existing issues			
	• Response to the Minamata Convention on mercury	•Standardized a method for reducing changes in mercury concentration after ascertaining the state of mercury emissions through the installation of continuous measurements in all kilns as well as mercury behavior during the process.	○	30-32
	•Enhancement of information security	• Responded to by the Information Security Committee, which conducted a review during the meeting.	○	30-32
	• Product/service accidents	• Responded to by the Quality Assurance & Product Liability Committee, which conducted a review during the meeting.	○	30-32
	• Aging of facilities and equipment	• Implemented maintenance/renewal work as planned. No environmental-related incidents were associated with equipment problems.	○	30-32
	• Strengthening of business continuity planning (earthquakes, tsunamis, floods and other natural disasters)	• Conducted initial response drills for large-scale earthquakes at 4 plants. Conducted the Shake Out drill/emergency stock distribution drill twice at the head office. Also conducted Shake Out drills at the Central Research Laboratory, 5 plants and 5 branches.	○	30-32
	• Strengthening of overseas crisis management measures	• All worldwide business sites were comprehensively covered by iSOS assistance services; developed local evacuation manuals.	○	30-32
	• Enhancement of group corporate governance including risk management and the compliance system	• Discussed and reviewed a draft policy and guidelines on anti-bribery, toward their formulation, in related departments. • Presented a lecture and training session on compliance for group executives and a workshop for risk management and compliance promoters in October. • Disseminated prohibition of managers of branches or plants concurrently acting as officers to reduce the risk of being disqualified as a waste treatment operator.	○	30-32
	• Work-related accidents	• Responded to by the Health & Safety Committee, which conducted a review during the meeting.	○	30-32
	• Response to shortage of human resources	• Responded to by the Human Rights & Labor Practices Committee, which conducted a review during the meeting.	○	30-32
	• Continuous improvement of risk management using PDCA cycles	• Strict guidance provided to each business site with regard to including risks assessed as either C or D in FY2016 as part of a voluntary review of the FY2017 risk countermeasures action plan. Aggregate report from all business sites showed 92% of items assessed rated A or B.	○	30-32
	2. Further raise awareness of compliance			
	• Improve education/training programs and provision of information	• Ensured that all employees have taken a monthly e-learning program (participation ratio: 79.4%). • Distributed the Standard of Conduct Casebook to new group company employees. • Provided content for the Standard of Conduct Self Check (e-learning) at the request of group companies.	○	32-33
	Organization Information Security Committee			
	1. Enhance Information Security Management System and ensure its ongoing operation and improvement			
	• Maintain and manage the company's information security	• Conducted a backup datacenter activation drill in Kitakami in August and improved the back-up system startup time by 15 minutes to 5 hours and 40 minutes from the previous drill despite a larger number of systems to be activated. • Conducted a disaster recovery drill in March; each staff member in charge of checking each system verified operation using systems at the backup datacenter in Kitagami.	○	33
	• Strengthen group information security structure	• Revised the Information Security Management Regulations and clarified details of group activities and subject companies; included clarifications in these regulations. • Result of information security level survey: 2.8 (average) (last year, 2.8); sent a written follow-up in October, which was earlier than usual. • Made follow-up visits to 2 group companies: Joyo Remicon Co., Ltd. and Saitama Taiheiyo Namakon Co., Ltd.	△	
	2. Implement security countermeasures based on the plan			
	• Improve the security level by implementing information security-related projects	• Enhancing the monitoring of information leaks: introduced analysis and monitoring of communications records with the Internet by an external expert (completed by the end of March). • Vulnerability check: conducted 2 rounds of drills against targeted attack e-mails (February and March).	○	33
	3. Conduct education/training/awareness-raising programs			
	• Raise employee awareness of security across the group	• Conducted information security training in position-specific courses (8 sessions). Published security news (9 sessions). Conducted an e-learning program (1 session on smart devices). Provided materials to a group company (once).	○	33
	4. Monitor and assess the status of information security			
	• Promote the appropriate use of information through periodic monitoring	• Monitored file transmissions to external parties. Monitored suspicious application transmissions by exit countermeasures; no incidents.	○	33
	• Conduct an internal information security audit	• Conducted paper audits on-site and audits at the Saitama Plant and Chugoku branch in March.		
	5. Continue operation and improvement of the Personal Information Protection Management System			
	• Set up a task force and respond to issues when necessary • Verify and respond to the state of compliance, education, and audits	• Loss of company mobile phones: 1 case in the first half of FY2016 and 6 in the second half. There was no possibility of personal information leakage. • Revised the Personal Information Protection Regulations in June in accordance with the enforcement of the Amended Personal Information Protection Act.	○	33
Human Rights and Labor Practices	**Organization Human Rights & Labor Practices Committee**			
	1. Raise human rights awareness and continue training programs throughout the group			
	• In-house training and awareness raising	Human rights training courses by position and other training type (attendees included group company employees): (1) top-management seminar for group companies in October on "Understanding sexual diversity" (lecturer: Chiaki Matsunaga, MD, PhD): 110, (2) new recruits in April: 140, (3) follow-up training in May and December: 97, (4) communication + on-the-job training in June and October: 76, (5) career development training in October: 64, (6) training for newly appointed managers in July: 49, (7) training for foremen in February: 37, (8) techno-school special training in July: 6, (9) DVD training: visit to business sites with DVD training materials on LGBT: 1,676 (participation ratio: 84.8%)	○	56-58
	• Conduct measures to prevent harassment based on findings of the questionnaire survey on harassment	(1) Disseminated the external hotline: distributed a letter detailing the hotline to each employee. (2) Conducted a training program for new counseling staff. (3) Introduced an e-learning course on LGTB issues. (4) Improved the content of the Human Rights Corner on the intranet (posted "How to use the external hotline on harassment" on the Kirakira Palette).	○	56-58, 60
	• Training in and raising of human rights awareness for group companies	(1) Supported participation in our training program by position. Conducted training at Harumi OR Co, Ltd. in June with 19 participants. (2) Distributed copies of the book Toward Tomorrow (issues 56 and 57), published by the Industrial Federation for Human Rights, Tokyo and materials related to human rights to 95 affiliates in June and December.	○	56-57
	• The Industrial Federation for Human Rights	• Participated in meetings (training sessions, group meetings, working group, etc.)	○	25
	2. Continue to achieve Statutory Employment Ratio for Persons with Disabilities and promote their working opportunities			
	Achieve Statutory Employment Ratio for Persons with Disabilities: 2%	• Achieved a 2.39% Employment Ratio for Persons with Disabilities. Attended a seminar on the recruitment of persons with disabilities.	○	58
	3. Report the state of initiatives to address issues related to human rights and labor practices			
	• Promote the empowerment of women and group-wide improvement of operational efficiency and make greater efforts with regard to human rights and various labor-related issues in the promotion of group human resources	• Conducted an initiative to change summer lifestyles from June to October. • Promotion of the wider use of the flextime system and Early Leaving Office Day (Wednesday and Friday) throughout the year. Conducted the Premium Friday initiative. • Held the "1st Forum" on achieving a balance between working and family care in November.	○	56-59
	• Education/training and global human resource development programs based on the new training system	• Undertook the overseas trainee program (at the Production and Facilities Departments and the Central Research Laboratory): 3 from the Philippines, 2 from Vietnam and 1 from China. • Foreign scholarship: dispatched 2 persons to the Philippines (1 also worked at a Vietnamese company as a short-term intern).	○	57
	• Report the state of initiatives to promote the health of employees	• Formulated the Taiheiyo Cement Group Health Declaration in March 2018. Submitted a draft policy on the promotion of employee health to the Human Rights & Labor Practices Committee and obtained its approval.	○	59
	• Progress of CSR Objectives for 2025	• Ratio of female employees under "G Course" categories to at least 30%: new recruits in April 2018 (36.4%) • Ratio of female employees of at least 10%: 7.8%, as of February 11, 2018 • Ratio of newly appointed female managers to 10%: 0%, as of March 11, 2018	○	56-60

	Plan	Results	Evaluation	See Also
Human Rights and Labor Practices	**Organization Health & Safety Committee**			
	1. Companywide Health & Safety Committee—Objectives			
	(1) Fatalities for the group: zero (CSR Objectives for 2025) (2) Lost-time injuries for the group: 30 or less (3) Number of work-related accidents for the group: 80 or less (4) Absence rate (non-consolidated): 0.3% or slightly higher	• Held the company's Health & Safety Committee every quarter and verified statistical data. • To prevent the recurrence of accidents, discussed and developed measures to be rolled out horizontally while taking into account the frequency and seriousness of accidents; FY2017: (1) fatalities: 2, (2) lost-time injuries: 35, (3) number of work-related accidents: 103 (4) absence ratio: 0.458%.	×	61-63
	2. Promote health and safety activities			
	• Instill a safety culture for the Taiheiyo Cement Group • Provide and share information quickly after an accident occurs • Promote concrete activities to reduce accidents • Horizontal roll-out of countermeasures taken by the accident site • Prevent the occurrence of serious or frequent work-related accidents at specific business sites and affiliates	• Started to operate action items, of the 23 items individually planned by each business site and group company, to implement in FY2017. • Distributed messages about National Safety Week, National Occupational Health Week and the no-accident campaign at year-end and during the New Year holidays. • Verified operations of prompt reporting on occupational accidents and accident review statements; raised awareness of procedures for reviewing work-related accidents. • Equipment improvements: measures were taken to prevent falling accidents from bulk cement trucks at all of our directly-managed cement plants and branches (all 375); measures were taken to prevent trucks from falling (100/131). • Committee members conducted safety patrols at group companies (Nishitama Plant of Taiheiyo Materials in November; Myojo Cement in January). • Enhanced management by designating business sites that required special attention in the areas of safety and security: designated 2 new business sites in FY2017. • Safety education and support for departments in charge of safety both provided by the Safety Management Group: special education on crane operation: 16 participants; KYT leaders: 23 participants from the head office. • Conducted a safety inspection of 2 ready-mixed concrete companies (verified a fatality site and attended a reporting session).	○	61-63
	3. Review the health and safety system			
	• Check countermeasures taken after an accident occurs	• Revised the Health and Safety Rules to be applied to group companies; revised the organizational chart for Health and Safety (127 companies → 121 companies). • Transferred the secretariat from the Production Department to the Facilities Department to enhance leadership and functional effectiveness.	○	61-63
	4. Promote compliance			
	• Ensure that the requirements of the central government and administrative bodies are met	• Conducted stress checks (in October) and a risk assessment of chemical substances and responded to amendments to laws and regulations on health and safety.	○	—
Human Rights, the Environment, Consumer Issues, Community Involvement and Development	**Organization Quality Assurance & Product Liability Committee**			
	1. Quality Management System			
	• Improve the system: revise the quality control rules to reduce risks	• Regulations on quality assurance for cement: formulated 3 new regulations and revised 4 in April; formulated 1 new regulation and revised 10 in September. • 2 regulations on quality assurance for special cement were revised in April.	○	50-51
	• Ensure the operation of QMS(ISO9001) related to the cement business	• Held a presentation on the 2015 version at related business sites from July to December; conducted an internal audit in November and December; conducted an external audit → no nonconformities found.	○	50
	2. Quality Risk Management:			
	• Identify customer needs and establish quality standards	• Quality Assurance Regulations and Quality Standard Sheets: formulated 2 new regulations in April; revised 1 in September.	○	50-51
	• Countermeasures against individual quality compliance risks	• Complied with internal standards for minor component concentrations and radioactivity levels and reviewed the amended JISR5204 and FAf-SiO2 issue.	○	50-52
	• Appropriate response when a serious quality problem occurs	• Revised the Initial Response System Checklist, an attachment to the Manual for Emergency Response (added the branches to be informed) and made it available in April; conducted initial response drills for a quality deficiency incident in cement plants in November.	○	32,50
	3. Response related to affiliates			
	• Improve quality assurance system for group companies	• Provided information to verify the state of quality assurance, improved quality and enhanced the quality assurance system; investigated quality data falsification risks at group companies.	○	50-52
	4. Countermeasures for quality deficiency and complaints: initiatives to improve customer satisfaction			
	• Reduce the number of claims and quality deficiencies (targets for FY2018 are shown in parentheses)	• Cement products (1) Serious claims: 0 (0) (2) Claims: 5 (8: decreased by 38% from the average in FY2012–14) (3) Quality deficiency: 22 (10: decreased by 50% from the average in FY2012–14) • Cement-related products Mineral Resources / Environmental (1) 0 (0) / (1) 0 (0) (2) 5 (0) / (2) 1 (0) (3) 6 (0) / (3) 0 (0)	○ × × × ×	50-51
	• Manage the results of affiliates	• The relevant business divisions started to inform affiliates that the company would request that they continue making improvements in quality assurance.	○	50-51
	Organization Environmental Management Committee			
	1. Promote company-wide EMS			
	• Set EMS objectives and targets, and plan, operate and evaluate EMS	• Completed the transition to new standards; renewed certification in April 2018. • Continued to revise low-level documents. • Conducted an EMS education program (education on new standards): for EMS staff and at branches and plants from July to October and in January at the head office; implemented a program for EMS internal auditors in August.	○	36-37
	2. Countermeasures to mitigate climate change			
	• Reduce greenhouse gas emissions (CSR Objectives for 2025): reduce specific net CO_2 emissions per tonne of cementitious product by 10% or more from FY2000 levels by FY2025 (by -0.41% from FY2016)	• Reduced by 7.2% (reduction rate: −1.2%/year) for FY2016 from the FY2000 level at the company and in the group, including overseas companies.	○	38-39
	• Report to and cooperate with people outside the company on countermeasures to mitigate climate change (1) Comply with the Energy Conservation Act and the Act on Promotion of Global Warming Countermeasures (2) Follow up Commitment to a Low Carbon Society Action Plan and Agenda for Action, a voluntary action plan of the industry (3) Saitama Prefecture Action Plan (second planned period)	(1) Benchmark index by sector of 3,739 MJ/t or less (including shipment) for FY2020: the result for FY2017 was 3,788 MJ/t (increased by 5 MJ/t from the FY2016 level). (2) Reduction of energy consumption per unit of cement production by 39 MJ/t from FY2010 levels by FY2020: increased in FY2017 by 26 MJ/t (industry) and by 37 MJ/t (company) from FY2016. (3) Reduction of greenhouse gas emissions from FY2015 to FY2019 by 13% from FY2005 to FY2007: reduced by 23% in FY2016.	○	38-39
	3. Environmental risk (air pollution) measures			
	• Comply with the regulations on mercury contained in emissions	• Continued compliance from November 2016; compliance ratio: 100%.	○	44
	4. Education, awareness raising and information dissemination regarding the environment			
	• Collect and provide information on environmental issues	• Conducted initiatives related to Environmental Month (distributed the president's message, promoted initiatives at each business site and reported results) and took advantage of the environmental portal site.	○	37
	Organization Stakeholder Communication Committee			
	1. Activate communication within the company			
	• Change in the employee mindset	• Conducted a 3rd employee survey; analyzed the findings and created countermeasures against weaknesses.	○	59-60
	• Instill the management policy	• Held discussion sessions with executive officers at 18 business sites with 1,182 participants and verified their effectiveness through a questionnaire survey.	○	60
	• Communicate company activities	• Held CSR report briefing sessions at 17 business sites (728 participants) and verified their effectiveness through a questionnaire survey.	○	25
	• Identify issues to address and measures to take in order to activate internal communication	• Committee members conduced a review but were not able to identify issues and measures for concrete initiatives.	△	—
	2. Develop and publish the CSR report			
	• Publish CSR Report 2017 in Japanese at the end of September and in English at the end of October	• Published the CSR report in Japanese in September and in English in October and reported in accordance with the core criteria of the GRI Standards 2016; updated the website.	○	70
	3. Response to the SRI Survey, etc.			
	• Respond to principal CSR-related external surveys such as the SRI Survey	• Responded to CDP, DJSI, Toyo Keizai, the Good Bankers Co., Ltd., the Japan Research Institute, etc., and was selected as an excellent company in the Asia Pacific region in the DJSI survey for the fourth consecutive year.	○	—
	Organization Others			
	• Hold a CSR Workshop for group executives	• Held in October (96 companies participated).	○	25
	• Periodically report relevant information about group companies to local communities (twice per year)	• Implemented in April and October.	○	—
	• Hold group legal round tables	• Held the 25th table on initial response after an incident in July (13 companies; 15 participants). • Held the 26th round table on "Countermeasures against antisocial influences (Organized Crime Exclusion Ordinance/ Provisions) and Countermeasures against unfair requests" in October (94 companies; 94 participants).	○	33

Note: The content in the "Results" column has been prepared using information reported by specialized committees as of the end of March 2018.

Corporate Governance

Strengthening corporate governance is essential in order to increase corporate value and fulfill our commitment to shareholders and all other stakeholders. As a reliable and responsible company we continuously strive to ensure the management of our organization is sound.

Management Organization

► GRI102-18, 19, 22, 23, 24, 28, 29, 30, 33, 35, 36, 37

Corporate Governance System

We strive to ensure the sustainable growth of the company and medium- to long-term increase in corporate value by continuously improving our corporate governance in accordance with the Taiheiyo Cement Corporation Basic Policy on Corporate Governance established on December 22, 2015.

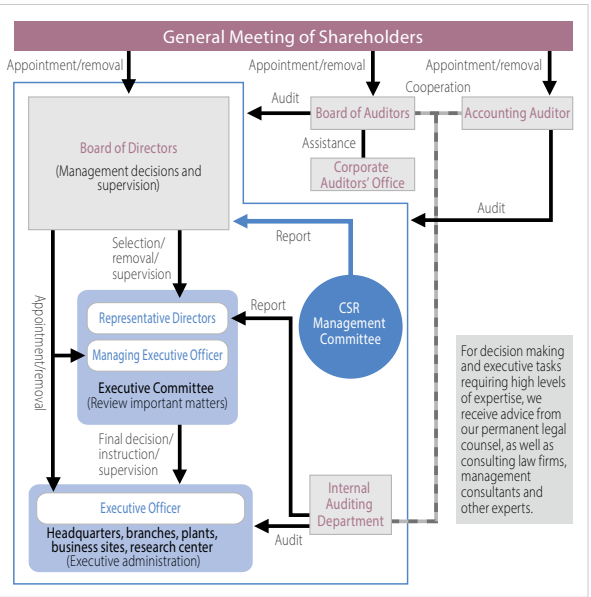
Our organizational structure is anchored by our Board of Directors and Board of Auditors. We have also introduced an executive officer system in order to separate management decision-making and monitoring/supervisory functions from executive administration.

We have a Corporate Auditor's Office consisting of 1 manager and 2 subordinates, which comprehensively supports corporate auditors in performing their duties, including the provision of information relevant to their duties. Our Internal Auditing Department conducts internal audits, identifies issues that require improvement and reports audit results to the president, activities that increase the effectiveness of internal audits.

Also, our CSR Management Committee determines the ideal direction for our business activities from the perspective of CSR and promotes the strengthening of corporate governance.

In fiscal 2017 we held 15 board meetings, with absences in 7 meetings (1 corporate auditor was absent at 6 meetings and 2 corporate auditors were absent at 1 meeting).

● Corporate Governance System



● Overview of Corporate Governance System (as of June 30, 2018)

	Number of People
Organizational structure	Company with auditors
Board chairman	Chairman and director
Number of board directors (female board directors) (one-year term)	14(1)
Number of outside directors (independent directors)	2(2)
Executive officers system	Yes
Number of corporate auditors (female corporate auditors)	4(1)
Number of outside directors (independent directors)	2(2)

● Major Meetings Held in Fiscal 2017

Meetings	Meetings Held	Attendance Rate of Outside Directors
Board of Directors	15	87%
Board of Auditors	14	86%
Executive Committee	24	-

Evaluating the Effectiveness of the Board of Directors

In accordance with the Basic Policy on Corporate Governance, we annually analyze and evaluate the overall effectiveness of the Board of Directors.

In fiscal 2017 we engaged all directors in a self-assessment survey, after which the results were analyzed by the board chairman and outside directors, and reported to the Board of Directors for future discussion on related issues and measures.

As a reflection of these efforts, the Board of Directors is considered to be well managed and its overall effectiveness ensured, although further ingenuity and improvements are required.

Appointment of Board Members

The president proposes candidates for board directors and auditors to the Board of Directors, including outside directors, in accordance with the Basic Policy on Corporate Governance. After deliberation and decision by the Board of Directors, candidates are recommended at the General Meeting of Shareholders and appointed based on its decision. For nomination of auditors, the president proposes candidates to the Board of Directors with prior approval from the Board of Auditors, including outside auditors.

Appointment of Outside Directors

Outside directors are appointed in accordance with our criteria for their independence.

● Outside Directors (as of June 30, 2018)

Name	Attribute	Reason for Appointment
Yoshiko Koizumi	Lawyer	Extensive experience as a lawyer and keen insight into corporate legal affairs
Yuzo Arima	Former director of another company	Abundant experience as a business manager and keen insight into overall management issues

Please visit our website for more information on the criteria for independence of outside directors (Basic Policy on Corporate Governance Appendix 1).

■ http://www.taiheiyo-cement.co.jp/english/
About Us → Corporate Governance

■ Board Member Remuneration

Resolutions of the General Meeting of Shareholders determine the upper limits of remuneration for board directors and auditors. The levels of remuneration for individual board directors are decided by resolution of the Board of Directors and the levels of remuneration for individual auditors are decided through deliberation by auditors. Remuneration of internal board directors consists of fixed and variable compensation while remuneration of the outside directors and auditors consists solely of fixed compensation.

● Annual Remuneration of Board Members (FY2017)

	Board Members Who Received Remuneration	Amount of Remuneration Paid (Million Yen)
Board directors	15	761
Auditors	6	72
Total	21	834

Internal Control System

► GRI102-30

In accordance with our Basic Policy for Building an Internal Control System, we are creating a system that will enable us to enhance various activities from the following three perspectives: (1) efficiency of business operations, (2) risk and compliance, and (3) financial reporting. Based on this policy, our Internal Control Report has confirmed that effective internal control over financial reporting for fiscal 2017 was maintained. An auditing firm we appoint has expressed its opinion that the report was appropriate. In the Business Report for fiscal 2017 we have presented an overview of system operation to ensure the proper execution of operations in accordance with the basic policy.

Status of Compliance with Japan's Corporate Governance Code

The Taiheiyo Cement Group discloses information as required and in accordance with Japan's Corporate Governance Code, outlined below.

Principles		Disclosure by		
		Website *1	Basic Policy *2	Report *3
Principle 1.4	Cross-shareholdings		Article 22	
Principle 1.7	Related party transactions		Article 23	
Principle 3.1 Full disclosure	Company objectives (e.g., mission), management strategies, management plans	●		
	Basic concepts and policies on corporate governance		Article 2	●
	Policies and procedures in determining the compensation of senior management and directors		Article 15	
	Policies and procedures on the appointment of senior management and nomination of director and corporate auditor candidates		Articles 5, 9 and 12	
Supplementary Principle 4.1.1	Board of Directors' decisions and scope of matters delegated to management		Article 3	
Principle 4.8*4	Effective use of independent directors	–	–	–
Principle 4.9*5	Independence standards and qualification for independent directors		Article 4	●
Supplementary Principle 4.11.1	Views on appropriate balance between knowledge, experience and skills of the Board of Directors as well as on diversity and appropriate board size		Article 4	
Supplementary Principle 4.11.2	Status of concurrent positions at other listed companies held by directors/corporate auditors of the Taiheiyo Cement Group		Articles 7 and 14	
Supplementary Principle 4.11.3	Analysis and evaluation of the overall effectiveness of the Board of Directors and summary of results		Article 19	●
Supplementary Principle 4.14.2	Training policy for directors and corporate auditors		Article 18	
Principle 5.1	Policy for constructive dialogue with shareholders		Article 24	

*1 Our website
*2 Our Basic Policy on Corporate Governance
*3 Reports related to our corporate governance
*4 "Principle 4.8 Effective use of independent directors" is not applicable to our company.
*5 In addition to the above three methods of disclosure, we disclose information in our securities reports and materials for our general shareholders' meeting.

Please visit our website for more information on the Corporation Basic Policy on Corporate Governance/Corporate Governance Report.

■ http://www.taiheiyo-cement.co.jp
About Us → Corporate Governance

Risk Management and Compliance

Risk management is an infrastructure for maintaining and improving the soundness and sustainability of our business. Legal compliance is essential for reducing risks. We conduct activities to reduce risks and strive to thoroughly ensure the compliance across the group.

Basic Risk Management and Compliance Policies

►GRI102-16

■ Basic Risk Management Policy

The materialization of any significant risk at the company may not only damage our management resources but also adversely affect our stakeholders. Any resulting loss of stakeholder trust or public reputation could leave the company severely damaged.

We formulated the following Basic Risk Management Policy to effectively respond to any significant risk as soon as it is identified and ensure the continued and sustainable growth of our business. In line with this policy we are creating our risk management system and pursuing effective risk management measures to reduce significant risks and minimize loss in the event that any such risks materialize.

Basic Risk Management Policy

1. We prevent and reduce risks in order to ensure the quality and safety of our products and services, protect the lives and safety of our employees and their families, and earn greater trust from our stakeholders.
2. We create a system to appropriately manage a wide range of risks associated with our business activities.
3. We promote risk management through a plan-do-check-act cycle.
4. We quickly and appropriately deal with risks as they are identified.
5. In collaboration with group companies we build a system for immediately detecting new risks arising from changes in our business environment and for quickly and appropriately dealing with risks at the group level.

■ Basic Compliance Policy

Under our Business Principles, we pledge that we will act in strict compliance with the law and in accordance with social mores. Fully aware that compliance is the foundation of CSR management, we published the Basic Compliance Policy and simultaneously created compliance rules in March 2005. We do not limit our definition of compliance to legal compliance; our definition includes compliance with the social mores from which our laws originate, the mission and business principles of our group, and internal regulations.

Basic Compliance Policy (Summary)

- Compliance with the Mission, Business Principles and social norms
- Maintaining internal systems and rules and ensuring broad-based awareness of them
- Cooperation with all group companies and promotion of educational activities
- Working out appropriate responses and policies for occurrence of problems
- Timely and appropriate disclosure and communication of necessary information
- Compliance with international standards and rules, and respect for local cultures and customs
- Rejection of corrupt and unfair requests from antisocial influences or organizations

Risk Management and Compliance Promotion System

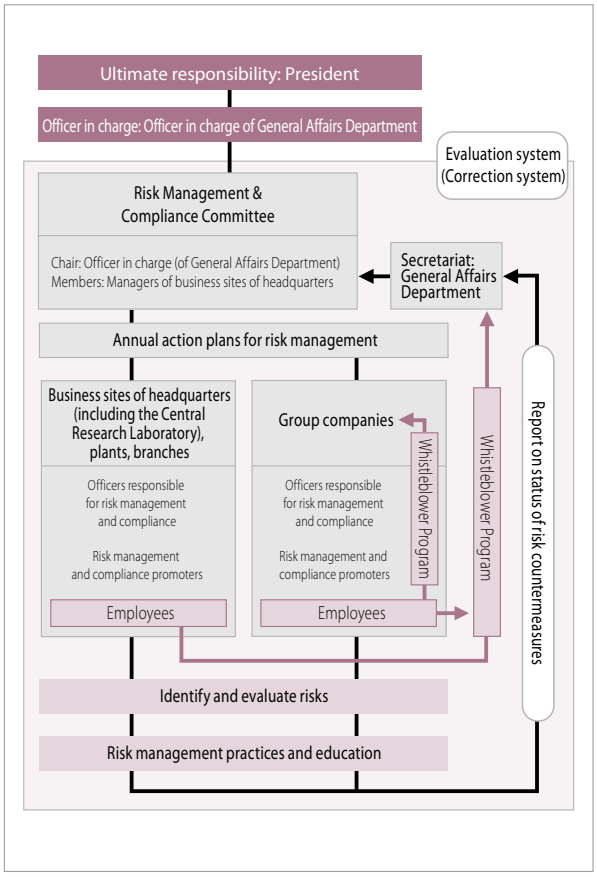
►GRI102-30, 31

Our president has ultimate responsibility for risk management and compliance promotion. The officer in charge of both areas (officer in charge of the General Affairs Department) is appointed by the president to preside over the Risk Management & Compliance Committee and systematically promote organized activities.

The committee plays a core role in our risk management and compliance promotion for the entire group. It embodies the policy, identifies company-wide risks, implements risk management activities based on PDCA cycles and promotes compliance. Moreover, it studies and proposes the creation and revision of rules for risk management and compliance and provides instructions for advancing the awareness and education of employees.

Under the guidance of this committee, each business site and group company has an officer responsible for risk management and compliance, and a risk management and compliance promoter, who carry out specific duties. We held four Risk Management & Compliance Committee meetings in fiscal 2017.

● Risk Management and Compliance Promotion System



Note: As of April 2018, 107 group companies are managed under the above system.

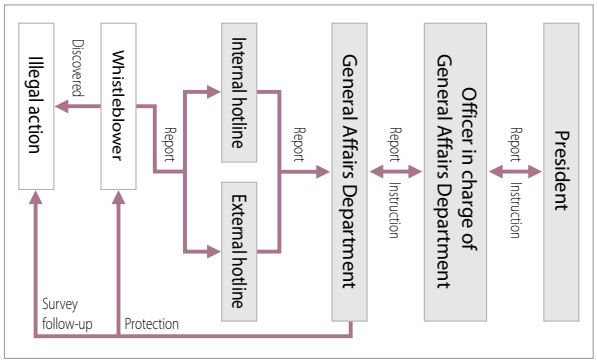
■ Whistleblower Program

We properly handle reports and proposals in accordance with company procedures and have whistleblower hotlines both internally (at the CSR Group of our General Affairs Department) and externally (at a law firm) for us to directly receive reports without the need for formal company procedures. Our internal hotline is located in a dedicated, locked room that is only accessible to hotline staff. It is equipped with dedicated phone and fax lines as well as a computer with a dedicated address in order to safeguard the privacy of those submitting reports. Our external hotline is available to all employees of group companies in an effort to strengthen group governance, improve program effectiveness and reduce the burden on individual companies.

Moreover, we have created regulations so that whistleblowers using the program are not subject to unfavorable treatment. Whistleblowers have the option of either disclosing their identity, including their name and department, or reporting anonymously to mitigate any potential psychological constraint.

In fiscal 2017 we received reports from numerous employees via the hotline. However, none of the reports were determined to be treated as whistleblowing under the program.

● Whistleblower Program



Risk Management and Compliance Promotion Activities

► GRI102-11, 17, 201-2, 205-2

■ Identifying and Evaluating Company-wide Risks

We identify and evaluate group-wide risks every three years and conduct annual review of those risks.

In fiscal 2016 we identified company-wide risks that may have a serious impact on the management of our group based on environmental changes over the next ten years by referring to guidelines such as ISO 31000. During this process, we provided risk management training to risk management and compliance leaders and also consulted risk management experts.

● Process of Identifying and Evaluating Company-wide Risks

● Critical Company-wide Risks that Were Identified

External environmental changes	•Declining birthrate and aging population •Shrinking domestic market •Economic deterioration •Hosting the Tokyo 2020 Olympic and Paralympic Games •Climate change •Stricter environmental regulations •Changes in the fuel market •Large-scale disasters •Progress of globalization •Intensification of global issues •Terrorism and riots •Intensified competition for developing new materials •Intensified competition with foreign companies •Progress of free trade, including TPP •Technical innovation •Spread of low-carbon concrete in societies •Progress of the network society •Increased cyber security risks •Changes in employment •Rise of inbound businesses
Internal environmental changes	•Deterioration of the financial environment •Aging of plant facilities and resources •Changes in business processes •Spread of cloud systems •Progress of telecommuting and flextime system •Changes in organizational culture •Shortage of human resources •Progress of overseas projects

Risk Countermeasures

Upon reviewing the identified company-wide risks and evaluation results, our Risk Management & Compliance Committee specifies those to be addressed every year, and risk countermeasures are implemented through PDCA cycles.

● Risk Reduction Activities (FY2017)

Areas	Major Activities
PDCA for risk management measures	Planned and implemented measures against the following company-wide risks in accordance with "Investigation and analysis of company-wide risks:" (1) Leakage of pollutants and hazardous substances, (2) Enhancement of information security, (3) Product/service accidents, (4) Aging of facilities and equipment, (5) Strengthening of business continuity planning, (6) Strengthening of overseas crisis management measures, (7) Enhancement of group corporate governance including risk management and the compliance system, (8) Occupational accidents, (9) Shortage of human resources
Improprieties and crimes	•Conducted a monthly e-learning training program for all employees
Earthquakes and tsunamis	•Conducted initial response drills for large-scale earthquakes at 4 plants (Kamiiso, Ofunato, Fujiwara and Oita), not including 2 plants where drills were conducted in the previous year •Conducted a Shake Out drill at each business site

Emergency Countermeasure Task Force

When any event such as a disaster, accident or misconduct has occurred, the affected business site informs the general manager of the General Affairs Department. The general manager determines the appropriate countermeasure from the following options while considering the severity of the event: establish an Emergency Countermeasures Headquarters or delegate site leadership to respond to the event. Action is then taken through the chosen countermeasure.

Although we received 18 reports in fiscal 2017, none required action by the Emergency Countermeasures Headquarters. Emergency reports requiring urgent attention, including proposals for measures to be taken, are deliberated by the CSR Management Committee.

Risk Management and Compliance Promotion Training

We provide training for managers and promoters for risk management and compliance of the company's business units and group companies to ensure effective risk management and promotion of compliance.

In October of fiscal 2017 we presented a lecture for these managers of group companies by a risk management consultant under the theme "Initiatives that group management should take to prevent misconduct," with 96 companies participating, and a lecture entitled "Creating an organizational culture for preventing misconduct and breaches of corporate ethics," followed by case study discussions for promoters, with 89 companies participating.

Compliance Training

To fulfill our mission and uphold our business principles, we formulated the Standard of Conduct to guide all officers and employees of Taiheiyo Cement in the performance of their daily duties. These standards consist of 35 items in 6 categories and gather together Taiheiyo Cement's policies, regulations and president messages delivered within and outside the company.

We created and distributed to all our employees, as well as all those of our main group companies, the Standard of Conduct Casebook, which describes specific examples on how to act in line with the Standard of Conduct.

For all company employees, including those on loan to group companies, we conduct monthly quiz tests as part of e-learning programs to provide education on the Standard of Conduct Casebook and other materials so that they learn how to act in certain situations. In fiscal 2017, 79.4% of subject employees participated in the program.

Standard of Conduct Casebook

Please visit our website for more information on the Standard of Conduct and associated casebook.

■ http://www.taiheiyo-cement.co.jp/english/
CSR → CSR of Taiheiyo Cement → "Corporate Framework for CSR," "Mission," "Business Principles" and "Standard of Conduct."

■ Group Legal Round Tables for Group Companies

Since fiscal 2005 we have been holding round-table discussions attended by management and legal affairs representatives from our group companies. These provide opportunities to share legal information (including revisions to laws) in order to further our understanding of major laws relating to corporate management and to assist in the creation of our group's compliance regime. In fiscal 2017 we discussed the following topics.

● Group Legal Round Tables (FY2017)

No.	Date	Attendees	Topics
25	July 2017	15 (13 companies)	•Initial response for occurrence of problems
26	October 2017	94 (94 companies)	•Countermeasures against anti-social influences (ordinances and provisions to prevent association with members of organized crime groups) and unfair requests •Presentation on revised Antimonopoly Law Compliance Manual

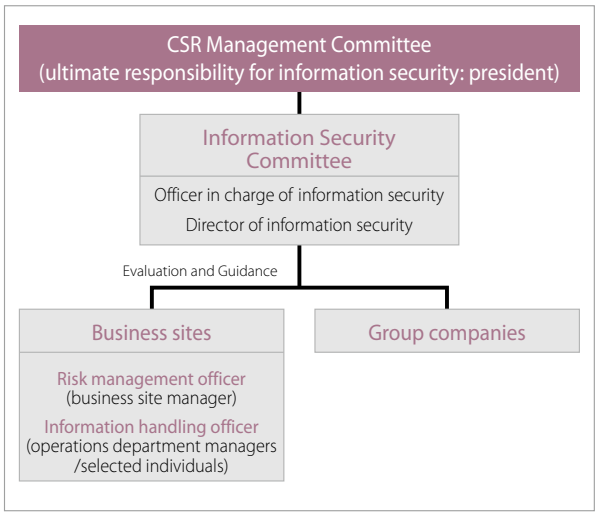
Information Security

■ Information Security Promotion System

Our Information Security Basic Policy and Information Security Management Regulations are the basic regulations governing our information security management system. We have created an Information Security Management Regime in accordance with these regulations and actively work to maintain information security under this regime.

Our president has ultimate responsibility for information security. Appointed by the president is the information security officer (officer in charge of the Corporate Planning Department), who presides over the Information Security Committee in order to advance organized and planned information security promotion activities.

● Information Security Structure



Please visit our website for more information on our Information Security Basic Policy.

■ http://www.taiheiyo-cement.co.jp
CSR → Management → Risk Management and Compliance

■ Information Security Promotion Activities

In fiscal 2017 we conducted an e-mail drill to respond to targeted attacks and provide detailed information on recent crimes to raise awareness of such risks. We also conducted a backup datacenter activation drill, disaster recovery drills, a security level survey of group companies and information security training. In that same year, an incident involving the leak of insider information occurred at an overseas group company. Although no serious damage resulted, we will strengthen measures such as introducing initiatives adopted by domestic group companies to overseas group companies.

Protection and Use of Intellectual Property

Intellectual Property Policy

Our fundamental intellectual property policy is to maintain and strengthen the group's competitive advantages by ensuring the protection of our intellectual property as a key business infrastructure as well as strategically conducting intellectual property activities beneficial to new businesses. Under this policy, we manage intellectual property in collaboration with business and R&D divisions to contribute to increasing corporate value of the Taiheiyo Cement Group.

Intellectual Property Management System

The company has established Intellectual Property Rights Handling Rules and an associated management system to guide our intellectual property activities. The Intellectual Property Department assigns staff members to the headquarters mainly to perform administrative tasks and to the Central Research Laboratory to handle applications for and protect rights and research efforts. In addition, intellectual property promoters are assigned as contact points to the business divisions and the Central Research Laboratory to actively promote the effective and efficient creation, protection and use of our intellectual property in collaboration with the Intellectual Property Department. Issues involving the entire group are deliberated on by the Intellectual Property Rights Committee.

Intellectual Property Management System for the Group

We formulated and began applying the Taiheiyo Cement Group Intellectual Property Management Guidelines, which apply to the entire group, in March 2018 to promote the use of our intellectual property and reduce associated risks. We regularly convene staff who are in charge of intellectual property at the main group companies in order to promote and vitalize our intellectual property activities corresponding to the scale and industry of each group company, by sharing issues, exchanging information and holding workshops.

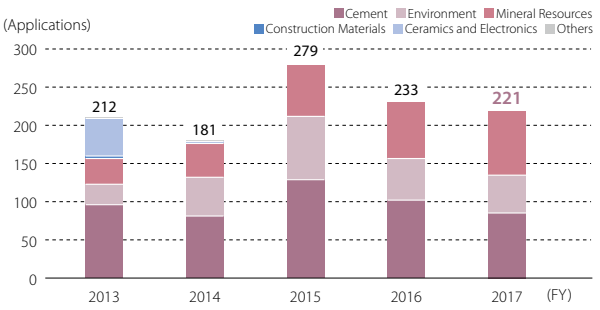
Outline of Our Intellectual Property

As of the end of fiscal 2017, the company had 729 patents pending, owned 1,087 patents and registered 264 trademarks and 18 designs.

The cement segment accounts for the largest share of patents owned by the company. However, over the past several years the share of patent applications in the environmental and mineral resources segments has been growing in line with our business and R&D strategies. In order to increase business revenue from patents, we must obtain patents for technologies including peripheral technologies, considering company business conditions. With this understanding, we possess a wide ranging collection of strong, advanced patents from the perspective of retaining sufficient influence on competitors in terms of intellectual property.

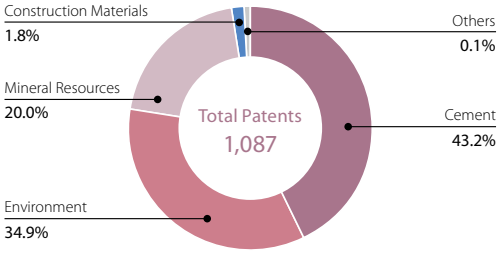
As a technology-oriented manufacturer, we have recently focused on raising the percentage of inventors among all employees. We believe this would cultivate a mindset of valuing corporate intellectual property and develop the originality and portfolio of each business by protecting inventions, leading to the continued strengthening of our competitiveness.

● Number of Domestic Patent Applications by Segment Non-consolidated



Few applications for ceramics-related patents have been submitted since fiscal 2014 because the ceramics business was transferred to another company.

● Domestic Patents by Segment (as of the end of FY2017) Non-consolidated



Licensing Activities

While the company applies for and acquires rights primarily to ensure competitive business advantages, we also proactively license rights that we do not use to other companies. Of course, we are also granted licenses for technologies that are likely to contribute to our business from other enterprises.

Risk Management for Intellectual Property

Our acquisition and control of intellectual property is conducted under the Rules for Handling Intellectual Property Rights stated above. This intellectual property right strategy is intended to ensure that implementation corresponds with the reality of our individual businesses.

Intellectual property, including pending patent applications, is handled through a centrally controlled database by the Intellectual Property Department. We strive to prevent infringements of competitors' patents and strictly manage risks by ascertaining recent developments of issues through the ongoing circulation of patent information, a patent watch system and an intellectual property review service with the utmost attention paid to setting our own criteria. Moreover, we are increasing employee awareness when we hold workshops, in-house training and intellectual property strategy meetings with various divisions. There have been no cases in which we have been sued for intellectual property infringement and thereby hindered in our business.

We have strengthened protection of the intellectual property we possess and firmly respond to infringement by other companies.

To manage trade secrets and prevent leaks of knowhow and technology, we formulated and enforce Information Security Management Regulations and Document Management Rules that cover the entire group. In addition, we use the guidelines stipulated in the Rules for Handling Intellectual Property Rights to determine whether we will file a patent application for a technology or keep it secret as internal expertise in order to prevent technology leaks..

Group companies have formulated or reinforced various intellectual property rules while completing the execution of agreements with each inventor.

Given that we are actively licensing our core technologies overseas from the perspective of our projected global management stance of focusing on our mission of providing concrete solutions worldwide, we also address the risks of overseas licensing. The legal systems of emerging Asian countries are different from the system in Japan. For example, licensers are responsible for quality/performance assurance in those countries. In addition to internal information dissemination, we are implementing risk management in cooperation with specialized lawyers who are familiar with situations in those countries.

Intellectual Property Award Program

We have paid specified compensation to inventors for their patent applications and for registered patents that have significantly contributed to the business profits under our regulations. Furthermore, we have started to operate an Intellectual Property Award Program to strengthen employee awareness of intellectual property and vitalize their efforts in fiscal 2017. Achievements have been recognized through the Excellent Invention Award (1 award, 4 recipients), the Intellectual Property Contribution Award (2 awards, 9 recipients), New License Award (1 business site) and Largest Number of Patent Applications Award (1 individual and 1 department).

Training and Awareness Raising

To raise awareness of intellectual property and increase its potential, the company encourages employees, especially members of the research division and the technology development division, to take the Intellectual Property Management Skills Test, a national licensing examination. We have continued other employee training efforts such as external workshops held by the Japan Intellectual Property Association and Japan Institute for Promoting Invention and Innovation in addition to in-house training at our Central Research Laboratory, the headquarters, branches and plants. In fiscal 2017 we implemented the training programs, described below, with 337 attendees including employees from group companies. We have also partially introduced an e-learning program. Furthermore, through efforts such as information exchange gatherings and study meetings for members in charge of the intellectual property of group companies stated above we strive to protect and fairly use intellectual property across the group while respecting other companies' intellectual property and preventing infringement, from the perspective of intellectual property as a source of profit.

● Number of Attendees for Intellectual Property Training Sessions Implemented in Fiscal 2017

Training Content	Attendees		
	Taiheiyo Cement Corporation Employees	Group Company Employees	Total
Introduction	30	26	56
Description	12	10	22
The revised Patent Act	203	56	259
Total	245	92	337

Seminar on preventing intellectual property infringement

Environmental Management

We have created an Environmental Management Committee, which proposes cross-functional environmental strategies and actively works to address environmental issues. Since having unified environmental management systems developed by individual plants and obtaining the ISO 14001 certification for the entire company in April 2009, we have been striving to further improve our environmental management.

Environmental Management Policy

Our environmental management policy declares an active commitment to environmental issues facing society, including not only preventing pollution but also creating a recycling-based society, mitigating climate change, reducing environmental impacts, protecting water resources and conserving biodiversity as key management challenges. Under this policy we are focusing on improving our environmental performance.

Environmental Management Policy

In January 2006 we created an environmental management policy, reflecting the fact that we consider an active commitment to the environmental issues facing society to be key management challenges. In addition to initiatives emphasizing these six items in all business operations, we strive to communicate with a wide range of stakeholders, from international society to local communities, and to seek the ideal form for a sustainable cement industry as a member of the WBCSD Cement Sustainability Initiative.

Created in January 2006
Revised in April 2018

1. Business Activities Impacting the Environment
We improve eco-efficiency by assessing the environmental impact of our operations. Implementation of environmental management systems, together with development and adaptation of our products and technologies, reduce environmental impact. Furthermore, as a member of the local community, we strive to maintain a good environment.

2. Compliance with Environmental Laws and Regulations
As a minimum, we comply with all environmental laws and regulations applicable to our business activities. Furthermore, beyond compliance, we meet environmental commitments undertaken through voluntary agreements.

3. Contributing to a Recycling-based Society
Leveraging the inherent capabilities of the cement industry, we actively recycle industrial and municipal wastes as raw materials and fuels for cement production.

4. Proactively Addressing the Issue of Climate Change
We promote greater energy reduction throughout the whole of our business activities and strive to develop technology to help reduce society's total greenhouse gas emissions.

5. Promoting Global Technology Transfer
Through the worldwide transfer and deployment of our technology, we aid the development of greater energy conservation, environmental preservation and utilization of waste materials.

6. Encouraging Environmental Conservation
While encouraging the development of environmentally friendly products and technology, we focus on environmental conservation.

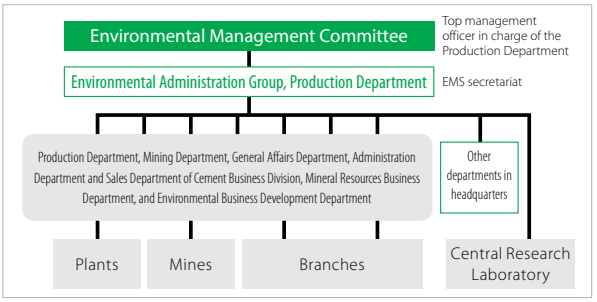
Company-wide Environmental Management System

In June 1997, Taiheiyo Cement initiated ISO 14001 certification of each of its plants and attained 100% certification by 1999. Recognizing, however, that plant level management systems alone are insufficient to ensure comprehensive environmental protection through environmental management projects, we built a company-wide environmental management system (EMS) and extended it beyond plants to cover our headquarters, branches and Central Research Laboratory. In April 2009 our EMS was ISO 14001 certified by the Japan Testing Center for Construction Materials, an independent third-party testing, standardization and certification authority. In March 2018, the company-wide system was audited for recertification for the third time and made a transition to ISO 14001:2015.

EMS Readiness

Top management (officer in charge of the Production Department) chairs the Environmental Management Committee with ultimate decision-making authority for environmental management. Overseen by the Environmental Management Committee, the relevant headquarters division manages our plants, mines and branches using an "umbrella" system.

● Company-wide EMS Readiness



● Taiheiyo Cement Group's Environmental Target WBCSD

CO_2 Emission Reduction Targets

Cement production-related CO_2 emissions from Taiheiyo Cement and group companies

Reduce specific net CO_2 emissions per tonne of cementitious product by 10% or more from fiscal 2000 levels by fiscal 2025. (CSR Objectives for 2025)

Reduction Target for Main Air Pollutants

Emissions of NOx, SOx and dust from the main stacks of kilns at the cement production sites of Taiheiyo Cement and group companies

Limit NOx, SOx and dust levels per tonne of clinker (g/t-clinker) to the target levels achieved in fiscal 2010

Each group cement company in Japan and overseas is committed to environmental preservation. As of fiscal 2017, over 90% of the group's total cement output is produced in ISO 14001 certified plants. The facilities that are not ISO-certified operate their own EMS.

Internal Environmental Audits

In fiscal 2017 we conducted internal environmental audits at all our sites.

As priority items from this year's audit, confirmation of legal compliance reviews, external communications and the status of achievement of environmental targets, were identified as company-wide concerns. The status of a follow-up, including corrective and preventive actions for nonconformity with environmental requirements, and the status of responses to emergencies were identified as items that plants must deal with. Verifying the scope of the internal audit was identified as an item that must be dealt with by branches.

The audit identified 15 findings including 2 for which improvements were requested. Corrective actions have been taken for all of the 2 findings for which improvements were requested.

Environmental Education

During Environment Month each June we deliver a message from the president and provide educational materials on the environment page of our portal site to increase awareness and encourage learning about the environment throughout the group. Each workplace also engages in a number of different activities, such as conducting training sessions related to accident response, viewing environment-related DVDs, holding lectures and taking part in local cleanup activities. In fiscal 2017 more than 200 activities took place at group offices.

Releasing the young loach (Saitama Plant)

Compliance with Environmental Laws

►GRI307-1

Environmental Accidents

We had no legal or regulatory violations in fiscal 2017 that were subject to fines or penalties. Moreover, no environmental accidents occurred that could affect areas outside the premises of our plants.

Response to Environmental Accident

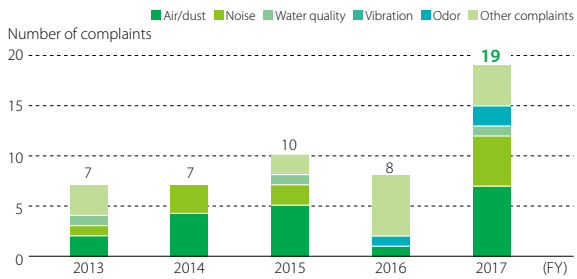
Each plant maintains emergency response plans in preparation for possible environmental accidents. They also conduct training, including fire fighting training in cooperation with local fire departments. Other education includes training on how to reduce environmental impact when an environmental accident occurs and how to report it to a government entity.

Environmental Complaints

As the waste and by-products we use become more diverse and increase, the number of environmental issues we need to consider also rises. Therefore, we are ramping up our efforts to reduce environmental impact through activities such as introducing indoor storage and sealed containers for waste and by-products, and improving our flue gas stacks. When we receive an environmental complaint we quickly travel to the site in question, whenever possible, to check the situation, investigate the cause and provide an explanation. When we find that our activities are the cause, we implement improvements.

In fiscal 2017 our cement plants received 52 environmental complaints. We responded to 19 of these complaints associated with our operations. The number of complaints increased from the previous year due to a change in the counting method.

● Number of Environmental Complaints Received Non-consolidated



Mitigating Climate Change

Most of the greenhouse gas emissions associated with our business operations are from cement production. To tackle this we have identified CO_2 reduction targets for cement-related CO_2 emissions in our CSR Objectives for 2025 and are working to reduce greenhouse gas emissions particularly by focusing on efforts to reduce emissions at individual cement plants.

► GRI103-2, 3

Greenhouse Gas Emissions and Long-term Quantitative Targets

► GRI102-11, 302-3, 305-1, 2, 4, 5

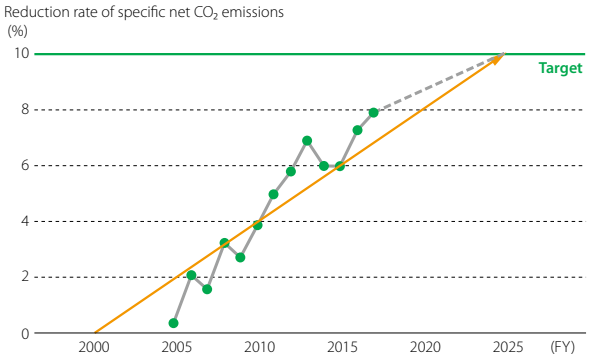
Among the total greenhouse gas emissions generated by our domestic group companies (excluding power generation companies) that are reporting their greenhouse gas emissions by business segment in accordance with the Act on Promotion of Global Warming Countermeasures, about 94% of greenhouse gas emissions were generated from cement production companies in fiscal 2014.* The amount of greenhouse gas emissions associated with our service stations, headquarters, branches and shipping, as well as electricity purchased by the group, was around 5% in fiscal 2017. Under Scope 3 (value chain) calculations for cement, for which downstream value is not calculated since cement is considered an intermediate product at this stage, the emissions were around 5.8% of Scope 1 and Scope 2 (direct air emissions) in fiscal 2016.

The bulk of greenhouse gas emissions associated with the operations of our group companies is CO_2 from cement production. We are therefore working to reduce emissions from cement production, as indicated in our CSR Objectives for 2025, in order to achieve our long-term quantitative target of reducing specific net CO_2 emissions per tonne of cementitious product by 10% or more from fiscal 2000 levels by fiscal 2025.

Some of our plants are taking part in the target setting-type emissions trading program for Saitama Prefecture and California's cap-and-trade program, striving to achieve the reduction targets. To support voluntary approaches we are also working in line with Keidanren's Commitment to a Low Carbon Society and the measures to reduce greenhouse gas emissions established by the WBCSD-CSI.

* Most of our overseas affiliated companies are cement production companies so the total CO_2 emissions from production overall is higher than that of domestic companies alone.

● Progress in Meeting Our CO_2 Reduction Targets in CSR Objectives for 2025



Efforts Related to the Cement Production Process

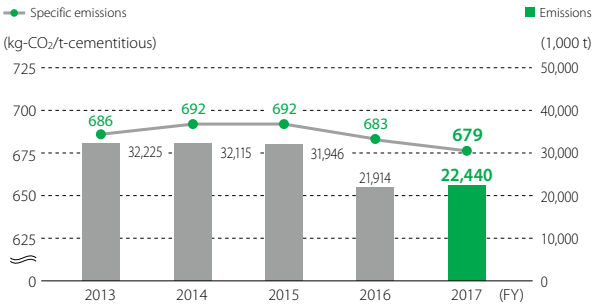
► GRI302-1, 3, 4, 305-4, 5

A large amount of carbon dioxide is produced in the course of cement manufacture. This is because the production process requires a high temperature of 1,450°C and limestone, used as raw material, is decarbonated through a chemical reaction during the calcination process ($CaCO_3$ → $CaO + CO_2$). About 35% of CO_2 emissions generated during cement production are from the consumption of energy, about 55% are from the calcination of raw materials and about 10% are from electricity use.

To reduce CO_2 emissions we have been working to conserve energy by installing energy-efficient equipment and improving the stability and efficiency of our kiln operations. We have also been implementing measures such as using waste- and biomass-derived energy sources to decrease our rate of use of fossil fuels. Moreover, we are moving toward using recycled resources with less carbonate content to bring down CO_2 emissions from the calcination of the limestone used as raw material, and have started using waste heat power generation to tackle CO_2 emissions associated with conventional electricity generation.

Specific heat consumption was reduced in fiscal 2017, delivering a reduction in CO_2 emissions of 4-kg-CO_2/t-cementitious compared to fiscal 2016, mainly as a result of a decrease in the clinker-to-cement ratio.

● Specific Net CO_2 Emissions per Tonne of Cementitious Product WBCSD

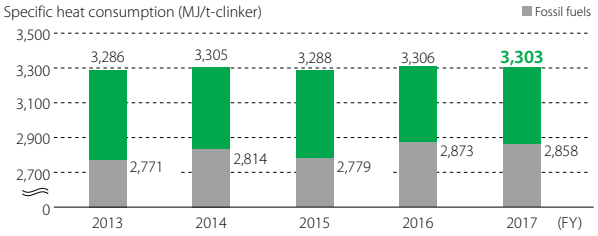


Guideline: WBCSD-CSI Cement CO_2 and Energy Protocol Ver. 3

Efforts to Save Energy

Specific heat consumption of clinker production by the group's cement plants in fiscal 2017 decreased by 3 MJ/t-clinker from the previous year's level to 3,303 MJ/t-clinker.

● Specific Heat Consumption of Clinker Production WBCSD

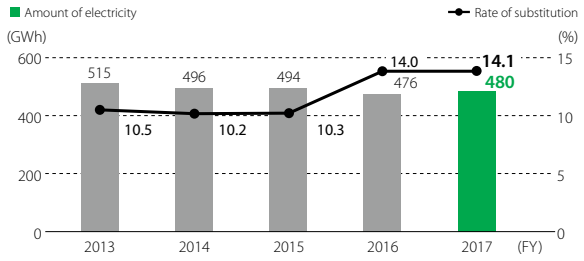


Guideline: WBCSD-CSI Cement CO_2 and Energy Protocol Ver. 3

Use of Waste Heat Power Generation Systems

Total electric power generated by waste heat power generation systems at the group's cement production companies in fiscal 2017 increased by 3.4 GWh from fiscal 2016 to 480 GWh. Its ratio to all electricity consumed in the production of cement also increased to 14.1%. We were therefore able to reduce CO_2 emissions by about 331 thousand tonnes in fiscal 2017 compared to purchased power generated from coal-fired power plants (emission factor: 0.69 t-CO_2/MWh).

● Electricity Generated by Waste Heat WBCSD

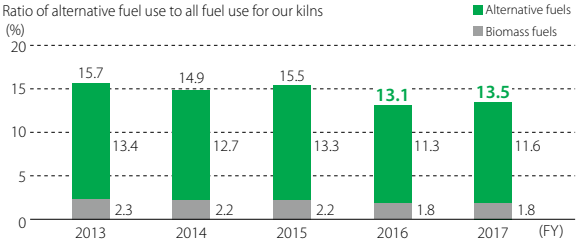


Guideline: WBCSD-CSI Cement CO_2 and Energy Protocol Ver. 3

Use of Alternative Energy Resources and Alternative Raw Materials

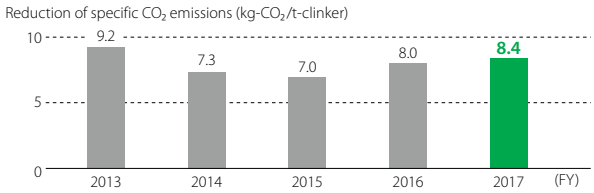
In fiscal 2017 non-fossil energy and biomass energy accounted for about 13.5% of all energy used for group kilns. A decrease of about 8.4 kg-CO_2/t-clinker was also achieved by using alternative raw materials. As a result of using both alternative energy resources and raw materials, reductions in CO_2 emissions are expected to reach 1.41 million tonnes (emission factor for coal: 0.096 kg-CO_2/MJ).

● Ratio of Alternative Fuels and Biomass Fuels WBCSD



Guideline: WBCSD-CSI Cement CO_2 and Energy Protocol Ver. 3

● Reduction of Specific CO_2 Emissions by Replacing Limestone with Alternative Raw Materials WBCSD



Guideline: WBCSD-CSI Cement CO_2 and Energy Protocol Ver. 3

Reducing CO_2 Emissions during Transportation

▶ GRI305-3

We contract the delivery of our raw materials and products to transportation companies and are striving to reduce CO_2 emissions as a specified consigner designated under the Japanese Energy Saving Act. Major efforts include implementing a plan to transport goods on return trips, encouraging drivers to eco-drive, and promoting energy efficient devices such as digital tachometers and eco-tires on vehicles. In shipping we continue to pursue energy efficiency technologies and operate new ships that are equipped with many energy-saving features. We are also supporting energy-saving operations for conventionally powered ships.

In fiscal 2017 our CO_2 emissions increased by about 11% compared to fiscal 2016, mainly due to a 3% increase in the distance transported and a 3% increase in the tonnage transported.

● CO_2 Emissions by Mode of Transportation (FY2017) Non-consolidated

Mode of Transportation	Tonnage Transported (1,000 t)	Average Distance Transported (km)	Transported Tonne × Kilometer (1,000 t × km)	CO_2 Emissions (1,000 t)
Ship	18,144	463	8,400,893	111
Truck	14,490	57	830,356	48
Railway	5,334	27	145,711	3
Total	**37,969**	**247**	**9,376,961**	**162**

Recycling Waste and Other Materials

We safely treat large volumes of waste and by-products produced by many industries, as well as household waste, using our cement manufacturing facilities to recycle them into cement. We strive through our recycled-waste-to-cement system to create and expand a recycling-based society in partnership with a wide range of industries and communities.

► GRI103-2, 3, 203-1, 413-1

Resource Recycling with Industries

■ Electric Power Utilities

We accept large volumes of coal ash produced at coal-fired power plants and use it as a substitute for clay as a raw material in cement. In addition, we operate ash centers* to use more ash. We also supply the power plants with limestone powder which is used as a flue-gas desulfurization material to scrub the harmful sulfur oxide from the exhaust produced by the burning of coal. The reaction of the flue-gas desulfurization material with sulfur oxide forms gypsum which we use effectively as a raw material for cement.

*Ash centers are distribution sites with collection/transportation (transshipment and storage) and intermediate-processing (powder mixing) functions. They receive coal ash from coal-fired power plants and ensure a stable supply to our cement plants, while enabling effective utilization of coal ash and supplying diverse products that meet user needs.

■ Steelmakers

In the steelmaking process impurities are removed from iron ore to make iron. We supply the limestone powder and quicklime used as purifying materials in the refining process. We also use by-products such as blast furnace slag and steel slag that remain after the refining process as raw materials for cement and mineral components.

■ Construction Soil

Conventionally this soil had been dumped into landfills. By making effective use of it as an alternative raw material for cement we contribute to the material recycling of construction soil as well as to the extension of the lifetime of landfills. We are certified as a designated survey agency by the Ministry of the Environment and offer one-stop services from surveying, construction and distribution, to treatment at our plants. We have also set up intermediary facilities that organically link sites where construction soil is produced to our nationwide plants.

Resource Recycling with Communities

Although most municipal waste is incinerated and the ash is buried in landfills, finding new landfill sites has become very difficult. Waste treatment has particularly become a source of concern for Japan's major city governments and the situation is expected to get worse. We have three systems for recycling municipal waste and strive to make effective use of such resources and resolve environmental issues.

▶ Ecocement System

Ecocement is a new type of cement made primarily from the incineration ash from municipal waste. More than 500 kg of municipal waste incineration ash and other waste materials are used per tonne of Ecocement.

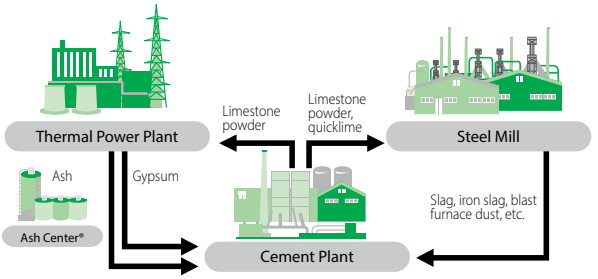
▶ Incineration Residues Recycling System

A system for recycling incineration residues (incineration ash and dust) which are generated when municipal waste is incinerated at incineration plants as a raw material for ordinary Portland cement.

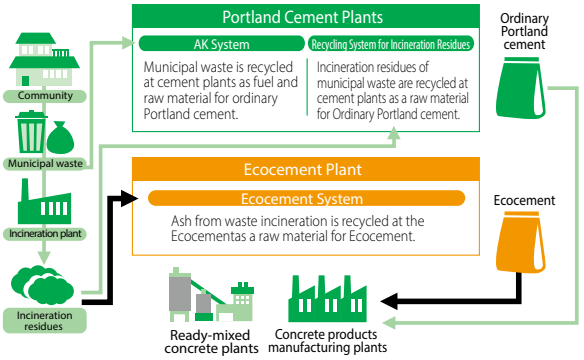
▶ AK System

A system for recycling household waste and general business waste as alternative raw materials and fuels for cement manufacture. The waste is pre-processed through biological breakdown (fermentation) using a waste recycling kiln.

● Mineral Resource Cycle with Electric Power Utilities and Steelmakers



● Municipal Waste Recycling Systems for Cement Production



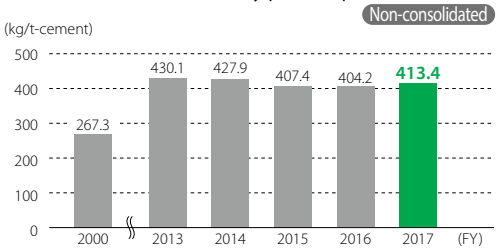
Performance of Recycled-Waste-to-Cement System

►GRI301-1, 2

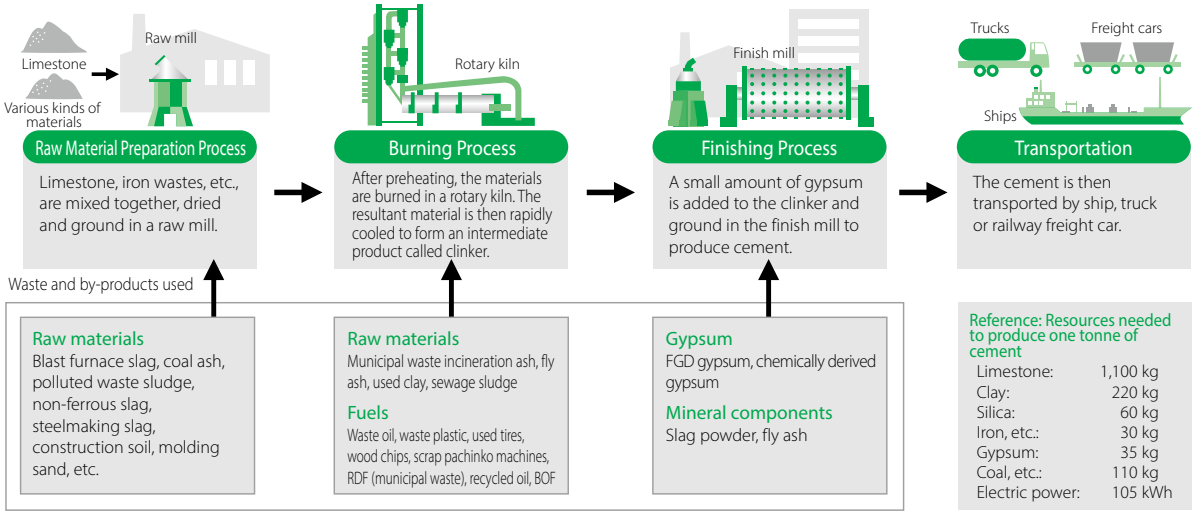
We recycle waste and by-products into alternative raw materials and fuels for cement. This helps to extend the lifetime of landfills, prevent the depletion of natural mineral resources, limit greenhouse gas emissions and reduce air pollution. In fiscal 2017 we recycled 6.625 million tonnes of waste and by-products. This was an increase of 175,000 tonnes compared to fiscal 2016, with the main increases being in the volume of sludge, construction soil and fuel-related waste which we accepted. This means we recycled 413.4 kg of waste and by-products per tonne of cement produced.

● Trends in Use of Waste and By-products per Unit Production

Non-consolidated



● Waste and By-products Used in the Cement Manufacturing Process



Reference: Resources needed to produce one tonne of cement

Limestone:	1,100 kg
Clay:	220 kg
Silica:	60 kg
Iron, etc.:	30 kg
Gypsum:	35 kg
Coal, etc.:	110 kg
Electric power:	105 kWh

● Waste and By-products Used in Cement Plants (FY2017) Non-consolidated

Waste and By-products		Total Amount (t)	Rate (kg/t-cement)
Industrial	Coal ash (including JIS fly ash)	2,009,314	125.4
	Blast furnace slag	1,192,701	74.4
	By-product gypsum	537,339	33.5
	Unburned ash, dust emissions, dust	473,735	29.6
	Dirt and sludge	449,472	28.0
	Construction soil	380,612	23.8
	Waste plastic	161,459	10.1
	Waste oil	139,759	8.7
	Wood chips	110,807	6.9
	Other	650,550	40.6
	Subtotal	**6,105,748**	**381.0**
Household	Water treatment plant sewage sludge and ash	363,993	22.7
	Municipal incinerator ash	133,965	8.4
	Municipal waste, etc.	21,585	1.3
	Subtotal	**519,544**	**32.4**
Total		**6,625,292**	**413.4**
	Raw material-related	6,050,228	377.5
	Fuel-related	575,064	35.9

Conserving Biodiversity

Conserving biodiversity in the course of doing business is a material corporate issue.
Our approach to conserving biodiversity includes complying with strict legal requirements and striving to harmonize human activities with nature while interacting with the environment and wildlife in our cement and mineral resources business.

► GRI103-2, 3

Considering Biodiversity in Operations

► GRI304-1, 2, 3, MM1, MM2

Investigation and Development

- **Environmental impact assessment**

Recently conducted environmental impact assessments

- Development construction of the Ofunato Quarry (June 2011)
  A post-project survey is currently underway.
- Redevelopment construction of the Fujiwara Quarry (February 2012)
  A post-project survey is currently underway.

Operations (Mining)

- **Protection of rare animal and plant species**
- **Prevention of environmental disruption**

Representative Activities

- Preservation and propagation of rare plants at the Minowa, Ofunato, and Fujiwara Quarries
- Prevention of noise, dust and water pollution pursuant to laws, regulations and local pollution control agreements
- Safeguarding wildlife pathways
- Protection of bird nesting grounds

Post-mining (Improvement of Old quarry Sites)

- **Greening quarries**
- **Use of old quarry sites**

Results of Greening

- Area of seeds sprayed: 10,000 m^2, tree seedlings planted: 1,100*

*At the group limestone quarry in FY2017

Use of Old Quarry Sites

- Large-scale solar power systems business (company-owned land: 8.5 ha)*

*Quarry sites managed by Kansai Taiheiyo Minerals Corporation

■ Environmental Impact Assessment

Cement production starts with quarrying limestone, the primary raw material for cement. Since quarrying requires the removal of topsoil it has an impact on the natural environment and landscape. Our quarry development is not solely related to quarrying. We are acting with the belief that it is important to care for the conservation of the local ecosystem and promote the development of the local economy. We therefore study and implement conservation measures to minimize environmental impact and strive to achieve sustainable quarry development while taking into consideration the opinions and ideas exchanged with the local government, community and academics.

Raptors survey

■ Protection of Rare Plant Species

Since 1972 we have been protecting and nurturing rare species of native plants on Mt. Buko, which is between Chichibu City and Yokoze Town in Saitama Prefecture and the location of the Minowa Quarry of Chichibu Taiheiyo Cement Corporation. We created a botanical garden at the quarry and, together with local experts and other people, we preserve 68 native plant species there while increasing the plant population. Additionally, our Central Research Laboratory has continued to research and develop ways to preserve and grow endangered plants and to verify genetic diversity of native plant species using biotechnology. Since 2016, in the course of developing the new quarry site at the Ofunato Quarry in Iwate Prefecture, we have been working with experts to preserve and cultivate various rare plant species in their native biospheres.

■ Protection of Water Resources

In quarrying we also pay close attention to protecting not only terrestrial plants but also water resources such as spring water in an effort to conserve biodiversity. From the perspective of protecting water resources, spring water discharged from quarrying and rainwater is directed into our retention basin to minimize impact outside of the quarrying area. In some quarries we drill wells for domestic water and supply this water to local communities for everyday use.

■ Greening Quarries

We are continuing our efforts to restore greenery to the quarry slopes on terraces formed during the quarrying process. We undertake these efforts immediately after the slopes are made. We also plant vegetation in stockyards for excavated topsoil where no construction work is expected. We use as many types of native species as we can in the locations where we plant, which are usually mountainous.

Buko Mining Co., Ltd., with a quarry site in Mt. Buko, conducts an annual tree planting campaign with partner companies and local residents to improve awareness of quarry development and the importance of greening.

All of our quarries are still under our operation; however, once our work there is completed our plan is to restore the areas as close as possible to the original natural environment.

▶ Key performance indicators (KPIs) in accordance with the Guidelines on Quarry Rehabilitation developed by the WBCSD-CSI are listed on page 68.

Appropriate Use of Water Resources

We began our analysis of associated risks and an assessment of water consumption by identifying issues that could emerge.

Water Risk Analysis

►GRI303-1

According to the results of the water risk analysis conducted using the Water Risk Filter*, the average score for the total basin risk for all our plants (weighted average taking into account the cementitious production volume) was 2.4, the same level as the previous year (the maximum score is 5.0, with a higher score indicating a greater risk). The highest total basin risk score was 3.8, also the same as in the previous year. The volume of cement produced at the plant with the highest score accounted for about 4% of the production volume of all the plants. However, when we analyzed conditions at that plant, no imminent issues were found.

*This is a water risk mapping tool developed by the World Wide Fund for Nature and used to evaluate impacts on businesses related to water scarcity, flooding, drought, seasonal variation, physical water quality risks, regulatory risks, etc.

Status of Water Consumption

►GRI303-1, 2, 3, 4, 306-1

Most of the water used at our cement plants is for cooling production equipment, exhaust gas and in-house power generators. Therefore, the water discharged from the plants is mostly cooling water, which is not polluted as defined in the Water Pollution Control Act. Our plants near the ocean use seawater to cool in-house power generation equipment. We circulate and reuse all freshwater at these facilities (except for household wastewater) in order to reduce water withdrawal and prevent pollution by the discharged water.

The total withdrawal of freshwater for fiscal 2017 was about 27.60 million m^3 and the total seawater withdrawal for the same year was about 150 million m^3. The seawater was used to cool in-house power generation equipment at our plants near the ocean and then released back into the sea after use. The amount of freshwater discharged was approximately 12.29 million m^3, meaning that about 15.30 million m^3 of freshwater was used. However, almost all of the water was for the cooling of equipment and consequently released into the atmosphere through evaporation rather than as a raw material for products. In fiscal 2017 we withdrew 0.835 m^3 of freshwater (withdrawal per unit of production) to produce 1 tonne of cement. Moreover, there was little change in our water consumption efficiency.

Appropriate Use of Water Resources

►GRI203-1, 303-1, 2, 3, 4, 5, 306-1, 413-1

At present there are no foreseeable specific concerns regarding water resources that may be raised by local communities. We therefore remain focused on reducing the amount of water withdrawn from the perspective of improving production efficiency. Also, we will continue to contribute to promoting the appropriate use of water resources for local communities by maintaining close communication with them.

While Jiangnan-Onoda Cement Co., Ltd. in China operates a plant next to the Yangtze River, the surrounding areas are outside the range of the municipal water supply. Therefore, the company uses the water it withdraws from the river as industrial and drinking water for employees, after purifying it. Moreover, it supplies the water to about 5,000 people living in these areas as drinking water. As for Taiheiyo Cement Philippines, it supplies clean water to local communities in the Philippines from a well it drilled by the company.

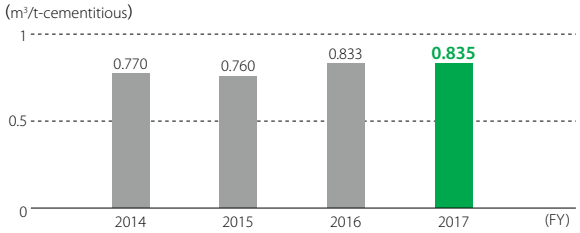
● Status of Water Consumed WBCSD

(Unit: 1,000 m^3)

	FY2014	FY2015	FY2016	FY2017
Surface water	15,394	13,717	7,505	8,130
Ground water	17,358	18,329	16,232	16,370
Industrial water	2,996	3,037	2,983	3,095
Other	42	0	0	0
Total freshwater withdrawal (I)	35,791	35,083	26,719	27,596
Total seawater withdrawal	151,535	148,836	146,097	149,056
Total withdrawal	187,325	183,918	172,816	176,652
Total freshwater discharge (O)	14,253	13,871	12,964	12,294
Total seawater discharge	151,535	148,836	146,097	149,056
Total discharge	165,787	162,707	159,061	161,350
Total freshwater used (I-O)	21,538	21,212	13,755	15,302

Reference guidelines: WBCSD-CSI Protocol for Water Reporting Ver. 1.0

● Fresh Water Withdrawal per Unit of Production WBCSD



Reducing Environmental Impact

We continue to protect the environment and reduce our impact on it by preventing pollution, making effective use of resources, reducing waste, appropriately managing chemicals, and other means.

►GRI103-2, 3

Preventing Environmental Pollution

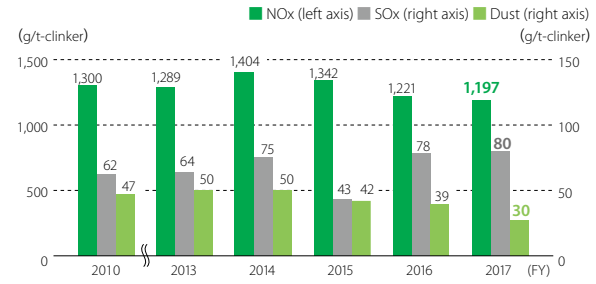
►GRI305-7

Air Pollution

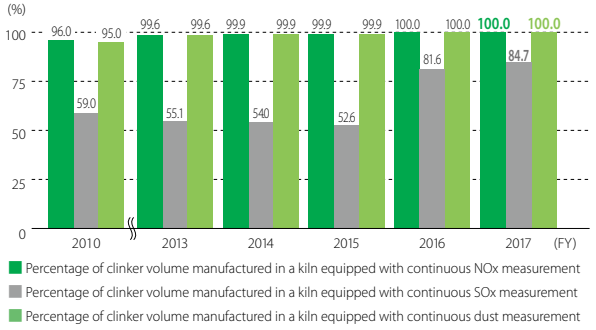
Air pollutants generated from cement production are primarily NOx, SOx and the dust in combustion gases emitted from cement kilns. To ensure the proper management of these substances we remain committed to reducing air pollutant emissions through measures such as continuously monitoring emission levels, improving NOx reduction systems and installing bag filter equipment to process gas emissions. With such measures we focus on controlling the emission of air pollutants with the goal of maintaining fiscal 2010 emission levels.

Emissions of NOx and dust in fiscal 2017 were lower than in fiscal 2010, whereas emissions of SOx were slightly higher because we accepted waste with high sulfur content. Nonetheless, the level of SOx emissions was very low compared to the limit set under the Air Pollution Control Act.

● Specific Emissions per Tonne of Clinker for Selected Pollutants WBCSD



● Monitoring Rate WBCSD

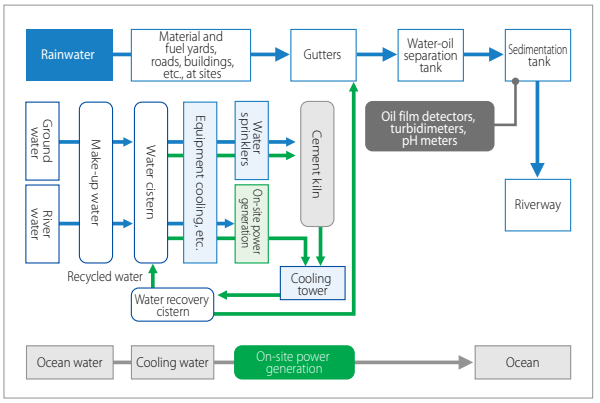


Guideline: WBCSD-CSI Emissions Monitoring and Reporting Ver. 2.0

Water Contamination

Most of the water discharged from our plants to public waterways is cooling water and not polluted as defined in the Water Pollution Control Act. At our cement plants all water resources are reused as circulation water to minimize the impact of water discharge into public waterways.
Also, we are working to prevent the leakage of potential pollutants by installing bunds around our oil tanks and acid/alkali tanks. Moreover, we are installing sedimentation tanks, water-oil separation tanks, oil film detectors, pH meters and suspended solid sensors on water discharge routes that connect to public waterways.

● Example of Water Circulation Flow at a Cement Plant



Soil Contamination

In fiscal 2000 Taiheiyo Cement evaluated the risks associated with cement plants that may be sited on contaminated ground by consigning an expert consultant to undertake a soil history survey. We are continuing to conduct drilling and other studies, starting with the higher-risk locations, to verify whether or not the soil is contaminated. Actions will be taken as necessary based on the findings.

We are also working to eliminate the possibility of soil contamination by preventing the leakage of wastewater from scrapyards and fluid from oil tanks, acid/alkali tanks, pipes and so forth.

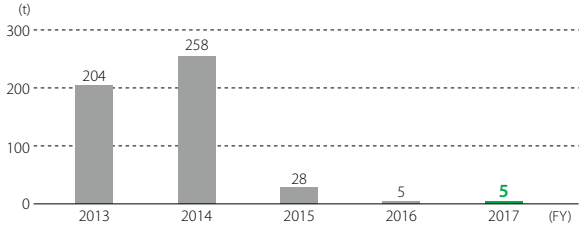
Reducing Waste

► GRI306-2

Initiatives at Plants and Quarries

Our cement plants and quarries reduce the amount of waste handled by disposal contractors by reusing waste from operations as material for cement production. We also endeavor to reduce the volume of waste to landfill through recycling made possible using chromium-free kiln bricks. A major part of the waste is surplus soil from quarrying operations.

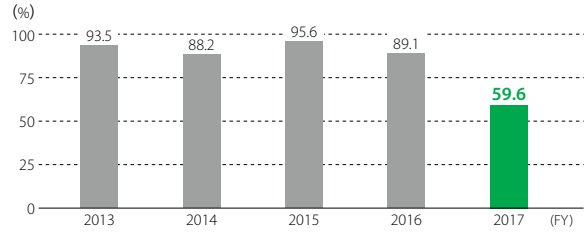
● Volume of Waste to Landfill



Initiatives at Service Stations

Service stations reduce the waste handled by waste disposal contractors by returning any residual cement that remains in silos after switching the cement products. Returned cement is recycled and used as raw material. In fiscal 2017 the recycling rate declined as a considerable amount of residual cement had to be returned to the plants by trucks, thereby generating a significant environmental impact at some service stations.

● Recycling Rate of Residual Cement Non-consolidated



Initiatives at Offices

Our special purpose subsidiary, Taiheiyo Service Corporation, installed a paper recycling machine to recycle the company's used copy paper, and in fiscal 2017 we recycled approximately 540,000 sheets of A4 size paper.

Appropriate Management of Chemical Substances

► GRI306-2

Pollutant Release and Transfer Register (PRTR)

The PRTR Law requires that we report on equipment installed at our Kumagaya plant for the washing of municipal waste incineration ash. This washing process uses water, and our total discharge of dioxins and ferric chloride into public waterways are as follows:

● Reported Levels of Dioxins and Ferric Chloride Emissions Non-consolidated

Emissions	Reported Levels		
	FY2015	FY2016	FY2017
Dioxins (mg-TEQ)	0.0	0.0	0.0
Ferric chloride (kg)	148	140	170

Management of PCB Waste

The Act Concerning Special measures against PCB Waste was enacted in June 2001. Under this law we ensure that PCB waste at all 43 of our facilities nationwide is properly stored and processed, and we annually report an inventory. We signed a processing contract with the Japan Environmental Safety Corporation (JESCO) in 2006 and are processing the PCB waste that we have stored in line with our plan.

In fiscal 2017, 94 capacitors and electrical ballasts stored at the Kamiiso plant and Tokyo Branch were processed as planned.

Capacitors and electrical ballasts stored in the Kamiiso plant and Tokyo and Chubu Branches are scheduled for processing in fiscal 2018.

● Status of PCB Waste Disposal Non-consolidated

(Unit: number of machines)

Waste	Stored in FY2016 (as of March 31, 2017)	New Target for FY2017	Processed in FY2017	Stored in FY2017 (as of March 31, 2018)	Planned Processing for FY2018
Capacitors	16	4	14	6	6
Transformers	0	0	0	0	0
Electrical ballasts	353	97	80	370	80
Total	369	101	94	376	86

Environmentally Sound Products and Services

In response to public concern about environmental protection we offer eco-products and services that capitalize on the cement and related technologies we have developed, and contribute to conserving resources and reducing CO_2 emissions.

►GRI103-2, 3

■Taiheiyo BRISTAR®, Non-explosive Demolition Agent, Leveraging the Expansive Stress of Inorganic Minerals (Taiheiyo Materials Corporation)

Taiheiyo BRISTAR is a non-explosive demolition agent that harnesses the expansive reaction of quicklime to crack rocks and concrete. As a non-explosive product, storage and handling of BRISTAR is free of regulation and it is considered an environmentally sound product without generating noise, vibration and flyrock. It is therefore widely used for demolition work in residential areas, school zones and other sensitive locations such as poultry farms, where noise and vibration must be avoided. Taiheiyo BRISTAR has been sold for more than 40 years. As society requires increasingly greater environmental protection efforts, this product, as a pioneering, environmentally sound demolition agent, can contribute significantly.


Filling BRISTAR


Cracks generated after BRISTAR has been activated

■GreenPark® Greening Paving System and TPGS/RBGS Vegetation Block (Taiheiyo Precast Concrete Industry Co., Ltd.)

By greening a pavement surface the temperature of surrounding areas is lowered through the evapotranspiration effect of soil and plants, thereby mitigating the urban heat island phenomenon. GreenPark® is a system for greening such surfaces by combining paving blocks and fully-recycled plastic spacers. TPGS/RBGS is an effective vegetation block for areas where large vehicles are driven and conventional greening paving blocks are unsuitable. Recycled materials can be used as raw materials for both block types. The products help to create a relaxing ambiance and pleasant setting while also reducing environmental impact.


Parking lot application of GreenPark


Application to parking lot for large vehicles

■SDM-Fit® Method for Low-displacement Ground Improvement with No Water Pollution (Onoda Chemico Co., Ltd.)

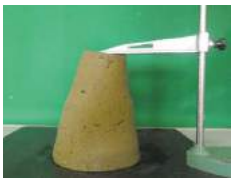
The SDM-fit Method for ground improvement combines mechanical agitation with a high-pressure jet. Since this construction method does not contaminate soil stabilizer into sludge, it facilitates work with low displacement of neighboring ground and avoids water pollution. Five type variations (I to V) of this method are available and contractors can select the type that best suits their needs. Type IV, which enables the improvement of ground with a large cross-sectional area of up to 13.7 m^2, about 9 times larger than that for the conventional method, has contributed to the quick recovery of disaster areas by reducing the time required for construction. Type V is suitable for rapid work at low cost using newly developed medium-pressure pumps and is therefore expected to provide advantages to future public works.


SDM-fit type IV method


Extent of ground improvement

■SP-α®, Blowout Prevention Agent for Shield Tunneling Work (Taiheiyo Shield Mechanics Corporation)

Modern shield tunneling methods use fluidized soil to stabilize the excavation face. However, when using this method it is vital to control the fluidity of the soil in order to exert a controlled pressure on the face, whilst also ensuring it is suitably superplasticized for ease of discharging from the face. The soil with excessive fluidity can cause problems such as blowout*1 from the screw conveyor and can impede the efficient execution of the work. SP-α addresses this challenge by adjusting the fluidity of the soil through its coagulation function, thereby preventing blow-out. Moreover, it has reduced the environmental impact in recent shield tunneling work with larger tunnel cross-sectional areas or longer tunnels by improving the cone index*2 value of the excavated soil, thereby allowing it to be recycled rather than treated as waste sludge.


Before adding SP-α


After adding SP-α

*1 Blow-out: a phenomenon in which excavated soil and ground water are blown out. *2: Cone index: an index that represents soil strength.

Environmental Accounting

We calculate the costs and benefits of environmental conservation to accurately assess the cost effectiveness of our business activities and capital investment by ascertaining our environmental impact and comprehensively identifying the costs of environmental conservation.

► GRI103-2, 3

● Environmental Conservation Costs Non-consolidated ► GRI201-2

(Unit: million yen)

Category		Main Activities	Investment			Cost		
			FY2015	FY2016	FY2017	FY2015	FY2016	FY2017
Business area costs			3,589	3,254	1,490	15,540	13,729	15,783
Details	Pollution prevention	Water pollution prevention	2,617	1,209	673	6,681	7,782	7,932
Details	Global environmental conservation	Waste pretreatment facilities	917	1,972	779	8,271	5,371	7,314
Details	Resource recycling	Waste treatment	54	73	38	588	576	537
Upstream and downstream costs		Recycling waste and by-products as alternative raw materials and fuels for cement	1,732	655	1,313	4,922	4,633	4,933
Administrative costs		Implementation of the environmental management system	68	34	31	364	317	173
R&D costs		Innovations to the cement production process	426	346	256	699	739	774
Social activity costs		Factory tours	0	1	0	25	24	19
Environmental remediation costs		Emission levies	1	66	169	72	79	53
Total			5,815	4,356	3,259	21,622	19,521	21,735

(Unit: million yen)

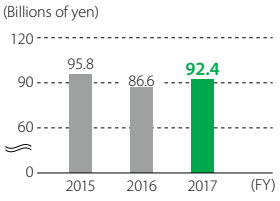
	FY2015	FY2016	FY2017
Total investment	22,744	22,507	14,526
Total R&D expenditure	1,065	1,216	1,192

External Economic Benefits Derived from the Recycled-Waste-to-Cement System

Taiheiyo Cement uses the external economic benefit (EEB) evaluation method to express, in monetary terms, its evaluation of socioeconomic benefits from environmental impact reduction due to the increase in recycling of wastes accepted from outside the company. As a type of deemed benefit, an EEB of 92.4 billion yen was identified for fiscal 2017, representing a 7% increase on the previous year as a result of an increase in the total amount of waste and by-products used.

● External Economic Benefits (FY2017) Non-consolidated ► GRI201-1

Impact	Inventory	Reduction (t)	Inventory Market Price (Yen/t)	Economic Benefit (Billions of Yen)
Climate change mitigation	CO_2	1,630,908	818	1.3
Depletion of energy resources	Crude oil	97,608	18,400	1.8
Depletion of mining resources	Natural resources	4,873,665	1,000	4.9
Shortage of landfills	Waste	5,623,338	15,000	84.4
Total				92.4



About Taiheiyo Cement's External Economic Benefit Evaluation

- Taiheiyo has developed a unique evaluation method to estimate the contribution to overall environmental benefit to society by utilizing waste materials from other industries.
- We use information, including data collected for the WBCSD-CSI Cement CO_2 Protocol, to calculate the reduction in consumption of fossil energy and natural resources associated with the use of waste and by-products.
- EEBs are calculated by multiplying the reduced volumes of CO_2, crude oil, natural resources and waste (resulting from the utilization of waste and by-products in the cement production process compared to cement production without using waste and by-products) by market prices for each of the four items. The prices, assumed to be kept constant at year 2000 levels, are estimated as follows: CO_2: 3,000 yen/t (a hypothetical CO_2 emission tax rate); crude oil: import price; natural resources: estimated price; waste: controlled landfill cost in the Tokyo area.
- A portion of the EEB, such as the waste treatment fee, is accounted for in Taiheiyo's profit and loss statement.

Environmental Accounting for One of Our Projects

Kumagaya Plant Introduction of a Gas Engine Power Generation System

► GRI201-2

Electricity supplied to the Kumagaya plant was generated at the facility using a diesel engine and waste heat power generation systems, or purchased from other suppliers. In response to the enforcement of the Saitama Prefecture Global Warming Prevention Action Plan in 2010, the plant is striving to save energy and replace fossil fuels with alternative energy resources. The diesel engine that consumed C-heavy oil as fuel was replaced by a highly efficient natural gas engine to save energy and reduce CO_2 emissions and environmental impact.

Investment: Approximately 1.8 billion yen

Reduction in CO_2 emissions: 10,323 tonnes/year

Gas engine at the Kumagaya plant

Material Balance of Business Activities

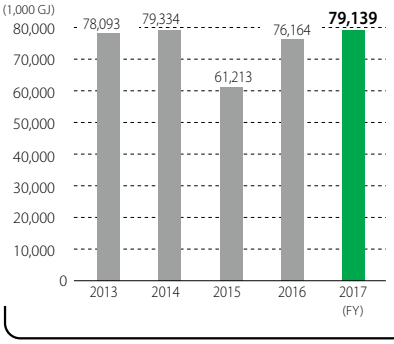
In order to help create a low-carbon, recycling-oriented society we track and manage the various ways that our business activities impact the environment, and remain committed to initiatives such as recovering waste heat from our manufacturing processes to generate electricity (cogeneration) and using waste and by-products as raw materials and fuel.

► GRI102-6, 7, 45, 301-1, 2, 302-1, 305-1, 2, 7, 306-1, 2

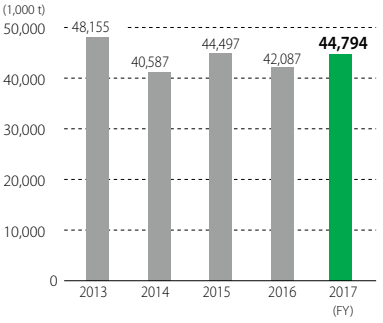
INPUT

Energy		Raw Materials			Other Materials		Water	
Coal (t)	2,314,022	Natural Resources	Limestone (t)	37,158,919	Additives, etc. (t)	8,970	Water total (1,000 m³)	169,061
Petroleum coke (t)	319,365		Clay (t)	8,197	Explosives (t)	3,867	Tap water (1,000 m³)	1,120
Heavy oil (kl)	20,021		Silica (t)	1,651,213	Refractory material (t)	14,516	Industrial water (1,000 m³)	3,386
Diesel oil (kl)	18,445		Gypsum (t)	84,713	Grinding media/ Steel casing (t)	1,309	River water (1,000 m³)	5,265
Kerosene, other (kl)	16,471		Other (t)	6,816			Ground water (1,000 m³)	10,698
Recycled fuels (t)	679,705	Wastes/By-products	Iron wastes (t)	206,842	Lubricants/ Chemicals (kl)	5,063	Rainwater (1,000 m³)	386
Purchased electricity (MWh)	564,488		By-product gypsum (t)	492,114			Seawater (1,000 m³)	148,205
			Fly/Coal ash (t)	2,200,298	Other (t)	34,873		
			Blast furnace slag (t)	904,354				
			Other (t)	2,011,602				

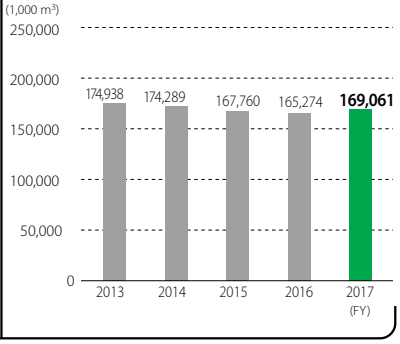
■ Total Energy Input

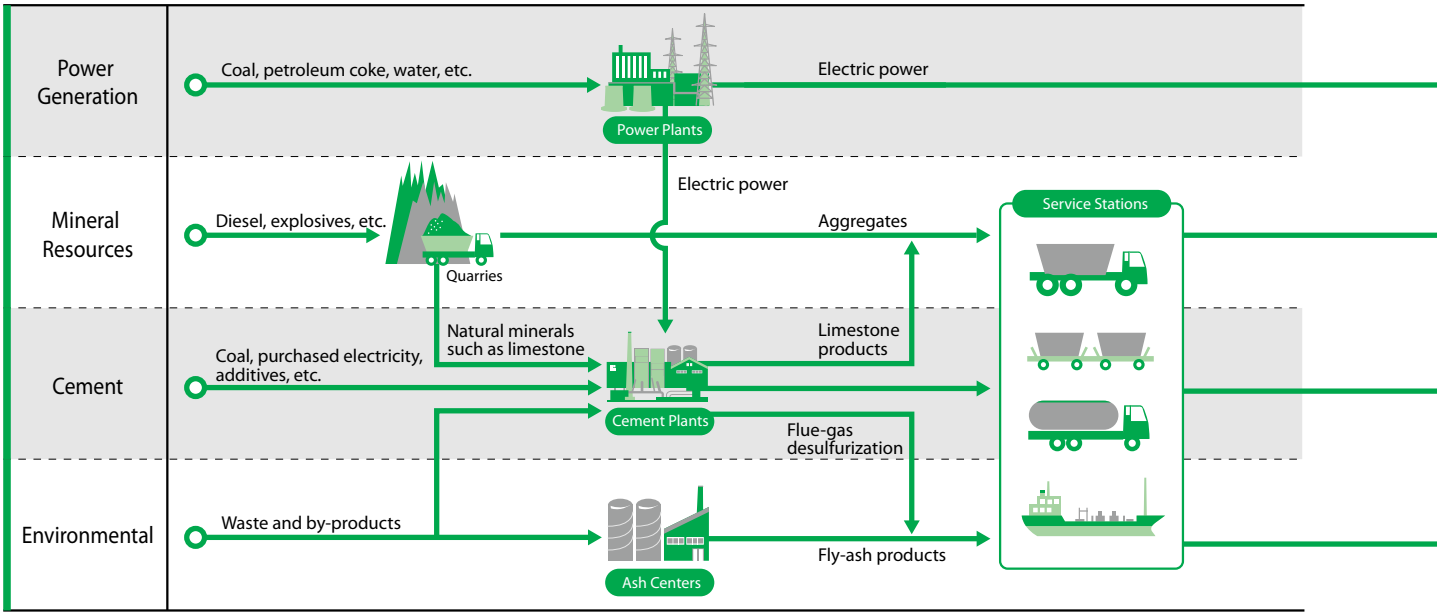


■ Total Material Input



■ Water Withdrawal





● Scope of reporting organizations

The scope of reporting organizations includes our four business segments (cement, mineral resources, environment and power generation) at our (non-consolidated) quarries and plants and the following quarries of our subsidiaries that supply material to us (9 quarries of 8 companies) and power plants of our affiliated companies (2 plants).

Ofunato Quarry (Iwate Prefecture)
Buko Quarry (Saitama Prefecture)
Mido Quarry (Saitama Prefecture)
Fujiwara Quarry (Mie Prefecture)
Shin-Tsukumi Quarry (Oita Prefecture)
Toumi Quarry (Niigata Prefecture)

Ryushin Mining Co., Ltd.
Buko Mining Co., Ltd.
Chichibu Mining Co., Ltd.
Ishizaki Co., Ltd.
Oita Taiheiyo Mining Corporation
Myojo Cement Co., Ltd.

Miwa Quarry (Saitama Prefecture)
Kanouyama Quarry (Gunma Prefecture)
Tosayama Quarry (Kochi Prefecture)
Tosa Power Plant (Kochi Prefecture)
Itoigawa Power Plant (Niigata Prefecture)

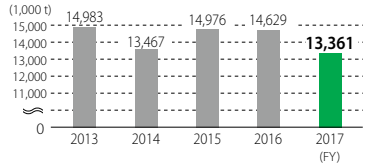
Chichibu Taiheiyo Cement Corporation
Chichibu Taiheiyo Cement Corporation
Tosayama Taiheiyo Mining Corporation
Tosa Power Inc.
Itoigawa Power Inc.

OUTPUT

CO_2 Emissions

CO_2* (1,000 t)	13,361
From purchased electricity (1,000 t)	196

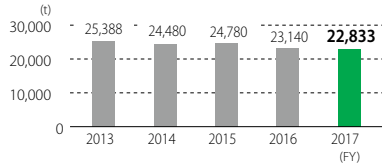
* Does not include CO_2 from transportation, which is calculated separately (see page 39)



NOx Emissions

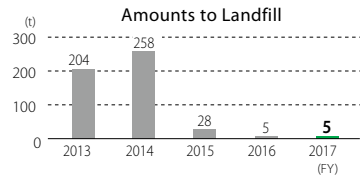
NOx* (t)	22,833

* Cement and power generation businesses only (excluding purchased electricity)



Waste Emissions

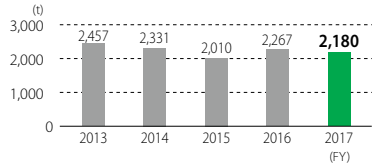
Waste externally consigned for treatment (t)	513
Amounts to landfill (t)	5
Valuables such as scrap metals (t)	225,310



SOx Emissions

SOx* (t)	2,180

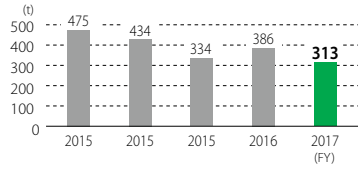
* Cement and power generation businesses only (excluding purchased electricity)



Dust Emissions

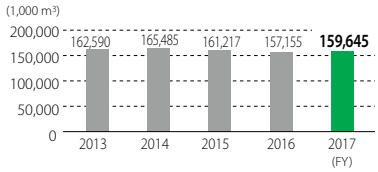
Dust* (t)	313

* Cement and power generation businesses only (excluding purchased electricity)



Water Discharge

Total water discharge (1,000 m³)	159,645
Seawater (1,000 m³)	148,205
Fresh water (1,000 m³)	11,493
Household waste water (1,000 m³)	263



Dioxin Emissions

Dioxins* (g-TEQ/year)	0.17

* Cement and power generation businesses only (excluding purchased electricity)

	FY2015	FY2016	FY2017
Number of kilns covered by the study	12	12	12
Average exhaust gas concentration (ng-TEQ/m³N[O_2=12%])	0.001	0.002	0.005
Total emissions (g-TEQ/year)	0.06	0.06	0.17

Products by Business

Power Generation Business	Electric power (sales of electricity) (MWh)	2,068,708
Mineral Resources Business	Aggregates (t)	8,064,097
	Limestone products (t)	5,240,296
	Other (t)	137,930
Cement Business	Portland cement (t)	12,949,508
	Blended cement (t)	2,083,636
	Cement based soil stabilizers (t)	651,685
	Clinker (for export) (t)	2,085,434
Environmental Business	Flue-gas desulfurization (t)	147,385
	Fly-ash products (t)	324,952

Partnership with Customers

Quality, Technologies and R&D

We have been developing production and quality control technologies for the manufacture of cement for more than 100 years. Using these technologies we have advanced our initiatives to guarantee the safety and security of our products. We maintain the highest product quality in the industry and continually improve product quality and systems to earn customer trust in our brand in both domestic and overseas markets.

► GRI103-2, 3

Quality Policy

In 1998, the year of Taiheiyo Cement's inception, we established a quality policy based on our management policy, and have been continually raising awareness of the quality policy across the organization. In fiscal 2018, we revised the policy by incorporating a visual description of the code of conduct and continue to make every effort to be a company that customers trust and rely on. The positive actions of employees in accordance with the policy and the implementation of our technological capability and quality assurance system generates a sense of achievement, while at the same time providing high-quality products and services.

Quality Policy

Improve customer satisfaction by ensuring each employee is pursuing quality that meets the needs of users in the Pacific Rim from a global perspective and providing quality assurance.

Quality Assurance Initiatives and Quality Management System (QMS)

► GRI416-1

We focus on stabilizing and improving product quality while capitalizing on the production and quality control technologies we have developed over the years. Recently, we have further enhanced product quality control by applying technologies such as an online analysis system for raw materials, clinker and cement, and the measurement of clinker minerals by X-ray diffraction.

As one of our quality assurance initiatives we obtained ISO 9001 certification, the international standard for quality management systems, from the Japan Testing Center for Construction Materials. The scope of our certification encompasses the development, design and production of a range of cement, cement clinker and cement-based soil stabilizer products.

Moreover, 90% of our cement plants in and outside Japan, including group companies, have obtained ISO 9001 certification. In fiscal 2017, we completed the transition to the new ISO 9001:2015, which started in fiscal 2016.

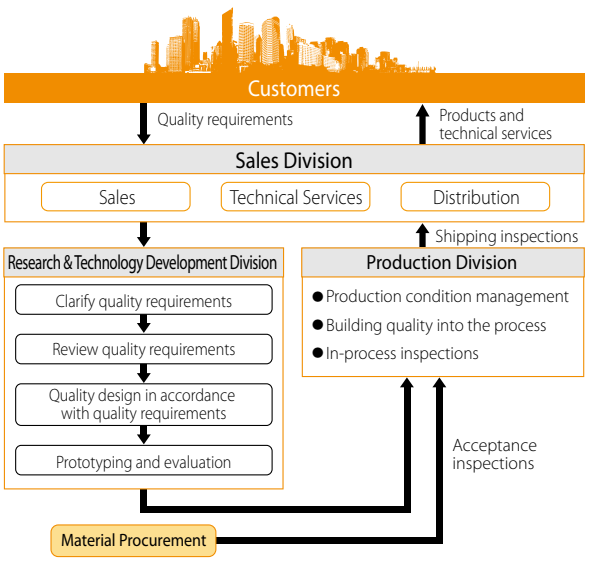
We will continue to fully apply the ISO 9001 approach in addition to our own quality management system to more deeply integrate our quality management system and business processes in an effort to strengthen our ability to continually provide ISO 9001-compliant products and deliver greater customer satisfaction.

Strengthening Our Relationship with Customers

We place the highest priority on achieving greater customer satisfaction. We periodically exchange information among business units to strengthen production focused on quality that meets customer expectations. From our sales and technical staff at the branches and sales offices, we collect information on customer requirements for product quality and services including delivery and analyze the information toward identifying possible improvements. To encourage overseas customers to adopt our high-quality products we have started to incorporate local needs into product quality, just as we do for domestic customers, and we are fine-tuning our products to meet the requirements of each overseas market. We respond to each quality issue raised by customers and strive to improve product quality and customer satisfaction. Also, we actively identify potential quality risks, investigate their causes and implement extensive countermeasures while enhancing cross-divisional coordination toward establishing a more secure and safer quality assurance system.

In addition, we have been expanding our quality assurance system to include the products of our group companies beyond Taiheiyo Cement products. We strive to identify and address material issues in a well-organized manner through cross-divisional activities toward strengthening the reliability of the Taiheiyo brand as well as customer satisfaction.

● QMS Management System



Safety for Cement and Cement Products

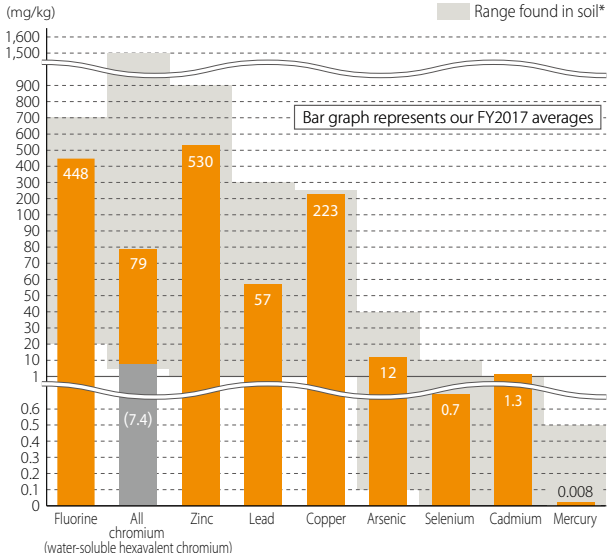
Today every product is expected to be safe and cement, as a construction material that is indispensable for developing social infrastructure, is no exception. The cement industry has long made use of industrial waste and by-products such as blast furnace slag, coal ash and by-product gypsum as substitutes for natural mineral resources. Furthermore, using technologies we developed to recycle household waste, we also recycle construction-related soil and waste materials into raw material and fuel for cement production. When our cement plants accept waste we prevent its dispersal and minimize the release of odor by transporting the waste in a tightly sealed panel truck and storing it in a fully enclosed facility to protect the environment of the surrounding area as well as inside the plants.

Wastes, as well as natural raw materials, contain minute quantities of heavy metals such as chromium and lead. We reinforce the control of minor components as the volume of waste we receive at our cement plants increases. When we receive new types of waste or waste from new sources we strictly apply the rules under which we conduct three kinds of inspection related to the source of the waste, its chemical composition and the results of trial use to identify any potentially negative impact on product quality or the surrounding environment. We will then make a final determination on whether to receive the waste.

● Transition of Minor Components of Ordinary Portland Cement (Unit: mg/kg)

		FY2012	FY2013	FY2014	FY2015	FY2016	FY2017
Fluorine	Average	**403**	449	377	421	382	448
	Maximum	543	583	418	522	485	543
	Minimum	266	352	321	376	313	339
All chromium	Average	**67**	69	75	74	81	79
	Maximum	81	81	86	81	91	88
	Minimum	59	55	65	61	74	69
Water-soluble hexavalent	Average	**5.8**	6.0	7.4	7.4	8.3	7.4
	Maximum	6.6	7.2	8.6	10.6	9.8	9.3
	Minimum	5.4	5.1	6.1	5.7	7.1	6.0
Zinc	Average	**474**	526	540	529	627	530
	Maximum	682	689	711	659	741	659
	Minimum	284	403	412	436	496	390
Lead	Average	**63**	62	61	62	65	57
	Maximum	105	97	85	80	89	84
	Minimum	42	40	42	45	53	41
Copper	Average	**142**	189	183	216	259	223
	Maximum	224	277	281	355	355	319
	Minimum	88	131	131	133	154	162
Arsenic	Average	**10**	12	12	10	14	12
	Maximum	26	25	30	17	39	43
	Minimum	3	4	5	4	4	2
Selenium	Average	**0.6**	0.6	0.7	0.6	0.5>	0.7
	Maximum	0.6	0.6	0.8	0.7	0.5>	1.2
	Minimum	0.5>	0.5>	0.5>	0.5>	0.5>	0.5>
Fluorine Cadmium	Average	**3.2**	3.0>	**1.8**	1.8	1.5	1.3
	Maximum	4.0	3.0>	3.0	3.0	2.0	2.0
	Minimum	3.0>	3.0>	1.0>	1.0>	1.0>	1.0>
Mercury	Average	**0.008**	0.008	0.006	0.005>	0.005>	0.008
	Maximum	0.011	0.011	0.008	0.005>	0.005>	0.015
	Minimum	0.005>	0.005>	0.005>	0.005>	0.005>	0.005>

● Minor Components of Ordinary Portland Cement



Ensuring Product Safety Following a Nuclear Accident

► GRI416-1, 417-1

As a consequence of the nuclear accident at the Fukushima Daiichi Nuclear Power Station of Tokyo Electric Power Company in 2011, we discovered that some industrial waste used for making cement contained radioactive material. We have established a system to ensure that the radioactive concentration in cement shipped from our plants is below the safety limit* set by the Japanese government by strictly controlling the radioactive concentrations in raw materials and fuels for cement. In the interest of full disclosure we post measurements of radioactive concentrations in our products on our website every month.

*The Japanese government set the limit of 100 Bq/kg, effective May 2011, as the safety standard for radioactive concentrations in cement.

For more information about radioactive concentrations in our products, please visit:

■ http://www.taiheiyo-cement.co.jp/news/sokutei.html

Information Provision Using SDSs and Labeling

► GRI416-1, 417-1

According to the amended ordinance for the Industrial Safety and Health Act, enforced as of July 1, 2018, Portland cement was newly listed as a material that requires marking and notice. Although there is virtually no change in the details of the warnings on how to handle cement products, we revised the Safety Data Sheets in line with the amendment. We will also revise the product information on labels for bags and flexible containers by the December 2018 deadline. Moreover, we will promote the health and safety of those who use the products while also helping to protect the environment by providing accurate information.

User Societies and Industry Associations

► GRI417-1

We founded and manage a variety of societies for cement users and industry associations to support them in strengthening their businesses and developing technological competitiveness. The National Taiheiyo Cement Ready-mixed Concrete Society, the largest of these organizations, has established 10 regional Taiheiyo Cement Ready-mixed Concrete Societies from Hokkaido to Kyushu. For technical support we hold technical sessions and presentations while conducting activities under a specific theme that meets regional user requirements. We also support users in obtaining qualifications such as Authorized Concrete Engineer, Authorized Chief Concrete Engineer, and Authorized Concrete Diagnosis and Maintenance Engineer.

In addition to the Ready-mixed Concrete Society, we established other associations such as the Taiheiyo Cement Association for Paving Block Industry and SPLITTON Association Japan to proactively deliver technical support for the mutual development of concrete companies. We will continue to support activities that benefit cement users.

● Representative Activities of the Ready-mixed Concrete Society (under Specific Themes)

Region	Description
Hokkaido	Survey of the state of the policy management and education for testing staff at a ready-mixed concrete plant
Tohoku	Contest: operational improvements
Tokyo	Workshop for young and middle-class engineers
Kanto	Experiencing the mixing of special concrete (Ecocement)
Hokuriku	Development of young engineers (workshop)
Chubu	Concrete Strength Competition (participants declare their target strengths)
Kansai	Contest: originality and ingenuity to improve operations
Shikoku	Experiencing the mixing of special concrete (ultra-high strength concrete)
Chugoku	Concrete Strength Competition (participants declare their target strengths)
Kyushu	Health and safety patrol at ready-mixed concrete plants; case study of improvements in equipment related to health and safety

■ Initiatives through the Taiheiyo Cement Association for the Paving Block Industry

Various initiatives for preventing serious bicycle accidents are being implemented across Japan. The Taiheiyo Cement Association for Paving Block Industry conducted a survey on the safety and rideability of block pavements for cyclists through bicycle running tests on streets with block pavements. The survey verified that there is no difference associated with the type of paving material and that people can comfortably ride bicycles on block pavements. Using the survey results we produced a leaflet and provide information across Japan to citizens and paving block purchasers through member companies of the association. Also, we are promoting a wider application of this beautiful block pavement for construction of bicycle paths under development.

Driving test of bicycle

Leaflet that highlights the safety of block pavements

Promotion of R&D Activities

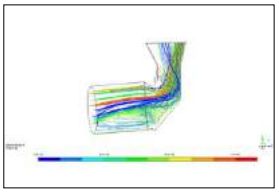
Benefiting from the cooperation between the Central Research Laboratory and each business division, the scope of our R&D encompasses the fields of international mineral resources, the environment, building materials, architecture and civil engineering, with a focus on cement and concrete.

Computational Fluid Dynamics (CFD) toward Optimizing the Cement Production Process

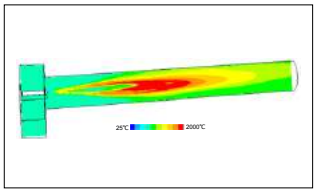
The behavior of raw material particles and their thermal interaction with fuels inside the production process can significantly influence the energy consumption during cement manufacture. Therefore, at each cement plant depending on the output and specific production system employed, it is crucial to optimize these conditions . However, equipment modifications, process optimization and verification incurs a significant cost and takes considerable time.

To address this, we are working on improving accuracy and reducing the time needed by simulating the conditions using a technology called computational fluid dynamics (CFD). The behavior of combustion gases and raw materials during the production process are very complex. We can effectively optimize our cement production process by applying CFD to visualize those behaviors.

We continue to work on further improving this simulation technology and establishing a more efficient cement production process to contribute to the creation of an energy-saving, low-carbon society.



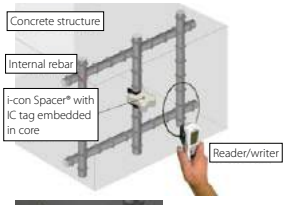
Analyzing the behavior of particles of raw materials inside the kiln



Analyzing temperature distribution inside the kiln

Mortar Spacer "i-con Spacer®" that Incorporates IC Tags

Productivity improvements at construction sites and a wider use of precast concrete have been promoted in line with the development of the "i-Construction" initiative, launched by the Ministry of Land, Infrastructure, Transport and Tourism. In reinforced concrete construction the i-con Spacer is a mortar reinforcement spacer that incorporates an embedded IC tag. It supports a simplified inspection system and the ready traceability of concrete by incorporating and using the memory function. It also facilitates a more efficient management of inspection records by recording the results of close visual inspection of structures as required by law. Moreover, it allows us to manage construction records easily as digital data instead of conventional written documents by combining working drawings and photographs of completed structures stored on the Internet and i-con Spacer's ID information. Consequently, the application of i-con Spacers will contribute to improving productivity.



i-con Spacer®

Mudflat Improvement Technology Using Ceraclean® Obtained ETV Mark Certification from the Ministry of the Environment

Mudflats, also known as tidal flats, are important ecosystems and nurture the development of numerous marine creatures that, in turn, have the effect of restoring environmental conditions such as through water purification. Unfortunately, mudflats are increasingly subject to pollution. To address this we developed a mudflat improvement technology combining the application of our Ceraclean® water purification material to mudflats and "plowing-in" as used in agricultural work. Ceraclean® neutralizes acidified mudflats and promotes the growth of diatoms and shellfish by supplying silicates and calcium. Its high porosity extends the period for "plowing-in" to facilitate the intake of air and improves the mudflat environment. In fiscal 2017, this technology obtained the ETV mark certification in the "Water environment improvement technologies in enclosed coastal seas field" of the Environmental Technology Verification (ETV) project, sponsored by the Ministry of the Environment. We will contribute to reviving environmentally degraded mudflats and other enclosed water areas by applying the product as an environmental protection measure for local communities.

Ceraclean®

Partnership with Suppliers

Supply Chain Management

Our continued growth depends on building relationships of trust and collaboration with business partners and governmental bodies, paying due consideration to their efforts for continued growth and preventing complicity with any actions that may be improper.

Fundamental Policy

Under the section entitled "Dealing outside the company in good faith" in our Standards of Conduct, we declare a number of commitments to ensure that "We will act in an ethical manner and abide by the laws and regulations of those countries in which we operate," a statement in our Business Principles. We manage our supply chain in compliance with these commitments:

1. We will conduct fair marketing and bidding, free from unfair practices such as collusion and cartels.
2. We will maintain decent and transparent relationships with our partner companies.
3. We will select business partners in a fair and equitable manner.
4. We will not offer entertainment or gifts to customers that go beyond what is legally and socially acceptable.
5. We will produce honest, sincere and faithful advertisements, displays and presentations.
6. We will respond sincerely to customer feedback.
7. We will maintain transparent relationships with governments.
8. We will respect the cultures and customs of the places in which we operate.

To further enhance and support the delivery of these commitments, in January 2017 our president announced the establishment of the Anti-Bribery Policy (commitments 4 and 7) and in October 2017 we established the Basic Policy Concerning Procurement (commitments 2 and 3).

Please visit our website for more information on the Basic Policy Concerning Procurement.

■ http://www.taiheiyo-cement.co.jp
CSR → Collaborating with Society →
Supply Chain Management

Trade Compliance Training

► GRI102-16, 205-2

Relationships of trust with business partners and governments depend on the conduct of each employee, so we encourage our employees to advance fair trade through a variety of means.

■ Distributing the Antimonopoly Law Compliance Manual

Taiheiyo Cement's Antimonopoly Law Compliance Manual is distributed to all employees toward ensuring compliance. The manual first presents an outline of the Antimonopoly Law focusing on private monopoly, unfair restraint of competition (cartels) and unfair business practices, the three pillars of this law. It further offers examples of illegal conduct in the form of "Don't" statements to help employees more thoroughly understand the law.

Antimonopoly Law Compliance Manual

■ E-Learning Programs

To ensure that all employees understand compliance across our supply chain, and acts in full compliance, we conduct monthly tests as part of e-learning programs to provide education on the Standard of Conduct Casebook and the Antimonopoly Law Compliance Manual for all company employees, including employees on loan to group companies or others.

■ Anti-Bribery Basic Principle (Policy)

In addition to our Basic Compliance Policy we established the Anti-Bribery Basic Principle (Policy) in January 2017. This strengthened our anti-corruption efforts in the light of the recent global trend toward tightening anti-bribery enforcement. Under the new policy, we will ensure thorough compliance with our anti-bribery measures in all our activities.

Please visit our website for more information on our Anti-Bribery Basic Principle (Policy).

■ http://www.taiheiyo-cement.co.jp
CSR → Management →
Risk Management and Compliance

Partnership with Investors

Information Disclosure Policy

We exert our strongest efforts to offer information through various media to promote understanding of our activities while incorporating feedback and other information we receive into our daily IR activities and management.

Information Disclosure Policy

We disclose corporate information fairly, accurately and at the appropriate time in accordance with the Information Disclosure Policy we created in May 2007. In fiscal 2017 we published 23 press releases. These and previous press releases are available on our website.

Please visit our website for more information on our Information Disclosure Policy.

■ http://www.taiheiyo-cement.co.jp
CSR → Collaborating with Society → Information Disclosure

IR Activities

We are committed to disclosing information about our group in an appropriate and timely manner to our shareholders and investors. We hold results briefings with institutional investors twice each year to enable the president to communicate our management policies directly. In fiscal 2017 we again held individual meetings and participated in IR conferences organized by a securities company. We also provide tours of our production sites (our plants and quarries) for our investors upon request.

● IR Activities (FY2017) Non-consolidated

Activities	Events	Attendees
Results briefings	2	169
Individual meetings	200	285
Tours of our facilities	3	16
IR conferences organized by securities companies	2	16

Tours of our facilities for analysts

Information Disclosure Tools

■ Website

We post press releases as well as information on our products and services, recruitment and R&D division on our website.

■ Annual Reports

This IR tool, published annually for Japanese and international investors, publicly states our financial standing along with special topics for the year.

■ Technical Journal "CEM'S"

We publish "CEM'S" (a technical journal for users of our products) quarterly. The journal provides commentaries on technological trends in the field of cement and concrete, construction materials and the environment. It also introduces timely R&D activities, the latest construction examples and other information.

■ R&D Report

We publish a summary of our R&D outcomes twice each year. Extracts from back issues are also available on our website.

■ In-house Newsletter "Taiheiyo"

We publish six issues of our newsletter each year to communicate our management policy, group events, employee comments and other information. It is distributed to our local communities and the mass media as well as in-house.

Partnership with Society and Employees

Respecting Human Rights and Diversity and Creating an Energetic Workplace

We believe that respecting human rights and diversity is a fundamental principle for a sustainable society. Applying this, we have been introducing measures concerning the development of human resources, empowerment of women, workforce diversity, improvement of the work-life balance and adoption of "KENKOUKEIEI" consideration into corporate and personnel management. We are dedicated to creating employee-friendly workplaces where each employee can develop to their full potential.

► GRI103-2, 3

Basic Policy Concerning Human Rights and Labor Practices

We formulated our Basic Policy Concerning Human Rights and Labor Practices in April 2015 with the acknowledgement that respecting human rights and diversity is a fundamental principle for a sustainable society and taking into consideration the Universal Declaration of Human Rights and the labor standards of the International Labor Organization.

Basic Policy Concerning Human Rights and Labor Practices

1. Recognizing that respecting human rights is a foundational management concern, we will strive to address human rights issues.
2. We will respect diversity and will not tolerate discrimination or harassment in any form.
3. Applying accepted international principles and laws and labor practices in each country, we will respect the rights of all our workers, treat them to employment free of discrimination and strive to ensure equal employment opportunities.
4. We will strive for better working conditions and a workplace environment that ensures the health and safety of our employees.
5. We will not tolerate child labor or forced labor under any circumstances.

Respect for Human Rights

► GRI102-17, 412-2

Under the Basic Policy Concerning Human Rights and Labor Practices, we are committed to respecting the human rights of our employees and all those involved in our business activities. These strong commitments are reflected in our Standard of Conduct (see page 33), which governs the actions of each employee and is clearly expressed in statements such as "We will respect human rights and will not discriminate on the basis of national origin, gender or other factors" and "We will maintain a harassment-free workplace."

Educational Activities on Human Rights

With the belief that education is the foundation for human rights, we have been conducting a variety of educational activities focused on this issue. In addition to our conventional human rights training courses by position and those for the top management of our affiliates, we conducted LGBT harassment prevention training in fiscal 2017 at our 16 business sites with the participation of partner companies. Moreover, during Human Rights Week, we promoted human rights awareness by collecting slogans from employees of the company and their families as well as our partner companies. We also supported our group companies by assisting them with training courses, distributing booklets and providing information on human rights.

● In-house Training Related to Human Rights Issues and Call for Slogans (FY2017) Non-consolidated

In-house Training and Call for Slogans	Results
Top-management seminar at affiliated companies	110 participants
Human rights training courses by position at the headquarters (including 128 people from 30 affiliated companies)	468 participants
Human rights training at business sites	650 participants
DVD training: visit to business sites on LGBT harassment	1,968 participants
Slogans to raise human rights awareness (from employees and their families)	1,547 slogans

Operating the Human Rights Hotline

Members of the Harassment Counseling Committee and Human Rights Committee assigned at all business sites conduct activities to raise awareness of human rights to prevent harassment and handle any related complaints to create a positive workplace environment. In fiscal 2017, we received 14 reports via the hotline, reviewed the details of each report, and responded firmly and fairly.

● Harassment Hotline

Internal	The Human Rights Committee and harassment counselors have been allocated at all our business sites (56 in total).
External	Telephone and website consultations have been contracted to the Japan Institute of Workers' Evolution Harassment Hotline.

● Number of Reports to the Harassment Hotline (FY2017)

	Sexual Harassment	Power Harassment	Other	Total
Internal	4	1	1	6
External	1	6	1	8

Human Resource Development and Evaluation

► GRI404-2, 3

We see our employees as the most important management resources for achieving the sustainable growth of our group. We maintain a long-term human resource development system in accordance with our Basic Human Resources Development Policy and a fair evaluation system to support the performance of all our human resources. These systems reflect diverse individual characteristics and values, regardless of nationality or gender.

Basic Policy Concerning the Development of Human Resources

Our aim is to develop human resources that are highly regarded both inside and outside the company.

1. In principle, human resources will be developed through on-the-job training supplemented by off-the-job training.
2. Human resources will be developed to succeed the roles of their superiors, playing central roles in the future in each area and at each level.
3. Human resources will be developed to take action in constant consideration of group management.
4. Human resources will be developed to be competent by global standards.
5. Human resources will be developed to protect the environment and to serve society by assuming active roles in CSR initiatives.
6. Human resources will be encouraged and assisted to develop their motivation and to adopt broader perspectives through self-development.

Human Resource Development

We implement company-wide measures, including group training by position and the development of global human resources. We also introduce measures aimed at developing the individual potential of each employee as a basis for energizing the organization. These efforts provide our employees with opportunities for personalized learning experiences that foster autonomy and independence and ultimately raise their motivation to the next level. We actively encourage and create environments in which employees can freely make decisions about their careers during their work and training.

In addition, we ask all employees to submit personal reports once a year, including future career development aspirations, worksite preferences and family considerations, to help us improve the work environment so they can fully demonstrate their abilities and to ensure stable employment.

Characteristics of Ideal Employees

From the standpoint of human resource development we have identified the following desirable characteristics and traits for revolutionizing the company and creating a dynamic Taiheiyo Cement.

Self-confident individuals who are able to contribute to the sustainable growth of the group with a firm commitment to achieving the group mission

1. Individuals with innovative ideas, strong leadership and the ability to take bold actions
2. Individuals who can be competent by global standards
3. Individuals who can contribute to group management

● Education/Training-Related Expenses per Employee Non-consolidated

(Unit: 1,000 yen)

FY2015	FY2016	FY2017
68	74	71

Please visit our website for more information on our training system.

■ http://www.taiheiyo-cement.co.jp/english/
CSR → CSR Report → Data (Japanese only)

Human Resource Evaluation System

We have adopted a human resource evaluation system that prioritizes development over compensation. The system assists employees in deepening their understanding of their evaluation results through feedback and also strongly emphasizes the exchange of opinions between evaluators and employees, who share their thoughts on issues such as identifying areas for future development. We have been implementing a management (HR evaluation) training program since fiscal 2007 to enhance the evaluation, development and management of skills of evaluators. As of the end of fiscal 2017, about 700 people had participated in training under these programs.

Respecting Diversity

► GRI404-2, 405-1

Promoting Diversity and the Empowerment of Women

Acknowledging that promoting diversity and empowering women is the biggest and most immediate challenge for creating an innovative labor force, we have engaged in a wide range of efforts.

In July 2015 we established the Diversity Promotion Office to review various measures and strengthen our awareness-raising efforts. In fiscal 2015 we incorporated the ideas and discussions on employee retention at the women's working group into proposals and reported to management. In fiscal 2016 we reviewed the system and established a new one based on these proposals. Also, we worked on raising awareness by conducting training for all managers on promoting women's active participation and advancement in the workplace and playing a DVD on a message from top management related to the promotion of diversity for all employees. In August of fiscal 2017 we participated in the Science, Technology, Engineering and Mathematics Challenge to encourage girls (Riko-challe) , a program sponsored by the Gender Equality Bureau of the Cabinet Office. This included a plant tour for experiencing work and a talk session for female high school students in the Oita plant. The students had an opportunity to tour the quarry and plant and interact with our female engineers. In October 2017, as part of our efforts to help employees who

care for children and other family members to continue working, we launched the portal site, "Kirakira Palette," to provide information on the company's programs and fringe benefits available to them in response to life events as well as basic knowledge on childcare and family care and related information for local communities. We invited an external lecturer and held the Diversity Forum on family care in November and subsequently distributed the video to all business sites. This is how we strengthened measures to support career development and retention.

We are steadily working on the general business owner action plans pursuant to the Act of Promotion of Women's Participation and Advancement in the Workplace. In addition, we have been participating in Keidanren's Action Plan on Women's Active Participation in the Workforce and announced our voluntary action plans.

We will continue our sincere efforts to increase job opportunities for women and create an environment that fosters more female managers. We have been actively recruiting female employees to increase the ratio of female employees to over 10% by 2020. As a result of holding a career seminar for female students, the ratio of women who are "G Course" employees accounted for approximately 36% of the new employees joining the company in April 2018.

We also hired one female foreign national and will continue to hire outstanding employees with a focus on individual capabilities, regardless of nationality.

Kirakira Palette for supporting employees to continue working while caring for family members

Please visit our website for more information on the general business owner action plans pursuant to the Act of Promotion of Women's Participation and Advancement in the Workplace.

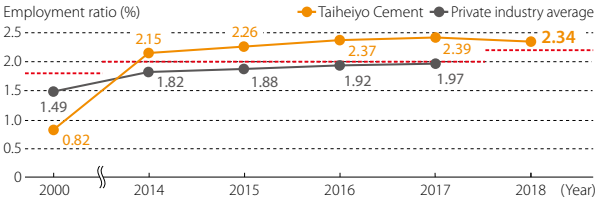
■ http://www.taiheiyo-cement.co.jp/english/
CSR → Collaborating with Society → Human Resources

■ Promoting Employment Opportunities for Persons with Disabilities

We have been making improvements to the work environment, including the establishment of three special purpose subsidiaries. As a result, our employment ratio of persons with disabilities has improved steadily, standing at 2.39% as of June 2017 with an annual average employment ratio of 2.40% for fiscal 2017, exceeding the statutory ratio (2.0%) for eleven consecutive years. Our employment ratio as of June 2018 was 2.34%, which also exceeds the statutory ratio. We will continue to promote the employment of persons with disabilities by our three special purpose subsidiaries while also continuing with our regular hiring of new graduates.

● Trends in the Employment Ratio for Persons with Disabilities (as of June 1 of Each Year)

Non-consolidated



Note: Mandatory employment rates were 1.8% until March 31, 2013, 2.0% until March 31, 2018, and 2.2% since April 1, 2018.

■ System to Rehire Employees Who Have Reached Retirement Age

We rehire employees who want to continue working after they have reached the traditional retirement age of 60 until they are eligible for their pension. After they start receiving a pension we rehire them in accordance with specific rehiring standards under a labor-management agreement until they reach 65. We will continue to make sure there is a workplace for individuals who seek re-employment by expanding opportunities in group companies.

● Number of Employees Rehired after Reaching Retirement Age

Non-consolidated

	2017
Rehired by the company	7
Rehired by other companies (including those that are not group companies)	14

Employee-Friendly Workplaces

► GRI401-3

■ Flexible Work Arrangements

We are working to provide flexible work arrangements by adopting various employment systems that will enable our employees to enhance work-life management.

▶ Support for Childcare and Caregivers

We established a long-term leave system in fiscal 2017 for employees who are given no choice but to give up their careers due to unavoidable circumstances such as relocating for their spouse's job and childcare. We also operate a reemployment system for employees who leave their jobs due to childcare or family care. In addition to our childcare/family-care leave, we have instituted measures that support

employees who do not want to take leave, such as a flextime system, shortened work hours and starting work early or finishing late.

▶ Responding to the Act for Measures to Support the Development of the Next Generation

Since fiscal 2005 we have been formulating general business owner action plans based on the Act for Measures to Support the Development of the Next Generation. During the plan's fourth term, April 2015 to March 2017, we achieved the objectives set in the general business owner action plan. In recognition of our efforts, we obtained "Kurumin" certification in accordance with the new certification criteria that applies starting in April 2017. We are currently implementing various efforts in accordance with our fifth-term general business owner action plan.

General Business Owner Action Plans

Period of the plan: From April 1, 2017 to March 31, 2019 (2 years)

Objective 1	Implement measures to promote the use of annual paid leave
Measures	Improve the rate of annual paid leave taken by setting up days when employees are encouraged to take annual paid leave, systematically providing annual paid leave, etc.
Objective 2	Disseminate information about the systems for balancing work and family based on the Act on Childcare Leave, Caregiver Leave and Other Measures for the Welfare of Workers Caring for Children and Other Family Members
Measures	Launch a portal site in support of the continuation of employment which introduces internal systems systematically
Objective 3	Foster a workplace culture for promoting women's participation and advancement in the workplace
Measures	Continue to improve workstyles while conducting training, etc., to further promote women's participation and advancement in the workplace
Objective 4	Implement a social contribution program concerning the development of the next generation
Measures	Conduct internships, etc., that provide young people with opportunities to gain workplace experience

Major Work Systems that Allow Flexible Work Arrangements

- Flextime system
- Discretionary labor system
- Half-day paid vacation
- "Special Reserved" leave (use of accumulated paid leave that has expired)
- "Refresh System"
- Human resource management system per course (region-limited employment) and others

● Status of Leaves Taken and Work Hours Non-consolidated

Items	2015	2016	2017
Number of employees who took childcare leave (male employees in parentheses)	6 (3)	14 (5)	21 (0)
Childcare leave rate for female employees	100%	100%	100%
Rate of annual paid leave taken	73.2%	69.8%	66.0%
Overtime work (monthly average)	17.3 hours	16.1 hours	16.4 hours

Support for Volunteer Activities

In June 2012 we formulated a volunteer activity leave scheme and have been supporting volunteer activities undertaken by employees. A total of 43 employees have taken this leave up to fiscal 2017.

Efforts to Promote Employees Health

In March 2018 the company formulated the "Taiheiyo Cement Group Commitment to the Health" as its policy for employee health. Under the commitment, we undertake initiatives based on the "KENKOUKEIEI" concept to maintain and improve the mental and physical health of every employee.

*KENKOUKEIEI "(Management of Health on Company and Employee) is a trademark held by the Workshop for the Management of Health on Company and Employee.

Taiheiyo Cement Group Commitment to Health

The Taiheiyo Cement Group regards its employees as key management resources ("human assets") and intends to be a corporate group in which every employee can enthusiastically work while maintaining their mental and physical health.

Mental Healthcare

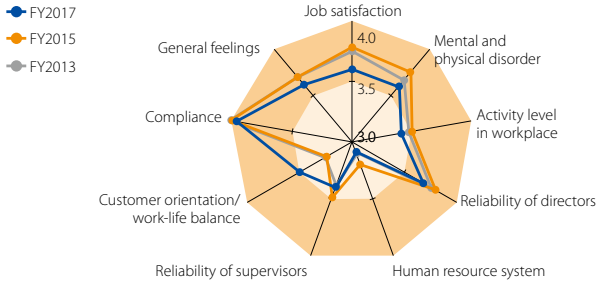
We provide mental health checkups for all our employees (consultation rate: 92.9% in fiscal 2017). We also conduct workshops focused on preventing mental health problems. In addition, we offer free counseling services on mental health to employees and their families under a contract with the company's healthcare trust for this purpose.

Employee Awareness Survey

To increase employee job satisfaction, we have conducted an employee survey every two years since fiscal 2013, and the third one was conducted in fiscal 2017.

We created a comment section in the questionnaire so that employees can anonymously share any information on activities that may violate human rights and compliance requirements.

● Results of the Employee Awareness Survey



Note: In the survey for fiscal 2017 we deleted "Customer orientation" from the question items and added "work-life balance."

Employee Status

►GRI102-7, 8

● Employee Status (as of the End of FY2017)

(Unit: person)

		Female	Male	Total
Non-consolidated	Permanent employees	149	1,597	1,746
	Temporary employees	11	56	67
Consolidated	Permanent employees	1,532	11,523	13,055
	Temporary employees	271	734	1,005

The number of temporary employees refers to the annual average number of temporary employees.

● Average Length of Employment for Employees (Years) Non-consolidated

	FY2015	FY2016	FY2017
Male	20.7	20.6	20.5
Female	16.0	15.2	14.5

Note: A declining trend in the average years of employment is primarily due to an increase in the number of new graduate employees rather than an increase in turnover rate.

Sound Labor-Management Relations

►GRI102-41, 403-4

All employees who have entered into a labor agreement with the company are members of a union. We occasionally hold labor-management consultation and briefing sessions that provide opportunities for labor and management to exchange opinions and negotiate issues on the basis of mutual trust and understanding. In fiscal 2017, 34 of these sessions were held encompassing labor contract negotiations as well as explanations of corporate performance, revisions to wages and bonuses and amended systems and rules. Through the sessions we intend to improve communication between labor and management. In addition, four specialized committees set up as advisory bodies for labor-management consultation provide opportunities for active negotiation and exchanging views between labor and management.

● Activities of Specialized Committees

Committee	Activities
Committee on personnel and treatment of employees	Review the entire personnel system and the treatment of employees
Committee on employment and employment formats	Examine the operation of personnel/labor management systems against the background of diversifying employment and employment status
Committee on work hours	Examine problems concerning work hours and work hour management, and the response to laws related to work hours
Committee on the promotion of diversity	Examine the measures necessary to promote diversity in the workplace

Direct Communication between Executive Officers and Employees

As part of our efforts to enhance communication across the company, we have been holding talk sessions with the executive officers that provide them, as well as the employees, with a valuable opportunity to interact directly. In fiscal 2017 these sessions were held at all our 18 business sites and attended by 1,182 people. In the post-survey, 88% of the participants regarded the sessions as a valuable opportunity for direct communication between executive officers and employees.

Partnership with Employees

Creating a Healthy and Safe Workplace

We understand that the health and safety of our employees is part of the foundation of our company and continuously advance organized programs for health, safety and security to eliminate work-related accidents and create comfortable working environments, including in our supply chain.

► GRI103-2, 3

Taiheiyo Cement Health & Safety Policy

Our Occupational Health & Safety Policy is shown below. Under the policy our headquarters and business sites create and implement yearly management policies on health and safety (security).

Taiheiyo Cement Health & Safety Policy

We are aware that the health, safety and security of our employees is part of the foundation of our company, and we effectively implement the following policy by devoting sufficient management resources to prevent work-related accidents and diseases in accordance with the Industrial Safety and Health Act and the Mine Safety Act.

Basic Policy

1. Promote health and safety activities through cooperation between management and labor, with the aim of eliminating work-related accidents.
2. Ensure the health and safety of our employees and those of our affiliates by complying with health and safety-related laws and regulations, and in accordance with health and safety management regulations created by us, and health and safety regulations created by our business sites.
3. Strive to improve the level of safety and health by actively promoting the implementation and operation of an Occupational Safety and Health Management System, and by continually ensuring the true safety of our equipment, providing education and training, and raising awareness.
4. Continually improve the working environment and work methods through the company-wide and business site Health & Safety Committees, by applying technological progress and utilizing new knowledge and information about health and safety.
5. Ensure health and safety throughout the Taiheiyo Cement Group by advancing programs to eliminate work-related accidents under the leadership of the company-wide, business site, group company and affiliate Health & Safety Committees.

Occupational Health & Safety System

Under the Taiheiyo Cement Health & Safety Policy and health and safety management regulations, we provide for the basic aspects of the group's health and safety management and promote health and safety activities. This is to create comfortable working environments while also ensuring the health and safety of our employees and those of our partner companies at the group's business sites and other locations.

We organize a Health & Safety Committee consisting of the representative from both management and labor at each business site, including plants, quarries and branches, and promote health and safety activities by business sites.

The Companywide Occupational Health & Safety Committee at our headquarters (chaired by the officer in charge of safety) oversees promotion activities at all business sites. The committee also collects safety related data from our group companies as well as the company itself and provides guidance.

We manage health and safety at all cement plants and quarries, using the OSHMS*.

*Occupational Safety and Health Management System: A framework that allows organizations to reduce potential dangers at workplaces and promote comfortable worksites by voluntarily practicing continuous, uninterrupted health and safety management as prescribed in the guidelines of the Ministry of Health, Labor and Welfare in 1999.

● Occupational Health & Safety System

Safety Operation Officer Certification System

Since fiscal 2007 we have been using the Safety Operation Officer System, which emphasizes the importance of improving leadership capability and therefore only certifies those who complete qualification seminars held at plants as leaders (safety operation officers) of working groups. To further improve the capability of these leaders, we imposed a stricter requirement for the qualification seminars starting in fiscal 2015, which restricts participants to those who have completed the foreman training course stipulated in the Industrial Safety and Health Act.

Health and Safety Training Program

To ensure employee safety at work, we conduct health and safety training in accordance with the related implementation procedures. Training courses focus on newly hired employees, including those with professional experience, specialized courses, newly appointed managers, strengthening capabilities and new partner companies.

Report and Database of Work-related Accidents

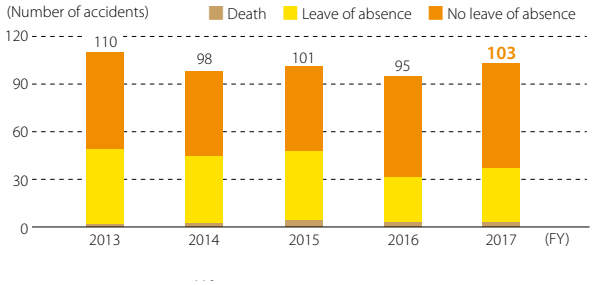
Regardless of its relative severity, any work-related accident is reported to the Companywide Occupational Health & Safety Committee immediately after it occurs.

We promptly post the details of any accident on the

group bulletin board in an effort toward avoiding recurrence.

We have maintained a work-related accident database since fiscal 2008 to help avoid the recurrence of accidents. It contains information about accidents involving employees of the company and group companies as well as all employees of partner companies including temporary workers. It is also used to store information on identified accident causes and response reports, including measures taken in response to unsafe actions and equipment with respect to the "4 Ms" (men, machines, methods and management).

● Number of Accidents Registered in the Work-related Accident Database



Status of Our Health and Safety Promotion Activities

▶ GRI403-2, 3, 4, 5, 6, 7, 10

The Companywide Occupational Health & Safety Committee set the objectives for fiscal 2017 (fatalities: zero; lost-time injuries: 30 or less; number of work-related accident: 80 or less; absence rate: 0.3% or slightly higher) and conducted health and safety promotion activities with a focus on:

(1) developing a safety culture for the Taiheiyo Cement Group and implementing various initiatives while setting implementation priorities by each safety department: (a) training, (b) safety patrol, (c) equipment improvement, (d) strengthening organizations
(2) Promote concrete activities to reduce accidents.
(3) Provide and share information quickly after an accident occurs.
(4) Horizontal roll-out of countermeasures taken by the accident site.
(5) Prevent the occurrence of serious or frequent work-related accidents at specific business sites and affiliates.
(6) Check countermeasures taken after an accident occurs.

Unfortunately, we could not achieve any of these objectives. The results were: (1) fatalities: 2, (2) lost-time injuries: 35, (3) number of work-related accidents: 103 (4) absence ratio: 0.458%.

The two fatalities were due to employee contact with vehicles at the plants of ready-mixed concrete group companies (domestic: 1, overseas: 1).

In fiscal 2017 there were increases in the incidence of accidents related to the natural environment such as falling on icy streets, heatstroke and insect bites.

■ Hands-on Safety Training

To enhance each employee's sense of safety, we have promoted hands-on safety training in which employees experience simulated dangers that could happen in daily operations. We decided in fiscal 2011 to provide on-site, hands-on safety training by instructors from outside the company at our plants on a rotating basis. Many of the employees working in the same plant participate together in the training so that they develop the same level of safety awareness.

Training in fiscal 2017 was conducted at the Oita plant on November 9 and 10 with a total of 252 employees from the Oita plant and partner companies, who enthusiastically participated in and experienced simulated dangers involving heights, rotating equipment, electricity and an object hanging from a crane.


On-site, hands-on safety training (Oita plant)

■ Workshop for KYT Section Leaders

We held workshops for KYT (risk prediction training) in December and January at the headquarters to improve safety skills. Twenty-three employees at the headquarters and Central Research Laboratory participated, deepening their understanding of risk prediction through seminars and drills.


Workshop for KYT section leaders (headquarters)

■ Special Training for Scaffolding Work

We conducted training from April to June at the headquarters and plants in response to the amended law and to improve knowledge of scaffolding work. There were 512 employees from the plants and 38 from the headquarters, who strived to ensure safety by putting what they learned into practice.


Special training for scaffold installation (Ofunato plant)

Equipment Improvements

A falling accident from a bulk cement truck occurred in fiscal 2014, and we subsequently started installing equipment to prevent falling accidents from bulk cement trucks at the loading equipment for all bulk cement trucks. We completed the installations in fiscal 2016 at all company cement plants and in fiscal 2017 at 375 sites under branch supervision, and we are currently installing equipment to prevent falling accidents from truck beds at sites managed by the branches and have thus far completed this work at 100 out of 131 sites.

Hatchway, safety blocks and safety full body harness

Patrols by the Companywide Occupational Health & Safety Committee

Members of the Companywide Occupational Health & Safety Committee visit business sites and conduct safety patrols to check their safety management systems and the status of disaster countermeasures. In fiscal 2017, they patrolled the Nishitama plant and Itoigawa plant of Myojo Cement.

Itoigawa plant of Myojo Cement

Support for Safety Activities of Group Companies

The Companywide Occupational Health & Safety Committee supports group company safety activities, and in fiscal 2017 it conducted safety surveys at two ready-mixed concrete group companies.

Providing safety guidance at a ready-mixed concrete plant

Health Management, Maintenance and Improvement

We conduct annual health examinations for all employees in accordance with the Industrial Safety and Health Act. As in previous years the attendance rate in fiscal 2017 was 100%. In the event that any doubt is raised over a diagnosis, we help the employee to undergo an extensive examination and provide lifestyle improvement training.

Moreover, we hold workshops for mental health and nutrition seminars at each business site in an effort to maintain and improve the wellbeing of employees. We also provide information through an in-house newsletter and distribute a pamphlet for raising health awareness.

Furthermore, we started to hold "workplace workout" sessions at the end of one day a month, in the second half of fiscal 2017, to refresh minds and bodies, and 10 to 20 employees participated each time.

● Absence Rate Non-consolidated

	FY2013	FY2014	FY2015	FY2016	FY2017
Absence Rate	0.570	0.547	0.439	0.448	0.458

Health Issues Caused by Asbestos

The status of health issues related to asbestos at Taiheiyo Cement is that of the former employees with certified work-related injuries/illnesses, 50 have died or are currently undergoing treatment (as of May 31, 2018).

We conduct continuing health examinations of employees who have been involved in the manufacture of products using asbestos, with a focus on retired plant workers. As of this time no nearby residents have reported health problems so we are not conducting health examinations for nearby residents.

Please visit our website for more information.

■ http://www.taiheiyo-cement.co.jp/english/
CSR → CSR Report → Data (Japanese only)

Partnership with Society

Communication with Communities

With the goal of achieving sustainable growth in harmony with communities, all of our business sites in Japan and overseas participate in various activities that address local needs while applying the characteristic strengths of the Taiheiyo Cement Group.

► GRI103-2, 3, 203-1, 413-1

● Major Activities (FY2017)

Theme	Activity	Sessions	Attendees	Examples
Protection of the local environment	Community briefing	73	649	•Briefing on waste treatment
	Community briefing on environmental issues	90	217	•Briefing to members of a neighboring community on environmental issues
	Environmental monitoring system	106	72	•Meetings, briefings and social gatherings of environmental monitors
	Community cleanup activities	120	1,678	• Cleaning of roads and rivers surrounding business sites • Participating in a community cleanup activity
	Community forest conservation and nature protection activities	219	2,469	• Participation in forest conservation activities such as planting seedlings and thinning • Support for preserving local communities' farmlands • Concluding a partnership agreement with the forest union • Protecting rare regional plants and animals
Promotion of local culture and communication	Plant and quarry tours	317	9,100	• Plant and quarry tours for children, students, residents and government entities in a community
	Opening facilities to the public	1,323	13,956	• Providing schools and local organizations with access to our grounds, gymnasiums and meeting rooms
	Sponsoring, participating in and cooperating in local events	278	57,832	• Sponsorship of a boys baseball tournament • Participating and cooperating in a sports tournament, community festivals and events
Regional development	Provision of materials and rental of heavy machinery	25	800	• Providing and lending materials and heavy machinery to improve public spaces as well as roads and waterways in local communities
	Support for community medical services	36	759	• Provision of free medical checkups and medication • Agreement on use of the company's premises as a medical heliport
	Support for the development of local industries	12	89	• Participation and cooperation in activities to support the development of local industries • Providing industrial water for agricultural use
	Disaster prevention activities	48	214	• Conclusion of a regional disaster assistance agreement • Regional joint disaster prevention drills, regional fire-fighting activities
	Others	21	3,468	•Support for economically distressed areas •Developing community leaders •Donating money to refugee camps
Education and development of human resources	Scholarships	18	1,170	• Scholarships for students who need financial assistance living near our business sites
	Developing engineers	68	1,165	• Opening free concrete technology schools to train concrete engineers • Implementation of technical guidance programs
	Internships and career experience opportunities	38	8,004	• Acceptance of domestic and foreign interns • Technical guidance for university students • Career experience, on-site training at quarries
	Others	10	2,670	• Provision of materials for building schools in local communities
Support for areas affected by disaster	Volunteering to support areas affected by disaster	15	73	• Participation in support groups • Volunteer activities for the affected areas

Protection of the Local Environment

Communication on the Environment

We consider improving transparency through timely information disclosure and communication as one of our key responsibilities to local communities. We hold briefings for members of these communities when we start new business operations or relocate a quarry zone. We ask members of the local communities who reside near our plants to act as environmental monitors to report information about the environment. This enables us to quickly ascertain and act on information about the environment near our plants. Moreover, we offer tours of our business sites, centered on our plants.

Sai-no Kuni Road Support (Kumagaya Plant)

The Kumagaya plant obtained the "Sai-no-Kuni Road Support" certification from Saitama Prefecture and cleans neighboring roads once a month. About ten plant employees participated in each round of the activity, and they also have many opportunities to meet and proactively interact with local residents during the work. We will continue this project so that the cleaning patrol will become part of the effort to live in harmony with the community surrounding the plant.

Regular cleanup activity

Quarry Greening Activity (Fujiwara Plant)

The Fujiwara Quarry started full-fledged quarrying operations at a mine site on a mountain summit, and at an altitude of about 1,000 meters, in fiscal 2016. It has implemented a pilot project to establish an appropriate greening method for the quarry, planting 203 box trees in fiscal 2017. Tree planting will continue in and beyond fiscal 2018.

The quarry will explore the most effective greening method while reflecting on the feedback from local residents that is incorporated into our review.

Planting box trees at the quarry

Cooperating in a Roadside Ditch Cleanup Campaign in a Neighboring Community (Oita Plant)

There are four communities near the Oita plant. Residents gather every year for community cleanup campaigns to clear roadside ditches along the street with the aim of preventing flooding during the next rainy season. We lease trucks to transport sludge and weeds that accumulate in those ditches. Sprinkling vehicles and drivers are provided for free to spray clean water into the ditches as the final process. We also operate a street sweeper once a week to clean city roads.

Leasing a truck to transport waste for free during cleanups

Conducting Tree Planting Campaigns (Taiheiyo Cement Philippines, Inc., Philippines)

In July 2017 we invited students and their parents, professors and staff, 212 people in all, from Don Bosco Institute of Technology in Cebu City to plant 500 trees including mango tree seedlings in the area surrounding the plant and bordering with the neighboring community. We have welcomed local residents and students to participate in the campaign since 2000 as part of our efforts to green our plant and old quarry sites and raise participant awareness of the importance of protecting the environment.

Students planting tree seedlings

Promotion of Local Culture and Communication

Accepting Visitors (Saitama Plant)

The Saitama plant welcomes about 800 visitors every year. Many of them, including elementary school students, those from entities that generate waste, competent ministries, our partner companies and guests from overseas, are impressed by the plant's size and our technology for treating waste generated there as well as combustible general domestic waste. We will continue to strive to gain an understanding from people on the role of the plant in society and keep it open to local residents and other stakeholders.

Briefing for visitors on the role of cement plants

Opening Sports Facilities for Community Use (Fujiwara Plant)

The Fujiwara plant opens its gymnasium and sports ground to local residents, with six thousand people using them every year. The gymnasium is used for practicing of volleyball and futsal as well as for rehabilitations by medical institutions. We also invite community sports teams and hold volleyball matches for mothers twice a year. On the sports grounds, a ground golf tournament is held for the community seniors association in May. The plant's employees participate to deepen relationships with the community.

Volleyball matches for mothers, organized by the plant

Participated in the Dragon Boat Race for the First Time (Jiangnan-Onoda Cement Co., Ltd., China)

In May 2017 the company participated for the first time in the dragon boat race sponsored by the China Association of Enterprises with Foreign Investment of Nanjing City. Although all of the members of our Sino-Japan joint team were amateurs, we achieved better results than expected after hard practices twice a week. The event was widely reported by local newspapers and other media outlets, who also referred to the good performance of our team. The greatest benefit of the event for us was that it opened up communications between Japanese and Chinese employees and significantly boosted a sense of unity.

Employees in the boat race

Regional Development

Endorsing the Oshigoto Tourism & Trial Relocation Model Project Sponsored by the Ofunato City Government (Ofunato Plant, Ryushin Mining Co., Ltd., Iwate Development Railway Co., Ltd.)

The plant and our group companies are endorsing and promoting "Oshigoto Tourism," a demonstration event to communicate the attractions of Ofunato City and encourage people in other regions to visit and consider relocating to the city. We organized a tour under the theme "How to produce cement" for visitors, starting at the Ofunato Quarry, where we quarry raw materials, and then continuing to the train depot and plant.

We also conducted a craftwork program for visitors, using cement and a quiz on cement and ready-mixed concrete to deepen their understanding of the cement industry.

Participants enjoyed doing DIY craftwork using cement.

Supplying Industrial Water (Chichibu Taiheiyo Cement Corporation)

Chichibu Taiheiyo Cement Corporation discharged part of its industrial water at the request of local residents when it constructed the plant. The water enabled people in the community to grow rice in fields where doing so had been difficult due to a lack of water.

We still support community rice cultivation by cleaning waterways and supplying water, depending on the rice-growing phase. This enables us to maintain frequent communication with local residents as well as good relationships.

Growing rice using our industrial water

Donation for the Memorial Park (CalPortland Company, U.S.)

Fifty-eight people were killed and several hundred more injured due to a shooting incident that occurred in Las Vegas on October 1, 2017. Family members of CalPortland Company employees were also injured. After the tragedy, the Las Vegas City government constructed the Memorial Park to express condolences to victims. At the center of the park is a heart-shaped planter with 58 tiles hand-painted by the families of the victims. CalPortland donated the concrete used to create the planter.

Heart-shaped planter in the Memorial Park

Purchasing Agricultural Products from Villages Near the Quarry (Qinhuandao Asano Cement Co., Ltd., China)

The company quarry has purchased meat and vegetables produced by nearby farmers to maintain cooperative relationships with neighboring villages since 1998, immediately after the company started operations. These agricultural products are cheaper than those in city markets and require less time to procure. Also, they provide the ingredients for lunches served to about 90 employees every day and are very popular due to their variety, taste and freshness. The company will maintain this mutually beneficial relationship with neighboring villages while also seeking to attain coexistence and co-prosperity across the region.

Field of a neighboring farmer

Repairing Community Roads (PNG Taiheiyo Cement Ltd., Papua New Guinea)

Lae City, where the main plant of PNG Taiheiyo Cement Ltd. is located, is a trade port as well as an industrial city. As a result, the heavy traffic of large container trucks significantly damage its roads to an extent that strains the government's ability to repair them. Large holes can be as deep as 30 centimeters. Only four-wheel-drive vehicles can negotiate such road conditions, which seriously inconvenience the lives of residents. Employees of PNG Taiheiyo Cement have used our cement to repair some of the roads.

Employees repairing a road

Supporting those Facing Financial Difficulty (Nghi Son Cement, Vietnam)

Since 2003 Nghi Son Cement has been donating life support goods to low-income families and orphans living near the plant and quarry before the Vietnamese New Year holidays. The company contributes to revitalizing the people and government of the

Providing scholarships to elementary school students

community through various means, such as offering scholarships to 346 young people in the community from elementary school to vocational school, holding sports events and donating cement for the construction of public facilities.

Education and Development of Human Resources

Accepting Interns (Kamiiso Plant)

The Kamiiso plant accepts high school students in neighboring areas (Hokuto City and Hakodate City) as interns to help promising young people develop professional aspirations and good work attitudes. They receive guidance from plant employees and experience actual plant operations while touring the facility, which instills a sense of the large scale of the plant and Garou mine. The students enthusiastically ask questions and engage in informal conversations.

On-site learning about equipment

Holding Events for Participants to Experience Our Workplace (CalPortland Company, U.S.)

CalPortland Company holds events at schools and other community sites where people can closely observe ready-mixed concrete trucks. In Washington State the company offers presentations on the production and use of cement and the concrete industry as a potential career for participants. The events have proven to be among the most popular ways to familiarize the community with CalPortland Cement.

Local elementary school students closely observe a ready-mixed concrete truck.

Continued Implementation of the Scholarship System (Taiheiyo Cement Philippines, Inc., Philippines)

The 2017 scholarship award ceremony was held at the plant of Taiheiyo Cement Philippines and welcomed 13 high school students as new scholarship recipients. In the 13th year of the program, launched in 2005 as part of a regional support project, it currently covers the tuition and living expenses for 61 high school students and 8 university students.

Nine of the scholarship students who have graduated from universities now work at the company and contribute to our business in various fields.

Welcoming high school students as scholarship recipients

Developing Concrete Engineers (Nghi Son Cement, Vietnam)

In Vietnam, where infrastructure development is underway in the wake of rapid economic growth, the need for more competent engineers has become an urgent public concern. Nghi Son Cement has opened a free concrete technology school to train Vietnamese concrete engineers. With 90 new graduates in fiscal 2017, the number of graduates as of March 2018 was 1,379.

Students at the graduation ceremony

Supporting Areas Affected by Disaster

Disaster Recovery Volunteer Activities (Oita Plant)

Typhoon No. 18 hit southern Oita Prefecture on September 17, 2017, and many houses were destroyed by the wind or submerged under flood waters from rivers in Tsukumi City. The plant formed a volunteer team of about 200 employees and joined recovery operations as a way to contribute to the community. Volunteers transported damaged straw mats and removed sludge that had accumulated under roofs and in gardens. At the plant, they treated over ten thousand tonnes of disaster waste as raw material for cement to assist in the restoration of the city.

Employees carrying out recovery operations

Key Performance Indicators under the WBCSD-CSI Agenda for Action ► GRI301-2, 302-1, 3, 303-1, 305-4, 5, 7, 403-2, 9, MM2

In accordance with the CSI Charter member companies pledge to publicly disclose their performance on the priority issues in the cement industry using the key performance indicators (KPIs) developed by the CSI. They also pledge to set and make efforts to achieve reduction targets for CO_2 emissions and major air pollutants. We set group targets using the KPIs and our progress toward achieving these targets are shown in the following chart.

In addition, group performance for CO_2 and climate protection, emission monitoring and reporting, health and safety, and water, has been subjected to an independent limited assurance review by KPMG AZSA Sustainability Co.,Ltd.

CO_2 Emission Reduction Targets

Cement production-related CO_2 emissions from Taiheiyo Cement and group companies

Reduce specific net CO_2 emissions per tonne of cementitious product by 10% or more from fiscal 2000 levels by fiscal 2025. (CSR Objectives for 2025)

Reduction Target for Main Air Pollutants

Emissions of NOx, SOx and dust from the main stacks of kilns at the cement production sites of Taiheiyo Cement and group companies

Limit NOx, SOx and dust levels per tonne of clinker (g/t-clinker) to the target levels achieved in fiscal 2010

■ Key Performance Indicators of the CSI for Fiscal 2017*1

CO_2 and Climate Protection (CO_2 emissions, energy consumption)		FY2015	FY2016	FY2017
Number of facilities using CSI's "The Cement CO_2 and Energy Protocol" guidelines for emissions inventory		22	18	18
Percentage of facilities using CSI's "The Cement CO_2 and Energy Protocol" guidelines for emissions inventory (%)		100	100	100
Total CO_2 emissions (million tonnes/year)	Gross	33.3	22.7	23.3
	Net*2	31.9	21.9	22.4
CO_2 emissions per tonne of cementitious product*3 (kg-CO_2/t-cementitious)	Specific gross CO_2 emissions	721	708	703
	Specific net CO_2 emissions	692	683	679
Emissions from electricity purchased (million tonnes/year)		1.6	0.886	0.985
Specific heat consumption of clinker production (MJ/t-clinker)		3,288	3,306	3,303
Alternative fuel rate (% of thermal energy consumption) of kiln		13.3	11.3	11.6
Biomass fuel rate (% of thermal energy consumption) of kiln		2.2	1.8	1.8
Clinker/cement ratio (%)		84.1	83.1	82.9

Alternative Raw Materials Use	FY2015	FY2016	FY2017
Alternative raw materials rate: consumption of alternative raw materials, as a percentage of total raw materials for cement and clinker production (%, calculated on a dry basis)	15.1	15.5	15.5

Health and Safety	2015	2016	2017
Fatalities			
Number of fatalities for directly employed	0	0	1
Fatality rate per 10,000 for directly employed	0	0	2.63
Number of fatalities for indirectly employed (contractors and subcontractors)	1	0	0
Number of fatalities involving third parties (not employed)	0	0	0
Lost-time injuries			
Number of lost-time injuries for directly employed	12	8	7
Injury frequency rate (per 1,000,000 man-hours directly employed)	1.18	0.97	0.87
Number of lost time injuries for indirectly employed (contractors and subcontractors)	5	10	6

Emission Monitoring and Reporting		FY2015	FY2016	FY2017
Percentage of clinker produced by kilns covered by a monitoring system, either continuous or discontinuous for main and other pollutants		100	100	100
Percentage of clinker produced by kilns which have installed continuous measurements for the main pollutants	NOx	99.9	100	100
	SOx	52.6	81.6	84.7
	Dust	99.9	100	100
Total emissions (tonnes/year)	NOx	53,019	32,897	33,048
	SOx	1,712	2,108	2,214
	Dust	1,674	1,057	841
Specific emissions (g/t-clinker)	NOx	1,342	1,221	1,197
	SOx	43	78	80
	Dust	42	39	30

Local Impacts	FY2015	FY2016	FY2017
Percentage of sites with community engagement plans in place	100	100	100
Percentage of active sites with quarry rehabilitation plans in place	100	100	100
Number of active sites where biodiversity issues are addressed	4	3	3

Water		FY2015	FY2016	FY2017
Amount of withdrawal (1,000 m^3)	Fresh water	35,083	26,719	27,596
	Seawater	148,836	146,097	149,056
Amount of discharge (1,000 m^3)	Fresh water	13,871	12,964	12,294
	Seawater	148,836	146,097	149,056

*1 Accounting and reporting of KPIs for fiscal 2017 is in accordance with the WBCSD-CSI's guidelines in "CO_2 and Energy Accounting and Reporting Standard for the Cement Industry" Version 3.1, "Guidelines for the Selection and Use of Fuels and Raw Materials in the Cement Manufacturing Process" Ver. 2.0, "Safety in the Cement Industry: Guidlines for measuring and Reporting" Version 4.0, "Guidelines for Emissions Monitoring and Reporting in the Cement Industry" Version 2.0, "Guidelines on Quarry Rehabilitation" and "Protocol for Water Reporting" Version 1.0. 100% of data for subsidiaries and partner companies (regardless of percentage of ownership) subject to aggregation is counted.
*2 Net CO_2 emissions: gross CO_2 emissions minus the CO_2 emissions from alternative-derived fuels
*3 Cementitious product: total clinker produced plus mineral components processed at the plants

Independent Assurance Report

To the President and Representative Director of Taiheiyo Cement Corporation

We were engaged by Taiheiyo Cement Corporation (the "Company") to undertake a limited assurance engagement of the Key Performance Indicators (the "CSI KPIs") of the World Business Council for Sustainable Development's Cement Sustainability Initiative (the "CSI") under the following areas included in its CSR Report 2018 (the "Report") for the fiscal year ended March 31, 2018.

- CO_2 and climate protection [1]
- Health and safety [2]
- Emission (NOx, SOx and dust from kilns) monitoring and reporting [1]
- Water [1]

1 Periodic accounting is based on the fiscal year 2017 for domestic plants and the calendar year 2017 for overseas plants.
2 Periodic accounting is based on the calendar year 2017 for domestic and overseas plants.

The Company's Responsibility

The Company is responsible for the preparation of the CSI KPIs in accordance with the following standards (the "Criteria") issued by the CSI:

- CO_2 and Energy Accounting and Reporting Standard for the Cement Industry Version 3.1
- Guidelines for Emissions Monitoring and Reporting in the Cement Industry Version 2.0
- Safety in the Cement Industry: Guidelines for measuring and reporting Version 4.0
- Protocol for Water Reporting Version 1.0

Our Responsibility

Our responsibility is to express a limited assurance conclusion on the CSI KPIs based on the procedures we have performed. We conducted our engagement in accordance with the 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information' and the 'ISAE 3410, Assurance Engagements on Greenhouse Gas Statements', issued by the International Auditing and Assurance Standards Board. The limited assurance engagement consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviewing the Company's responsible personnel to obtain an understanding of its policy for preparing the Report.
- Inquiring about the design of the systems and methods used to collect and process the CSI KPIs.
- Performing analytical procedures on the CSI KPIs.
- Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the CSI KPIs in conformity with the Criteria, and recalculating the CSI KPIs.
- Visiting the following eight out of a total of 18 plants of the Taiheiyo Cement Group, selected on the basis of a risk analysis. (CO_2 emissions covered by the plants visited correspond to 34% [3] of the combined total of the Group's CO_2 emissions.)

3 Based on the amount of absolute gross CO_2 for the fiscal year 2017 for domestic plants and the calendar year 2017 for overseas plants.

Overseas plants	Domestic plants
– CalPortland Company: Mojave Plant, Rillito Plant and Oro Grande Plant	– Taiheiyo Cement Corporation: Fujiwara Plant, Kumagaya Plant and Saitama Plant
– Taiheiyo Cement Philippines, Inc.	– Tsuruga Cement Co., Ltd.

- Evaluating the overall presentation of the CSI KPIs.

Conclusion

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the CSI KPIs in the Report are not prepared, in all material respects, in accordance with the Criteria.

Our Independence and Quality Control

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. In accordance with International Standard on Quality Control 1, we maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

KPMG AZSA Sustainability Co., Ltd.

KPMG AZSA Sustainability Co., Ltd.
Tokyo, Japan
October 12, 2018

►GRI102-45, 50, 51, 52, 53, 54, 56

Editorial Policy

Through this report we intend to convey how we conduct our CSR activities to our stakeholders. The report will also serve as a communication tool and we hope to receive a wide range of comments from readers toward enhancing our activities and level of disclosure. CSR Report 2018 reflects the following efforts.

- The first half of the report (pages 2 to 21) serves as a summary of our CSR activities. In the latter half (pages 22 to 71) we report details of these various activities.
- At the beginning of the report we present the big picture of the group by sharing our vision for its future based on the targets on pages 6 and 7, and its present status on pages 8 and 9, which also present a "CSR dashboard" page where readers are provided with an outline of business operations as well as an integrated summary of past and current trends in financial and non-financial performance and the group's long-term objectives. It is also meant to serve as a "dashboard" that indicates the state of the group.
- We implemented a review of materiality in accordance with the GRI Standards and updated material issues, making clear the relevance of our business risks and opportunities to the SDGs.
- We convened a dialogue under the theme of "What Does Society Expect from the Cement Industry through ESG and SDGs?."
- In each section of the report, we indicated the relevant indicators of the GRI Standards as well as the relevant SDG icons.

Guidelines Used for Reference

- GRI Sustainability Reporting Standards 2016/2018
- Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for Collaborative Value Creation (Ministry of Economy, Trade and Industry)
- Environmental Reporting Guidelines 2012 Edition (Ministry of the Environment)
- Environmental Accounting Guidelines 2005 Edition (Ministry of the Environment)

Publication Dates

October 2018 (previous report: October 2017, next report: October 2019)

Clarifying Efforts to Achieve SDGs

We analyzed our business risks and opportunities, clarified their relevance to the Sustainable Development Goals (SDGs) and displayed icons representing the relevant SDG goal on each page of our activities. We will seek to contribute to achieving the SDGs through the group's business activities.

Reporting in Accordance with the GRI Standards

This report is prepared in accordance with the Core option of the Sustainability Reporting Standard 2016/2018. The GRI Content index is available on our website:

■ **http://www.taiheiyo-cement.co.jp/english/**
CSR → CSR Report → Data

Scope and Boundaries of this Report

Reporting Period

April 1, 2017 to March 31, 2018
In this report we refer to this period as fiscal 2017, which is different from other company publications.
We have also included information about events that occurred outside this period when we deemed them of importance. In such cases this is clearly stated.

Boundary of Reporting Organizations

The report covers Taiheiyo Cement Corporation (non-consolidated) and includes our group companies. "The company" refers to Taiheiyo Cement Corporation (non-consolidated); when information pertains to one of our group companies, the group company's name is explicitly stated.

Boundary of Reporting Organizations by Quantitative Data

Quantitative data are aggregated on a consolidated basis and under the following three categories. An icon representing the relevant aggregation scope is associated with data for categories 1 and 2.

Category 1 Non-consolidated
Taiheiyo Cement Corporation (non-consolidated)

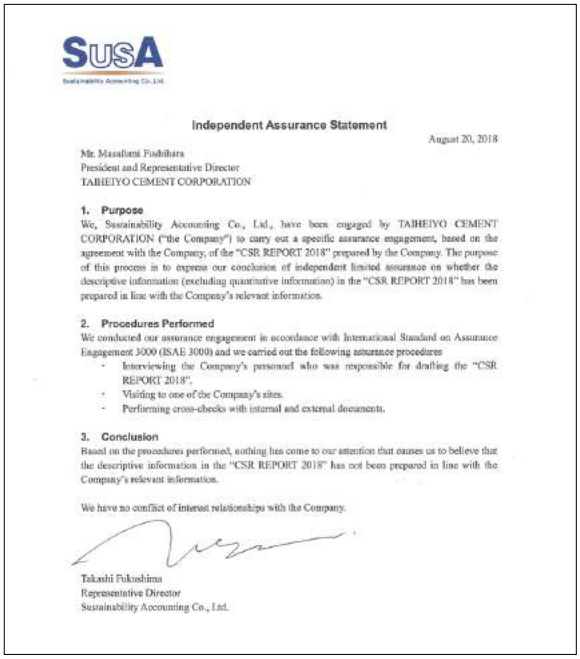
Category 2 WBCSD
Scope of data collected for WBCSD*1-CSI*2 KPI reporting. Organizations covered are listed on page 9.

Category 3 (others)

- Material Balance of Business Activities (pages 48 and 49) and Volume of Waste to Landfill (page 45): Organizations covered are listed on page 49.
- Number of Fatalities (page 8) and the number of accidents registered in the Work-related Accident Database (page 62): employees of the company, group companies (including overseas) and our partner companies.

*1 WBCSD (World Business Council for Sustainable Development): An international, CEO-led association of about 200 member companies toward sustainable business development and the creation of sustainable societies.
*2 CSI: Cement Sustainability Initiative

Sustainability Accounting Co., Ltd. (Chiyoda-ku, Tokyo) also conducted a third-party audit to ensure all information stated in this report, excluding quantitative data, is consistent with the relevant company information.



SuSA

Independent Assurance Statement

August 20, 2018

Mr. Masafumi Fushihara
President and Representative Director
TAIHEIYO CEMENT CORPORATION

1. Purpose

We, Sustainability Accounting Co., Ltd., have been engaged by TAIHEIYO CEMENT CORPORATION ("the Company") to carry out a specific assurance engagement, based on the agreement with the Company, of the "CSR REPORT 2018" prepared by the Company. The purpose of this process is to express our conclusion of independent limited assurance on whether the descriptive information (excluding quantitative information) in the "CSR REPORT 2018" has been prepared in line with the Company's relevant information.

2. Procedures Performed

We conducted our assurance engagement in accordance with International Standard on Assurance Engagement 3000 (ISAE 3000) and we carried out the following assurance procedures

- Interviewing the Company's personnel who was responsible for drafting the "CSR REPORT 2018".
- Visiting to one of the Company's sites.
- Performing cross-checks with internal and external documents.

3. Conclusion

Based on the procedures performed, nothing has come to our attention that causes us to believe that the descriptive information in the "CSR REPORT 2018" has not been prepared in line with the Company's relevant information.

We have no conflict of interest relationships with the Company.

Takashi Fukushima
Representative Director
Sustainability Accounting Co., Ltd.

The following information is available on our website.

http://www.taiheiyo-cement.co.jp/english/

CSR → CSR Report → Data

- Waste and by-product processing in cement plants
- Company-wide training system (Japanese only)
- Status of health issues associated with asbestos (Japanese only)
- GRI Content Index

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Third-Party Opinion ▶GRI102-44

Takeshi Mizuguchi
Professor, Faculty of Economics, Takasaki City University of Economics

Reading through this CSR report I found it to be a highly sophisticated accounting that the company has fully reviewed in every detail. It describes the issues related to the businesses in an easy-to-understand manner and also clearly defines the three CSR objectives for 2025. I learned about how the company has worked on saving energy, introducing waste heat power generation systems and using alternative energy resources to contribute to mitigating climate change. I also gained an understanding about the company's contribution to creating a recycling-based society by accepting waste materials and by-products from other industries as raw materials.

In the "Special Feature" section, the report introduces the efforts by CalPortland, which operates under the rigid environmental regulations that the state of California imposes on businesses. The company should be recognized for its participation as a core member in the Cement Sustainability Initiative (CSI) of the WBCSD. Regrettably, two fatalities have been reported. The company, however, is strengthening its focus on initiatives to ensure employee health and safety. Furthermore, I highly value its efforts to empower women in the workplace.

The company's broad range of contributions to communities through business sites at home and abroad represent its stance as a good corporate citizen. Overall, my impression is that the company is sincerely doing all that it can in the area of CSR, and I expect it to maintain this sincere commitment.

Given these comments, I suggest it is time for the company to advance into an integrated management strategy corresponding to its higher level of responsibilities. In other words, it should incorporate its efforts to address social issues into its long-term strategy. Climate change is one specific issue that the cement industry must specifically address.

I do not mean to suggest that I blame the cement industry for the significant volume of CO_2 that its production processes naturally generate. I highly respect the company's efforts to mitigate climate change as stated on page 38. I also believe that the company's CSR objective for reducing specific net CO_2 emissions per tonne of cementitious product by 10% from fiscal 2000 levels by fiscal 2025 is quite ambitious. In addition, I acknowledge that concrete is essential for all kinds of infrastructure such as buildings, roads and bridges.

On the other hand, we must substantially reduce CO_2 emissions to zero during the second half of this century in order to prevent the increasing frequency of devastatingly extreme weather phenomena, by constraining the increase in average global temperature within 2°C. In other words, a major gap remains between the company's objective for specific CO_2 emissions by 2025 and what must be achieved by 2050. How should we bridge this gap? In the "Top Commitment" section management states: "A large amount of CO_2 is produced in the course of cement manufacture. However, appearing to admit this connection as unavoidable will delay any progress in this social issue." I totally agree. What then is something the company can do? It could recover CO_2 that it generates or develop new materials for infrastructure to replace cement. Moreover, it must carefully deliberate and determine how much of its resources should be allocated to these efforts and how it can be a leader in the industry. This is the cornerstone of its strategy and part of the corporate management that incorporates CSR. To put it another way, there is a competition for solutions to social issues. I look forward to seeing the company in the forefront of these initiatives.

Response to Third-Party Opinion

I am greatly encouraged by Mr. Mizuguchi's deep understanding of our sincere efforts to pursue sustainability in all fronts of our operations, which are constrained by the inherent characteristics of the cement industry. Also, we are pleased with his favorable evaluation of our approach to producing this report. On the other hand, he points out that we should strive to lead the cement industry in providing solutions to the issue of mitigating climate change toward 2050. We are fully aware that responding to his advice will inform our mission.

In its corporate mission, the Taiheiyo Cement Group states that it will contribute to social infrastructure development by providing solutions. We will further strive to operate with a long-term strategy that incorporates our responses to social issues so that we are better recognized publicly as a company that seizes the initiative to address these issues.

We look forward to receiving frank opinions on this report from our readers.

Shigeru Matsushima
Director, Senior Executive Officer, CSR

TAIHEIYO CEMENT

We commissioned the Itabashi Welfare Factory to print Japanese questionnaires and insert them into the report.

The Tokyo-based Itabashi Welfare Factory is helping persons with disabilities work and live independently in society. It is certified under ISO 9001 and the Information Security Management System.