

Sustainability

Contents

- 56 With people
 - Human resource initiatives
 - Business and human rights
- 60 With business
 - Social contribution activities
- 62 With the planet
 - Disclosure based on TCFD recommendations



3

With people

Komatsu seeks to develop frameworks that allow its employees to tackle new challenges and create freely with peace of mind. We are also implementing human resource initiatives based on the Komatsu Way, which is an expression of the strengths of Komatsu, the beliefs supporting these strengths, the basic attitudes, and the patterns of behaviors established by our predecessors.

Furthermore, measures are put in place to prevent or mitigate negative impacts to the human rights of Komatsu group members as well as suppliers, sales and service distributors, and other business partners. A remedy process has also been implemented to take appropriate action in the case that the Group is found to have contributed to negative impacts on human rights.

Human resource initiatives

Having witnessed Europe's cutting-edge technologies at that time, founder Meitaro Takeuchi defined our guiding principles characterized by global expansion, quality first, technological innovation, and human resource development. The commitment to the development of human resources, an invaluable asset to Komatsu, lives on in the Company today, unchanged from the time of our founding.

Together, to "The Next"

Komatsu is always striving to ensure that it offers a workplace environment in which diverse people from around the world can contribute to the growth of its business as a united team.

At Komatsu, we believe that people are an important resource for creating new value. This is why we continue to invest in our people, not just through the wages we pay them but also through the allowances, bonuses, and benefits they receive as well as the training opportunities we provide.

The Komatsu Way forms the foundation for our human resource development efforts. The Komatsu Way is the very DNA of Komatsu, an expression of the strengths of Komatsu, the beliefs supporting these strengths, the basic attitudes, and the patterns of behaviors established based on the experiences of our predecessors as they proceeded to tackle the challenges facing them.

In addition, our Sustainability policy stresses the importance of providing a workplace environment in which diverse people can act as a united team and of training people who can overcome challenges to resolve various social issues and create new value together with customers. This is

Mitsuko Yokomoto

Director
Senior Executive Officer
Supervising Human Resources,
Education and Sustainability



imperative to fulfilling our purpose of "Creating value through manufacturing and technology innovation to empower a sustainable future where people, businesses, and our planet thrive together."

Our approach toward these challenges will be advanced in accordance with key initiatives of enriching our human resource base with diversity, as defined under the growth strategies set forth in the mid-term management plan. Specifically, we are promoting diversity and inclusion while offering employees various opportunities to develop their skills and working to improve engagement. In addition, we are fostering human resources with skills pertaining to digital technologies and open innovation.

Through these efforts, we will pursue the ongoing growth and development of Komatsu and its employees while remaining mindful of whether our management policies coincide with the changing internal and external environment.

The Komatsu Way

The Komatsu Way is divided into three chapters—Leadership/Top Management, "Monozukuri" for all employees, and Brand Management—to better present its principles in a manner that reflects the roles of specific employees. Komatsu seeks to develop its operations on a global scale and to become a stronger company and grow. To accomplish these objectives, it will be crucial for employees with different cultures and customs around the world to understand and practice by The Komatsu Way. Ongoing efforts to promote the Komatsu Way are being advanced for this purpose.



1 Leadership / Top Management

Leaders must be directly involved in the workplaces and manage businesses with an emphasis on contributing to the entire Group, including distributors and suppliers. We have also defined guidelines for leaders related to actively engaging in regular board meetings, communicating with stakeholders, complying with rules of the business community, managing risks, and grooming successors for management positions.

2 "Monozukuri" for all employees

Komatsu aims to pass on the Monozukuri philosophy, perspectives, and values that, based on total quality management, have continued to drive Komatsu's competitiveness and support its growth. We look to transmit these principles through a joint effort encompassing all internal divisions as well as our suppliers, distributors, and other partners and to continue promoting involvement by all of these parties.

3 Brand Management

Komatsu defines "Brand Management" as all the customer value creation activities that "make Komatsu indispensable to our customers." This objective is accomplished by visiting customer workplaces to understand their ideal state and to build relationships that enable us to work together with them to help achieve their goals through concerted efforts by the Komatsu Group and its distributors.

Promoting diversity and inclusion

Komatsu continues to promote diversity and inclusion. These efforts are based on the belief that the development of a workplace environment in which diverse employees respect each colleague's individuality and ability that leads the high level of psychological safety and creation of innovation, and consequently the growth of the entire company. For this purpose, we are advancing measures related to global human resource development, promotion of gender diversity, support for members of LGBTQ community, and employment of people with disabilities, and rehiring after retirement. Moreover, we support diverse workstyles and work-life balance and provide opportunities for learning, development, and success premeditatedly since enhancing our internal systems. We also implement campaigns for promotion of diversity and inclusion to improve employees' awareness.

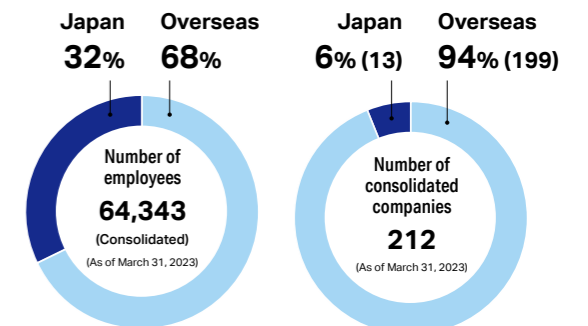


Diversity and inclusion promotion video

Global human resource development and promotion

Roughly 70% of Komatsu's employee base comprises a diverse nationalities, and several senior management positions at major overseas subsidiaries have been filled by locally hired staff following efforts to localize management. In regard to the training of future leaders, we have drawn up a succession plan under which approximately 750 major positions in Japan and overseas are classified as "global key positions." In addition, we have been arranging our Global Management Seminar for management and managerial candidates, implementing our Komatsu Way Leadership Development Program for middle management professionals who are expected to play central roles with respect to business operations and functions, and enacting other programs.

Programs for non-leader employees include the All-Komatsu Technology Olympics, the All-Komatsu QC convention, the Global brand management meeting and other global events that provide employees around the world with opportunities to develop their skills.



Promoting gender diversity

The mid-term management plan's key performance indicators for gender diversity include the ratio of full-time female employees, for which we have set a target of 17.0% or more, and the ratio of female managers, for which we have set a global target of 13.0% or more. As part of our efforts to work toward these targets, we are proactively recruiting women, providing training programs for women, and creating favorable environments for continuous career development. In addition to such system- and infrastructure-related initiatives, we are promoting reforms to our corporate culture to empower women. For example, we implement diversity and inclusion literacy improvement activities, hold D&I Talk Events in which executives talk about their own career and diversity and inclusion-related anecdotes, and conduct other initiatives for supporting the career ambitions of women. In recognition of these efforts, Komatsu was selected as a company of the Nadeshiko Brands for FY2022 by the Ministry of Economy, Trade and Industry in collaboration with the Tokyo Stock Exchange (one company from each industry is selected from approximately 3,700 listed companies from 17 industries).



First D&I Talk Event



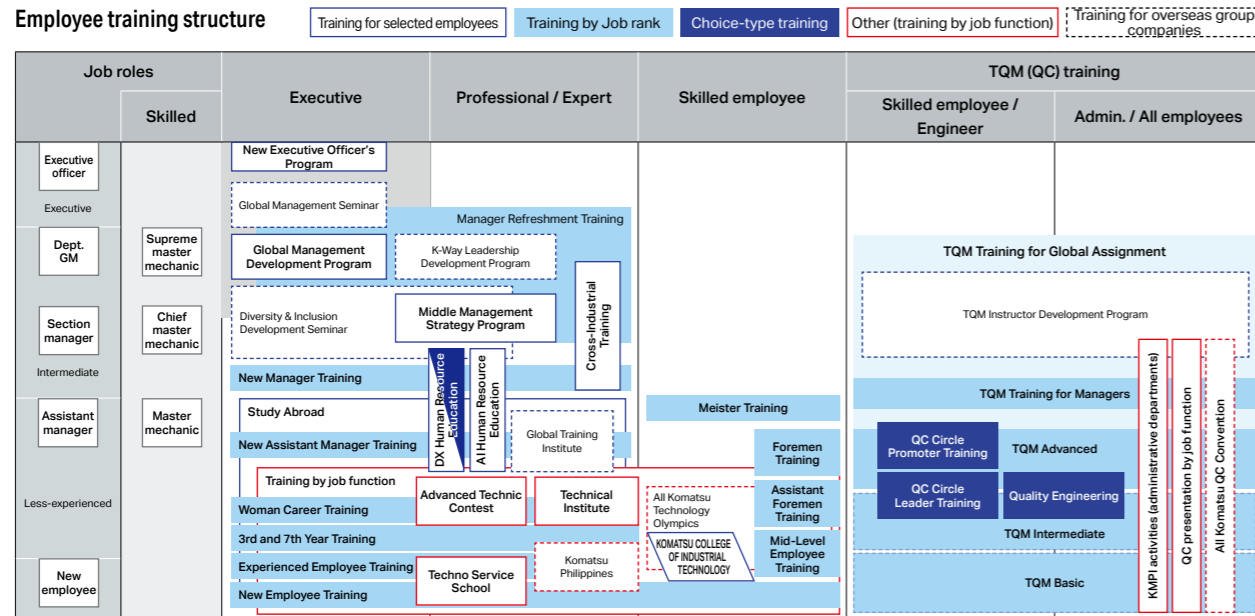
With people

Offering variety of talent development opportunities and improvement of employee engagement

Improving employee engagement is essential for the ongoing growth of a company. Based on this recognition, we conducted a global engagement survey of employees worldwide in 2021 (approximately 63,000 employees surveyed, response rate of 72%), and we are working to develop human resource policies that reflect the strengths and challenges of each region and organization. The second global engagement survey was conducted in 2023. We will continue to monitor and analyze employee engagement and respond to ever-changing challenges to create an environment in which each and every one of our employees can work with more vitality and enthusiasm.

We also provide a variety of skill development opportunities, including training for employees to become professionals in their fields and support for the acquisition of the knowledge and skills required at each level. Meanwhile, initiatives to support the autonomous and spontaneous growth of employees are being advanced from the perspective of further heightening employee engagement. Launched in FY2023, one such initiative is the Career Development Program, a one-on-one meeting between an employee and their supervisor for the purpose of discussing their growth and career. Through this and other initiatives, we aim to strengthen the connection between human resource measures and support for employees' career development.

Going forward, we will continue efforts to spur the ongoing growth of Komatsu and its employees through the continuation of prior measures based on the goals of the companies and organizations as well as through the expansion of measures oriented toward the goals and ambitions of individual employees.



Development of digital and open innovation-driven human resources

As to the cultivation of personnel with digital knowledge and technologies, we launched the program for developing AI engineers in FY2019 and initiated DX personnel education program in Japan in FY2022. This program promotes the cultivation of human resources with curriculums for attaining knowledge at every stage, from entry level for basic knowledge to practical education that covers problem solving in the context of real-life business operations and projects. In regard to fostering human resources with open innovation skills, we are conducting and utilizing both internal and external programs in order to accelerate collaboration with government and academic institutions. In FY2023, we are planning Inovator's Program on a global scale aimed at cultivating human resources able to learn and utilize Design Thinking processes that are potent for creating innovation and businesses. Such programs for fostering the human resources needed to supply customers with DANTOTSU Products, DANTOTSU Services, and DANTOTSU Solutions will be conducted continuously.

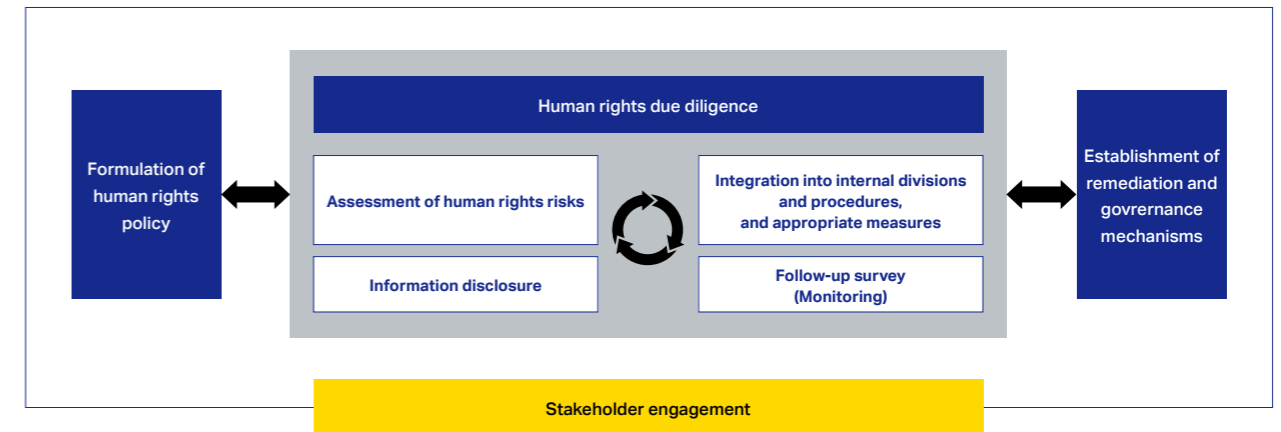


Business and human rights

Komatsu established its Human Rights Policy in September 2019, thereby declaring its commitment to conducting its business in a manner that is compliant with internationally accepted standards pertaining to respect for human rights throughout its global organization. Based on this policy, processes have been established to prevent or mitigate negative impacts on human rights and to allow for corrective measures to be instituted should it be found that the Company was directly or indirectly involved in activities that had a negative impact on human rights. Reports on such activities are issued to the Sustainability Promotion Committee, which is chaired by the president and membered by the heads of relevant divisions, to build a deeper understanding of our response toward human rights issues. The Company is committed to ongoing efforts to continue identifying priority issues, defining clear policies for responding to these issues, and establishing action plans for use in work processes.

Human rights policy
<https://komatsu.disclosure.site/en/themes/192>

Komatsu group human rights management system



2014	With the assistance of external specialist Business for Social Responsibility (BSR), assessments were conducted to evaluate human rights risks pertaining to the construction equipment, mining equipment, and forestry machinery businesses being developed on a global scale.
2017	The aid of BSR was once again enlisted for our second human rights assessment, which was carried out while referencing the Universal Declaration of Human Rights and the United Nations Guiding Principles on Business and Human Rights.
2020	With support from external specialist CSR Europe, a systematic human rights risk assessment of our global operations was conducted covering downstream areas of our construction equipment, mining equipment, and forestry machinery businesses (equipment and replacement parts sales). Given the characteristics of Komatsu's businesses, relevant issues pertaining to discrimination based on ethnicity, race, or national origin; compulsory labor; freedom of association; and fair work conditions were assessed, and potential risks and priorities were identified by business and by region.
2021	The Sustainability Promotion Committee approved plans to prioritize the human rights issues facing Komatsu, administer questionnaires to Komatsu Group companies and suppliers, and perform on-site impact assessments of downstream operations.
2022	The support of external consultations was enlisted to conduct online human rights surveys of Komatsu Group companies and major suppliers. In addition, aid was received from CSR Europe to perform on-site impact assessments of downstream businesses in South Africa.

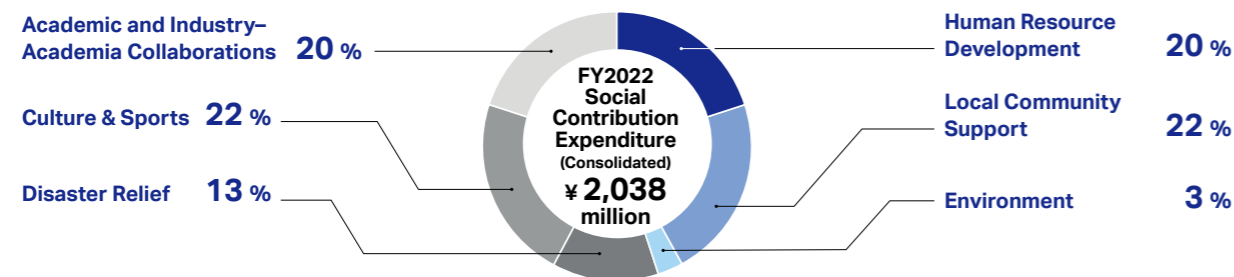
For more information on our business and human rights activities, please refer to our corporate website:
<https://komatsu.disclosure.site/en/themes/193>

With business

Undertaking social contribution activities in the communities where we operate is one of our important corporate responsibilities. We recognize and position social contribution activities as activities that are in alignment with the Sustainability Policy and do not directly generate earnings. Leveraging our strengths as a business, we seek to give back to the community and society in general.

Social contribution activities in FY2022

The following chart shows the expenditure for social contribution activities by the Komatsu Group, aggregated based on six general categories.



Break down of social contribution expenditure

Category	Amount
Cash contributions	¥767 million
Employee dispatchment and time contributions	¥340 million
Expense related to providing own facilities for public use	¥209 million
Expense related to events for the community	¥722 million
Total	¥2,038 million

Clearing landmines and making the land safe

In the areas afflicted by anti-personnel landmines, Komatsu has engaged in activities to support community development throughout the process from demining to reconstruction. Utilizing Komatsu's demining machines and construction equipment, developed by combining its technical expertise and knowledge in manufacturing, Komatsu started its project in Cambodia in 2008 partnering with the authorized NPO "Japan Mine Action Service" (JMAS) and another project in Laos in 2016.

As part of its community reconstruction efforts, Komatsu also has been supporting initiatives to develop farmlands on former landmine field sites and build roads, bridges, elementary schools, and other facilities. In 2022, we expanded these efforts to our 10th school in Cambodia. Approximately 800 students are now learning at these 10 schools.



Demining machine

"I used to be very afraid of mines. Thanks to demining and development, I can live free from that worry."

Mr. Pho
Resident of Rong Village



"Demining, infrastructure, agricultural work, if all these are pursued as one set of measures, the people who grow the rice enjoy the benefits."

Mr. Nobuyoshi Shimozono
JMAS Technical Advisor



"I am very happy to have a new school. My dream is to become a doctor. When my parents or villagers get sick, I want to be able to heal them."

Maria
Student at KOMATSU SAFETY Primary School



For more information on the Demining and Reconstruction Project, please refer to the following video.
<https://youtu.be/8zlmCv6PTaE?feature=shared>

Relief aid to earthquake damages in Turkey and Syria

Komatsu has provided relief aid to the areas affected by the earthquake that struck Turkey and Syria in February 2023. In cooperation with its local distributor Marubeni Dağıtım ve Servis A.Ş. (MDS), a wholly owned subsidiary of Marubeni Corporation, Komatsu lent construction equipment needed for relief efforts to the affected areas free of charge and dispatched operators and service mechanics to assist in the relief efforts. In terms of expenses, these efforts equate to ¥20 million worth of support. In addition, Komatsu donated ¥10 million through the Japanese Red Cross Society, making for a total relief aid package of ¥30 million.

Since establishing an office in Turkey in 1975, Komatsu has been developing a locally anchored business in Turkey, a major market in the Middle East region. Komatsu will continue to provide material assistance to help the affected areas recover as quickly as possible while monitoring the conditions with MDS.



One World One Komatsu employee-driven social contribution project

The Komatsu Group launched the One World One Komatsu employee-driven social contribution project as a new initiative in 2021 in conjunction with its 100th anniversary.

Based on themes pertaining to the environment and sustainability, which are shared global issues that are highly related to our business, the One World One Komatsu project encourages employees to take close-at-home action in their daily lives, such as cutting back on water use and turning off lights in unoccupied rooms.

As part of this project, the One World One Komatsu Contest was held in 2021. Applications were received by more than 200 employees from around the world, and winners were chosen from each of the 10 award categories. Five of the winners were invited to receive trophies from President Hiroyuki Ogawa at an award ceremony held in Tokyo in November 2022.

Furthermore, employees are encouraged to engage in environmentally themed volunteer activities in conjunction with Earth Day on April 22 each year. Videos are prepared showing the volunteer activities performed by Komatsu employees around the world and broadcast through global watch parties, virtual gatherings arranged through a dedicated website.



To view videos from the June 2023 global watch party, please refer to the following website.
<https://youtube.com/playlist?list=PLI09JNAS3JIHjRi050EDhJ-s7eAJJ1K0>

Together, to "The Next"

Sustainable society built by small efforts of all

I bought a 200-liter barrel to store rainwater and water from my washing machine and built a plumbing system that channels water directly into this barrel. I then used accumulated rainwater that is used to wash the floors in my house. Reducing the number of times one does laundry from twice a week to once a week can save around 3,100 liters of water a year. Also, for at least two out of every three times I bathe, I try to take only a quick shower. This saves more than 1,800 liters of water a year. And not leaving the water running while I brush my teeth saves another 730 liters a year.

Working toward sustainability does not mean you have to fundamentally change your life. If everyone tries to cut back on what they use, it is sure to leave a better future for our children and our children's children. There is so much we can do for nature and the environment if we have the desire and the commitment.



Wesley dos Santos Gomes, Komatsu do Brasil Ltda.
One World One Komatsu contest award winner
(Award Category: Water Wise)

For a list of all One World One Komatsu contest award winners, please refer to the following website.

<https://komatsu.disclosure.site/en/themes/197>



With the planet

We, at the Komatsu Group clearly defines the basic policies of environmental conservation, which will be the guidelines of business activities, when engaging in business activities while working to realize a sustainable society, and promotes environmental conservation activities.

Komatsu Earth and Environment Policy
<https://komatsu.disclosure.site/en/themes/199>

Disclosure based on TCFD recommendations

Komatsu established the Komatsu Earth Environment Charter (currently known as the Komatsu Earth and Environment Policy) in 1992, launching proactive initiatives for addressing climate change and other environmental issues a step ahead of its peers. In April 2019, Komatsu announced its endorsement of the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). We advance climate change response measures through climate change risk and opportunity assessments and scenario analyses based on these recommendations as well as through a healthy dialogue with stakeholders.

At the 26th United Nations Climate Change Conference held in the United Kingdom (COP26) in November 2021, an agreement was reached to work toward limiting the average rise in global temperatures to 1.5°C above pre-industrial levels. Furthermore, at the G7 Ministers' Meeting on Climate, Energy and Environment held in Sapporo, Japan, in April 2023, a call was made for the G7 to commit to playing a leadership role in working toward the goal of limiting the average rise in global temperatures to 1.5°C above pre-industrial levels and in strengthening society's resilience to the impacts of climate change and for all companies and organizations to collaborate toward transforming our economy over the next decade.

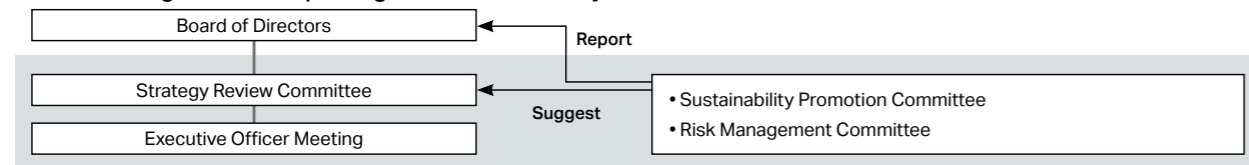
Komatsu has previously conducted scenario analyses based on scenarios projecting average rises of 2°C or 4°C. However, in light of these global trends and following discussions by the Sustainability Promotion Committee and the Strategy Review Committee, with reports to the Board of Directors, it was decided that the Company would also perform analyses of a scenario projecting rises of 1.5°C beginning in FY2022. The results of these analyses have been disclosed.

1 Governance

The Komatsu Group views climate change as an important management issue, and targets for combating climate change have been incorporated into its business strategies.

A framework for appropriate oversight of our climate change response has been implemented whereby the Sustainability Promotion Committee and the Risk Management Committee discuss climate change-related matters and make suggestions to the Strategy Review Committee and issue reports to the Board of Directors. Meanwhile, the Executive Officer Meeting fulfills the function of managing progress toward targets.

Climate change-related reporting and deliberation system



Major discussion items related to climate change

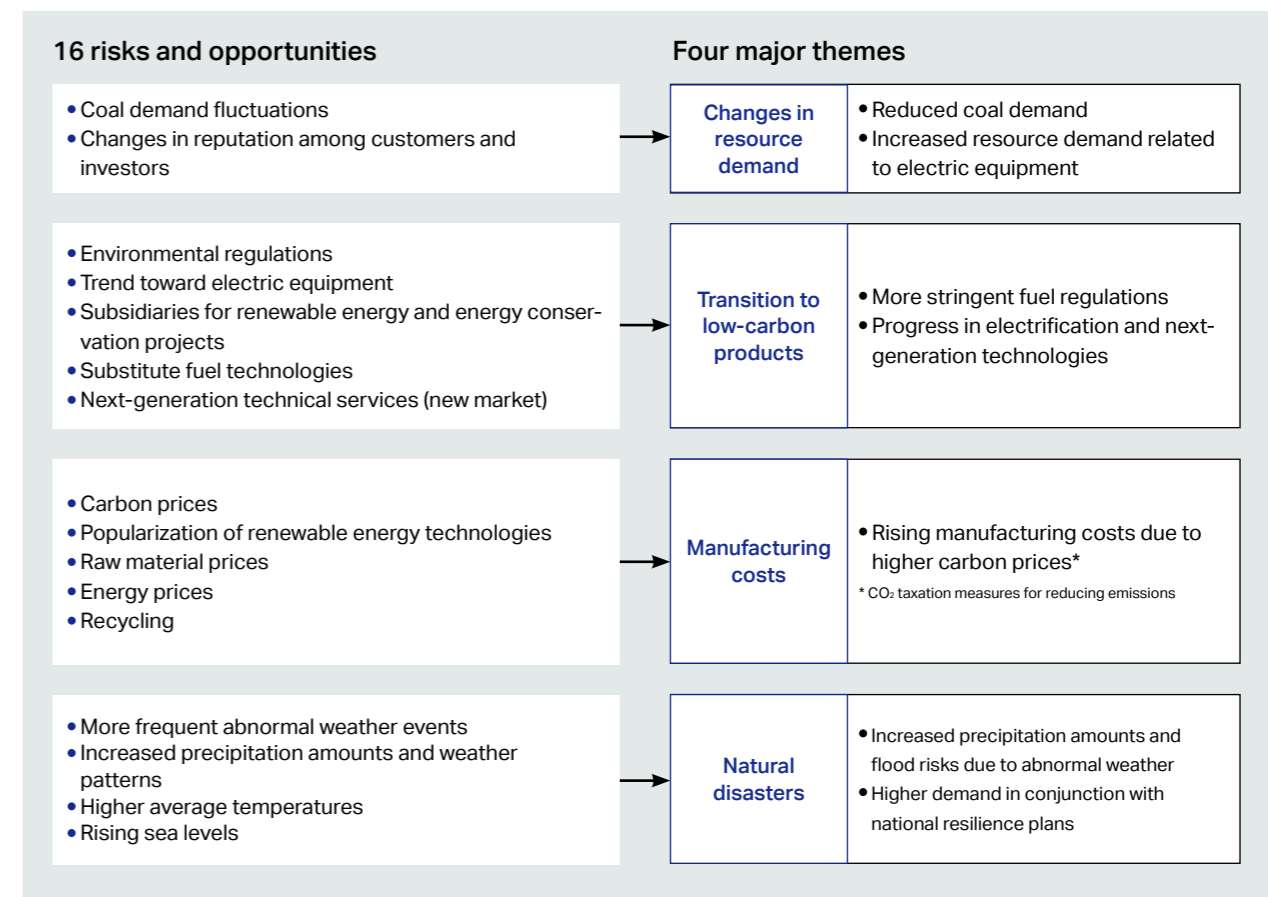
Body	Chairperson	Major discussion items related to climate change
Board of Directors	Chairman of the Board	<ul style="list-style-type: none"> Discussions regarding goal of achieving carbon neutrality by 2050 Establishment of Sustainability Policy Formulation of new mid-term management plan Reports from the Sustainability Promotion Committee Reports from research, development, and product planning divisions and the Chief Technology Officer Reports from production and procurement divisions Mid-term management plan progress report
Strategy Review Committee	President	<ul style="list-style-type: none"> Low-carbon product development strategies Mining business growth strategies Forestry machinery business growth strategies Smart Construction growth strategies Growth strategies for major production bases Reports from the Sustainability Promotion Committee Reports from the Risk Management Committee
The Executive Officer Meeting	President	<ul style="list-style-type: none"> Progress in product development (including climate change-related KPIs)
Body	Chairperson	Major discussion items related to climate change
Sustainability Promotion Committee	President	<ul style="list-style-type: none"> Initiatives for addressing ESG issues CSR activity reports Revision of environmental policies Deliberations and reports regarding important environmental matters and key performance indicators (KPIs)
Risk Management Committee	Executive officer supervising general affairs	<ul style="list-style-type: none"> Reports on responses to natural disaster risks

2 Strategies

Risk and opportunity identification

In identifying climate change-related risks and opportunities pertaining to the Komatsu Group's business, we referenced the risk and opportunity examples described in Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures to determine 16 risks and opportunities with the potential to impact the construction and mining equipment business. We next assessed the internal factors and external factors predicted by the chosen scenarios that may impact earnings to group the identified risks and opportunities into the four major themes of "changes in resource demand," "transition to low-carbon products," "manufacturing costs," and "natural disasters."

Risks and opportunities and groupings



To gauge the potential impacts of climate change-related risks and opportunities on the Komatsu Group's business, we performed scenario analyses of the aforementioned four major risk and opportunity themes. For these scenario analyses, we selected a 1.5°C scenario, a 2°C scenario, and a 4°C scenario based on the Fifth Assessment Report (Representative Concentration Pathways 2.6 and 8.5) and the Sixth Assessment Report (Shared Socioeconomic Pathways 5-8.5) of the Intergovernmental Panel on Climate Change, and the Sustainable Development Scenario, the Stated Policies Scenario, and the Net Zero by 2050 scenario of the International Energy Agency (IEA).

The risks and opportunities associated with changes in resource demand, the transition to low-carbon products, and manufacturing costs were the greatest in the 1.5°C and 2°C scenarios whereas the risks and opportunities associated with natural disasters were the greatest in the 4°C scenario. Information on the risks and opportunities related to each of the four major themes, as well as Komatsu's response to these risks and opportunities, is displayed on the following page.

▶ 2 Strategies

Changes in resource demand

Risks	Opportunities
<ul style="list-style-type: none"> • Regulation of power generation using fossil fuels • Massive reductions in coal production volumes • Reduced sales to coal-related customers by Komatsu • Reduced appetite for investment in coal mines 	<ul style="list-style-type: none"> • Rapid transition from fossil fuel-powered equipment to electric equipment • Higher demand for copper and other resources necessary for electric equipment (motors, batteries, fuel cells, etc.) • Increased sales to copper and other relevant mining-related customers by Komatsu in conjunction with trend toward electric equipment • Increased investment for improving the efficiency of mining operations

Strategies By advancing initiatives based on the three pillars of growth strategies of the mid-term management plan—accelerate growth by means of innovation, maximize earnings power, and enhance corporate resilience—Komatsu will capitalize on opportunities created by changes in resource demand to achieve sustainable growth.

Priority initiatives

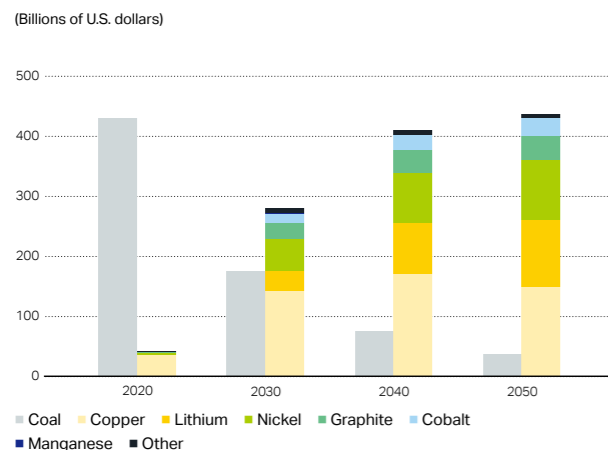
- Expand underground hard rock mining business
- Develop automated and remotely controllable mining equipment to quickly respond to shifts in demand
- Improve productivity through open technology platforms

Revision of mining equipment business portfolio in response to shifts in resource demand

Under the IEA's Net Zero by 2050 scenario (1.5°C scenario), demand for coal, a soft rock mineral, is expected to decline to an even greater degree as a result of the decarbonization trend than projected by 2°C scenarios. Conversely, demand is expected to grow for the critical minerals that are imperative to clean energy technologies. Accordingly, the global transition to electrified equipment is anticipated to drive a strong shift in demand toward hard rock minerals like iron, copper, and gold.

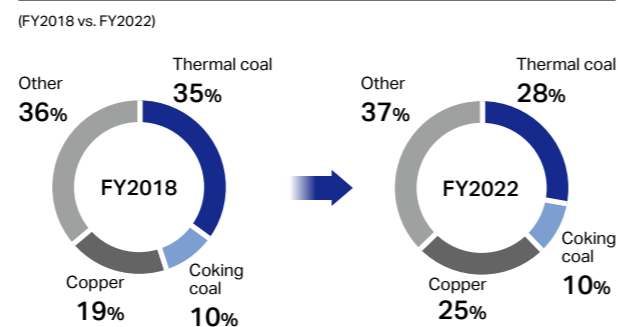
It is possible that changes in global trends could result in temporary shifts in demand, but the overall trends in demand are expected to advance in this direction. In response to this shift in demand, the Komatsu Group is revising its mining equipment business portfolio by reorganizing its underground soft rock mining equipment production and support systems and expanding its lineup of underground hard rock mining equipment through M&A activities. As a result of these activities, the portion of net sales associated with thermal coal has gradually decreased and the portion related to copper has increased over the last few years.

Resource demand projections of IEA's 1.5°C scenario (Monetary value basis)*



* Source: Based on IEA data from the IEA (2021) 'Net Zero by 2050 A Roadmap for the Global Energy Sector', <https://www.iea.org/data-and-statistics>. All rights reserved.

Ratio of sales of Komatsu mining equipment business by target mineral



Transition to low-carbon products

Risks	Opportunities
<ul style="list-style-type: none"> • Higher development and capital investment costs due to emissions restrictions • Reduced sales due to inability to cater to customer electrification demands • Substantial changes in technology development and competitive climate including market entry by new competitors • Long-term diminishment of technological edge as customers begin leading the drive in component development and manufacturing projects 	<ul style="list-style-type: none"> • Rising demand for electrified equipment, fuel-efficient equipment, and biomass fuel-powered equipment; ability to respond swiftly to impending changes in strategic markets fostered through adaptation in traditional markets • Growth of equipment restoration (Reman) operations driven by transition to circular economy • Increased demand for solutions businesses with emissions-reducing benefits • Increased product reliability due to securing stable supply sources for high-quality components for storage batteries and others

Strategies Komatsu is advancing initiatives aimed at achieving carbon neutrality while facilitating the transition to the low-carbon products the world demands.

Priority initiatives

- Develop electrified equipment using batteries, hydrogen fuel cells, and other power sources
- Develop power sources compatible with carbon-neutral fuels and hydrogen
- Deploy Smart Construction and other solutions on a global scale
- Contribute to cyclical businesses through forestry machinery and Reman businesses

Development of models using next-generation power sources

To ensure sufficient output and operating times, medium-sized and large construction equipment requires a power source with higher energy density than that of small construction equipment, which has led the move to electrification with batteries. This fact has led us to begin research and development of models that use next-generation power sources like hydrogen fuel cells and hydrogen engines.

In May 2023, we have developed a concept machine for a medium-sized hydraulic excavator that combines a hydrogen fuel cell and in-house developed Key Components. By advancing the PoC (Proof of Concept) tests, we will accelerate our efforts to embark on the commercial production of medium-sized and large construction equipment powered by hydrogen fuel cells in the near future.



Middle-sized hydraulic excavator equipped with a hydrogen fuel cell (concept machine)

Utilization of carbon-neutral fuels

Reduction of the CO₂ emitted by existing construction equipment using diesel engines is an important task to advance alongside the development and introduction of electrified equipment. We are therefore promoting the use of carbon-neutral fuels, which offset the CO₂ emissions in use and in production. Examples of carbon-neutral fuel include hydrotreated vegetable oil (HVO), e-fuel, and other hydrogen-based fuels as well as biodiesel fuels like fatty acid methyl ester.

In April 2023, as one facet of these efforts, Komatsu Germany GmbH Construction Division (KGC) switched to HVO as factory-fill fuel for its equipment and other Europe plants have followed.

HVO is produced from renewable raw material such as cooking oil and animal fats wastes. It is a simple drop-in replacement for fossil diesel, but with high cetane, no oxygen and no aromatics. It can lower the amount of greenhouse gas emitted by our equipment by up to 90%, if the machine is fuelled with Neste MY Renewable Diesel (=HVO100) from Neste, one of our main suppliers of HVO.

The combustion engines in our machines*¹ can be operated with HVO*², with no modifications required. The switch to this renewable, paraffinic fuel as a sustainable alternative to traditional diesel fuel is a major step we are taking towards reducing our environmental impact.



Filling a Komatsu machine with HVO as factory-fill fuel at the KGC plant in Hannover, Germany

*¹ Including the construction, forklift, mining and forestry machines
*² Only HVOs that conform to the standards can be used for Komatsu machines equipped with Komatsu engines.

Note: The GHG emission reduction varies depending on the region-specific legislation that provides the methodology for the calculations (e.g. EU RED II 2018/2001/EU for Europe and US California LCFS for the US), and the raw material mix used to manufacture the product for each market.

▶ 2 Strategies

Manufacturing costs

Risks	Opportunities
<ul style="list-style-type: none"> • Taxation of fossil fuels and CO₂ emissions • Transfer of higher product purchase prices to Komatsu • Rising power fees and energy costs following investment in power generation facilities with low CO₂ emissions 	<ul style="list-style-type: none"> • Increased competitiveness through production technologies that reduce CO₂ emissions

Strategies Komatsu will work to mitigate cost increases by achieving its CO₂ reduction and renewable energy targets while developing production bases with low environmental impacts.

Priority initiatives

- Create plants with zero environmental impacts
- Encourage environmental investments through internal carbon pricing (ICP)*

* Framework for increasing the priority of environmental investments through assessments of capital investment returns that position CO₂ reduction benefits as a value similar to cost reduction benefits

Together, to "The Next"

Komatsu's production and procurement divisions are united in our pursuit of carbon neutrality.

The world is undergoing a massive transformation in pursuit of carbon neutrality among the rising awareness regarding climate change. At Komatsu, our production and procurement divisions are working to curb cost increases through the accomplishment of our CO₂ emissions reduction targets and to develop plants that have low environmental impact. These efforts are aimed at accomplishing our goals of halving Scope 1 and Scope 2 CO₂ emissions intensity from the level in 2010 by 2030 and then achieving carbon neutrality by 2050.

Our priorities in CO₂ emissions reduction activities are as follows: 1) conserve energy through production reforms; 2) generate energy in-house through solar power and other such systems; and 3) buy renewable energy. Based on these priorities, we are implementing improvement activities with a focus on high-energy-consumption processes like casting, forging, and heat treating. We have also introduced an internal carbon pricing system, which we are using to encourage the adoption of production equipment that reforms manufacturing processes and the transition to high-efficiency



utilities. In 2022, these efforts had already resulted in a reduction in CO₂ emissions of 43% from the level in 2010.

These efforts will be continued with an eye to halving emissions by 2030 and then achieving carbon neutrality in 2050. At the same time, we will be promoting digital transformation to further cut energy use while renovating aged plant and office buildings to achieve zero emissions.

Komatsu will also assist its suppliers in reducing their CO₂ emissions by actively sharing and deploying its successful improvement activities in order to contribute to reduction of CO₂ emissions for the production and distribution of parts and raw materials (Scope 3 emissions).

Accomplishing our CO₂ emissions reduction targets and developing plants that have low environmental impacts are important goals for Komatsu's production and procurement divisions. By achieving our goals, we hope to make manufacturing at Komatsu even more competitive.

Reduction of CO₂ emissions from casting processes (Seal ring factory in the Himi Plant)

Located in Himi City, Toyama Prefecture, the Himi Plant manufactures the cast parts that are used in construction and mining equipment. A new seal ring factory was constructed at this facility in November 2021, and steps are being taken to reduce the CO₂ emissions of this factory by half. As the casting process, including for seal rings, particularly consumes a large amount of energy, high-efficiency casting, by improving its process, will lead to an outstanding reduction of energy consumption. In addition, we are also working to improve the environmental performance of the new factory, including the reduction of CO₂ emissions, by installing energy-saving equipment and improving the airtightness of the factory building.



Seal ring factory at Himi Plant

New Komatsu Mining Corp. headquarters

In June 2022, Komatsu Mining Corp. that conducts the manufacture and sale of surface and underground mining equipment and provides related service, finished the relocation of its headquarters, previously located in Milwaukee in the U.S. state of Wisconsin, to its South Harbor campus, which is in the same city. The new headquarters uses solar panels, a remotely operated closed-loop heat treatment system, and other energy-saving technologies to achieve substantial reductions in energy and water use and in CO₂ emissions.



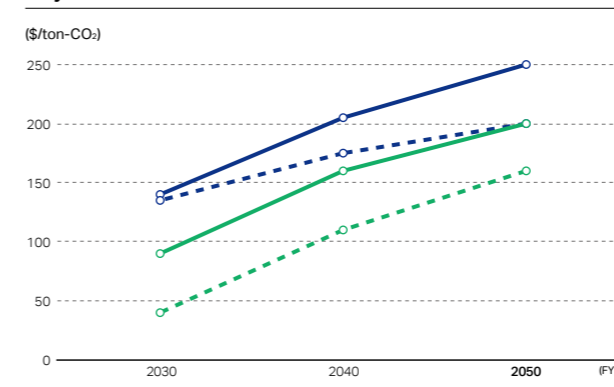
New headquarters of Komatsu Mining Corp. (South Harbor campus)

Scenario analysis: Impacts of carbon taxes under 1.5°C scenario

The 1.5°C scenario projects carbon tax rates that are higher than those predicted by the 2°C scenarios, describing high tax rates in both developed and developing countries in 2030 and ongoing increases thereafter. Higher carbon prices as a result of carbon taxes and other government policies present the risk of future increases to manufacturing costs. Conversely, if Komatsu takes action to achieve its CO₂ emissions reduction targets, these efforts will help lower the costs associated with carbon taxes.

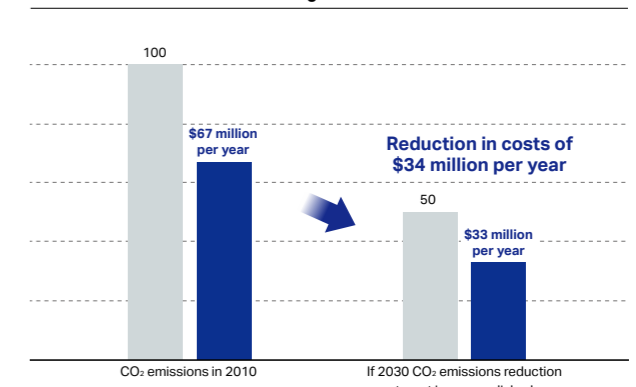
Moreover, carbon taxes also influence the prices of the fuel used by equipment. Accordingly, Komatsu's initiatives for developing low-carbon products and otherwise reducing CO₂ emissions from product use will also contribute to a lower cost burden for customers.

Projected carbon taxes (\$/t-CO₂)



Sources:
2°C scenario: Announced Pledges Scenario, International Energy Agency
1.5°C scenario: World Energy Outlook 2022, International Energy Agency

Carbon tax payments should Komatsu accomplish its CO₂ emissions reduction target for 2030



Note: Figures are based on a trial calculation assuming that CO₂ emissions in 2030 are half the level of 2010. Carbon tax payments are calculated by applying the carbon tax predictions for 2030 of the IEA's Announced Pledges Scenario (1.5°C scenario) to the respective CO₂ emissions volumes.

With the planet

2 Strategies

Natural disasters

Risks	Opportunities
<ul style="list-style-type: none"> Increased frequency of heavy rain and floods due to abnormal weather Risks of disaster damages to Komatsu plants at high risk of flooding Component supply delays following damages to suppliers from disasters 	<ul style="list-style-type: none"> Increased demand for flood-control works

Strategies Komatsu will implement countermeasures against heavy rains and flooding across the value chain (response to physical risks).

Priority initiatives

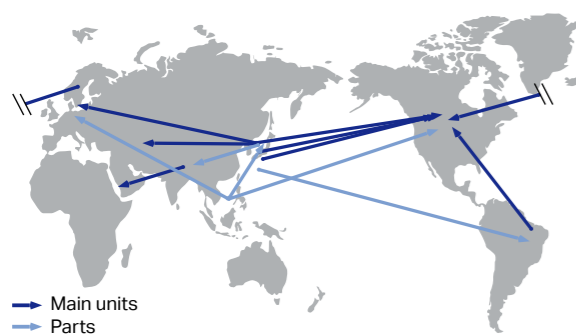
- Build production and procurement systems that are resilient to changes in the operating environment (expand the multi-sourcing ratio)

Cross-sourcing and multi-sourcing

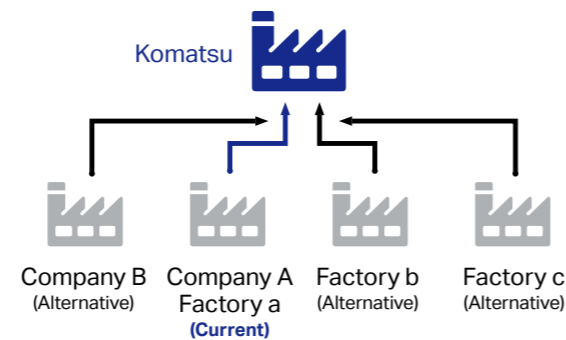
To hedge against risks of damages to the factories of Komatsu and its suppliers from heavy rains, floods, and other natural disasters, the Komatsu Group is developing a production and procurement system that enables it to maintain business continuity even under extreme circumstances. Specifically, we practice cross-sourcing, which allows us to flexibly alter manufacturing plants and product destinations based on changes in the operating environment, and multi-sourcing, through which we purchase the same parts from multiple suppliers.

In addition, Asia procurement centers were established at overseas subsidiaries in India, Indonesia, and Thailand in May 2023 to increase the multi-sourcing ratio with the goal of further strengthening our supply chain.

Cross-sourcing operation for production



Multi-company procurement system



3 Risk management

Major climate change-related risks are incorporated into the Risk Management Rules and other aspects of the Groupwide risk management process and managed as an element of corporate risks. [Risk management page 84.](#)

4 Indicators and targets

Targets for climate change-related indicators include the target of reducing CO₂ emissions from product use and production to 50% of the level in 2010 by 2030 and increasing the rate of renewable energy use to total energy use to 50% by 2030.

In addition, the mid-term management plan launched in FY2022 introduced the challenging goal of achieving carbon neutrality by 2050.

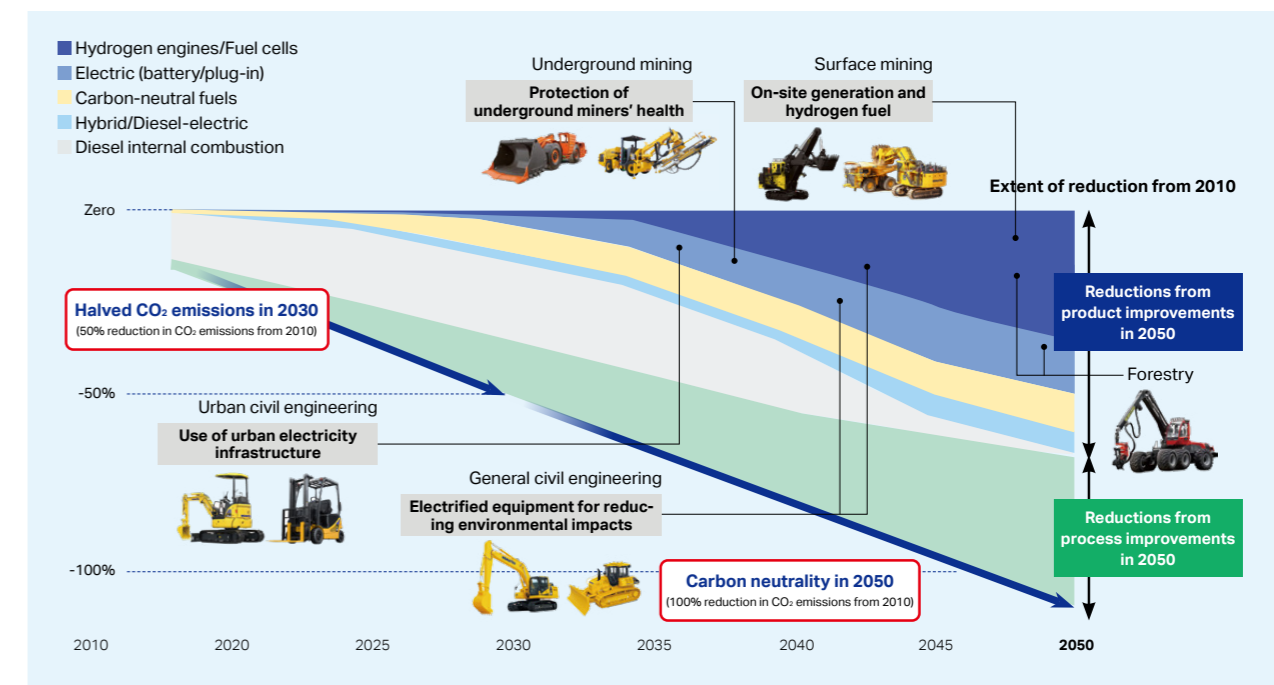
Medium- to long-term targets

Index	Target
Reduction of environmental impact	CO ₂ emissions Decrease by 50% by 2030 from 2010 Become carbon neutral by 2050 (challenging goal)
	Renewable energy use Increase to 50% of total energy use by 2030

Product development roadmap for carbon neutrality

Reductions from product improvements: Reduce CO₂ emissions by increasing machine efficiency and improving low carbon levels (shift to cleaner power sources).

Reductions from process improvements: Reduce CO₂ emissions by optimizing and improving the efficiency of all jobs, construction, and operations at customers' workplaces.



For information on the results of environmental investments and other activities in FY2022, please refer to the following website.
<https://www.komatsu.jp/en/sustainability/data>