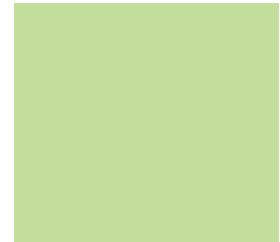
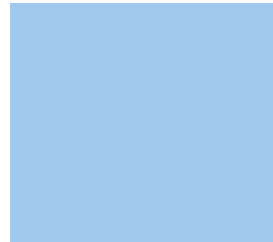




Insight, Onsite, Farsight

The Kumagai Gumi Group  
Corporate Report

# 2019



**KUMAGAI GUMI**





**Kumagai Gumi Group Vision Statement**

# Insight, Onsite, Farsight

When we build a structure, we are building a community -  
together with the people who will use that space.

Kumagai Gumi constructs and maintains structures where people can congregate and  
live fulfilling lives while feeling safe and secure.

This is our job, our mission.

We deliver "Quality that Inspires Happiness" by optimizing construction  
for the people who will use the built space.

When putting plans into practice, we apply our unique concept of  
Worksite Excellence – the powerful synergy of our technology and human resources.

Our relationship with our structures continues beyond physical completion.

It includes ongoing operation, maintenance, renovation, and restoration.

With this never-ending support, our structures serve as the timeless stage  
on which each generation performs its part in life's ever-evolving story.

Insight, Onsite, Farsight

We feel a deep responsibility to our clients – built on mutual trust and  
collaboration – that we have nurtured over our hundred-plus-year history.

In this spirit, we are committed to taking on the fresh challenges the future will bring.

Working with people, creating community.  
Setting the stage for tomorrow to unfold.

Civil engineering renewal work between Chugoku Expressway Hokubo Interchange and Osa Smart Interchange (inbound lanes)

## Our Company's Code of Conduct (Mission Statement)

- **TRUST:**  
To develop client trust and earn their confidence.
- **CONSISTENCY:**  
To be consistently professional and responsible.
- **CO-OPERATION:**  
To promote cooperation and mutual prosperity.

## Management Philosophy

- **ENVIRONMENT** We aim to use our breadth of expertise to design and construct projects, which are environmentally-friendly and which will improve quality of life and satisfy the needs of society.
- **CLIENTS** We aim to be an innovative and dynamic company, one that can provide our clients with a comprehensive service of consistently high standards, tailored to satisfy our clients' individual requirements.
- **STAFF** We strive to be a progressive and nurturing company, offering each individual the opportunity for personal growth, pride, and satisfaction in his or her work.
- **REPUTATION** We strive to be a responsible corporate citizen, recognized for our business integrity and social awareness.

## Editorial Policy

This Corporate Report is issued with the goal of communicating the Kumagai Gumi Group's management policies, business strategies, and CSR efforts to all of our stakeholders.

Taking the Kumagai Gumi Group Vision Statement of "Insight, Onsite, Farsight" as its approach, the report showcases the Kumagai Gumi Group's concern for the environment and its efforts to provide solutions to social issues, to support our contribution to the formation of a sustainable society.

It meets the expectations of stakeholders for information disclosure, and makes reference to various guidelines in order to ensure objectivity and transparency.

### Period of Reporting:

FY2018 (April 1, 2018 to March 31, 2019)

The information in this report includes some information from April 2019 or later, as required.

### Scope of Reporting

The scope of this report covers Kumagai Gumi Co., Ltd. and its seven group companies, six of which are in Japan and one of which is in Taiwan. The references in this report to "Kumagai Gumi" or "our company" are used in reporting on Kumagai Gumi Co., Ltd. only. Reports on Group companies mention the specific companies. In reporting on conservation activities, construction data is provided for the projects undertaken by Kumagai Gumi in Japan only as well as for joint venture projects with Kumagai Gumi as the lead company.

### Issue Date

August 2019 (Previous edition: August 2018; Next edition: Scheduled for August 2020)

### Referenced Guidelines

- Environmental Reporting Guidelines (2018 Edition) by the Ministry of the Environment
- IIRC International Integrated Reporting Framework

### Information on the website

<https://www.kumagaigumi.co.jp/en/index.html>



### Notes on the Outlook for the Future

Opinions and other forward-looking statements in this report are based on data currently available to us and certain assumptions that we believe are reasonable. Actual results may, therefore, differ materially from these statements for various reasons.

## Table of Contents

Kumagai Gumi Group Vision Statement — 2  
 Mission Statement, Management Philosophy and Editorial Policy — 3  
 The Kumagai Gumi Group's Business — 4  
 The Kumagai Gumi Group's Value Creation Process — 6  
 Financial and Non-Financial Highlights — 8

The Medium-term Management Plan (FY2018-2020) ~ Strategies for Accelerating Growth ~ — 10  
 Interview with the President — 11

**Insight** — 18  
 Technology Development System — 19  
 Technology to Create Social Value — 20  
 Diverse Human Resources — 21

**Onsite** — 23  
 Aiming for Safe Workplace Environments — 24  
 Quality Control and Environmental Preservation — 25

**Farsight** — 30  
 Involvement with Customers — 31  
 Involvement with Employees — 32  
 Involvement with Shareholders and Investors — 33  
 Involvement with Business Partners — 33  
 Involvement with Local Communities — 34  
 Evaluation by Society — 35

**Governance** — 36  
 List of the Board of Directors — 36  
 Corporate Governance — 38  
 Risk Management — 40

**Business Overview** — 42  
 Group Strengths — 42  
 Civil Engineering — 44  
 Architectural Construction — 45  
 Overseas Projects and Other Business — 46

**Financial Information** — 48  
 Analysis of Financial and Management Performance — 48  
 Consolidated Financial Statements — 50

Corporate Information and Stock Information — 54  
 Organizational Chart — 55



# The Kumagai Gumi Group's Business

Since our foundation in 1898, the construction company Kumagai Gumi has made efforts to contribute to the development of society through construction contracting.

We deliver Quality that Inspires Happiness so that we can continue to work as a group to satisfy customers through Worksite Excellence, the powerful synergy of the technology and human resources we have built up for over a hundred years.

With the aim of further securing sustainable growth and stable earnings, we will focus our efforts on the creation of new businesses and on strategic collaboration with partners.

## New business domains for future activity

### Overseas Projects

The Kumagai Gumi Group is expanding our sales and marketing networks in our overseas offices, and is striving to expand our business to secure stable sources of revenue. To enhance the earnings potential of our overseas business, we will focus our energies on the promotion of alliances with partner companies, the strengthening of global human resources, and risk management.



TAIPEI 101 (Taiwan)



Route 9 Eagle's Nest Tunnel (Hong Kong)

P46-47

## The main businesses that have supported the group's development

### Civil Engineering

Through the construction of tunnels, bridges, dams, roads, and other infrastructure that is vital to people's lives, Kumagai Gumi Group will continue to support the creation of places where people can live in security and comfort. We will continue to enhance our technological prowess to deal with superannuated infrastructure that is reaching the age of large-scale renewal, as well as increasingly severe natural disasters.

P44



Tohoku-Chuo Expressway, Yamagatazao Tunnel construction



Wasabizawa Geothermal Power Plant production and return facilities construction

### Architectural Construction

The Kumagai Gumi Group provides structures for every application and purpose, including housing, offices, hospitals, schools, and commercial facilities. We will continue to build the stages upon which people live their lives, with consideration of their hopes and dreams. We will also advance initiatives for environmentally friendly construction and medium- to large-scale wood structures.

P45



Park Court Gyohei The Forest



Nagoya Campus Taiho, Nagoya Gakuin University

### Other Projects

Kumagai Gumi has a construction industry-leading track record in urban development projects. Taking advantage of our know-how and expertise, we will contribute to urban redevelopment and area revitalization. We will also actively undertake projects that include concessions, infrastructure operation, and renewable energy.

P46-47



Inagi City Central Library (PFI project)



Shiraito Highland Way (infrastructure operation project / GAEART Co., Ltd.)

### The 8 companies of the Kumagai Gumi Group

Kumagai Gumi Co., Ltd.

GAEART Co., Ltd.

K&E Co., Ltd.

Taiwan Kumagai Co., Ltd.

Technos Co., Ltd.

FATEC Co., Ltd.

Techno-Space Creates Co., Ltd.

Technical Support Co., Ltd.

▶ See details of companies on P42-43

### The History of the Kumagai Gumi Group

1898 Founding of Kumagai Gumi  
1938 Establishment of Kumagai Gumi Co., Ltd.

1945 Establishment of Architectural Construction Division  
1958 Opening of Toyokawa Factory  
1963 Establishment of Kumagai Road Co., Ltd.  
\* 1994 Change of company name to Gaeart Kumagai Co., Ltd.  
1974 Establishment of Taiwan Kumagai Co., Ltd.

1989 Establishment of FATEC Co., Ltd.  
1993 Establishment of Kumagai Techno-Space Co., Ltd.  
\* 2000 Change of company name to Techno-Space Creates Co., Ltd.  
1995 Technical Support Co., Ltd.  
1996 Spin-off of Toyokawa Plant as Kumagai Technos Co., Ltd.  
\* 2002 Change of company name to Technos Co., Ltd.

2001 Establishment of K&E Co., Ltd.  
2004 Merger of Gaeart Kumagai Co., Ltd. and Tobishima Road Co., Ltd.  
Launch of GAEART T. K. Co., Ltd.  
\* 2016 Change of company name to GAEART Co., Ltd.  
2016 Formulation of the Kumagai Gumi Group Vision  
2017 Business and capital alliance with Sumitomo Forestry Co., Ltd.

# The Kumagai Gumi Group's Value Creation Process

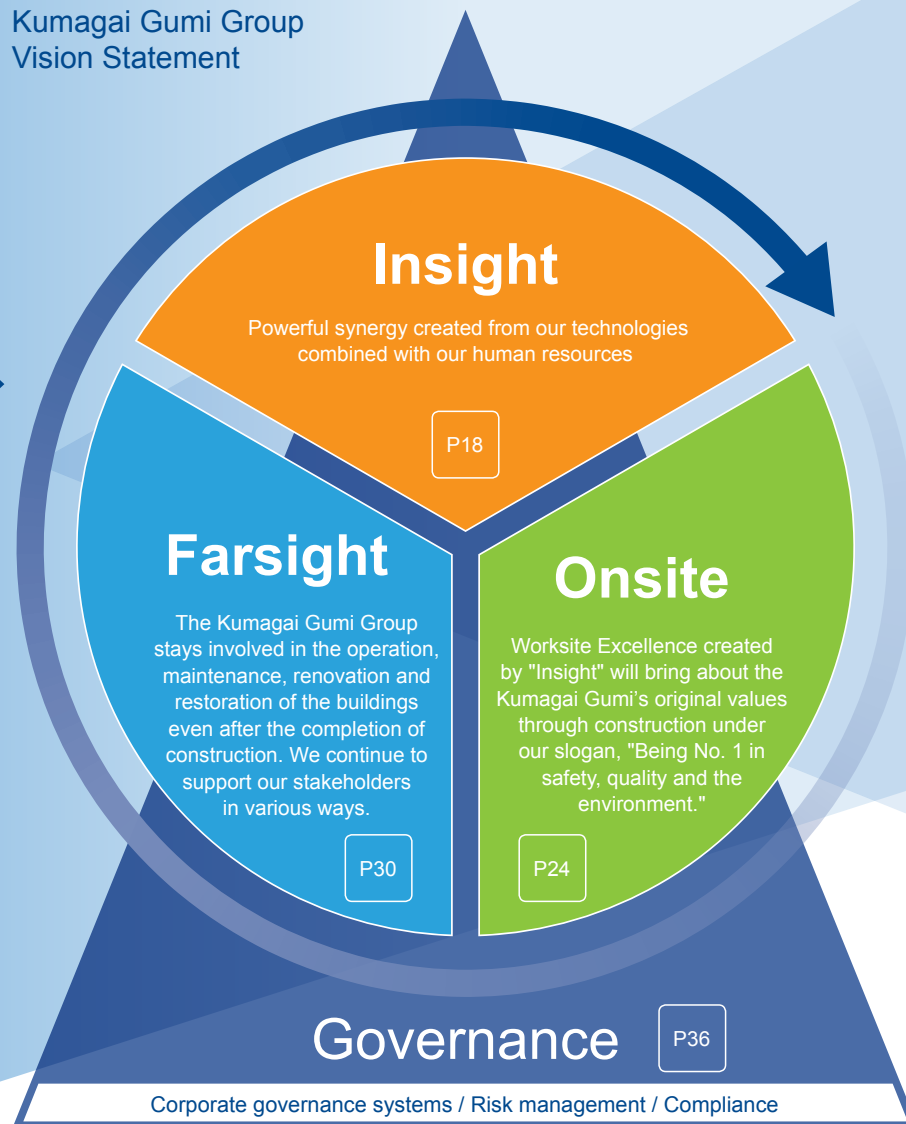
The Kumagai Gumi Group conducts business activities on the basis of its Group Vision to contribute to the resolution of social issues and be of service to our stakeholders.

The Kumagai Gumi Group is taking on the challenge of creating new value for the future, exerting the group's uniqueness and aligning all members toward the same goals.

## Key issues from the perspective of ESG (Materiality)

Environment	Society	Governance
Formation of environmentally considerate business	Achievement of motivating workplaces where diverse human resources can exert their capabilities	Strengthening of corporate governance
	Achievement of sustainable communities	Reinforcement of relationships with stakeholders

## Kumagai Gumi Group Vision Statement



<b>Financial constitution</b>
Total Assets <b>353.7 billion yen</b>
<b>Manufacturing capital</b>
"Yuuei Kyoryoku Kai" <b>868 companies</b>
Manufacturing sites <b>32</b>
<small>*A group composed of 868 (as of April 1, 2019) partner companies of Kumagai Gumi.</small>
<b>Intellectual capital</b>
No. of patents <b>73</b>
Research and development expenses <b>2.3 billion yen</b> (non-consolidated)
<b>Human capital</b>
Number of employees (non-consolidated) <b>2,497</b>
(consolidated) <b>4,032</b>
<b>Societal capital</b>
Domestic sites (non-consolidated)
Branches <b>10</b>
Sales offices <b>34</b>
Technical laboratories <b>1</b>
<b>Natural capital</b>
Electric power <b>31,468,000 kWh</b>
Gas <b>102,000 m<sup>3</sup></b>
Diesel oil <b>23,292 kl</b>
Kerosene <b>12 kl</b>
Water <b>399,000 m<sup>3</sup></b> (non-consolidated)

FY2018 performance

<b>Insight</b> <b>Human Resources</b> <ul style="list-style-type: none"> <li>Diversity</li> <li>Human Resource Development</li> <li>Workplace Environment</li> <li>Promotion of the Group Vision</li> </ul>
<b>Technologies</b> <ul style="list-style-type: none"> <li>Technological Competitive Advantages</li> <li>Research and Development System</li> <li>Research Center</li> </ul>
<b>Onsite</b> <b>Worksite Excellence</b> <ul style="list-style-type: none"> <li>Safety and Health</li> <li>Quality Control</li> <li>Environmental Protection</li> </ul>
<b>Farsight</b> <b>Worksite Excellence to Farsight</b> <ul style="list-style-type: none"> <li>Customer Satisfaction (CS) Activities</li> <li>Relationships with Stakeholders</li> <li>Evaluation from Society</li> </ul>

<b>Domestic civil engineering sales</b> <b>111.6 billion yen</b>
<b>Domestic architectural construction sales</b> <b>195 billion yen</b>
<b>Overseas projects sales (including overseas group companies)</b> <b>10.8 billion yen</b>
<b>Domestic group companies' sales</b> <b>71.7 billion yen</b>

FY2018 performance

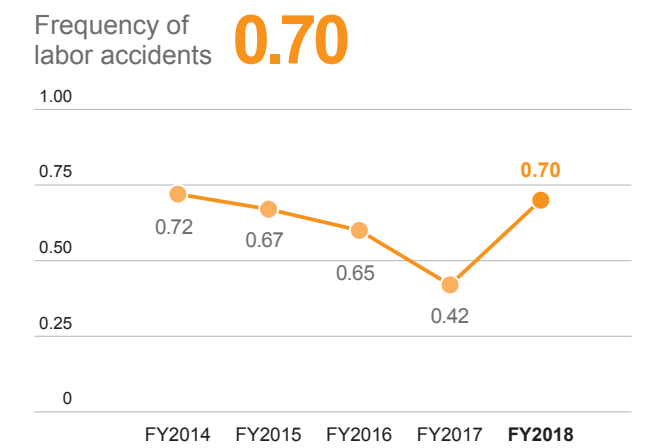
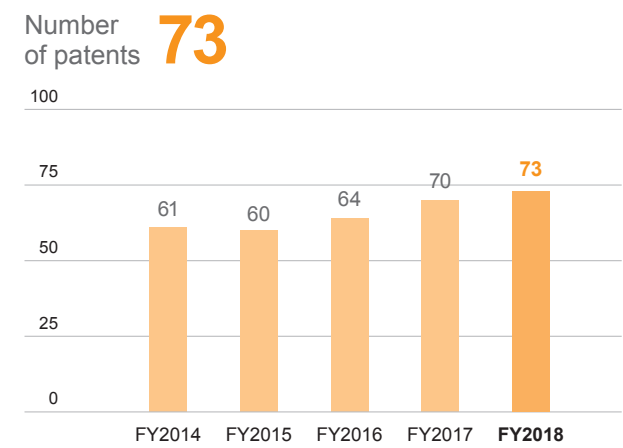
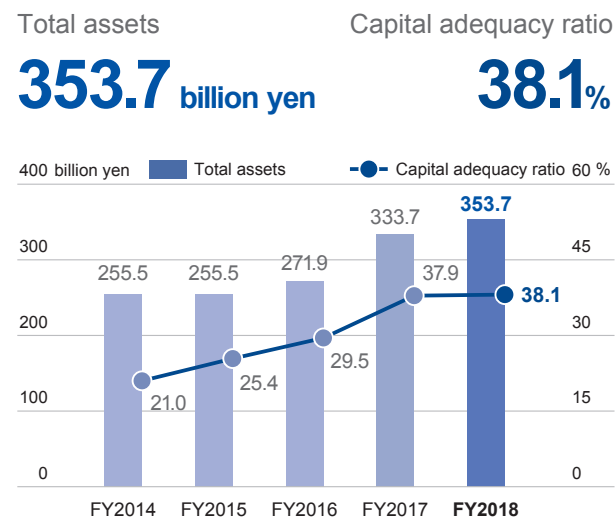
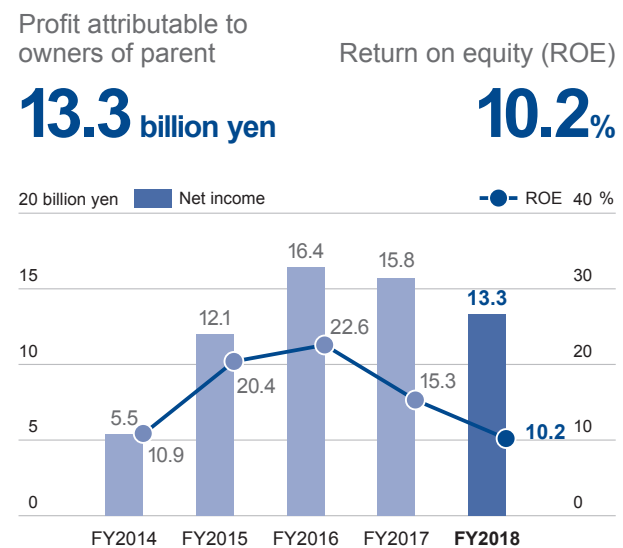
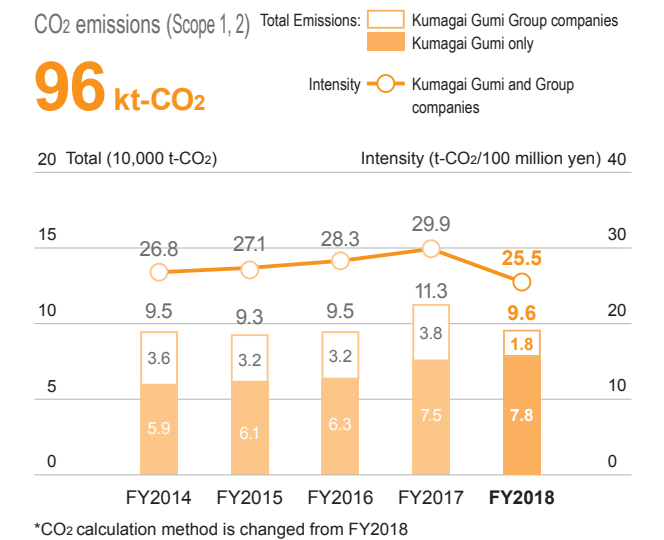
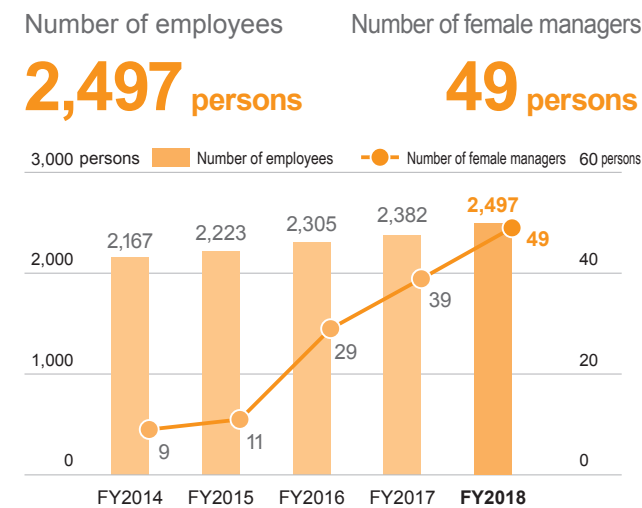
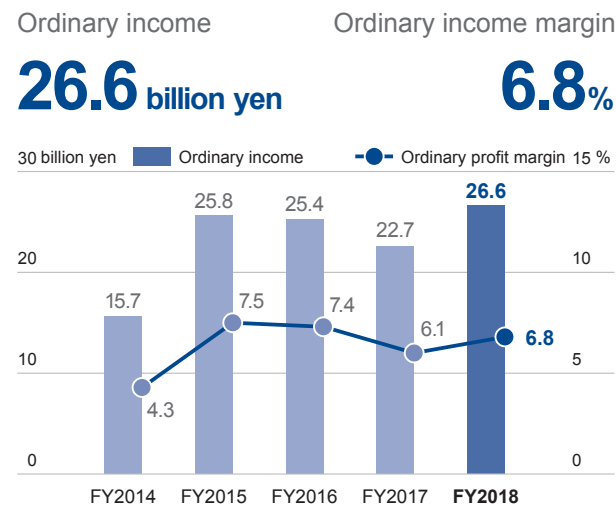
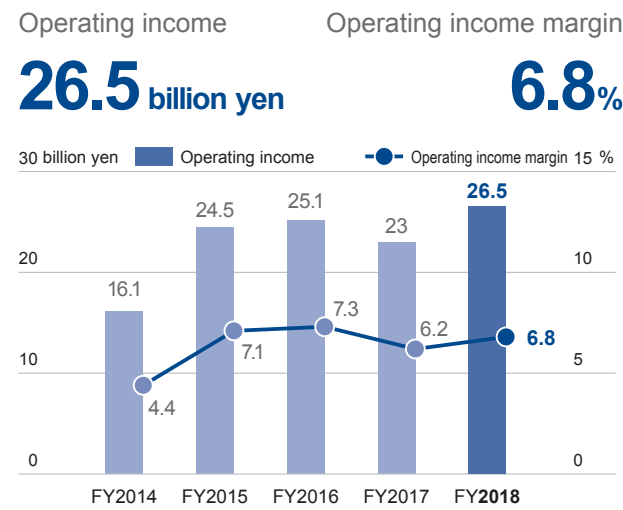
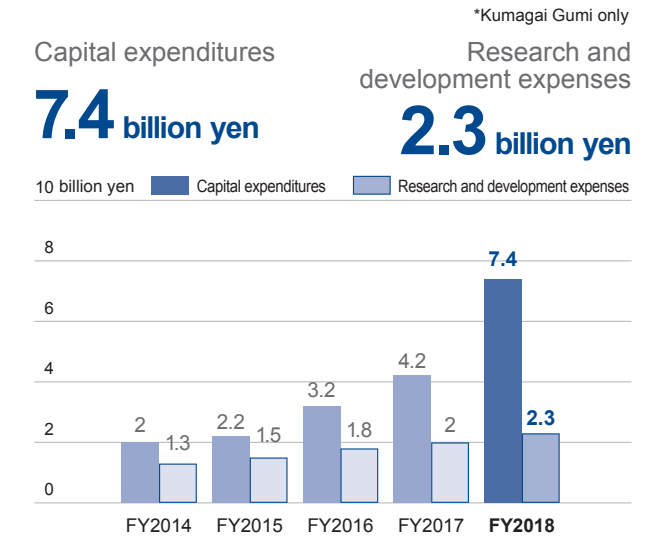
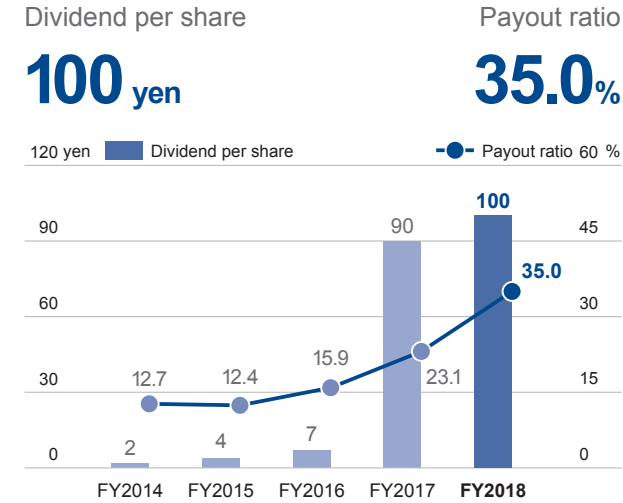
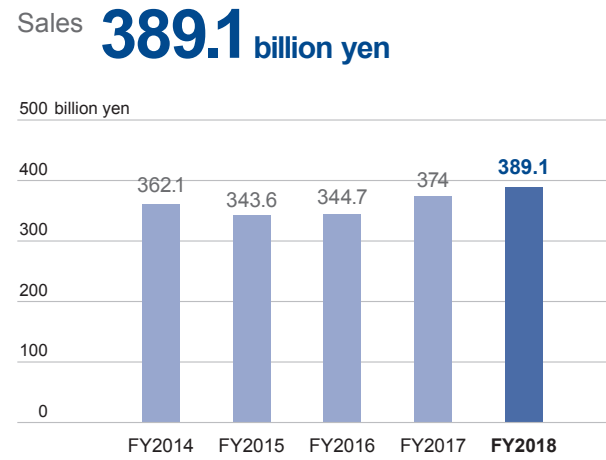
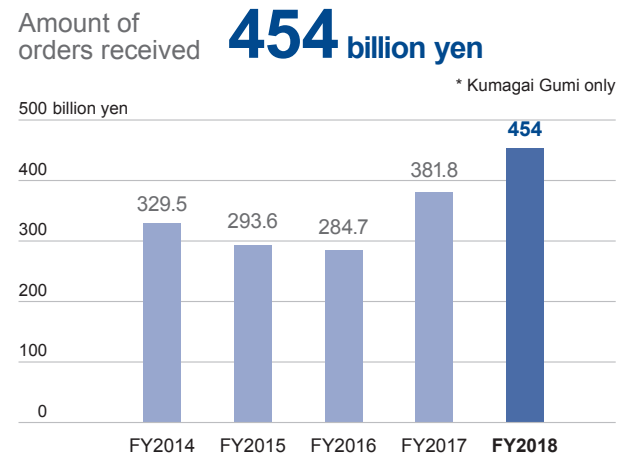
## The Value We Provide to Stakeholders

<b>For customers and local communities</b> Quality That Inspires Happiness
<b>For employees</b> Human Resource Development
<b>For business partners</b> Coexistence in Mutual Prosperity
<b>For local communities</b> Sustainable Coexistence with Nature
<b>For shareholders and investors</b> Stable Returns for Shareholders by Raising Corporate Value



# Financial and Non-Financial Highlights

\* The financial information is based on the Kumagai Gumi Group consolidated results, whereas non-financial information is based solely on Kumagai Gumi.  
 \* Amounts less than 100 million yen are rounded.





Based on the Medium-term and Long-term Management Direction that we set forth in November 2017, we formulated "The Medium-term Management Plan (FY2018-2020) – Strategies for Accelerating Growth –". Its strategic pillars are:

1. Maintain and increase contracted construction businesses;
2. Create new and innovative businesses; and
3. Form strategic alliances with other companies.

We are determined to steadily implement these strategies geared toward accelerating growth.

### Three Strategies and Target Numbers

#### Medium-term and Long-term Management Direction

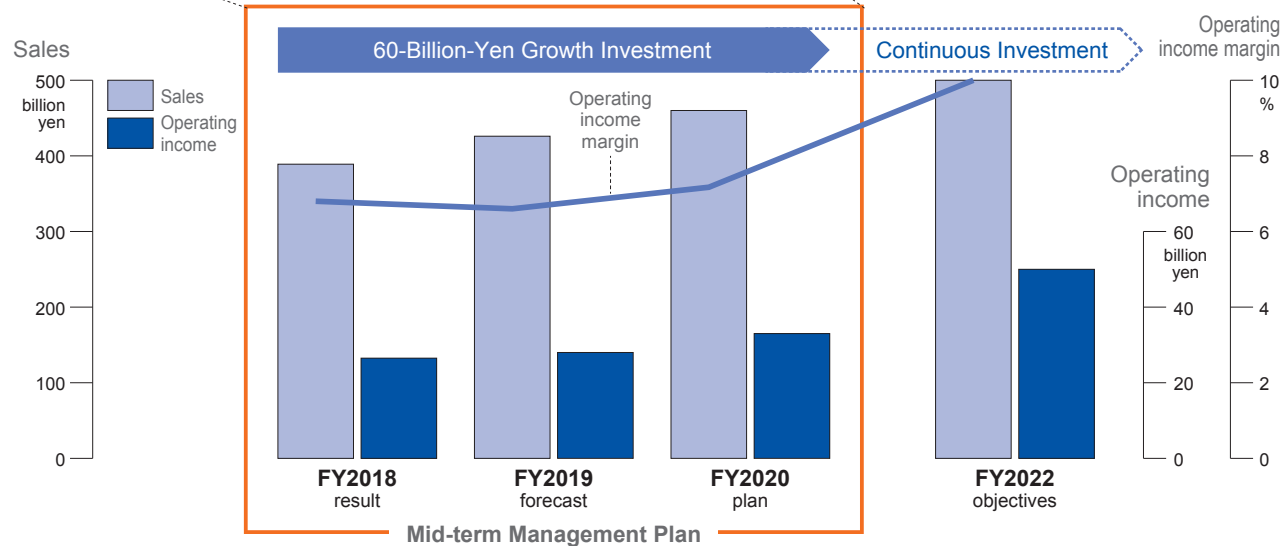
- Kumagai Gumi will continue to provide high quality construction services, responding to qualitative and quantitative changes in the construction market.
- Kumagai Gumi will strengthen its ESG management to realize long-term growth and contribute to the formation of a sustainable society.



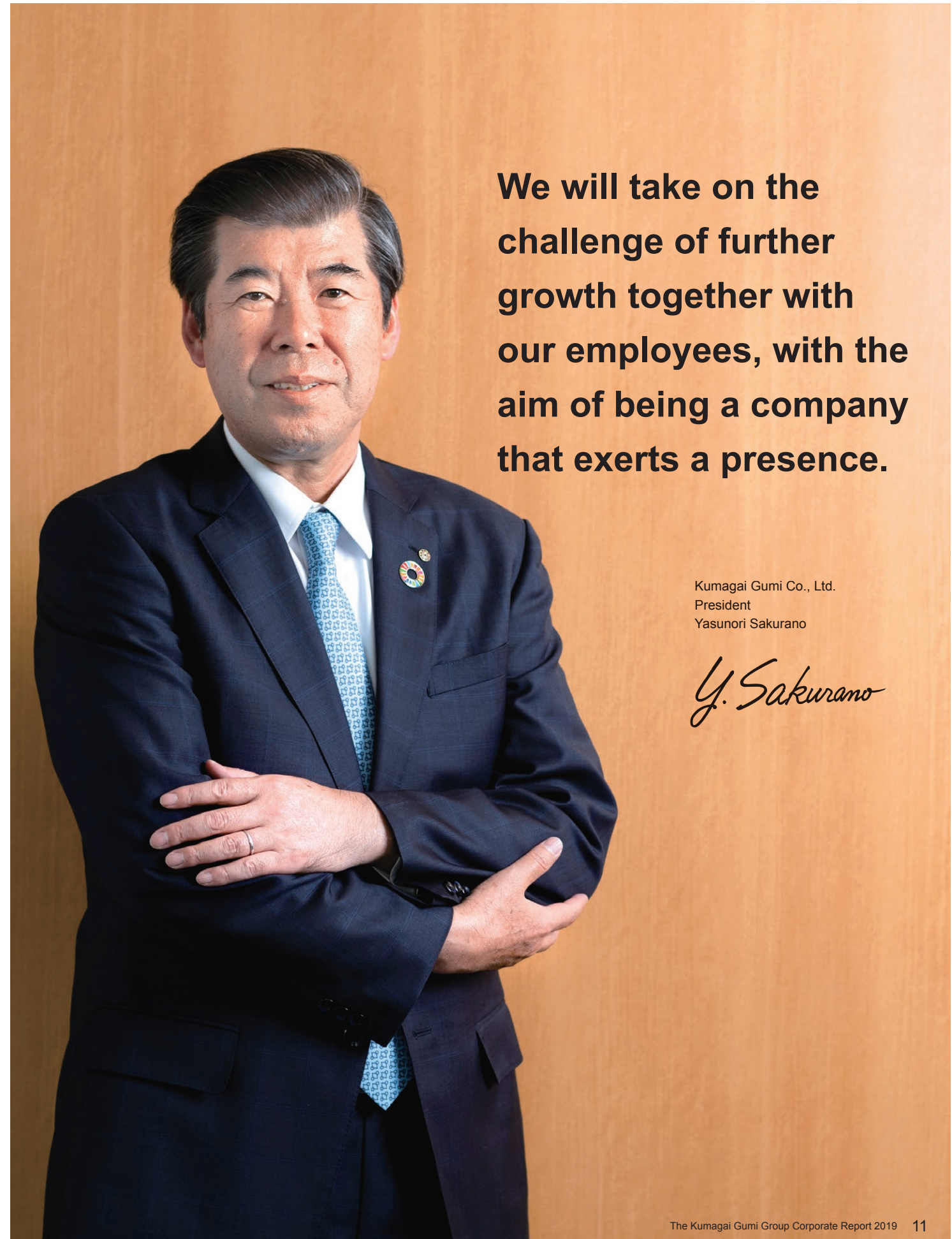
#### Our Four Target Indicators (by FY2020)



#### FY2022 Goals



\* Investment income and dividend income are included in operating income.



**We will take on the challenge of further growth together with our employees, with the aim of being a company that exerts a presence.**

Kumagai Gumi Co., Ltd.  
 President  
 Yasunori Sakurano

*Y. Sakurano*



Please tell us about the market environment and the results of the first year of the Medium-Term Management Plan.

**Compared to the previous term, we achieved increases in both sales and operating income, and greatly exceeded the operating income target in the Medium-Term Management Plan. We were able to feel new effects.**

For Kumagai Gumi, 2018 was a milestone as the 120th year since our founding. Along with the start of a new Medium-Term Management Plan, it was a year in which we took a great step forward toward further growth.

Based on the Medium-term and Long-term Management Direction that we put forth in 2017, the Kumagai Gumi Group formulated a Medium-Term Management Plan built on three strategic pillars: "Maintain and increase contracted construction businesses," "Create new and innovative businesses," and "Form strategic alliances with other companies." Having gone through a period of renewal, the reborn Kumagai Gumi Group is setting "Strategies for Accelerating Growth" as our theme.

Fiscal 2018 marked our first step toward that challenge. Under favorable conditions in the construction market, our company was able to unite and deliver solid results. Sales were nearly in line with plans, while operating income significantly exceeded our target, resulting in an increase in both sales and profits. For me personally, fiscal 2018 was the year in which I was appointed President, and I believe it was a year in which I was able to feel new

effects together with executives and employees.

The environment surrounding the construction industry remains robust, for reasons including natural disaster readiness and mitigation projects, projects to address superannuated social infrastructure, and projects to develop facilities for the Tokyo Olympic and Paralympic Games. The market is expected to remain robust for the time being, with continued inbound demand, the full-scale start of construction on the Chuo Shinkansen maglev line, and the decision to host Expo 2025 in Osaka.

At the same time, looking outward toward the world, factors including US-China trade frictions and the UK's Brexit issue are creating uncertainty in the global economy. Domestically, a major turning point will come for our company in the near future, for reasons including a declining market under a shrinking population. To respond to these changes, further strengthening of our core contracted construction businesses, as well as the creation of new businesses and strategic alliances with other companies, will be vital.

What sort of effects do you feel from the goal of "maintain and increase contracted construction businesses," as set forth in the Medium-Term Management Plan?

**We received a succession of large-scale project orders. We also accumulated a large amount of projects carried forward, and were able to make a solid start.**

Regarding "Maintain and increase contracted construction businesses," we received orders for a succession of major projects, including construction for the Chuo Shinkansen maglev line, and we expanded orders in both civil engineering and construction. Orders received by Kumagai Gumi alone in fiscal 2018 increased by 18.9% year on year, the second consecutive year of increases. We achieved increases in sales and operating income, making a solid start.

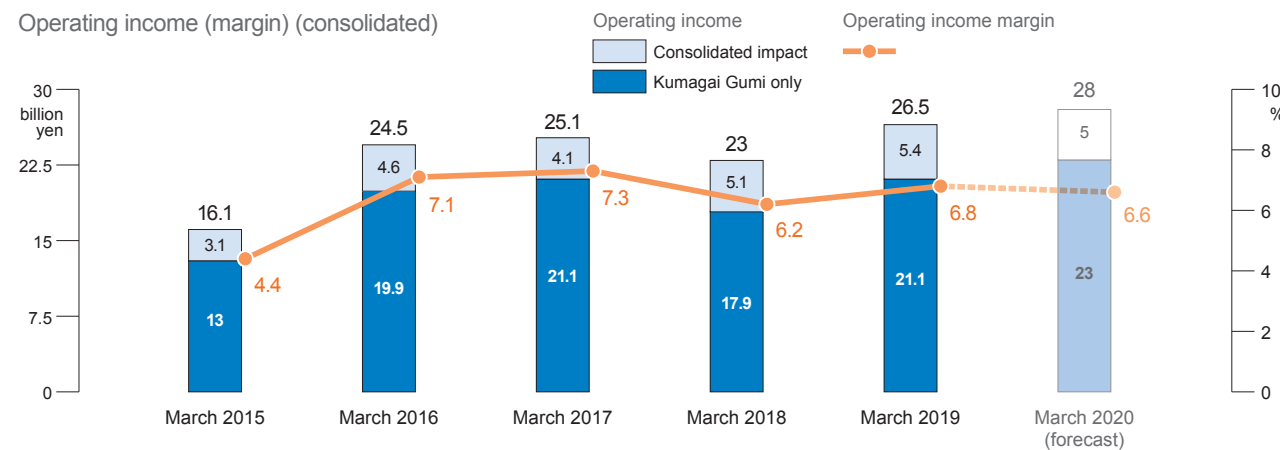
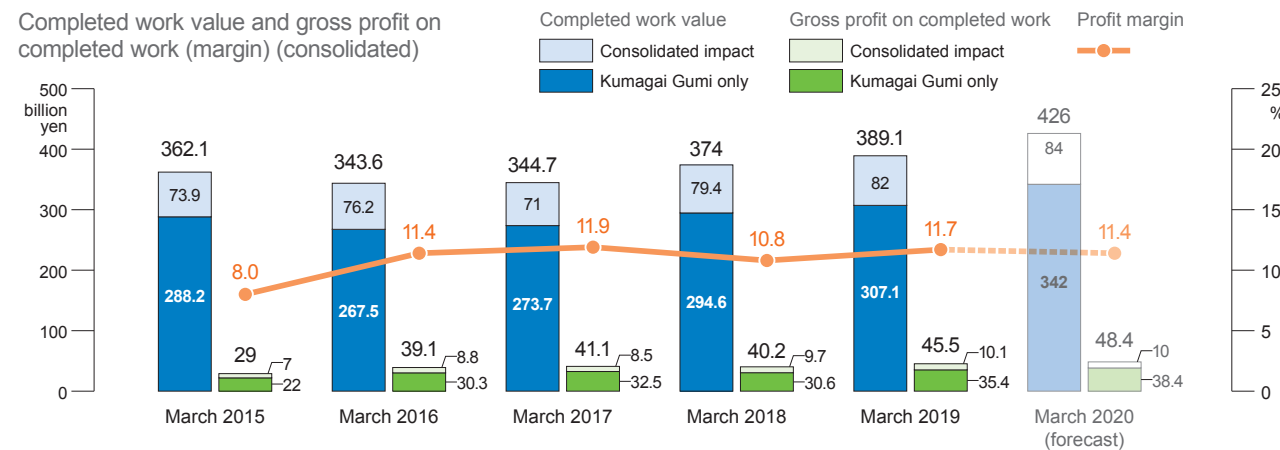
This is the result of our strengthening of solutions capabilities, a measure set forth in the Medium-Term Management Plan, continuing to bear fruit. I feel that we are steadily building up ability in both civil engineering and architecture. We will continue to burnish our unique solutions sales capabilities and technical sales capabilities.

In overseas business, we continue to deliver results

including landmark architecture in Taipei and the MOM toll road project in Hong Kong\*. Seen overall, however, we are working to deepen our market and make basic preparations for our new business. We will also make efforts toward collaboration with Sumitomo Forestry, which has strengths overseas, and will aim to secure profit from the businesses that will support our company's next era.

While orders are expanding steadily in these contracted construction businesses, there are also many issues to address, including the improvement of productivity. We will also pursue initiatives in measures to enhance the level of our operating income. In fiscal 2018, we were unable to achieve our targets for safety results. Needless to say, safety is the most important mission for us. I feel strongly that this is the theme for improvement that we must tackle above all else.

\* MOM projects Management, Operations and Maintenance projects





Please tell us about initiatives to "create new and innovative businesses."

**Projects are underway in a variety of fields. For growth in our next era, we plan to actively take on challenges aimed at the creation of businesses.**

Our initiatives to "create new and innovative businesses" can be broadly divided into two directions. There are initiatives that we undertake with ourselves as the operating body, and initiatives in which we sell products created from technologies we have developed. In the former initiatives, we are promoting projects including PPP, PFI, and concession projects. These projects are an area in which we can leverage our accumulated know-how and our distinctness as a construction company, and we intend to work at actively developing them further.

Moreover, in urban redevelopment projects, we are seeking to expand orders under collaboration between headquarters and branch offices. In renewable energy projects and medium- and large-scale wooden architecture projects, we will undertake a full-scale expansion of business in collaboration with Sumitomo Forestry.

In the latter initiatives to sell products developed from our technologies, we are advancing commercialization of the "Cotter Floor slab method for bridges" developed jointly by four companies, including GAEART Co., Ltd. This method is a technology used in traffic bridge floor slab replacement. It can shorten work time to

about half that of conventional methods. In Japan, the deterioration of bridges constructed during the era of high economic growth has become a social issue, and we expect significant expansion of demand for floor slab replacement. Technos Co., Ltd. is strengthening the overseas expansion of its leasing business for "ACE UP", a jig used in steel frame construction.

As an expansion of its business domain and technological development to address changes in society, the company has also developed the independent walking aid "FLORA TENDER". At present, we are creating a product aimed at home nursing care and other markets through FATEC Co., Ltd. The product targets markets that are not familiar to our company and thus entails difficulties. It is worth undertaking from an ESG perspective, however, and I really hope to commercialize it.

With contraction of Japan's construction market forecast in the future, the creation of new businesses is an indispensable strategy for Kumagai Gumi in achieving sustainable growth. I believe that particularly now, when the contracted construction businesses is robust, we must take on the challenge of working toward the next era.



What sort of developments took place in "strategic alliances with other companies"?

**Our collaboration with Sumitomo Forestry is close to the stage of commercialization. We will strengthen this partnership and move forward with a variety of collaborations in Japan and overseas.**

In our collaboration with Sumitomo Forestry, we have established and are working through eight subcommittees in five fields of focus. One of these is "Mocca" or wood-building promotion and green-related construction projects, in which we took a strong step toward commercialization by establishing a joint team in April 2019 to undertake design and construction of wood buildings. Moreover, Kumagai Gumi Group company K&E Co., Ltd. and Sumitomo Forestry Group company Sumitomo Forestry Home Tech Co., Ltd. have collaborated on sales activities for building redesign and renovation, with results beginning to show.

In renewable energies, we are investigating the operation of joint projects for biomass-based power generation in Japan. In overseas business, we are considering participation in the development of high-quality condominium complexes in Thailand and Indonesia, among other projects.

A unique project in the area of joint research and development is joint research with the Japan Aerospace Exploration Agency (JAXA). This project developed out of research into automation for forestry machinery systems by Kumagai Gumi, Sumitomo Forestry, and two other companies. Our aim is future application to structures on the moon, transport of materials, installation, and more.

We are moving ahead with joint research in a wide range of other fields as well.

Recently, there has been renewed awareness of the potential of wood as a construction material. Survey research has suggested that 3% to 4% of reinforced concrete or steel frame structures will be replaced by wood, with 300 to 400 billion yen as the expected market scale. Sumitomo Forestry is advancing the W350 Project, a super high-rise wood building development concept. Fused with the high-rise construction and wood construction know-how of Kumagai Gumi, this may open up a large new market.

Our partnership with Sumitomo Forestry is a powerful one that has extended to a capital investment relationship. Through the creation of synergies and the development and strengthening of a long-term partner relationship between the companies, we believe that the partnership will contribute to greater corporate value.

At the same time, we are studying the creation of businesses with other companies, too, through our civil engineering, architecture, technology development, and other divisions. We will move ahead with open alliances in diverse domains, and will take on the challenge of creating new businesses that will lead us in the next era.

What sort of initiatives and issues face the company in fiscal 2019?

**Fiscal 2019 is an important year for achieving the goals of our Medium-Term Management Plan. We will continue to promote our three strategies, and will make efforts to improve our level of operating income.**

In fiscal 2019, the second year of our Medium-Term Management Plan, we are also going to work at promoting our three strategies and achieving our plan. We have abundant projects on hand, and the achievement of our Medium-Term Management Plan's fiscal 2020 targets – consolidated sales of 460 billion yen and consolidated operating income of 33 billion yen – has come into view.

However, there are unquestionably still many issues that we must address. In "maintain and increase contracted construction businesses," we tend to active expansion of orders. However, as I noted, there are also many productivity improvements we need to make, including reductions of costs and labor. Precisely because orders are robust now, we will focus on promoting measures to

enhance our level of operating income. Regarding safety, which was an issue in fiscal 2018, we are continually strengthening efforts to "Be No. 1 in Safety, Quality and Environment Management."

Regarding our goals of "create new and innovative businesses" and "form strategic alliances with other companies," we will focus on creating a structure for quickly advancing commercialization and steadily generating profits. I believe that fiscal 2019 is an important period that holds the key to achieving the next Medium-Term Management Plan and the Medium-term and Long-term Management Direction, which sets targets of 500 billion yen in sales and 50 billion yen in operating income for fiscal 2022.



## Why did the company formulate a new ESG Initiative Direction?

**To align the ESG-related vectors across the company and clearly communicate our stance and initiatives to society, we formulated our ESG Initiative Direction.**

Within the Medium-term and Long-term Management Direction that we formulated in November 2017, the Kumagai Gumi Group has included strengthening of management from an ESG perspective. We are moving ahead with addressing ESG issues as a key strategy in the current Medium-Term Management Plan. The emergence of global societal issues is bringing about changes in the behavior and thinking of companies' stakeholders. The creation of business opportunities and risk management matched to changes in stakeholders will be important for companies in achieving sustainable growth.

In response, Kumagai Gumi formulated our ESG Initiative Direction in April 2019. This aligns ESG-related vectors across the company, and clearly communicates our stance and initiatives to society. We have set five key issues (materiality) from the three perspectives of Environment, Social, and Governance, and are identifying issues related to each of these. These issues were clearly identified on the basis of consideration under the Medium-term and Long-term Management Direction and Medium-Term Management Plan.

Taking "the realization of motivating workplaces where diverse human resources can exert their capabilities" as

an example of an initiative, we established the Workstyle Reform Promotion Committee, which I chair, and are undertaking six tasks. Regarding individual issues such as "securing and developing human resources," I hope to make efforts that extend to the construction of governance systems that operate from a single high-level perspective of these issues.

I see in ESG the same sort of spirit that is behind the founding of Kumagai Gumi, and I consider it something that we have always practiced throughout our 120 years of history. The business in which we are engaged, construction, is work that supports society, and the sustainable growth of society connects to the future of the Kumagai Gumi Group. Looking ahead, I hope to clearly communicate to stakeholders the stance and initiatives of the Kumagai Gumi Group that will contribute to the sustainable growth of society.

The new ESG Initiative Direction seeks to promote ESG with all employees aligning their visions. We will work to create an environment in which every employee is consciously involved in ESG and is able to work with pride and enthusiasm.

## Do you have a message for shareholders and investors regarding capital policy or other topics?

**We are moving in line with forecasts in terms of ROE and dividend propensity. We will work to optimize the balance between investment for growth and return to shareholders.**

Under the Medium-Term Management Plan, we plan 60 billion yen in growth investments over the plan's three years, and aim to create 7 billion yen in profits in 2022, five years from now. In addition, we have set ROE of 12% as a numerical target for fiscal 2020, the last year of the plan, and have already come close to that level. In dividend propensity, too, we are moving as planned toward our goal of 30%.

We will to continue to optimize the balance between investment for growth and return to shareholders, and,

with the understanding of shareholders and investors, to achieve solid growth to meet these targets.

In fiscal 2018, Kumagai Gumi held its first overseas institutional investor meetings in Singapore and Hong Kong. For me, it was a very valuable experience that let me convey in person what is unique about our company, and directly hear numerous comments. Looking ahead, we will work to communicate with shareholders and investors at every opportunity, and to speedily reflect this communication in management.

## Looking toward the future, what sort of vision do you seek for the company?

**I want to share with employees the same vision for the future, and create an ideal form of company that is unique to Kumagai Gumi.**

As I noted at the outset, Japan's construction market is expected to remain robust for the time being. Looking further ahead, however, it is certain that drastic changes will come, including shrinking of the market as a result of the declining population, checks on public investment due to financial constraints, and an accelerated decrease in the number of construction engineers and skilled workers. The surrounding environment will change as well, including the evolution of technologies such as AI and the IoT.

In order for the Kumagai Gumi Group to continue growing sustainably, we need to accurately foresee such long-term changes and further strengthen our management from an ESG perspective.

In this ESG-conscious management, I believe that what is most important is human resources. The only way by which we can get through the turning points coming soon and create new business opportunities will be to secure and develop outstanding human resources who will act as the driving force in these activities. We will also make efforts to promote diversity, with greater activity by women and more hiring of foreigners.

Since October 2018, we have held round-table conferences with employees in branches around the country and in headquarters. This is something that I myself proposed and began, with the aim of creating a more energetic Kumagai Gumi. In the first year, I spoke face-to-face and exchanged ideas with many employees, on the theme of "My ideal company (workplace)." Specific requests from employees included wishes for more clear

evaluation systems, the consideration of compensation systems that reward reductions in overtime work, and the institutionalization of telecommuting programs. In this way, I want to create an ideal company form that is unique to Kumagai Gumi and that has a presence in society, sharing with our employees the same wishes for the future.

## ESG issues

Perspectives	Key issues (materiality)	Specific issues	Related SDGs
Environment	Creation of businesses with consideration of the environment	Addressing climate change risks Achievement of zero emissions Initiatives with consideration of biodiversity Initiatives for the wooden architecture business Initiatives for the forest conservation business Development of environmentally considerate technologies Initiatives for the renewable energy business	7 AFFORDABLE AND CLEAN ENERGY, 13 CLIMATE ACTION, 14 LIFE BELOW WATER, 15 LIFE ON LAND
Social	Achievement of motivating workplaces where diverse human resources can exert their capabilities	Securing and developing human resources Succession of technology Promotion of diversity Achievement of work-life balance Promotion of worker health and prevention of occupational accidents	3 GOOD HEALTH AND WELL-BEING, 4 QUALITY EDUCATION, 5 GENDER EQUALITY, 8 DECENT WORK AND ECONOMIC GROWTH, 11 SUSTAINABLE CITIES AND COMMUNITIES, 17 PARTNERSHIPS FOR THE GOALS
	Achievement of sustainable communities	Contribution to communities Response to natural disasters Development of technologies that lead to resolution of social issues	
Governance	Strengthening of corporate governance	Improvement of the effectiveness of the Board of Directors Enforcement of compliance Strengthening of risk management	12 RESPONSIBLE CONSUMPTION AND PRODUCTION, 16 PEACE, JUSTICE AND STRONG INSTITUTIONS, 17 PARTNERSHIPS FOR THE GOALS
	Strengthening of relationships with stakeholders	Active dialog with investors Improvement of CS Promotion of CSR procurement	



Scene from round-table conference with the President



# Insight

Advance Technology and Make the Best Use of Human Resources

The Kumagai Gumi Group will contribute to the formation of a sustainable society and strive to develop technology that enhances safety, quality, and productivity.

At the same time, we aim to become an energetic company that leverages the personal qualities and abilities of each employee.

"Technology Strength" and "Human Resources" —

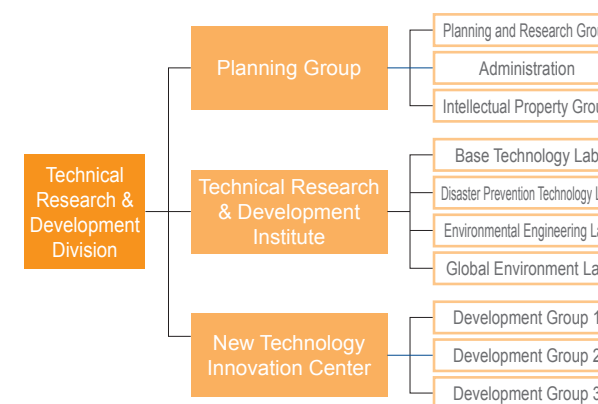
In order to provide places where people can gather, interact, and enrich their lives with a sense of safety, we will maintain and improve our "Worksite Excellence" through Technology Strength and Human Resources.



## Technology Development System

In order to provide high-quality construction services, contribute to the formation of a sustainable society, and strengthen the solutions capabilities of the Kumagai Gumi Group and contribute to the enhancement of productivity in construction, Kumagai Gumi is working primarily through its Technical Research & Development Division to promote technology development in cooperation with the Civil Engineering Management Division, the Architectural Management Division, and the Safety, Quality and Environment Division. The Technical Research & Development Division undertakes technology development in three areas: adaptation to a recycling-oriented society, research and development to meet societal needs, and technology development to improve productivity and safety.

Technology Development System



### Technical Research & Development Institute — Toward a new stage

On July 26 of 2018, we held a commemoration to mark the 120th year of Kumagai Gumi and the 30th year of the Technical Research & Development Institute. We invited the presidents of group companies and President Ichikawa of Sumitomo Forestry, a company with which we have a business and capital partnership, and conducted a ceremonial tree planting. The tree was a type of cherry tree called taikochiyoshidare, propagated from a cherry tree at Daigo Temple in Kyoto by Sumitomo Forestry using cloning technology.

As of April 2019, there are about 50 regular staff persons at the Technical Research & Development Institute, including 28, or over half of all staff, in their 20s and 30s. These young staff persons engage in active communication, through means including study groups. We believe that innovative ideas may be born from venues like these study groups.



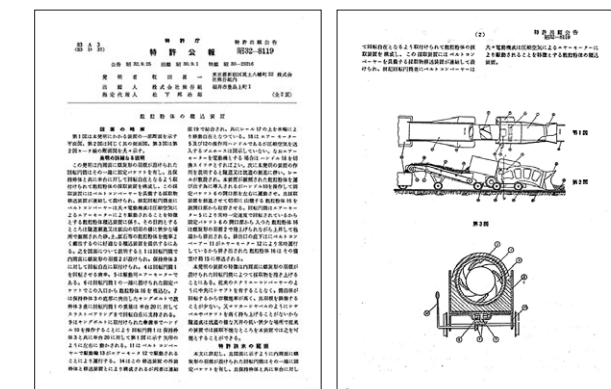
### Patent-related measures

Kumagai Gumi's patent applications began with an earth and sand unloading device in September 1955 ("Title of Invention: Coarse-Grain Powder Loading Device"). Patent applications were rare in the construction industry at that time, and the stance of using the patent system as a means of protecting technology and asserting originality showed foresight. So far, our company has submitted over 5,000 patent applications. In recent years, our applications have been on an upward trend in line with the strengthening of our technology development structure.

Our patent applications are characterized by an importance placed on ideas, and we submit applications for the proposed technologies with as few restrictions as possible. We naturally seek to actively submit applications for those technologies that are prioritized by management, as well as technologies that are advanced or unique, even if difficult to achieve at the time or if extending outside of our industry. We have also prepared mechanisms for adapting to improvement and reform technologies that stem from worksites, and submit applications for technologies that are directly connected to on-site work.

When submitting applications, we seek to collaborate with engineers from the initial stages of technological development, in order to improve quality and avoid infringing on other companies' patents.

The main fields in which we made applications for patents in FY2018 covered a wide range not appreciable from the number of applications alone. They encompassed worksite efficiency improvements, IT and robotics technologies for reducing labor, nursing care support aimed at new business areas, wooden structure-related technologies, recycling for the realization of a recycling-oriented society, technology for the efficient use of energy, and sound environment technology to improve the quality of housing.



The first patent of Kumagai Gumi



# Technology to Create Social Value

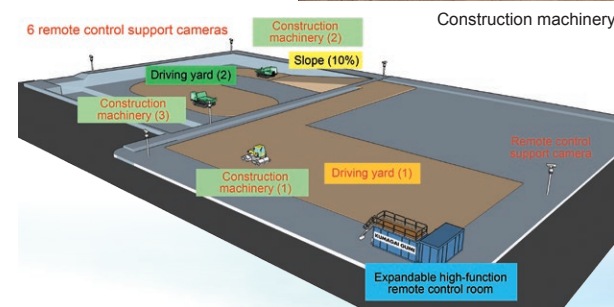
## Improvement of facilities to promote ICT

The Technical Research & Development Institute, which reached its 30th year in 2018, has established a main building and nine other facilities on about 490,000 square meters of ground, where it engages in basic and applied research.

In addition to our ongoing basic research, from FY2017 we have improved the facilities to meet the need to research and develop technologies for informatization, labor-saving construction, and open innovation.

### Improvement of the outdoor experiment yard

We improved the outdoor test yard that has been used in the development of technologies for contaminated soil purification, pile construction, tunnel boring, and more, along with the adjacent retention pond, enabling their use for experiments related to the development of information mechanized construction technologies such as unmanned construction machinery.



Outdoor experiment yard

In the improved outdoor experiment yard is the high-function remote control room, which serves as a control tower for remote operation. It is able to remotely control multiple construction machinery units simultaneously, and is used in the development of technology related to automatic operation.

### Expandable high-function remote control room

The expandable high-function remote control room set up in the outdoor experiment yard was already used in the development of next-generation technologies, and was prepared for quick mobilization to worksites in the event of disaster.

To operate many vehicles at a site of disaster reconstruction, the communications system had become complex, and incorrect wiring, equipment malfunction, and other troubles occurred easily when setting up the room.

As a solution, we developed a high-performance operation unit room equipped with a built-in network-enabled digital transmission device and a built-in operation monitor.

Furthermore, with the scale of disasters increasing in recent years, there was a need for flexible accommodation of an increasing number of construction machinery units operated simultaneously through remote control. In response, we developed the expandable high-function remote control room that allows expansion up to three units. This has increased the flexibility, expandability, and reliability of the system overall.



### KUMA-DECS

The outdoor experiment yard and expandable high-function remote control room are used not only for development and experimentation concerning next-generation technologies but also for KUMA-DECS unmanned construction operator training and for the transfer of skills from experienced operators to the next generation. (See P44)



# Diverse Human Resources

## Development of human resources

Aiming to develop human resources under the idea of "Enrich the self, create the future, and support people," Kumagai Gumi is engaged in a variety of initiatives. In April 2019, we formulated the Human Resources Development Plan that sets our directions in this area.

### (1) Job rotation

Our company performs job rotation to let employees acquire wide-ranging knowledge and ways of thinking through experience in different work duties at multiple workplaces.

We form career paths through systematic and stepwise transfers, drawing on employees' careers, desired future job duties, and individual aptitudes.

### (2) OJT

Through daily work, superiors and senior employees guide and train subordinates and junior employees by consciously, systematically, methodically, and continuously providing the knowledge, skills, and attitudes necessary for executing work duties. Carrying out face-to-face discussions on goal setting and confirmation of achievements, they check the status of the employees' acquisition of skills in line with our vision for human resources.

### (3) Group training

We conduct planned education drills and training to complement OJT, drive self-development, and provide expert knowledge. We set guidelines for the skills that employees should acquire, and every year conduct field-specific training and hierarchy-specific training employees to enhance expert knowledge.

### (4) Support for self-development

We encourage the acquisition of official qualifications such as Professional Engineer and 1st-Class Architect, conduct supplementary lectures and mock examinations for examinees, and support and promote self-development that leads to employees' skill advancement.

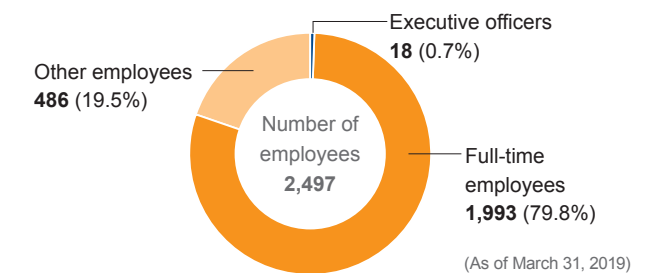
## Current state of employment

\* Kumagai Gumi only  
Number of employees, ages, and length of service

Fiscal Year	2014	2015	2016	2017	2018
Number of employees	2,167	2,223	2,305	2,382	2,497
Average age	45.2	45.4	45.2	45.2	44.8
Average years of service	21.9	20.9	20.7	20.5	19.9

\* The number of employees is the number of employed persons.

Composition of personnel \* Kumagai Gumi only



### Status of employment of older workers

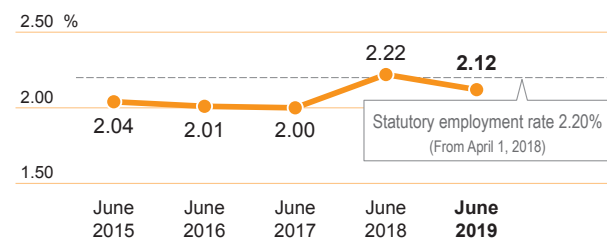
We operate systems under the assumption of employment after the formal retirement age until the age of 65. We are expanding employment of older workers who have an ambition to work and high skills. We seek to seamlessly hand down the technical and sales capabilities of older workers to the next generation, energizing employees and organizations alike. As of April 2019, 330 employees who have passed the formal retirement age are working in the company.



**Status of employment of persons with disabilities**

We are promoting the employment of persons with disabilities, with the aim of creating workplaces that are motivating to all. As of June 2019, our employment rate for persons with disabilities is 2.12%. We will continue developing workplaces and improving environments that facilitate work by persons with disabilities.

Employment rate of persons with disabilities



**Number of female managers**

In July 2019, the number of female employees who took management positions through transition from region-limited clerical positions to region-limited overseer positions was 5, by which the number of female management positions in our company increased to roughly 5 times the same number (11) at the time of formulation of the General Employers Action Plan under the Act on Promotion of Women's Participation and Advancement in the Workplace.

**Initiatives for the promotion of diversity**

With a management philosophy of "We strive to be a progressive and nurturing company, offering each individual the opportunity for personal growth, pride, and satisfaction in his or her work," Kumagai Gumi recognizes the diversity of employees and has promoted the creation of workplace environments that are places for self-actualization. We will continue to actively promote diversity.

**Health management**

**Health support structure**

Kumagai Gumi views the health of employees as the most vital of our management resources. We have established a health promotion office staffed by general industrial physicians and health nurses in the Human Resources and General Affairs Department in Headquarters, and have readied systems for the comprehensive support of employees' health with the cooperation of industrial physicians and health promotion managers at all branches. Every fiscal year, we formulate an employee health promotion plan as part of our programs for mental and physical health promotion, and carry out health promotion activities.

**Annual Plan for the Promotion of Employee Health (FY2019)**

- (1) Support for employees experiencing health issues
- (2) Prevention of damage to health from long working hours
- (3) Appropriate conducting of health checkups
- (4) Prevention of mental health disorders
- (5) Initiatives to maintain and promote mental and physical health
- (6) Active use of industrial health care resources

For three consecutive years since 2017, we have been recognized by the Health and Productivity Management Organization Recognition Program ("White 500") of the Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange, as a corporation that practices excellent health management. In addition, our company put forth the greatest number of participants (393) in the walking event held by the National Health Insurance Association/ Society of Engineering and Construction Contractors. We were presented with a letter of appreciation from that organization for our major contribution to the domestic relief fund of the Japanese Red Cross Society through the event. These initiatives of ours received commendation from the Japan Construction Occupational Safety and Health Association at its 55th national convention for the prevention of industrial accidents in the industry, an event which also featured the first platform presentation at these conventions by an industrial physician from our company. We intend to continue strengthening measures for the health of workers at Kumagai Gumi worksites.

**Initiatives toward high-risk persons**

All employee health checkup results are checked by industrial physicians. For those persons requiring follow-up, we provide advice through consultations and interviews, along with continuous support. Moreover, we offer accumulated fatigue checklists for employees working long hours, and every month provide consultation with industrial physicians to persons who request it. In addition to this, we provide special follow-up through visits by industrial physicians, interviews with employees, and other measures to address workplaces in special environments, such as overseas or at disaster reconstruction sites.

**Initiatives for mental health**

As initiatives involving mental health, we carry out stress checks, employee training (self care and organizational care), and support for return to the workplace, among a wide range of activities that extend from primary to tertiary prevention.



Onsite

Deliver Quality that Inspires Happiness with Our Worksite Excellence

"Worksite Excellence."

Every employee of the Kumagai Gumi Group is front line personnel.

We gain deep understanding of our customers, learn from them, and share their thoughts. Giving thought to those who use what we create and who will gather at these locations even 10 or 20 years in the future, we consider what we can do to accommodate their wishes, and take action.

To deliver quality not only in terms of the form and function of structures but also "Quality that Inspires Happiness" that continues to satisfy those who gather at and use our structures, we undertake construction with the aim of "Be No. 1 in Safety, Quality and Environment Management."



# Aiming for Safe Workplace Environments

## Safety results in FY2018

We set a frequency rate of 0.5 or less as our occupational safety and health target for FY2018 and placed our highest priority on the prevention of industrial accidents in our annual plan, but did not achieve this target.

In FY2019, we are placing the highest priority on human life in accordance with our Safety and Health, Quality and Environment Policy, and will engage in occupational safety and health management aimed at eliminating serious accidents and achieving occupational safety and health targets.

83rd (FY2019) Safety and Health Control Plan (extract)

Targets	Frequency rate of 0.5 or less
Actions to be taken	<b>Prevention of similar disasters/accidents (continuation of the Safety Declaration Campaign)</b> 1. Prevention of slip-and-fall accidents 2. Prevention of disasters/accidents involving heavy construction equipment 3. Prevention of tumbling/elderly accidents 4. Prevention of heat stroke 5. Reduction of construction work accidents that lead to public disaster
	<b>Diligent system operation</b> 6. Enforcement of a line and staff control system 7. Strengthening of occupational safety and health management systems for subcontractors or partner companies 8. Strengthening of guidance and support for branches' key designated construction work 9. Implementation of programs for mental and physical health promotion

## Enforcement of hazard prediction and thoughtful work

Industrial accidents stemming from non-enforcement of risk management are on the rise. We will continue to enhance risk prediction capabilities, connect this to behavior that reduces risk, and work to prevent industrial accidents.

## Practicing the PDCA cycle under our Safety and Health Management System

### 1. Maintain a safe, secure and pleasant workplace environment

Branch managers, on-site managers, branch managers of the business partnership, chairmen of foremen associations, and all workers express safety declarations in their respective positions, and realize safe, secure, and pleasant workplace environments through the involvement of all staff, based on the pleasant workplace commendation system of the Japan Federation of Construction Contractors.

### 2. Enhance a "line and staff control system"

Each department that supports work sites plays an assured role in the system.

The Construction Division, a line organization, coordinates with the Safety Division to maintain systems that guide and support occupational safety and health management at work sites.

In construction plans, experienced staff from headquarters and branch offices participate to perform risk assessment and prevent disasters and accidents, with no risks overlooked. We prevent industrial accidents through a support and guidance system. In this system, employees at work sites and the foremen association work together in daily safety inspections to eliminate hazards. These safety activities are then reviewed from different angles by headquarters, branch offices, and "Yuuei Kyoryoku Kai".

\* A group composed of 868 (as of April 1, 2019) partner companies of Kumagai Gumi.

### 3. Improve safety and health education

Our headquarters, branches, and Yuuei Kyoryoku Kai provide employees, business owners, supervisors, and workers with education on improving risk prediction and education on occupational safety and health management systems.

Already, over 10,000 foremen have undergone supervisors skill enhancement education based on occupational safety and health education guidelines from the Ministry of Health, Labour and Welfare. In FY2018, we conducted 12 education sessions for over 300 supervisors.

### 4. Enhance the prevention of accidents among seniors and prevention of falls

Accidents among seniors and falls are issues that our company must further address.

To prevent accidents among seniors, we continue to encourage senior employees to leverage their abundant experience while instilling self-awareness of physical weakening, along with the placement of "thoughtfulness stickers." We are also working to place age restrictions and permission systems on work that accompanies a risk of falls.

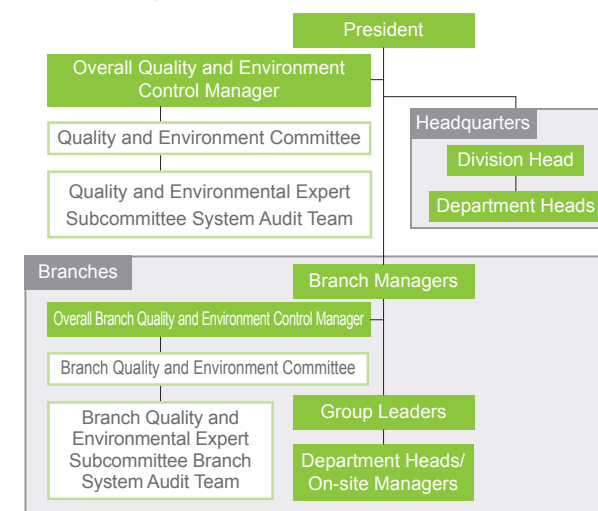
To prevent falls, we practice "KST exercises" that train the sense of balance, and enforce basic rules such as organization of workplaces and securing safe passageways.

# Quality Control and Environmental Preservation

## Quality and Environment Management System

Toward the provision of construction services that earn the trust of customers, the reduction of environmental impacts, and the creation of a better environment, we began operation of our reconstructed Quality and Environment Management System in April 2016. The Quality and Environment Management System operates under the structure shown in Figure 1.

Figure 1. Quality and Environment Management System Organization



We have further set our medium- to long-term goals for environmental activity in "The Promise of Eco First," and those for our biodiversity initiatives in "Policy for Environmental Diversity Initiatives." Quality control and environmental preservation initiatives in individual projects are carried out under a cycle of planning (P), execution (D), checking/inspection (C) and review/improvement (A), including assessment of customers' requirements, project attributes, etc. and identification of risks and opportunities, under management resources that include people, technology, and information. (See Figure 2)

## Policy for Environmental Diversity Initiatives (outline)

### Basic Philosophy

- In the conduct of its business activities, Kumagai Gumi:
- Recognizes that our daily lives are supported by the benefits of biodiversity
  - Recognizes that biodiversity faces severe threats from the various activities of people
  - Recognizes the deep connection between the construction industry and nature, and actively works toward the preservation and sustainable use of biodiversity

### The stance of our initiatives

- We incorporate consideration of ecosystems in our business activities, and carry out such activities company-wide
1. Initiatives for design and construction
  2. Legal compliance
  3. Technology development
  4. Activities that contribute to society

## "The Promise of Eco First" (extract)

\* Figures are for non-consolidated Kumagai Gumi



### 1. Promote development of a "low-carbon society" through the construction business.

(1) Volume Base	FY2020	FY2030	FY2050
CO <sub>2</sub> emissions target (10 kt-CO <sub>2</sub> )	4.8	3.7	1.8
Reduction rate (%)	Compared with FY1990	87	90
	Compared with FY2013	25	42
(2) Intensity Base	FY2020	FY2030	FY2050
CO <sub>2</sub> emissions target (t-CO <sub>2</sub> /100 million yen)	20.6	16.4	8.2
Reduction rate (%)	Compared with FY1990	50	60
	Compared with FY2013	18	35

### 2. Promote the formation of a "recycling-based society" at construction sites.

(1) FY2020 Mixed waste discharge volume objectives	Architectural Sites	Civil Engineering Sites
All Sites	All Sites	All Sites
Less than 10 kg/m <sup>2</sup> of floor space	Less than 0.5 t/100 million yen	
(2) FY2020 Green procurement rate* objectives	Architectural Sites	Civil Engineering Sites
15% or more	21% or more	

\* Green procurement rate: Percentage of spending on green procurement items per 100 million yen of construction work value.



3. Aim for a society that coexists with nature, and promote initiatives with consideration of biological diversity.
4. Strive for the development, improvement, and permeation of technologies and methods with consideration of the environment.
5. Actively participate in environmental preservation activities in the community.
6. Actively disclose and communicate environmental information.

### Main risks and opportunities involving the environment

We identify environmental risks and opportunities, taking into account factors including our business environment and the nature of our business activities. Major items are shown below.

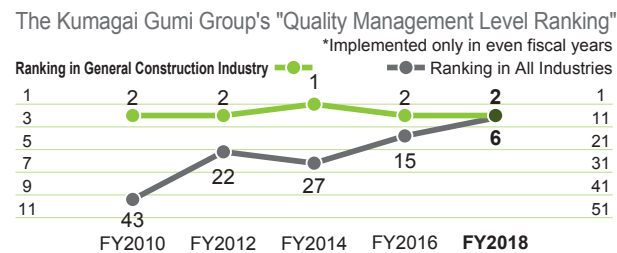
		Climate change	Waste discharge	Biodiversity
Risk	Type	Physical/transitional risk	Transitional risk	Transitional risk
	Details	Difficulty of business continuity	Strengthening of policy measures and laws	Strengthening of policy measures and laws
	Response	Advance consideration of countermeasures for envisioned conditions		
Opportunity	Type	Market	Resource efficiency	Products and services
	Details	Entry into new businesses	Increase in recycling	Development of new technologies
	Response	According to the Medium-term Management Plan		

Figure 2. Conceptual diagram of the Quality and Environment Management System

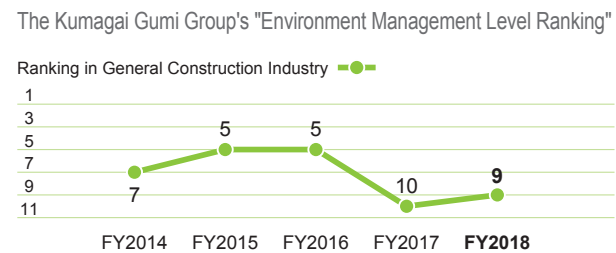


### Utilizing third-party evaluations

The Kumagai Gumi Group reviewed the results of the Corporate Quality Management Level Survey by the Union of Japanese Scientists and Engineers and the Environment Management Level Survey by Nikkei Inc. to determine our strengths and issues, and is making use of these in ongoing improvement of our management systems.



- Strengths:** Expansion of quality management  
Customer value creation  
Inter-departmental collaboration capability
- Issues:** Further trend analysis of market defect costs  
Indicators of the effectiveness of new technology development



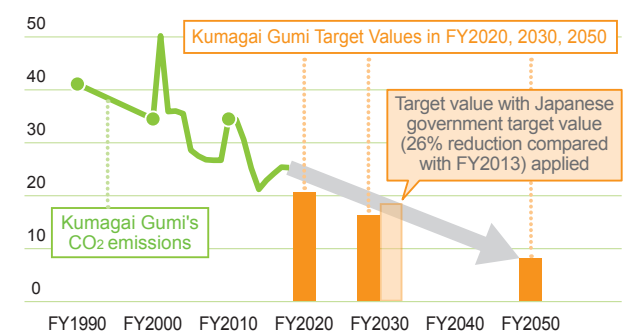
- Strengths:** Support for biodiversity, green procurement, and provision of environmentally conscious product and services
- Issues:** Global warming countermeasures, initiatives to address wastes/water resources

### Quality Control and Environmental Preservation

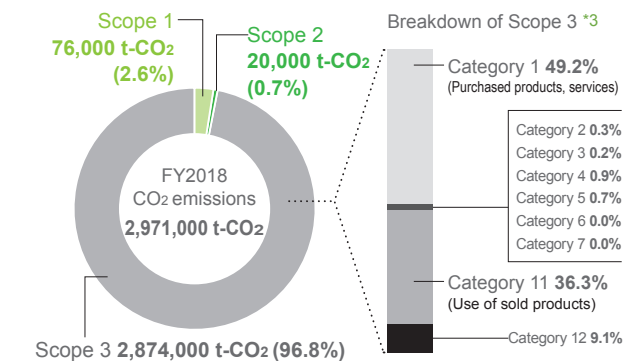
#### Kumagai Gumi Group activities for environmental preservation

Under our Safety and Health, Quality and Environment Policy, Kumagai Gumi is actively striving to reduce environmental impacts as an Eco-First company (see P26). The Kumagai Gumi Group's environmental preservation activities have earned the praise of customers and many other people.

CO<sub>2</sub> Emissions: Intensity \*1 (construction work + offices) (Scope 1, 2 \*2)  
\* Kumagai Gumi only

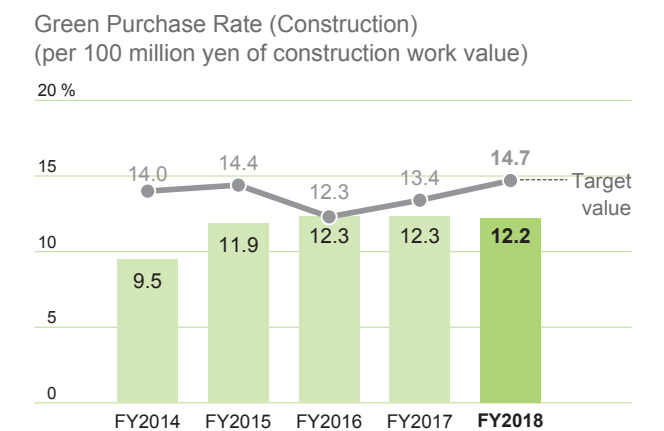
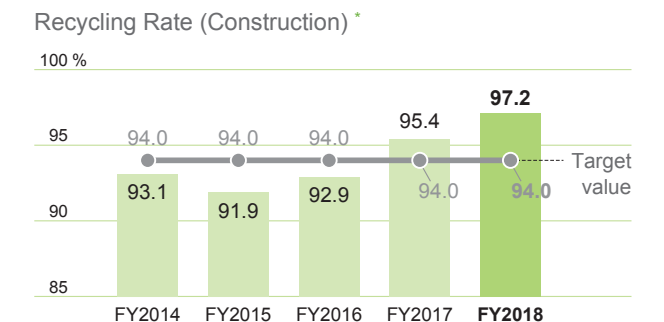


CO<sub>2</sub> Emissions: Gross Volume (Scope 1, 2, 3 \*2) \* Kumagai Gumi Group



- \*1 CO<sub>2</sub> emissions per 100 million yen of construction work
- \*2 Scope 1 The business operator's own direct emission of greenhouse gases (burning of fuel, industrial processes)  
Scope 2 Indirect emissions accompanying the use of electricity, heat, and steam supplied by other companies  
Scope 3 Indirect emissions other than Scope 1 and Scope 2 (emissions from the entire supply chain involved in Kumagai Gumi business activities)
- \*3 Scope 3 is calculated for Categories 1 to 7, 11, and 12  
Revision of calculated range and method from FY2018  
Category 12 is calculated for Kumagai Gumi alone and for construction-related group companies

Since FY2000, we have practiced reduction activities at construction sites including prohibition of engine idling, inspection and maintenance of vehicles, and fuel-conscious driving, with the result of reductions in CO<sub>2</sub> emissions nearly in line with plans. Regarding Scope 1 and 2, we are moving toward achievement of our FY2020 targets. We are currently studying reduction measures for FY2020 onward. As shown in the diagram, Scope 3 makes up 97% of the total for Scope 1, 2, and 3. In particular, the total of Category 1 and 11 make up 88% of Scope 3. Regarding Category 11, we have already begun initiatives through environmentally considerate design. We will further advance initiatives aimed at reducing Scope 3.



See the website for CO<sub>2</sub> emissions and waste discharge volumes overseas (Taiwan Kumagai Co., Ltd.)  
<https://www.kumagaigumi.co.jp/csr/environment/ecofirst/index.html> (Japanese only)



**Compliance with environmental conservation laws**

To prevent violations of environmental laws and regulations, we undertook the following initiatives in FY2018, and continue working to comply with environmental laws regulations.

1. Education on environmental laws and regulations within the intensive employee education at headquarters, by the headquarters manager in charge of environmental regulations (6 times)
2. Education for branch managers (2 times) and inspection tour of waste treatment facilities (Hokkaido)

\* In FY2018, no fines or penalties were levied due to legal violations, and no suits were filed.

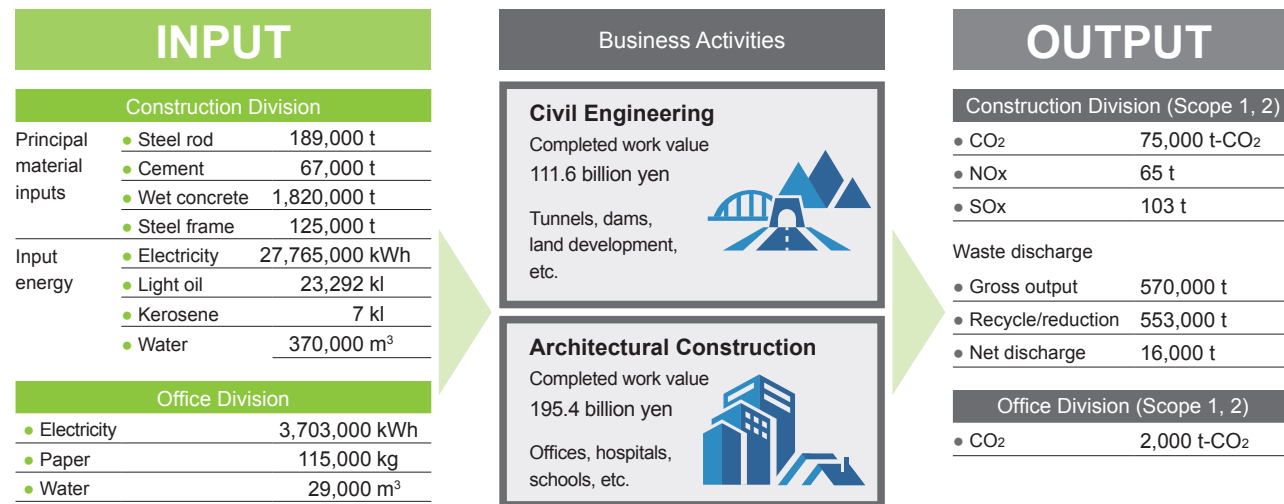
**Environmental incidents**

No environmental incidents occurred in FY2018.

Environmental Targets and Results Evaluation for FY2018 and Targets for FY2019 (construction) \* Kumagai Gumi only

Environmental goal		FY2018 target	FY2018 performance	Evaluation	FY2019 target
Reduction in CO <sub>2</sub> emissions	Civil Engineering	53.7 t-CO <sub>2</sub> /100 million yen or less	44.4 t-CO <sub>2</sub> /100 million yen	Achieved	46.7 t-CO <sub>2</sub> /100 million yen or less
	Architectural Construction	11.2 t-CO <sub>2</sub> /100 million yen or less	10.0 t-CO <sub>2</sub> /100 million yen	Achieved	10.7 t-CO <sub>2</sub> /100 million yen or less
Reduction in mixed waste discharge (promoting zero emissions)	Civil Engineering	0.33 t/100 million yen or less	0.74 t/100 million yen	Not achieved	0.27 t/100 million yen or less
	Architectural Construction	5.92 kg/m <sup>2</sup> or less	5.43 kg/m <sup>2</sup>	Achieved	5.74 kg/m <sup>2</sup> or less
Promoting green purchases	Civil Engineering	Green purchase rate of 15.9% or more	12.8%	Not achieved	18.5% or more
	Architectural Construction	Green purchase rate of 14.0% or more	11.9%	Not achieved	14.5% or more

Business Activities and Their Impact on the Environment \* FY2018 performance/Kumagai Gumi only



# Manufacturing Together with Partner Companies

To achieve "No. 1 in Safety, Quality and Environment Management," our partnership with the cooperating organization "Yuuei Kyoryoku Kai\*" is vital.

\* A group composed of 868 (as of April 1, 2019) partner companies of Kumagai Gumi.

## Safety and health

Kumagai Gumi and Yuuei Kyoryoku Kai have set a frequency rate of 0.5 or lower as an occupational safety and health target. We implement mutual patrols between branches, foremen association patrols, business operator patrols, and so on, with the aim of creating safe workplaces.

## Quality and the environment

Kumagai Gumi and Yuuei Kyoryoku Kai identify a model site for each branch, and hold activity presentation meets hosted by Yuuei Kyoryoku Kai once a year. At these meets, the status of activities at the model sites is widely reported, addressing themes of quality assurance, productivity enhancement, and environmental conservation activities.

## Securing and developing human resources

From FY2017, Kumagai Gumi has taken note of Yuuei Kyoryoku Kai member company workplaces that actively undertake the securing and development of human resources, widely communicating these examples to other member companies. From FY2018, we have leveraged our participation in the "Tsunaguka" program of the Ministry of Health, Labour and Welfare to offer on-site work experiences to high school students, and are working with Yuuei Kyoryoku Kai to communicate the appeal of the construction industry.



# Farsight

We Feel a Deep Responsibility to Our Clients.

When we build a structure, we are building a community together with the people who will use that space. Our relationship with our structures continues beyond their physical completion. It includes ongoing operation, maintenance, renovation, and restoration. With this ever-ready support, our structures serve as the timeless stage where each generation performs its part in life's ever-evolving story.



## Involvement with Customers

### We deliver "Quality that Inspires Happiness"

Kumagai Gumi established the Customer Satisfaction Promotion Office in 1998 and the Customer Consultation Office in the following year.

We are working toward organizational collaboration that instills a corporate culture of "Inspiring Customers" and further lets us deliver "Quality that Inspires Happiness," to improve our appraisal by customers. The customer

satisfaction (CS) functions of Kumagai Gumi are placed within the Corporate Planning Division. The organization is designed to directly reflect the voices of customers in our management. Every year we conduct training for all employees of the CS Division as we strive to develop professional human resources.

### Primary CS activities of Kumagai Gumi

#### 1) CS hearings

Our top management makes visits not only to our regular patrons but also to customers with whom we have lost regular contact, to directly hear our their honest thoughts and incorporate these into our management. (FY2018: 18 visits)

#### 2) Customer opinion questionnaires

Three years after delivering a structure to customers, we conduct a comprehensive evaluation questionnaire. We respond promptly to the responses received, analyze the overall questionnaire, and make use of the content as valuable management information of use in design, construction, sales activities, and after-sales follow-up.

#### Questionnaire items

- Workmanship
- Aftercare
- Support by contact desk
- Work progress by our employees
- Performance and design of structure
- Comprehensive evaluation (added in 2018)

#### Purpose of questionnaire

- For customers with whom contact ends at 2-year scheduled inspection, extend contact to 3 years and strive to maintain positive relationships
- Quickly discern signs of defects that concern customers
- In response to any account of dissatisfaction, visit the customer promptly to restore trust, and prevent recurrence of the issue through thorough investigation of the cause

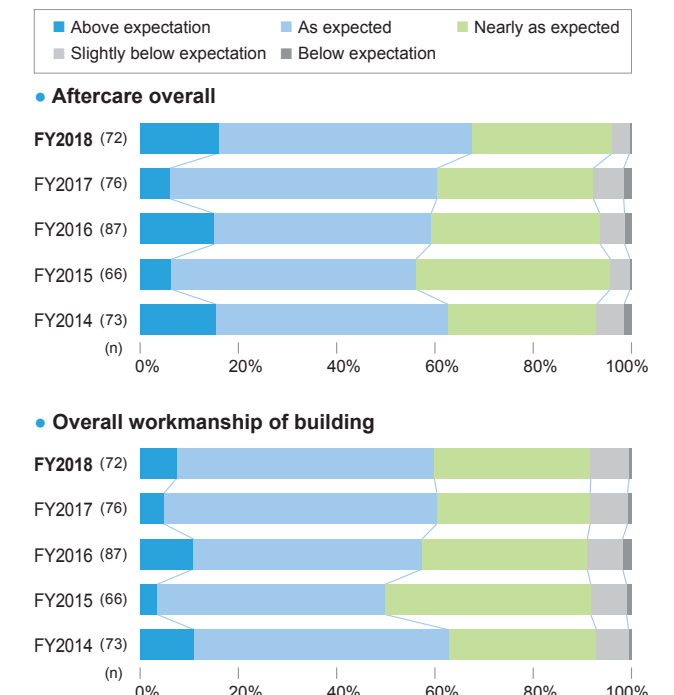
#### 3) Improvement of aftercare system

We perform centralized management of requests, inquiries, defect information, and more using "construction clinical records," and share this information within the company.

#### 4) Instillation of CS awareness in employees

We hold lectures and distribute an email newsletter to instill Kumagai Gumi's CS awareness in our employees and to achieve CS with the involvement of all.

### Questionnaire results



### Customer Consultation Office

20 years have passed since we established a toll-free telephone number to extend customer response from normal hours to night and holidays as well, placed dispatch sites throughout the country, and established a 24-hour reception system. In FY2018, we received 546 consultation inquiries. For the third consecutive year, we achieved 100% same-day primary responses (and a rate of over 98% for seven consecutive years).



## Involvement with Employees

### Promotion of work style reform at Kumagai Gumi

Creating an environment in which all employees can tackle work with motivation enhances the capacity of every employee, which in turn becomes a driving force for changing the company and work for the better. Under this thinking, in April 2018 we launched a full-scale reform of work styles at Kumagai Gumi. In addition to establishing a promotion division, we formulated a Work Style Reform Action Plan outlining numerical targets and a plan of action, as we aim to become a company in which every employee is active and motivated.

#### Work Style Reform Action Plan

Three pillars of reform	Numerical targets and timing for their achievement
Correction of long working hours	<p><b>Establish an upper limit on overtime work and undertake reduction of working hours</b></p> <ul style="list-style-type: none"> <li>Limit overtime work through FY2018 to under 100 hours/month</li> <li>From FY2019 to FY2020, limit overtime work to 960 hours/year (average 80 hours/month)</li> </ul>
Promotion of use of paid leave (annual)	<p><b>Establish lower limits on the use of annual leave and targets for average use, and promote the use of annual leave</b></p> <ul style="list-style-type: none"> <li>By FY2018, raise days of use of annual leave to 5 or more</li> <li>By FY2020, use an average of 10 or more days of annual leave</li> </ul>
Promotion of flexible work styles	<p><b>Promote flexible work styles that allow a balance of work and lifestyles</b></p> <ul style="list-style-type: none"> <li>Aim for 100% return to work after child-care leave (FY2018-FY2020)</li> <li>Reduce to zero the number of persons resigning for reasons of balancing work with child-care and nursing care (FY2018-FY2020)</li> <li>Increase the usage rate of child-care leave by male employees to 10% by FY2020</li> </ul>

#### 1. Correction of long working hours

In order to make progress in correcting long working hours, Kumagai Gumi has set numerical targets for working hours and is working toward reduction. In addition, to achieve a five-day workweek at all worksites by FY2021 (with the exception of sites at which application is difficult), we have formulated the Kumagai Gumi Co., Ltd. Action Program and are working to enforce appropriate order receipt activities, support for cooperating companies, and self-help efforts.

#### 2. Promotion of the use of paid leave

We are using employee training, e-learning, our internal portal site, and other tools to improve understanding of the leave system and to promote its use. In addition to the company's annual leave, at the beginning of the fiscal year the company discloses its plans for leaves related to employees' work-life balance, including planned dates for taking annual leave, annual leave incentive dates, "no overtime" days, and unified Saturday closing dates, to promote the planned use of annual leave. We are also promoting the visualization of annual leave days used, and are conducting follow-up to promote use by employees who fail to do so.

#### 3. Flexible work style reform

Kumagai Gumi is making improvements to work environments to achieve flexible work style reform for diverse employees. In particular, we are improving systems to support employees involved in childbirth, child-care, and nursing care, have created a Handbook for Supporting Balance that offers simple summaries of these systems, relevant laws, and more, and have set up a consultation desk in the company. Of female employees who desire to continue working after childbirth, 100% make use of child-care leave. Regarding nursing care, we are constructing a system for consultation outside of the company with the cooperation of NPOs, due to the need for expert knowledge.

## Involvement with Shareholders and Investors

### Disclosure of information to shareholders and investors

Kumagai Gumi works to properly, fairly, and promptly disclose information pertaining to our management and business activities.

In our engagement with investors, we held earnings briefings 2 times (for the fiscal year ended March 2019; the same applies to the following numbers) (including 2 times with top management in attendance; the same applies to the following numbers in parentheses), small meetings 6 times (6 times), individual meetings and teleconferences 86 times (14 times), and site/facility tours 2 times.

In FY2018, we worked to enhance the content of our IR tools to enable faster and deeper understanding of our

group. On our website, we graphed various management indicators, offered ESG-related content, and took other steps to meet users' needs, and renewed our notices for the convocation of shareholders' meetings and our earnings briefing materials.

For overseas investors, an area of increasing importance, we produced English editions of IR tools and conducted visits by top management to overseas investors.

We will continue to aggressively promote IR activities to gain shareholders' and investors' understanding of the group's initiatives for sustainable growth, and to aid the formation of an appropriate share price.

## Involvement with Business Partners

### Rules concerning purchasing work

Kumagai Gumi has formulated purchasing management rules with the objective of ensuring transparency in the selection of business partners, as well as consideration of risk management and the environment.

Based on this, we will comply with laws and ordinances from the standpoint of a corporate citizen as extolled in our Management Philosophy, and will conduct purchasing work on a foundation of fairness, clarity, and rationality.



## Involvement with Local Communities

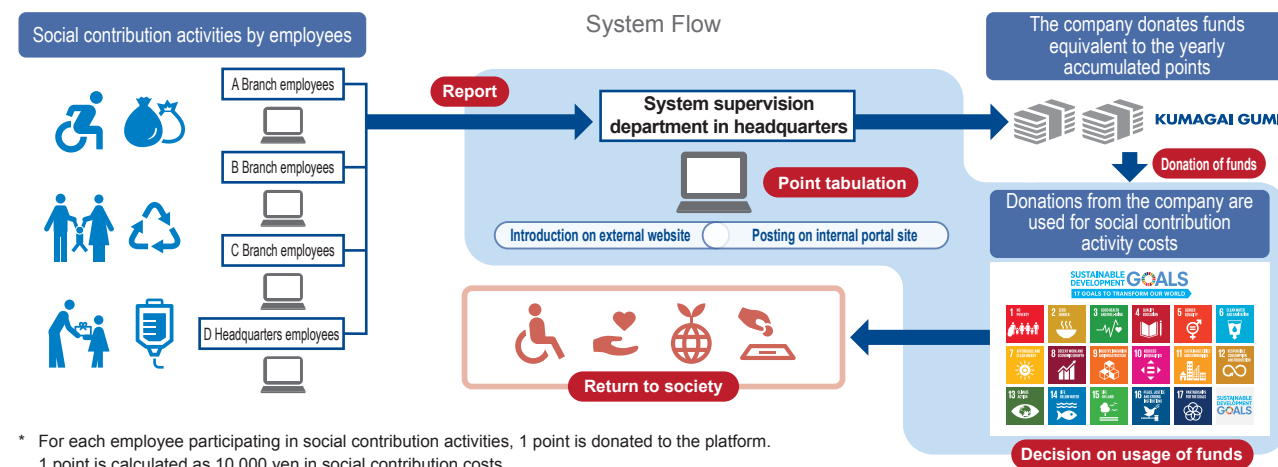
At our headquarters, branches, and worksites, Kumagai Gumi is continuously involved in a variety of activities as a member of our communities.

### Start of operation of the Kumagai Gumi Smile Project social contribution activity platform

Kumagai Gumi built the Kumagai Gumi Smile Project as a platform for engaging in unique social contribution activities, and launched operation in May 2019.

Kumagai Gumi Smile Project is a platform for our unique social contribution activities that makes use of a matching gift mechanism. It aggregates the number of employees who participated in social contribution

activities by site, workplace, or other region, and donates social contribution costs in accordance with the cumulative number of participants in each fiscal year. The spending on social contribution costs will be considered in terms of resolution of the social issues represented in the SDGs, and will be used as funds and donations for greater social contribution activities.



\* For each employee participating in social contribution activities, 1 point is donated to the platform. 1 point is calculated as 10,000 yen in social contribution costs.

### KUMAGAI STAR PROJECT

In our construction business overseas, Kumagai Gumi has collaborated with NPOs on the construction of school buildings in Myanmar from 2015 as an initiative to resolve social issues as a general contractor.

To raise the level of education to international levels in Myanmar, we are engaged in educational reform with the improvement of the school environment as a key item. However, school classrooms remain insufficient, and there are children who do not go on to higher education or who otherwise learn in a difficult environment.

In response, we surveyed the state of classroom deficiency in areas around Kumagai Gumi construction sites, and took part in the construction of buildings at Teline Elementary School and Tepuchaun Elementary and Junior High School.

Following the construction, we have continued our interaction with the schools, donating shelves of books through NPOs and holding wall painting events to enrich the school environments.

We intend to continue engaging in community-based activities, with the hope that small circles of happiness can emanate from our company.

## Evaluation by Society (July 2018 to June 2019)

**August 2018** Engineering Advancement Association of Japan (ENAA)  
**40th Anniversary Great Contribution to Engineering Ministry of Economy, Trade and Industry Bureau Chief Award**  
Toyohiko Ina, Chairman of the Board, Taiwan Kumagai Co., Ltd.

**November 2018** Japan Dam Foundation  
**Commendation for Contribution to Dam Construction (Construction-related)**  
Hidekazu Takagi, Dam Technology Department, Civil Engineering Division

**October 2018** 3R Suishinkyogikai  
**FY2018 Commendation for Contribution to 3R Promotion, etc. Minister of Land, Infrastructure, Transport and Tourism Award**  
**"3R Activities in Small-Scale Construction Using Proprietary Checklists in Cooperation with Orderers and Excellent Industrial Waste Businesses" (tentative name) "Grande Maison Shukugawa Chitose-machi"**  
Contractor: Kumagai Gumi Co., Ltd., Kansai Branch  
Orderer: Sekisui House, Ltd.

**November 2018** Japan Construction Machinery and Construction Association  
**FY2018 Symposium on Construction Work and Construction Equipment Academic Paper Award**  
**"Development of Automated Driving Technology for Rough Terrain Haulers"**  
Masaru Kobayashi, Katsumi Miyagawa, Shigeo Kitahara, Civil Engineering Division



**February 2019** Japan Facility Management Association  
**13th Japan Facility Management Award (JFMA Award) Special Award**  
**"Effective Utilization of Assets through FM (AM) Methods to Achieve Regional Revitalization"**  
GAEART Co., Ltd.

**March 2019** Japan Federation of Construction Contractors  
**Award for Excellence, 4th Awards for Promotion of Activity by Women in Construction**  
**"Kumagai Gumi × Otsuma Women's University: Achieving Temporary Enclosures Conceived by Women's University Students"**

**November 2018** Republic of China Executive Yuan Ministry of Labor  
**FY2018 National Occupational Safety and Health Award**  
Taiwan Kumagai Co., Ltd.

**May 2019** Japan Dam Foundation  
**2018 Japan Dam Foundation Award, Technical Award**  
**Funagira Dam Downstream Riverbed Scouring Countermeasure Project**

**November 2018** Japan Federation of Construction Contractors  
**59th BCS Awards**  
**"Tajimi City Crematorium Hanadate Yasuraginomori" "Roadside Station Mashiko"**

**June 2019** Japan Construction Engineers' Association  
**FY2018 Zenken Award**  
**(Architecture Category) Hyuga City New Government Office Building Construction Project**



"Roadside Station Mashiko" project members

**June 2019** Ministry of Defense  
**2019 Special Honor for Excellence in Construction, etc. JGSDF Camp Miyakojima (29) Building (A), etc. New Construction**  
Kumagai Gumi / Kyowa Sangyou / Sahira Kensetsu Joint Venture